



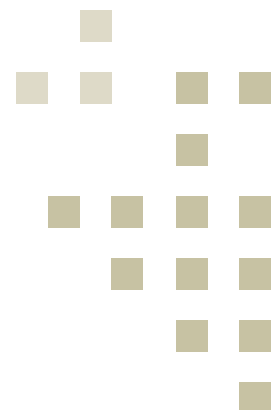
# [636] Paper

## Transition from socialism – the corruption heritage

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# Transition from socialism – the corruption heritage

**Jens Chr. Andvig**

**[Abstract]** The paper explores the apparently high incidence of corruption in those former socialist countries where the Communist Party lost power. It argues that part of the explanation of the high corruption incidence is to be sought in the simultaneous production decline which gives rise to a Schumpeter effect, where former bureaucrats are becoming corruption entrepreneurs. Another important factor is the swift change in the ruling norms giving rise to a Huntington effect an overshooting of the applicability of the market mechanism. An important driver of both effects is the monetation of the centralised multi-tiered bartering system of the old socialist economies. That process is briefly compared to older forms of market expansion into decentralised non-market agricultural economies as analysed by Polanyi and Marx.

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## 1. Introduction<sup>0</sup>

Not since the days of the Third International has there been any international policy force which has urged such extensive standardisation of economic and political institutions as the leading international organisations have done the last 15 years or so. The outcome of World War II made the opportunity for imposing the preferred institutional mix of the Third International by military force on a large number of countries. The political breakdown of the former Soviet Union combined with evolving extensive debt of a large number of developing countries gave the recent opportunity of imposing mainly Anglo-Saxon institutional mixes on a large number of poor or formerly socialist countries.

Naturally, like what was once the case of the central planning system, the new set of political and economic institutions was not only externally imposed, it was actively sought by large groups of internal actors. Luckily, the recent institutional upheavals have not, with the partial exception of Yugoslavia, been imposed with active use of military force, although the strong institutional shifts might in more indirect ways have triggered economic and political conflicts in the Caucasus, Central Asia and the former Yugoslavia that have been sought solved by violent means. But imposed it was.

The sudden imposition of new institutional structures in key areas of both developing and formerly centrally planned economies has taken place at the same time as a renewed scholarly interest in economics has developed regarding formal institutional rules in their interaction with informal social norms.<sup>1</sup> There are many important similarities between these two forms of transitions in the sense that relatively rapid institutional changes are grouping towards a similar end state: a 'modern' mix of 'market economy' and 'democracy. In this paper I will in fact borrow ideas from an old analysis of corruption explained as the result of rapid institutional changes in a developing country transition (Huntington, 1968), when explaining the rise of corruption in the post-socialist countries.

The starting point is, of course, quite different. While the key institution in most developing countries is a decentralised system of family-based farming with limited economic (but often extensive social) interaction across units, the key institution of the former socialist countries was the centralised, in principle all-embracing planning system where units were tightly linked in intense hierarchical communication which from the production side constituted an interconnected input-output matrix. Given the centralisation of its decision and information structures, any major change had in a sense to be all-embracing and sudden. Despite all the scholarly debates about the rate of change, given the political breakdown, speed was not a major decision vari-

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<sup>0</sup> I will thank Professors Janos Kornai and Susan Rose-Ackerman for helpful and constructive criticism, some of which I have responded to in this report, but some I have so far been unable to do. That is a matter for later work. My colleague Per Bottolf Maurseth has contributed with many useful comments and spent quite some time in explaining the economic issues involved. Eilert Struksnes has corrected some of the worst English mistakes. The Norwegian Institute of International Affairs has sponsored the research.

<sup>1</sup> A preliminary overview of larger parts of this research field is Aoki (2001). For an overview of many of the applications to issues which have evolved in the historical process discussed here, the so-called 'transition' from central planning to market economies, see Roland (2000).

able. It was out of control<sup>2</sup>. Unlike any set of isolated farming units that may change one by one, the role of the Communist Party within a planned economy implied that major changes could only occur if the party itself initiated them or through extensive breakdowns in the party's control. To achieve a market economy the two possibilities were: Either a breakdown of the party or a planned and centrally directed overall movement towards a market economy headed by the Communist Party. To achieve a parliamentary kind of democracy, as normally understood,<sup>3</sup> was, of course, not possible to achieve the latter way. The scope of this paper is restricted to the corruption issues in the socialist breakdown societies. The recent (likely) rise of corruption in countries like China is a different story.

The basic argument in this paper is quite simple. Given the role of the Communist Parties, the rate of production in the centrally planned economies was strongly influenced by their drive and effective power. Hence it is natural to hypothesise that also the size of the initial production declines in the post-socialist countries were related to the extent of the loss of power. Since the same loss of power also destroyed many of the formal and informal monitoring mechanisms containing corruption which had existed under the party rule, it stimulated corruption directly. Several mechanisms are spelled out in the paper. The sudden shift in economic ideology was one of them, creating ethical confusion analogous, but different to the one suggested by Huntington. He considered systems changing from family-based to a modern type of production and corresponding ideologies. Such changes, he claimed, gave rise to increased corruption as one, but passing undesirable side-effect of swift, but permanent changes in their economic and political systems, their 'modernisations'.

In addition, I argue, the decline in production forced large groups of economic managers, mostly engineers, to shift from a semi-technical, task-oriented frame of mind to focus on their organisations' or their own, private economic survival. Hence, many discovered new opportunities not only to survive, but to become rich.

This new, higher rates of corruption would then be maintained through mechanisms indicated in, for example, Andvig and Moene (1990).

The plan for the writing sequence of the paper is the following:

First I will bring forth some (standard) evidence that describes the post-revolution state of corruption levels, the many indicators that tell that the public in the countries in question *perceives* corruption to have become a more prevalent and serious issue, and the few scraps of evidence that indicate that it also is likely to have become so in fact. Then I will backtrack

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2 An early argument for the misplaced emphasis of speed, see Andvig (1992). In this paper I will only discuss corruption in the post-socialist societies where the political system has been breaking down, i.e. the rise of corruption and its consequences for countries like China, Cuba and Vietnam will not be covered.

3 While it certainly is true that the norms pertaining to the socialist system were of a rather soft kind, the presumption in this paper is that they should be treated seriously. In this case the democratic ideals reflected in the blueprint of democratic centralism, should be considered seriously in order to understand, for example, the construction of the law enforcement structure inherited from the past. Later we will argue that this structure facilitated a norm change that induced an exceptionally serious corruption problem around the judicial and law enforcement administration in many of the post-socialist countries. The present-day tendency to disregard any positive aspects of the old system, including its ideological claims, makes it often more difficult to understand their present features, including their corruption, real and perceived.

with a broader discussion of what characterises corruption and the public's concern with it. In particular, I will discuss why the links between the actual rate of occurrence of corruption and the perceived worry should not be expected to be very tight, but not wholly absent. Despite all uncertainties and doubts involved here, I nevertheless conclude that the public perception of increased corruption in most of the post-socialist countries is not wholly a fiction, but also likely to be a fact.

This will be followed by a short description of the size of the production declines in the various countries together with a brief analysis of some of the main characteristics of the old socialist institutions and their norm structure which, I argue, may partly explain the occurrence of both the production decline and corruption when experiencing political breakdowns, as well as the steeply increasing public concern about the corruption issue. As part of the analysis we again backtrack and present a brief analysis of bureaucracies in general, arguing that their activity levels may become fragile and sensitive to policy shocks. The idea is partly to apply these general features of bureaucracy to assist in explaining some of the economic consequences of the particular incidence of transition, and partly to build up an argument for why there may be some interesting lessons to draw for present-day public management from this unique historical event.

As part of this attempt to build up a general argument, I have tried to explain the different forms of and wide variation in the incidence of corruption in the former socialist areas as part of the brew that led to the policy shock in the first place. That variation was obviously related to the size of the second economy. This raises another puzzle since the former spread in corruption rates (and relative size of the second economy) across different areas appear to be persistent across the economic and political upheavals as do the relative sizes of the underground economies. This is all the more surprising, since most of the rules including price ratios, which gave rise to the former underground economies, should have been either drastically changed or cancelled. The main argument is, however, that the slowly decreasing growth rates and increasing corruption rates that preceded the revolutions showed some of the same forces that were released in the early stages of transition itself. They were both foreshadowing and triggering the main event.

The shift away from socialism and into a market economy, when taking place with a broken Communist Party implied the breakdown of economies based on extensive division of labour. Nevertheless, since a large part of that division did not presuppose multi-purpose, 'hard' money; a large part of the economies was 'natural' in the sense of old-fashioned sociology, the introduction of hard money into that part of the economy created phenomena similar to the ones discussed for peasant societies in Polanyi (1944), of which one was commercially motivated corruption. While much of Polanyi's work may have been historically incorrect, it has been a source of inspiration for the last part of our analysis.

Although this paper already has grown out of intended proportions, it has left out at least two important themes necessary to give a satisfactory account of post-socialist corruption: (1) The nature of each single policy shock in the areas that today represent different countries. For example, in



some countries ruling networks were basically removed from power. In others they were intact, but during the policy shock they may or may not signal to the bureaucracy (and the population at large) that extensive institutional and economic policy changes were under way. These signals were likely to have important differential impacts on corruption and production decline. (2) The paper does not analyse in any detailed manner all the different variations in the institutions and policies that evolved during the transition itself. Those choices or evolvments were clearly important for a satisfactory explanation of the levels of and the variation in corruption levels (and sizes of production declines) across countries. This paper will only focus on rather general mechanisms, however.

## 2. Has corruption increased in the post-socialist countries?

In a recent study Treisman (2002) has explored this question empirically, applying both the Transparency International's corruption perception indexes for 1999 and 2000 and the World Bank's corresponding indexes from 1998 and 2001 (Kaufmann, Kray and Zoido-Lobaton, 1999, 2002). He shows that the aggregate of these countries is significantly more corrupt than the aggregate of the rest of the world. Twisting the meaning of their index somewhat, post-communist countries were about 15% more corrupt.<sup>4</sup> However, applying Treisman's earlier econometric approach (Treisman, 2000) most of the difference disappears.

When adjusting for the fact that the level of economic development is lower in the post-communist area than the world average, the difference is halved. Adding the lack of democracy, the fact that the area was not occupied by the British (!), and so on, the effect of the post-communist experience is reduced to 2 % in 1998 and 0.2 % in 2001, not much to cause serious concern! If the effects of possessing more natural resources on average are added, the effect of post-communism turns even positive to its econometric benchmark.

How come then that the issue of corruption has become so crucial in the public debates in most post-socialist countries? For example, Richard Rose reports (*Transitions Online*, 29 August, 2002) that only 9% of Russians consider Russia to be a 'normal' society – their highest wish, according to the New Russia Barometer, despite the recently improved economic situation. When asked about their opinion about what they considered to be the two major reasons why Russia still not is a normal society, 66% mentioned the government's corruption and failure to enforce the law, 50% mentioned

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4 Using the World Bank indexes the stretch of observed corruption levels for the different countries in the world were ranging from – 1.57 to 2.13 in 1998 and – 1.40 to 2.25 in 2001 of a theoretical spread from –2.50 to 2.50. The post-communist countries were then 0.59 points more corrupt in 1998 than the rest-of-the-world average, and 0.46 points more corrupt in 2001. If we assume that the countries were spread evenly along the observed spread the post-communist countries were 15.9 % more corrupt in 1998 and 12.6% more corrupt in 2001. Note that I use post-communist and post-socialist as synonymous in this paper. Neither term is ideal. Today 'socialist' may be confused with 'social democratic'. Then 'communist' was not considered communist by communists (that was reserved for an ideal future state), and the term applied by non-communist. Although I apply the terms as synonyms, 'socialist' draws attention to the role of central planning, the characteristics of the social and economic systems, while 'communist' now draws attention to the role of the communist parties, the characteristics of the political system

unemployment and low wages while only 15% blamed the transition to the market economy, and even fewer still mentioned the Soviet legacy.

How may Treisman's econometric results be reconciled with the feelings and perceptions voiced in the public opinion in most post-socialist countries? There are basically three possibilities:

- (1) The public opinion lacks a solid foundation and might be based on wrong perceptions of the extent of corruptions, or rather misguided expectations about how much corruption to expect from a society of their characteristics. That may easily happen. As I have argued elsewhere (Andvig, 2002), many forms of corruption are difficult to observe since neither the immediate actors nor their superiors have any incentives to reveal it. Everyone is aware of this fact, hence everyone has to rely on what other people believe, a situation which may easily give rise to availability cascades.<sup>5</sup>
- (2) Treisman's econometrics is basically wrong or misguided. It is clear that it is deeply unsatisfactory to explain any observed corruption levels with some of the counterfactuals he applies, for example, that the area hasn't been ruled by the British. What kind of causal mechanism may conceivably be at work here? Some of the other arguments in the regression that reduce the difference between the observed corruption in the post-communist group and its benchmark value, are also irrelevant, I believe.<sup>6</sup>
- (3) The public may have observed a significant increase in corruption levels from the former days of communist rule. This factual increase may have heightened the public's awareness of the corruption issue. However, the actual level of corruption is about the same as the one which may be observed by any country with the same characteristics. Hence Treisman's result is also correct. The implication is, however, that corruption levels *before* the transition had to be exceptionally low, given the levels of economic development. Needless to say, this implication does not fit the ruling beliefs about the former socialist economies.

To gauge the present level of corruption in the former socialist countries, we have three main sources with comparable (across countries) data: First, the aggregate indexes of mainly international experts' and businessmen's rather general perception of corruption levels in different countries produced by individual risk study companies, Transparency International and the World Bank indexes reported in Kaufmann, Kraay and Zoido-Lobaton (2002). It is the latter indexes which are used by Treisman.<sup>7</sup> While they are not easy to

5 Kuran and Sunstein (1999) The lack of direct experience should be less of a problem in the high corruption post-socialist societies where people may have to engage in corrupt transactions on a daily basis. Nevertheless, even here we may have several systematic perception biases particularly with regard to high level corruption.

6 It will lead us too far away from the focus of the paper to criticise in a more detailed manner all the kinds of misguided counterfactuals that have become so common in the econometric cross-section analyses of corruption. The economic development level is clearly relevant, although the mechanisms that correlates the GDP per capita and corruption levels remain somewhat obscure. In a recent paper Kaufmann and Kray (2002) indicates, however, that while good governance causes high income per capita, the feedback effect from high income on governance may even be negative.

7 The advantage of this type of data is that they embrace a large number of countries, including all of the former socialist ones, they are made by agents who are in a position to compare different countries, hence not using separate yardsticks for them. Their weak-

use for comparing corruption levels across time, since the numbers have no strict cardinal meaning, their main weakness here is that they were not recorded at the time of the socialist breakdown.<sup>8</sup> The second kind of systematic comparative data are detailed questionnaires mainly addressed to local businessmen formulated by World Bank research units, one made for the Development Report in 1997 embracing 67 countries and another made three years later. The last survey also included another detailed set of questions mapping corruption issues of 22 former socialist countries.<sup>9</sup> Finally, for a few countries there are available even more detailed, many-sided questionnaires – ‘diagnostic surveys’, where in addition to enterprises, also consumers and public bureaucrats are asked about their corruption experiences. Particularly the consumer surveys presuppose a high incidence of corruption in the country in question to be meaningful. These diagnostic surveys are, however, meant to be applied to an expanding number of countries as more countries develop a stronger commitment towards systematic anticorruption policies (or at least appear to do so), and are therefore also quite standardised and amendable for comparisons.<sup>10</sup>

In addition, we have a large number of questionnaires pertaining to corruption which have been made, mainly for single or several post-socialist countries like the one made by Miller, Grødeland and Koshechkina (2000a), who also asked the respondents to compare with the pre-transition period. Several other surveys on corruption have done the same.

Having data that compare the present incidence of corruption in post-communist with corruption levels in other countries may throw indirect light on the question raised in this section, questions which simply ask respondents directly about whether corruption was more frequent before the transition, may also answer the question more directly. The most accessible study is reported in the *Global Corruption Report*. A fairly large sample of post-communist countries<sup>11</sup> is included in the New Europe Barometer where the results are the following:

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nesses are the vagueness of the questions on which most of them are based, the likely impact of media scandals and general value-laded opinions in the expert community, in particular its Anglo-Saxon bias. Moreover, there are every reason to doubt the assumption of stochastic independence of the sub-indexes on which the aggregate indexes are based. Different experts read the same reports and newspapers, they may even read the drafts of competitors’ judgment. Rather than being an argument for their overall value, I consider the high correlation among most of the sub-indexes to be a reason for doubt. Nevertheless, they are likely to remain useful for many purposes, but probably better for comparing the relative perceived importance of corruption as a public issue than its occurrence in fact.

8 Looking at the World Bank governance indicators, it is clear that for the group of former socialist countries, the corruption on average appears to have been reduced somewhat in importance between 1998 and 2001, but for our purposes the problem is that we have no observations from the period 1989–1992.

9 All the World Bank questionnaires including main results and data sets are readily available at the World Bank’s governance web.

10 Albania, Bosnia, Georgia, Kyrgyzstan, Latvia, Romania and Slovakia are among the countries where diagnostic surveys have been made. In Bulgaria and Poland there have also made official surveys inspired by the World Bank diagnostic approach. Cf. The World Bank/governance web-page.

11 When reporting the results from the different surveys I follow the established convention of including countries of the former Yugoslavia. Since it is one of the aims of the present paper to take the old set of norms, the ideology and institutions seriously and discuss what kind of footprints they have left in present-day societies, the former Yugoslav countries should be considered separately since the idealised set of institutions operating there were quite different. I hope to be able to do such a separate treatment in a later version.

Table 1: Comparing the perceived corruption effect of the regime change (%)

	Corruption has increased	Corruption is the same	Corruption is less
Ukraine	87	11	1
FR Yugoslavia	81	17	2
Slovakia	81	15	4
Hungary	77	20	2
Russia	73	23	4
Bulgaria	71	25	3
Czech Republic	70	24	5
Belarus	70	25	5
Croatia	66	28	6
Romania	58	28	14
Slovenia	58	28	14
Poland	52	37	12

Source used: Rose (2001). Question asked: 'By comparison with the former communist regime, would you say that the level of corruption and taking bribes has increased?' The survey was done around 1997–98 except for Russia where the questions were raised in 1999–2000.

The population in at least this selection of post-communist countries (with the partial exception of Poland) has *perceived* corruption to have significantly increased since the change of regime. In Grødeland, Koshechkina and Miller (2000a) the respondents answered to corruption-related perceived changes in bureaucratic behaviour in ways that support this conclusion:

Table 2: Public perceptions of trends in street-level officials' behaviour

Now some questions about <u>officials who deal with ordinary people and their problems</u> in (COUNTRY) – I mean officials like those you might meet in tax, housing, or social security offices; in the health and education services; in passport offices, customs, the police, courts or the army; and other similar officials.	Average	Czech Republic	Slovakia	Bulgaria	Ukraine
Q55 Do you feel that <u>most of these officials</u> treat people <u>better or worse</u> now than they did (under Communism)?	%	%	%	%	%
Better	27	38	25	38	9
Worse	47	34	49	31	75
no difference	25	28	26	31	16
<i>better – worse</i>	<i>-20</i>	<i>+4</i>	<i>-24</i>	<i>+7</i>	<i>-66</i>
Q57-9: Compared to the way things were (under Communism) is it easier or more difficult now...					
	% more difficult	% more difficult	% more difficult	% more difficult	% more difficult
Q57: to find the right official to deal with your problem	65	63	70	53	74
Q58: to get fair treatment	66	50	71	59	85
Q59: to get an official to do a favour for you	68	68	73	52	79
% more likely to Q 95: offer money or an expensive present	69	50	69	76	80
<i>Sources: Miller et al. (2000a, Table 3.4), Miller et al. (2000, Table 2)). Notes: 'don't know', 'mixed/depends' etc answers were recorded if given spontaneously, but never prompted; they have been excluded from the calculation of percentages.</i>					

While this table indicates mostly some likely behavioural consequences of having a bureaucracy motivated by corrupt (or hard legal) economic incentives, in a survey of opinions made from 11 post-socialist countries Fric (2001) reports the answers to a question that reflects on corruption directly:

Table 3: There did not use to be so much corruption under socialism

		I totally/fairly agree
1.	Slovakia	63%
2.	Romania	61%
3.	Croatia	53%
4.	Russia	52%
5.	Ukraine	49%
6.	Bulgaria	49%
7.	Hungary	49%
8.	Slovenia	38%
9.	Poland	36%
10.	Czech Republic	34%

Source: Table 17, Fric (2001)

One reason why Miller et al (2000a) in general show a higher incidence of corruption is the mentioning of ‘present’ in the question, which softens it. The more disorganised the transition, the more strongly the population seems to believe that corruption has increased. In Kyrgyzstan, for example, as many as 74% of the population believed corruption to have increased, only 4% believed it to have decreased (Ilibezova et al, 2000: 21).

However, there are strong reasons to believe that respondents for either strategic or from the stronger imprint of present emotional concern, tend to overestimate the rate of *present* corruption in such comparisons.<sup>12</sup> In an opinion poll from Russia the respondents were asked whether corruption has increased during the last couple of years at three points in time, 1998, 1999 and 2002. Even in 2002, where there are several indications that corruption in fact has decreased, 54% answered it had increased while only 5% believed it had decreased. The corresponding percentages for 1998 were 74% and 2% and for 1999 70% and 3% (The Public Opinion Foundation, Russia, 2002). Given the context we would have to read this poll to indicate that the corruption issue is regarded as somewhat less serious recently, and not to take the 54% vs 5% literally as an indication that corruption really has become more serious also in the period 2000–2002. In the extreme case we may simply have observed a rather pure availability cascade where perceived increases in perceived corruption have only loose or no foundations in fact (Kuran and Sunstein, 1999).

Luckily we have at least one observation of change in corruption frequency which is based upon contemporary evaluation of fairly concrete situations, made in Slovakia. According to the various recent corruption indicators Slovakia has less corruption than the post-communist average and has also been exposed to a less severe production decline.<sup>13</sup> The two surveys did indicate that corruption was perceived to be more acute in 1998 in the Czech Republic or in Slovakia in 1999 than it had been considered in Czechoslovakia in 1989.<sup>14</sup> Moreover, the distribution of corruption-exposed sectors had

12 An interesting case of this phenomenon we may find in Lagos (2001) where it is reported from a number of Latin American countries that when *Latinbarómetro* had repeated the question ‘do you believe corruption has increased the last 12 months’ in 1996, 1997, 1998, 1999 and 2000, in most countries where –let us say –90% of the respondents answered that it had increased a lot in 1996 similar answers were given for *all* the years following! When people claim corruption increases they may often simply mean it is a serious issue. A serious issue is rarely to be considered to be of reduced empirical significance. Fric interprets the answers in the case Slovakia and Ukraine to reflect pure nostalgia and consider Polish and Czech attitudes simply to be the more realistic ones.

13 According to the governance indicator ‘control of corruption 1997/98’, the average value for the post-communist countries was – 0.36 while the value for Slovakia was 0.03 (Estimate from Kaufmann et al., 2002, Table 2). The average max production decline was 42.5% while for Slovakia it was 24.7%. (estimate based on Fischer and Sahay (2000, Table 1), un-weighted average of the 25 countries included). This ranking of Slovakia is disputed in Fric (2001). Answering the question ‘bribes are quite natural part of life, who wants to live, must give’, 48% in Slovakia answered that in the affirmative while in Ukraine only 36% did so. Regarding the statement ‘we live in a corrupt state’, 84% of the respondents in Slovakia and Russia agreed while Ukraine was only a little higher (86%). The corruption indicator value for Ukraine was –0.89 and the extent of production decline 63.8%.

14 So far I have been unable to get hold of the original tables, but a visual inspection of Figure 1 in World Bank (2001) indicates that while about 25% of the respondents in Slovakia in 1999 had agreed to the statement that ‘bribery is altogether a definite part of contemporary life – whoever wants to make a living must give’, while only about one fourth had agreed with this statement in Czechoslovakia in 1989. Since Slovakia is having a higher corruption density now than the Czech Republic, this measure is likely to exaggerate the change, but still it indicates a fairly strong shift in the incidence of corruption.

changed dramatically – away from private consumption. I will return to this change later.

Summing up, there is considerable evidence that the population in most post-socialist countries *believe* that the transition of their societies has increased the frequency and severity of corrupt transactions. When coming to evidence about whether it has increased in fact, that evidence is scanty and not conclusive. Treisman's econometric benchmark construction is, after all, an argument in disfavour of the belief that corruption has steeply increased as a matter of fact. For reasons already spelled out, I find it a rather weak argument. The questionnaires from former Czechoslovakia is an empirical argument in the opposite direction, but by being confined to only a couple of countries, it is not conclusive either. Despite all reasons why the remembered corruption incidence may be wide off the mark, the evidence from the various studies reporting from the respondents' recollection of pre-regime state of corruption is so consistently in the favour of a significant increase in corruption levels (with the partial exception of the most successful post-socialist countries) that I find it reasonable to conclude that not only perceived corruption, but also performed corruption has increased.

In any case the aim of the paper is not only to understand the increase in corruption as a fact, but also the increased attention the corruption issue has received in most post-socialist countries. In order to do so I have to characterise corruption more closely.

### **3. Corruption as market intrusion into the spheres of hierarchy and polity**

Let us follow the tradition and begin our analysis by a definition (Andvig, 1995):

An act is corrupt if a member of an organisation uses his position, his rights to make decisions, his access to information, or some other of the resources of the organisation, to the advantage of a third party and thereby receives money or other economically valuable goods or services in ways that either are illegal or against the organisation's own aims or rules. An act represents embezzlement if a member of an organisation uses his rights to make decisions, his access to information or some of the other resources of the organisation to his own economic advantage, eventually to the advantage of some other members of the organisation, in ways that are either illegal or against the organisation's own aims or rules.

It is worth emphasising the inclusive way corruption is defined here. An act may not be illegal and nevertheless be corrupt, or it may even further the aim of a company, but be corrupt, if it is illegal. In both cases the act needs to be kept secret, which demands similar organisational precautions, a certain technology of secrecy. Since the consequences are quite similar although their transactional structure may be quite different I may sometimes use the term corruption as shorthand for both corruption and embezzlement.

These definitions of corruption and embezzlement are based on Rose-Ackerman (1978) and the definition of corruption is reasonably compatible with the most frequently used one: 'abuse of public power for private profit',

originally formulated by Nye (1967). Our definitions are somewhat more precise and do, rightly I believe, focus on the transactional structure of the act.

However, in order to explain corruption and establish causal mechanisms, it is not sufficient to be able to classify a transaction and to determine whether it is corrupt or not. A kind of pre-model understanding of some of its basic characteristics is helpful in order to grasp, for example, why corruption may grow in the context of major changes in the political and economic system.

As we already have seen, several interesting, quantitative indicators of corruption levels have been proposed, and interesting, causal mechanisms specified, where the corruption indicators have been combined with several other quantitatively defined variables, such as imports or GDP per capita. Treisman's model is a case in point. If only finding appropriate, quantitatively specified policy parameters, it appears possible to embed corruption into an ordinary, macroeconomic policy model where public policy parameters, such as tax rates, may be manipulated in order to steer the economy into better positions with respect to employment, inflation, and now also – corruption rates. In these models one looks mainly to the aggregate external response from various organisations to changing external stimuli.

It is easy to forget that the corruption variable is in essential ways different from ordinary macroeconomic variables. More often than not, and certainly in the case of high-level corruption, corruption represents a breach of rules that is only known to people inside an organisational context and is difficult even to define and certainly to discover by outsiders. Organisations often respond to specific signals where corrupt acting is one type of response. If performed by people in leadership positions their corruption may create strong motivational spillover, while similar acts performed by people lower down the organisation ladder may only have moderate impact. More subtle than in the case of formal organisations, informal leadership positions may arise where that leadership's corruption or unethical behaviour may have surprisingly wide repercussions.

This has important implications for policy in the context of system transition. For example, we may expect a completely different response from a given change in anti-corruption policy depending on whether it is perceived as externally imposed or internally promoted. Leadership signals and organisational architecture are clearly important – all factors where economists lack precise knowledge. Given this lack of knowledge it may not, for example, be so surprising that attempts to reach the same institutional end-point – a modern capitalist economy with democratic policy institutions – may produce economies with widely divergent economic and social characteristics, including their corruption levels.

While many of the econometric models may tend to regard the transition process like the transition from snow to water where the end-point is expected to always be the same,<sup>15</sup> in fact it is likely to be more like a transition

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15 This is not meant to be a criticism of the econometric studies of corruption. They are clearly useful for mapping temporary relationships between important variables. However, it is clear, I believe, that we don't know much about the explanatory mechanisms; for example, about the role of leadership for the internal workings of different organisations which clearly is important for corruption. This implies that econometrically speaking



from water to snow where different sequences of moisture, temperature, etc. may create different kinds of snow equilibria with different crystalline constructions more or less fit for skiing although the chemical compositions are quite close. To know that snow will consist mostly of H<sub>2</sub>O tomorrow does not help the prospective skier much.

A better understanding of the emergence and role of corruption in the economic system transitions, particularly as a perceived public policy issue, not only demand an understanding of its informational and organisational characteristics. The normative aspects of corruption also need elucidation. Why is corruption considered to be so harmful to the social and economic fabric of a society in transition while at least some forms of corruption might have been widely accepted when the economy was in a socialist state? How is the rule-breaking associated with corruption related to other forms of breaking rules? Here we touch a field where we might have completely different mechanisms for policy propagation than the one commonly considered in economics, where actions feed upon action in a semi-mechanical way. The spread of corruption, and its ties to other behaviour patterns are likely more often than not to be propagated through the agents' active use of analogies, their discovery of similarities in apparently unconnected situations: discovering that the police demand a bribe for granting her a driver's licence, the teacher may look at her own situation and consider whether she should try to sell grades. She may not wait for the more mechanical effect of an experience of real income decline caused by the experience of actually paying the bribe to the policeman.

It is not necessary to make an elaborate ethical analysis of corruption for our study, however. We may just observe that corruption appears to give rise to *spontaneous* negative ethical feelings in a wide variety of societies. Similar feelings seem also to arise in other situations than those that may give rise to corruption, where people apply principles of action that are acceptable in one area of society to actions occurring in another.

One way to conceptualise this ethical spontaneity dimension of corruption is to start out from ideas formulated by Barth (1967) and Walzer (1983). Somehow the sets of actions and transactions taking place in various parts of any given society appear to be guided by sets of norms that are almost universal, such as honesty, but also some that are markedly different, even applying opposite values.

For example, family and friendship transactions should be personalised, often based on altruism that only applies to a single person like a close friend, a wife or lover. If generalised, it may even lose value, for example by triggering jealousy. While many family and friendship transactions demand rough long-run reciprocity, the exchange in values should not be too finely calculated in people's personal space, at least not in the short run.

Both bureaucratic and market transactions in modern societies are, on the other hand, ideally, quite impersonal. Bureaucratic transactions should partly be rule-based and partly task-oriented. Recent studies have shown that forms

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we may only expect relations with a low degree of autonomy, although the apparent statistical fit may be good. Obviously, the indicators of corruption are quite noisy, and may be systematically skewed, particularly if we want to explain actual corruption, not how common it is to perceive corruption as an economic and political issue.

of reciprocity are also important, particularly for the workings of bureaucracy. Personal feelings should, however, ideally, be set aside. The same applies to the markets where the exchange of values in market transactions should reflect finely calculated reciprocity. If not, one party is either exploited or cheated.

When one transactional mode with its values is applied instead of the one suggested by the norm structure, ethical uneasiness arises accompanied with emotional sanctions to punish transgressions. The norm structure includes rules about which kind of transaction should be performed within which sphere.

More abstractly: Let us consider the economy as consisting of *actions* **A** – economic acts performed by a single individual and meetings by several, where the outcome hinges upon the performance of each, *transactions*, **T**. Most interesting economic activities consist of transactions. (Corruption is by definition a transaction.) In any society there are available a finite number of *transactional modes*, *ti*. A transactional mode is characterised by a typical decision-making, informational and motivational structure prescribed by norms internal to that mode. For example, it may prescribe whether the well-being of the Other is to count or whether single-minded pursuit of the Ego's economist interest is allowed and proper. To some degree actors may choose which transactional mode that may apply to a given situation<sup>16</sup>, but the choice is guided by the set of norms, *Ns*, that characterises society *s*, that inter alia, is specifying which mode should apply to a given situation, *k*, that is *tik* – transactional mode *i* to apply in situation *k*. In this paper we will mainly compare salient aspects of the norm structure of former central planning economies and the OECD structure.

As mentioned above, an important distinction is between transactional modes which may apply in a wide variety of situations and institutions – such as task-oriented transactions – and others that may only be applied in one or a few without violating the norm structure.

Let us discuss task-oriented transactions somewhat more closely, since they are important for the discussion of the production decline in the early stages of the post-socialist transition. By *task-oriented transactions* I mean interaction between at least two individuals where both are necessary to solve the task. Their immediate motivation is focused on the successful fulfilling of the task, which implies some physical or intellectual efforts on their part although at the end the outcome may be tied to some forms of economic or emotional rewards. The large mass of task-transactions in the modern

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16 The idea that the kind of behaviour we may expect from economic agents may shift according to circumstances is old. In the introduction to his thoughts on social science modelling, Rapoport (1960) presents the case of Tom Sawyer meeting a stranger boy on the street. Ex ante he is in a strategic (gaming) frame of mind, calculating carefully the prospects of winning a fight. As soon as the fight starts game theory has to leave the street, however, and pure rage turns on. The outcome hinges not on strategic considerations any longer, but on (social) physics, the physical strength and aggression. In recent research the experiments Tversky et al. have done of the role of framing for economic choices are clearly relevant. The same applies to the Fehr group's studies of reciprocity, and how the strength of reciprocity may depend on the relevant institutional frames. Motivational shifts have been studied more directly by the Frey group and a large number of psychologists. Of particular importance for the study of the effects of material incentives – like corruption – is Kohn (1993), who refers to several experiments where the introduction of economic incentives caused a distraction from task-solving motivation, reducing performance.

world are performed inside given hierarchies whether privately or publicly owned, but a considerable number are also made through meetings by agents who belong to different organisations, for example between public regulators and private enterprises.

The efforts made by individuals in the solving of tasks are key factors in production and growth. How important may hinge upon the nature of the task, for example whether the effort levels interact in multiplicative or additive ways or put simply: If individuals A and B have effort levels 0, 1 and 2 and A chooses 0 and B chooses 2, is the outcome a function of  $0 * 2 = 0$  or  $0 + 2 = 2$ ?<sup>17</sup> Since human beings are essentially social animals, in addition to the technological links between the effort levels there may be important motivational spill-over. 'If you do nothing, I won't either'. If the Other makes efforts, through the same inborn sociability, the task also becomes more fun. This is an additional argument to the cognitive dissonance effect pointed out by Kohn (1993) and Frey (1997) which may make economic incentives crowd out effort levels in task-oriented transactions.

When we consider the workings of a centrally organised economy, it is useful to note that its set-up implies that agents in certain positions will interact with a larger number of others and will emit a larger number of effort signals. These positions will either be in coordinating roles (Gosplan, Gosnab, etc) or at the head of decision-making hierarchies. We will return to this matter in a later section when discussing the reasons for the production decline.

In the rest of this section we will discuss the other kind of transactional modes, modes that only may be activated in a limited set of situations, normally circumscribed by a specific set of institutions prescribed by  $N_s$ , i.e.  $N_s$  prescribes some  $\tau_{ik}$ , that is  $\tau_{kk}$ , only to be applied within a given subset of institutions,  $M_k$ .<sup>18</sup> Let us roughly distinguish between :

- (i) Affectional modes: modes internal to family and friendship networks. Motivation (normatively) is altruistic – welfare of the specific Other counts heavily.
- (ii) Hierarchical modes: dominant in public and private bureaucracies. Specifies superior and inferior positions, the superior is motivated by the organisation's interests as is the inferior. In addition the inferior may be motivated by obedience (and within limits) loyalty to the superior. In older hierarchical system loyalty to the specific superior were supposed to be stronger than is the case of either the socialist or OECD structures where supposed the obedience is directed towards positions not their incumbents.

<sup>17</sup> The roles need not be symmetric so while A makes effort 0 and B 2 the outcome may be a function of 0, but if A makes 2 and B 0, it may be a function of 2. To think of an example consider a learning process at school. If a teacher has 0 effort and the student works hard will the outcome be zero learning? What about the opposite situation where the teacher works hard and the student does nothing? In any case the school situation is one of the numerous situation where task accomplishment hinges essentially on the efforts of the involved transactors.

<sup>18</sup> This is, of course, as already indicated in the text too simple. Some transactional modes may be applied in different institutions, while some are shared. For example a reciprocity mode may apply in both family, public policy and bureaucratic organisations.

- (iii) Market modes: unlike (i) and (ii) these are modes mainly organising transactions across organisations, for examples transactions between enterprises and enterprises. Motivation: each party maximises own economic interest.
- (iv) Political modes – voting, force, argument – political institutions. Motivation: achieve sufficient support.

Let us accept this simplified classification where a set of institutions is defined by a typical transactional mode not normatively acceptable to be commonly applied in the other set of institutions. Imagine that this classification is exhaustive.

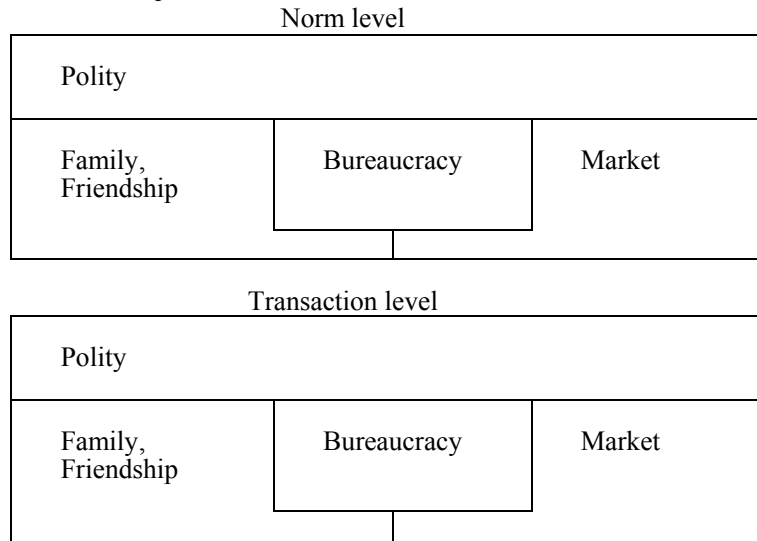
Then the set of actual transactions, **T**, in the society may be divided into transaction spheres, **Sk** (that corresponds roughly to the set of institutions). In a society in ethical equilibrium, the division of actual transactions into the spheres corresponds to the one prescribed by **Ns**.

However, both the normative structure and the actual structure of transactional modes applied to a given set of transactions will always be in some flux, but not wildly so, for a move of a transaction from type  $t_{kk}$  to  $t_{ki}$ , (*i* different from *k*) may give rise to an emotional and/or legal reactions when **Ns** is unchanged.

Corruption may then be defined (narrowly) – as any transaction *prescribed* to take place in the political or bureaucratic mode according to **Ns**, but is *performed* in the market mode. Similarly, corruption of a ‘traditional’ kind is the intrusion of the affectional mode into the bureaucratic and political modes.

The existence (construction) of spheres means that it may often be profitable for single individuals to transgress them. Such individuals Barth used to call such individuals as entrepreneurs. One way to classify spheres that apply to most modern societies is indicated by the following figure:

Figure 1. Transaction spheres:



I have drawn the figure so that each sphere has borders to all other spheres.<sup>19</sup>

Polity deals with the choice of politicians; when chosen, their transactions and decisions. The sphere also deals with determining rules in the other spheres. The choice of top managers in the enterprise sector and their decisions may also be considered polity for some questions. Bureaucracy, or the set of bureaucratic transactions applies to both the private sector – if it exists, and the non-governmental and public sectors.

The figure indicates a system in ethical equilibrium where the actual allocation of transactions mirrors the norm structure. Note that the relative size of two transaction modes spheres across two societies with the same normative structure may differ for two reasons.

The size may differ (1) because of different economic structure. For example, in a poor country the family modes are likely to have a larger share of total transactions than in a rich country without having a different normative structure. Comparing two OECD countries, the relative size of the bureaucratic compared to the market mode is likely to be higher in the one with the larger enterprises.<sup>20</sup> Or (2) it may differ because one of the countries experiences a larger share of disequilibrium transactions or transgressions, i.e. the application of ‘wrong’ transaction modes. For example, in countries with extensive (commercial) corruption or prostitution, the market mode extends its borders into the bureaucratic/political modes and the family/affection field. Bureaucratic or political modes may, of course, also overstep their ethical borders.

The actual distribution of transactions across transactional modes, may, however, also differ because of different equilibrium norm structures, that different *Ns* apply. This is particularly relevant in the transition from socialist to capitalist economies where the normative grids are at points widely apart. For example, socialist systems prescribe much smaller space for market allocations and a larger space for bureaucratic transactions.<sup>21</sup> The key difference is the fact that the major produced goods were allocated through a centralised, hierarchic system of central planning, not through markets. However, this does not even necessarily imply that the absolute number of hierarchic transactions to produce a given number of goods by necessity has to be larger in a centrally planned compared to a market system<sup>22</sup>

19 Like any classification scheme this one is somewhat arbitrary at points. It is related to Kornai’s ‘coordination mechanisms’ (Kornai, 1992) : The bureaucratic-, market-, self-governing-, ethical- and family-coordination mechanisms, Walzer’s ‘spheres of justice’ (Walzer, 1983), his ‘kinship and love’, ‘hard work’, ‘leisure’, ‘office’, ‘money and commodities’, and so on. It is more remotely connected to Polanyi’s methods for allocating goods and services in a society, his ‘market’, ‘reciprocity’ and ‘redistribution’ (Polanyi, 1944).

20 If we were to visualise this in our diagram, it has to be three-dimensional. If so, the height above the bureaucracy field would have to be higher.

21 While in the ‘real’ socialism the normative grid expanded the space for hierarchic transactions, in the Marxist ideal of communist societies the space to expand was various affectional modes which were supposed to expand into both the areas of market and hierarchic transactions. The spheres may be cut in a large number of ways. For example, in Darfur – the Sudanese society for which Barth (1967) cut his sphere concept – certain kinds of labour could be performed in a market mode, while others may only be performed in an affectional mode. In some minor areas that distinction also operates in modern OECD societies. For example, you may not pay a friend with money if he assists you in painting a wall.

22 Leif Johansen (1978: 67–70) refers to an empirical study of G. Ofer from 1973 which demonstrates that despite the large administrative staff at the central level, the size of the administration at the enterprise level was so small in the Soviet Union that the overall size

While there exist some blurred border areas, the norm structure of most modern societies has been based on fairly sharp boundaries where transactions crossing the boundaries between the spheres give rise to negative emotional responses, sometimes intensively so. For example, when sexual services are not allocated within the family friendship sphere, but is bought and sold on the market, we get prostitution, which most people consider either wrong or harmful. Allocation of children across families through either a market or a bureaucratic allocation mechanism is probably morally so repugnant an idea that most people are not even considering it as a transactional possibility.<sup>23</sup>

With this figure we may distinguish several additional meanings of corruption. In the wide sense corruption is the intersection of the normatively prescribed sets of bureaucratic and polity transactions and the actual sets of market- and family-based transactions i.e., where the areas of actual family and market transactions encroach on the areas of polity and bureaucratic transactions as they are normatively delimited. This is a situation of ethical disequilibrium.

As indicated by the definition of corruption, we are mainly looking for the forms of corruption that consist in the illegal (or not normatively accepted) expansion of market transactions into the areas of polity ‘grand corruption’ or ‘state capture’ as World Bank researchers have started to call it and /or into the area of bureaucratic transactions, petty corruption. The typical situation is when bureaucratic or political decisions are illegally bought and sold. Illegal family or friendship types of corruption may frequently have causes different from market encroachments, and different consequences, and their causes may also be different in market and centrally planned economies.

The lines of demarcation between the different spheres of these kinds of transactional modes are partly drawn legally, partly only backed by norms. In the traditional Weber-type of governance, which also roughly corresponds to the present OECD structure, thick lines should be drawn all around the bureaucratic transaction mode. For example, looking at the important issue of employment: Public officials should be employed and promoted on the basis of merit and formal competence, i.e., officials should not be appointed politically and they should have life-time tenures (line between polity and bureaucracy should be thick). Employment on the basis of merit implies further that family- and friendship-based relations should not count, no family ‘corruption’ (thick line between family and bureaucracy). Neither should one be able to buy or sell positions, no market corruption should be allowed (thick line between bureaucracy and market).

Merit was not supposed to be the crucial rule for allocating people into positions in Weber’s polity. Here rather rules of how to represent (stockhold-

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of its administrative apparatus was in fact lower than market economies at the same level of economic development.

23 These spheres, or rather taboos, against applying some specific transaction modes in certain situations have rarely been analysed by economists. One recent exception is Kanbur (2001) where he discusses some cases where market transactions are considered intrinsically repugnant. Given the tendency in recent economics to expand into new areas of research often proposing market simulation as solutions to institutional problems this promises to become an important field for applied welfare economics, if it is not to fall into disrepute.

ers or citizens voters) were to apply. However, these positions were not to be sold or bought, either, nor determined by family or friendship. The lines between polity and markets and family spheres should then also be rather thick.

What about the socialist system? Here I will be brief since more details about its norm grid will be spelled out in later sections. Let us note, however, with respect to corruption that the two systems are similar in the sense that thick lines should also be drawn in the socialist systems between the policy and hierarchic transactional modes at the one hand and the affectional and market modes on the other. *Where* the lines should be drawn, were, as we have noted, quite different. The crucial difference was that no thick lines between polity and bureaucracy were drawn. It is well-known that the Communist Party was supposed to control and fire employees in the state bureaucracy. They were not supposed to be protected against detailed political interference. On the contrary, the Communist Party's criteria for promotion were to direct the employment and promotion of individuals across the more important positions in the state bureaucracy which was normatively quite acceptable, yes, even commendable since the party represented the interest of the working class and its allies. Perhaps less well known, but also important for the evolution of thin lines between the bureaucracies and the polity in the socialist countries, is the fact that a large number of the employees in the party bureaucracy at an early stage in the history of the Communist Party of the Soviet Union themselves were party members and participated in party congresses.<sup>24</sup>

When regarding the aimed for end-point in the transition from socialist systems, the present ideal OECD-type of economy/polity, in some ways it has moved away from the Weber ideal type. In many countries it is a tendency to make more positions in the public bureaucracy rely on political appointments, and thereby blur the lines of bureaucracy and polity. Similarly the lines between bureaucracy and polity and market transactions have also become more blurred. Important developments here are the professional lobbyists that blur the line separating markets and polity which is so important for implementing democratic principles. Coming to bureaucracies, the outsourcing and creation of in-house markets that have become managerial fads first in private then in public bureaucracies, have blurred the distinctions between the spheres that once were considered so important for the development of modern societies.

A general breakdown in the *distinctiveness* of the spheres in itself may have a separate impact on the frequency of corrupt transactions, being felt as an aspect of present feelings of increased normlessness. Of particular recent importance here may be the increased outsourcing in the private and public bureaucracies, the increased crossover of professional politicians into private market-based lobby firms, and the politicising of the appointment of a larger number of managers in the public sector and their shorter tenure. A related problem is the increased use of incentive wages and economic incentives in

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<sup>24</sup> This process is described extensively in Hough and Fainsod (1979). For example, at the Thirteenth Party Congress in 1924, 65.3% of the voting delegates were full-time party officials (ibid., 133). This was somewhat more problematical from the point of view of the normative structure of the regime, but was basic for Stalin's political control. A recent exploration of this history using the newly accessible archives is Paul Gregory (2002) in the project *Political Economy Research in Soviet Archives*, University of Warwick.

general to bureaucrats and politicians; the borrowing of the ruling motivation in market transaction. In addition to often being very expensive, as shown by Frey (1997), when combined with the plausible idea that corruption may become a strategically dominant behaviour, if the agents are motivated by expected economic gain only (Bicchieri and Duffy, 1997), that situation may give rise to extensive corruption. If economic gain is the point of it all, not, let us say, loyalty or task-solving, why not make the most out of it? The legal expansion of the market sphere into the sphere of bureaucracy may induce an illegal one.

What we may see here as small-scale, uncertain tendencies in OECD has operated on a larger scale during the transition from a socialist ideal type of society to an OECD ideal type. This is one of our hypotheses for explaining the present high level of corruption in most post-socialist countries. I will call it the *moral overshooting* hypothesis, and it is derived from a fairly complex interaction between old normative structures and new economic practices.<sup>25</sup>

Applying a socialist normative grid to economic transactions in a capitalist society may make many new practices appear corrupt. For example, it has now become legal to buy labour and capital in a market. In the old days that was a serious economic crime, as was many other kinds of market transactions. Now this has not only become allowable, but even commendable transactions. Why not then expand the area of market transactions further, why would it then be wrong to buy and sell decisions and information one possesses through one's political position or position in a hierarchy?

The second hypothesis is based on a less complex interaction. Most of its effects go via its effects on *perceived* corruption. Regard the old socialist normative grid. According to that most market transactions were not allowed and implied either an embezzlement of state properties or the bribing of government officials. Market liberalisation follows and a large number of markets develop, which is only sound and proper, according to the weak version of a Weber grid, the grid of modern OECD economies. However, some parts of the old socialist norm structure are likely to change less slowly than other parts and will be applied on the new (formally legal) market transactions. Here we may say that it is the direct, but only partial survival of norms relevant to the old order into the new system that stimulates corruption. We may call this hypothesis '*the effect of communist party hysterese*' on transition corruption.

One reason for the complex role of norm change or the lack of it, its role for changing corruption incidence, is then that norms may change at very different speed compared to the corresponding legal changes. Often legal changes will develop much faster than the corresponding norms. Even in the much slower changes in the OECD area ideological developments in ruling elites have, for example, opened up for more extensive use of market mechanism where legal developments may be ahead of old normative structures making many feel that the new set of transactions is 'corrupt'. In other areas

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<sup>25</sup> Polanyi (1944), sketching his views the macro-historical development of the capitalist civilisation, tried to develop a more general dynamic theory of the norm structure of markets trying to explain it as inherently expansive. Our mechanism is more ad hoc, static and time-bound.



of society, but probably more rarely so, legal developments may change more slowly than new moral structures, making many new types of market transactions acceptable, but still illegal, i.e., corrupt, according to our formal definition.

It is clear that corruption has to be defined in relationship to a particular normative structure. It is, of course, possible to apply a normative grid developed in one society on the level of actual transactions taking place in another to define corruption in the latter. Corruption defined that way in one society will then change arbitrarily as the normative grid is changing. That may be useful for some forms of normative analyses, but hardly for explaining the empirical phenomenon of corruption. In our case we have argued that its main effects are likely to be on perceived corruption, and from there may have some limited effects on actual corruption. A general observation from this case is that any attempt to find a common interpretation of corruption based on the intrinsic properties of a set of actions is likely to be rather fruitless.

On the other hand, even when only regarding operative norm structures, the conception of corruption as an intrusion of market forces on the operation of proper rules for bureaucratic or polity transactions seems surprisingly similar everywhere, which gives rise to negative emotional responses in the population at large. The legal definitions of corruption are also surprisingly similar across countries, but *where* the line should be drawn between the goods and services that may be bought or sold and which should not, may differ widely. The particular problem, at least in the early stages of the post-socialist countries, was that two different operational grids were at work simultaneously, one known but agreed upon to be history, and one more or less unknown, hence also with wide limits of uncertainty – was this act corrupt or not?

While it is unlikely that the future economic and political structure was deliberately planned by any internal elite (Elster et al., 1998), soon several international organisations became involved in an attempt to actually implement the new transaction structures with the corresponding structure of laws and norms. This kind of social engineering has proved to be much more complex than originally envisioned.<sup>26</sup> Although fighting corruption has after a while been part of the standardised policy packages imposed on several of the post-socialist societies, the result has often been ethical disequilibria as the ones suggested above, where corrupt transactions have become more easy to implement and probably have increased significantly as a share of the total set of transactions.

Like market transactions, corrupt transactions are motivated by economic gain by at least one of the transactors involved. The information structure is dif-

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<sup>26</sup> Simpler cases of deliberate norm changes as instruments for changing actual behaviour have now been analysed by game theorists, cf. Bird (1996). He discusses a case where social engineers expect divorce rates to go down when lone parenthood gives rise to less economic support at the same time as one strengthens local communities, which should give harsher informal sanctions. Bird shows, however, that in his model specification of the problem, the result is likely to be the opposite. In case of the more complex changes in incentive and norm structures that the social engineers pushed for in the FSE-countries, it is reasonable to guess that the outcome was in practice unpredictable. This may not be so surprising. As pointed out by Elster ( ? ) a long time ago, to apply norms as policy instruments may prove to be a contradiction in terms.

ferent, however. Unlike ordinary market transactions corruption breaks either norms or the law and hence has to be kept as secret as possible to avoid either the legal or social sanctions triggered by the transaction. Certainly, many forms of petty corruption are not feasible to keep secret when they become common, as they have in many post-socialist countries. When most people have to pay a bribe in order to gain access to a public hospital, or when they have to bribe the police in order not to get a ticket, they cannot hide their acts.

However, the large and complex corrupt transactions are a different matter. Here an elaborate machinery of secrecy is likely to be successfully constructed. The reasons are, first, that the transactors directly involved are interested in such secrecy and the complexity of the transactions makes secrecy possible. Second, while the heads of the organisations in most situations are interested in discovering corruption inside their own organisations they are at the same time interested and able to keep them secret to the public. In the case of the transition process this applies to the head of state and the large-scale transactions that transfer the leading economic assets into private hands.

As pointed out by Kuran (Kuran and Sunstein, 1999) in such situations each individual's perception – in this case high-level corruption – is strongly influenced by what he believes other individuals believe or know. Hence, feedbacks between the individuals' perceptions and the nature of the public debates, often strongly influenced by the media, may become exceptionally strong and the distribution of beliefs strongly shifting. He denotes such a shift in attention of a policy phenomenon for an *availability cascade*, defined as 'a self-reinforcing process of collective belief formation by which an expressed perception triggers a chain reaction that gives the perception increasing plausibility through its rising availability in the public debate'. Of particular importance for our case is what he calls an *informational cascade* which 'occurs when people with incomplete personal information on a particular matter base their own beliefs on the apparent beliefs of others'.<sup>27</sup>

The case studies Kuran and Sunstein (1999) discuss are the likely occurrences or non-occurrences of various major chance events, environmental catastrophes where most people are unable to tell what has happened or is likely to happen. They give several examples where informational cascades have resulted in drastic public misperceptions of risks. In our case, the chance events are: 'is corruption a major factor in the allocation of the major publicly owned capital, or not' and 'is corruption in the political elite increasing, or not?' Some of the perception biases outlined by Kuran and Sunstein may also be at work in our case, for example the bias that 'individuals tend to remember better dramatic, extreme cases, bringing them more frequently into mind than more common, trivial cases, and thereby also

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<sup>27</sup> The other aspect that may be important in developing an availability cascade – what Kuran calls a *reputability cascade* – I believe is less important for the corruption issue than the informational cascade. Here the individuals don't try to make their beliefs conform to what they believe others believe because they believe them to be more knowledgeable, but simply to earn social approval. I may, of course, complain about corruption if I know everyone else is doing so in order to gain social approval, as I might have done by complaining about the weather, a rather trivial cascade. Reputability factors may, however, be important in explaining the lack of precise information of corruption that, I argue, is a precondition for its volatility as a public issue, but for the same set reasons reputability cascades are unlikely to develop in this case. It would demand that an enterprise or public sub-hierarchy could gain a reputation for honesty if it admitted that some of their employees were caught – a rather unlikely scenario.

perceive them as more likely'. Hence, a couple of well-known large scale cases of embezzled or corruptly acquired public assets may shift the public's perception of the overall incidence of corruption strongly upwards in all walks of life.

The cascade-like possibilities that come from the hidden character of corruption and the strictly localised sources of direct information, make it exceedingly difficult to determine whether any change in perceived corruption levels is rooted in the interaction of changing belief systems engineered through public debates or a changing underlying reality. Such change in perceptions may, however, have a significant impact on the underlying reality.

In a remarkable study with data from Ukraine collected in 1998 Cábeková (2001) reports that while her older respondents on average perceived the major public institutions to be more corrupt than the younger ones, they claimed less willingness to bribe themselves. On average, however there was a positive feedback link from the perceived level of corruption to the willingness to bribe. She reports a positive link from the individual's own experience of bribe demand from a given institution and the respondent's perception. That is, even if actual corruption levels did not shoot up at once, when the population in the transition started to believe it had – stimulated perhaps by the fuzzy changes in normative grids, the fear for own economic survival and suspicion of other agents – that would also cause actual corruption to rise.

#### 4. Production decline, political shocks and corruption

Regarding the size of the production decline during the early stages of the transition and the more recent corruption indicators, there is clearly a positive relation:

*Table 4: Production decline and corruption indicators in the Post-Socialist countries*

Country	Cumulative output decline to lowest level (1989 = 100) in %	Control of 1997/98	Capture economy index	Administrative corruption % of revenues of all firms
Albania	39.9	-0.99	16	4.0
Armenia	65.1	-0.80	7	4.6
Azerbaijan	63.1	-1.00	41	5.7
Belarus	36.9	-0.65	8	1.3
Bulgaria	36.8	-0.56	28	2.1
Croatia	37.7	-0.46	27	1.1
Czech Republic	15.4	0.38	11	2.5
Estonia	36.4	0.59	10	1.6

Georgia	74.6	-0.74	24	4.3
Hungary	18.1	0.61	7	1.7
Kazakhstan	40.0	-0.87	12	3.1
Kyrgyz Republic	50.4	-0.76	29	5.3
Latvia	52.8	-0.26	30	1.4
Lithuania	40.8	0.03	11	2.8
Macedonia, FYR	46.6	-0.52	...	...
Moldovia	66.3	-0.39	37	4.0
Poland	13.6	0.49	12	1.6
Romania	26.7	-0.46	21	3.2
Russia	45.1	-0.62	32	2.8
Slovak Republic	24.7	0.03	24	2.5
Slovenia	20.4	1.02	7	1.4
Tajikistan	74.0	-1.32	...	...
Turkmenistan	59.5	-1.29	...	...
Ukraine	63.8	-0.89	32	4.4
Uzbekistan	14.4	-0.96	6	4.4

Sources: Fischer and Sahay(2000, Table 1), Kaufmann et al. (2002, Table2) Hellman et al. (2000,Table 1–2)

The control of corruption variable is ranging from 2.5 to –2.5 and is heavily influenced by perceptions (explained in Kaufmann et al (2002). The capture index indicates the degree to which firms buy political or judicial decisions. Higher value means stronger tendency. (The index is explained in Hellman et al (2000). That measure, together with the indicator of petty corruption are likely to be less influenced by perceptions and more by actual occurrence of corrupt acts.

Already a rough inspection of Table 4 tells us that there is likely to be some rough correlation between the relative size of the production decline and corruption, but it does not tell where the main direction of the impact is going; whether it is going from corruption to production decline or from production decline to corruption. A somewhat surprising result, not evident from inspection of Table 4, is that the production decline appears to be inversely related to the initial size of GDP per capita (see Appendix 1).

Certainly, for most countries the trough in production occurred *before* the corruption values were recorded, but that is simply because there are not any earlier comparable corruption indicators available. Obviously, there are likely to be some feedback effects of corruption on production which make it somewhat simplistic to read the table as showing the effects of production decline on corruption. In any case, reasons for why a relationship of the kind has arisen, must be given.

Here we may distinguish between the direct effect of the policy shock that initiated the production decline and the subsequent production decline and its interaction with corruption. The policy shock may by itself have given rise to corruption *as well as* production decline. The most obvious mechanism here was the immediate weakening of the monitoring mechanisms and the sudden destruction of what we may call promotional capital. In

later sections I will return to the character of the political shock and describe the mechanisms likely to have triggered the post-socialist crisis.

Following our Ibsen-like plot of starting with the end and end with the beginning, I will try to elucidate how the interaction of declining of growth rates and the more or less gradual lifting of the corruption-mitigating frictions inbuilt in the socialist economic systems interacted and led up to the political shock itself. While these developments were of some consequence for leading up to the political shock in the Soviet Union, they were less important for the initial revolutions in Eastern Europe, which were (Kuran,1995) genuinely unpredictable events. Nevertheless, the slow and gradual building up of declining effort and increasing corruption rates in the socialist economic bureaucracies, contained many of the same mechanisms and forces that were released by the policy shock, but then with much stronger effects.

Let us for now focus on the post-shock story, and study how the production decline had a separate impact on corruption independently of the character of the initial policy shock. The most obvious mechanism here was its contributing to a decline in tax collection by reducing the tax base. In addition to causing some inflation and decline in public expenditures the decline in taxes triggered considerable petty corruption by inducing private tax collection in areas where the public was willing to pay such as in schools and hospitals. Tax collection was an exceptionally important arena where the interaction between a major change in economic rules (the monetation of taxes), the production decline and corruption fed upon each other inside the tax collecting organisations and having economy-wide repercussions on aggregate corruption and (public sector) activity levels. This effect is fairly well understood.

Less clear-cut, but working in most sectors experiencing activity decline is what we may call the *Schumpeter effect*: The simultaneous experience of production decline and new, unknown environmental rules for operating, implies that much of the traditional task-solving either becomes impossible or pointless, which shakes the enterprises and public sub-hierarchies away from their traditional task-solving. In Schumpeter's famous theory, regular depressions in capitalists economies led to shake-ups that stimulated entrepreneurs to look for new, applicable technologies as means for economic survival. After a while, a clustering in time of such applications led to economic revival.

In the case of the larger uncertainty in the transition, the shake-up has induced the economic agents to shift from a traditional, task-orientated mood to searching for private economic (and enterprise) opportunities in a chaotic economic environment as spelled out in the introduction. That search was leading in many directions, and hopefully some may eventually give rise to the positive effects Schumpeter claimed could be seen in the bleakest depression of the capitalist economies. But this shift into the economic gain (survival) mood gave in the case of transition rise to a large number of corrupt transactions. That is the motivation part of the Schumpeter effect. It also has a perception part, however. In particular, since the economic rules to a larger degree become questioned, being in flux, more ways to circumvent them were explored. As pointed out before, corruption is essentially a rule-break-

ing activity and in that sense often entrepreneurial in spirit. As corruption entrepreneurs discovered new ways to survive or become rich by circumventing the rules, followers would join and the incidence of corrupt transaction increased.

While the Schumpeter effect of the production decline and its associated disorganisation and institutional reshuffling mainly operated on corruption as ongoing practices, the related *Huntington effect* suggested in the introduction, worked also strongly on the public's perception of the corruption issue. The Huntington effect related corruption in fast-changing, 'modernising' societies less to the reshuffling of institutions, but to the reshuffling of norms. Huntington vividly describes the effect:

Corruption in a modernizing society is ... in part not so much the result of the deviation of behavior from accepted norms as it is the deviance of norms from established patterns of behavior. .... the calling into questions of old standards ... tends to undermine the legitimacy of all standards. The conflict between modern and traditional norms opens opportunities for individuals to act in ways justified by neither.<sup>28</sup>

In this case, when the OECD ideal allows a much larger scope for market transactions, many established practices would not be corrupt according to the new set of rules, the actual level of corruption would go down while the perceived levels would go up, if the old norms had significant effects on perceptions, the opposite development of the one Huntington was considering.<sup>29</sup> The claim that the simultaneous validity of two different sets of norms may cause both to disappear, applies, of course, to both situations. Furthermore, that is also a hypothesis about realised corruption. Internalised norms about wrong-doing may be important for containing corruption, as pointed out by Rose-Ackerman (1978) a long time ago, since they work as certain (internal) punishment. Although legal punishment is much stronger, the probability of being caught is so small, that norms are likely to be more important deterrents, at least in low corrupt situations. Their absence may lead the transition to a high corrupt situation where other factors become crucial.

It is evident from Table 4 that the initial production decline in the then socialist countries was a spectacular economic event. It is an event of historical importance. The average production decline in the area which now constitutes 25 countries was above 40%.<sup>30</sup> The only comparable production decline in modern market economies which has taken place in peace time happened during the 1930s, the so-called Great Depression. Similarities as well as differences are striking:

Like the Great Depression the Transitional Depression created poverty among the many and a feeling of economic insecurity among almost everyone. Unlike the Great Depression it made the economic elite richer, indeed,

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<sup>28</sup> Huntington (1958, 60).

<sup>29</sup> Roughly; Huntington was considering the transition from a family-based to a 'modern' economy where it was essential to make a clear normative distinction between the 'private' and the 'public' for officials in both the private and public sectors in modern society. The application of the old family practices in the new setting would imply corruption according to Huntington's definition. Hence an increase. If the old norms persist, corruption as perceived by the locals would not increase, exactly the opposite of our case.

<sup>30</sup> Fischer and Sahay (2000: 34). This number as well as the explanation of the production decline outlined in the following are controversial. It would make this paper too long to give a balanced overview of the competing and complementary explanations, however.

was part of transforming the elite from being poor compared to Western economic elites to becoming quite wealthy.

Like the Great Depression extensive unused economic capacity arose, but unlike what happened in the 1930s, the post-socialist economies were able to soak up some of the idle capacity through extensive multilateral bartering schemes.<sup>31</sup> Most workers were allowed to stay at many almost idle enterprises.

While negative financial and monetary shocks played a crucial role in the Great Depression, working its way through the hard budget restraints that the single agent had to obey, the monetary policy at the outset of the Transitional Depression had overall been loose and accommodating. It had not been instrumental in causing the depression.<sup>32</sup> Like the Great Depression the major force to shock the economy into depression was taking place in what Kornai once (1971) called the control sphere. And like in a capitalist market economy, swift drastic changes in the economy are more likely to originate in the control sphere. In the real sphere of the economy there is more inertia.

The control sphere of the economy was quite different, however. It was the control sphere's characteristics which made a *political* shock hitting the communist parties to have so strong effects on the real economy of the socialist economies. In the OECD economies parties with quite different economic ideologies may lose and gain power with only minor effects on the economy. The loss of power of the national communist parties was the crucial event that triggered the Transitional Depression and opened up for increased corruption. How come? Was not corruption already a serious problem in most socialist countries? What were the mechanisms in the control sphere which led to those consequences?

### 5. Fragile activity levels in bureaucracies<sup>33</sup>

The basic characteristic of the socialist economies was that they were in principle organised as a single public hierarchy with either a single board or a single person at the top. The economy was in effect a part of a single state apparatus. State apparatuses are often regarded as stable and slow-moving. Hicks' s (1969: 12–13) view that the long-run equilibrium of public bureaucracies rest at a low but essentially stable activity level is, I believe, widely shared. However, he also pointed out that if society needs to accomplish some tasks extraordinarily quickly, such as wars, public organisations are needed. This suggest that public organisations may operate at widely different activity levels.

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31 The idea of creating extensive multilateral bartering schemes arose in many different quarters during the interwar period, and several serious attempts of their implementation were made of which the largest ones were in California, but they also remained small-scale and short-lived social experiments. The partial exception was the bartering of farm labour against fruit and vegetables about to become rotten, which became quite extensive, but could hardly claim to be multilateral. The Norwegian economist, Ragnar Frisch modelled some of the issues involved in multilateral bartering schemes in an article in *Econometrica* in 1934. His model as well as a few of the practical experiments are analysed in Andvig (1985).

32 Through a well-known mechanism (thee fix-price supply multiplier) overall loose monetary policies have a negative effect on production in central planning economies, and its loosening contributed to the declining growth rates in the last years before the Transitional Depression, but it was not any major cause of the policy shock.

33 The following is partly based on Andvig (1992). A more recent analysis which share the same 'vision' is Harrison (2001).

The contrast between the hectic period of the late 1930s and early 1940s under Stalin's rule and the slow days of the late Breznev period suggests that whole socialist economies were capable of staying at quite different activity levels. In particular, as bureaucratic systems their activity levels might respond strongly to political shocks.

Our argument rests on a specification of a set of external effects that are likely to arise in the conditions under which officials of bureaucracies have to operate. Let us first look briefly at these conditions.

The number of messages to receive and tasks to participate in by the single office are restrained by rules which stipulate who are allowed to communicate by whom in which task. This *transaction technology* is an important structural feature of public organisations, that may be fed by different activity levels. The fact that information may be sent back and forth free of charge in most bureaucracies whether they are private or public, is an important characteristic.<sup>34</sup> Most tasks demand the coordination of several officials at the same or different hierarchic levels. People in certain positions have the right to phone, to send proposals, to give orders to others who they cannot refuse to receive and respond to. If others are very active and send a bureaucrat many messages, it is frequently difficult not to respond. They will 'force' him up to the activity levels they are adjusted to. In this way the transaction technology of public organizations functions much like an assembly line (Akerlof, 1976).

If other members of the bureau are passive, however, the office will receive few messages, few offers of participation in task solving, etc. – the office is likely to become quiet. On the other hand, while external influences may force an office into hyperactivity, it may not normally be forced into idleness. It may always by itself initiate tasks for others to participate in, send out messages to, and so on. Through their responses it will later have to remain on a fairly busy schedule. However, without any imposed external activity offices are not likely to initiate that much activity.

The second characteristic of bureaucracies to note is, of course, the fact that they normally are organised as *hierarchies*; that is in layers of decision-making units where (stipulated) units above a given unit may give orders to it and (stipulated) units below may have to receive and obey orders given by it. When engaged in tasks where several units participate, the superior unit has normally the right to determine the solution. Higher units may normally send direct signals directly to every layer below it, while an inferior unit normally sends signals only to the immediate layer above it. Higher units will participate in a larger number of transactions than units lower down, and be more visible.

If we combine the two characteristics, the implication is that the activity level in a bureaucracy may be extremely sensitive to the activity levels chosen at the higher levels. If the higher levels choose to increase their activity they will experience an activity multiplier through feedbacks from the lower levels.

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34 The many 'modern' management systems where market operations are simulated inside a bureaucracy are an exception to this rule. The largest historical experiment of trying to reform public bureaucracies in this direction is the reform period of the Soviet Union dating from the mid 1960s, particularly the late Perestrojka years, where one tried to make inter-enterprise payments in forms of 'harder' money. (Cf Law on State Enterprises, June 1987, as described in Åslund, 1989: 106). While they may mitigate some of the negative external effects following charge-free information, they also reduce the positive ones.



The multiplier should also work in a downwards direction if the higher levels slacken.

The third thing to note is the *motivational structure* of bureaucracies. The absence of internal charges for sending messages and spending time in the intra-bureau interactions allows for task-oriented motivation. The character of that motivation depends much on the nature of the task, whether it is interesting or boring, strenuous or easy. In any case when several individuals are involved, social spillovers are at work. An interesting task becomes more interesting if the others involved think the same. If boring, or if hard efforts are involved, the normal response will be to make hard efforts if the others do so, and low efforts if they do that. Hence the spontaneous sociability which the no charge setting in bureaucracies allows, gives one mechanism where activity levels may spread. Experience from one task then becomes the prior for the next.

Traditionally the employees are receiving fixed wages and have at least semi-tenured contracts which only allow for soft economic incentives associated with the specific tasks, keeping the task orientation alive.<sup>35</sup>

Bureaucracies are, however, not only arenas for human task solving, they are also hierarchies where superiors may overrule inferiors, may decide their working conditions, and so on. Moreover, wages and working conditions – the whole lifestyle at the top – are also superior. Combined by the long-time contracts the desire for *promotion* – the moving up in the hierarchical ladder – becomes the hardest economic incentive in bureaucracies. It is comparable in strength with the profit motive among capital owners, often reinforced by the prospects of having increased influence on the task-solving conditions. The only way up to become rich and widely respected is up the hierarchical ladder.

Hence, the key to power in any bureaucracy is to gain control of the employment function: the ability to employ and fire, to promote and demote the employees of the organisation.<sup>36</sup> How the probability of promotion are related to the agents' task solving behaviour, is a key factor in determining the activity levels in public bureaucracies.

How may these properties of public organisations give rise to shared activity levels throughout a hierarchy? Imagine that a lazy official is dropped into a hierarchy of hard workers where promotion is tied to task-solving capabilities. If he is not adopting to the ruling work pace he may slow the organisation down, exceptionally long queues may arise outside his office. Since few others have shown his taste for an easy life, he is easy to identify. He loses his chances for promotion, and may even run the risk of being fired. If promotions are granted to officials who work harder than the average, a rat race (Akerlof, 1976) is likely to arise.

On the other hand, if an administrator enter an organisation accustomed to low levels of activity, he may receive few orders, few phone calls, or written

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35 In private bureaucracies short-term wage contracts and/or piece-rates have been rather frequently used, but mainly for simpler task. Particularly during the Stalin-period piece rates for manual labour were also common. Again more recently, it has become popular to try to apply harder economic incentives associated with more complicated tasks, or 'projects'.

36 The historically maybe most clear-cut and famous case was Stalin's takeover of the control of the Communist Party in the mid 1920s through his control of the employment function of the party employees. Given ther increasing number of party employees among the representatives at Party congresses, he thereby also acquired control of the party itself (Hough and Fainsod, 1979).

proposals, and he may work at a slow pace without becoming identified as lazy. If he starts out in this situation as an energetic person and tries to initiate much new activity, he may not accomplish much. Other agents are accustomed to their low speed. The joint efforts usually required to fulfil bureaucratic tasks will not come forward.

So, even if the promotion system is based upon merit, and the bureaucrat is known to be among the energetic ones, his chances for promotion will remain small if his colleagues are lazy. Furthermore, there may be social mechanisms that actively discourage such energetic behaviour; both because it appears threatening to his immediate superiors, and because he is creating more work for those working at the same hierarchic level. The criteria for promotion will differ between slow and fast equilibria.

Thus, the optimal activity level chosen by a single bureaucrat depends upon the activity levels adopted by the bureaucrats with whom he is in regular communication. This conclusion is based upon simple spillover effects between activity levels and promotion probabilities. However, other spillover mechanisms are likely to work in the same direction. The multiple equilibria literature on corruption may apply in a straightforward manner here:

Following Sah (1987), like a corrupt transaction the completion of most tasks require a meeting between at least two officials, who we may assume before the meeting choose whether they will follow a lazy or hard-working strategy. The expected utility of laziness will be higher, the larger the lazy fraction is in the population of bureaucrats (assuming that the utility for a lazy to meet another lazy is higher than the utility when meeting a hard worker). For the hard worker it is better to meet another hard worker.<sup>37</sup> The activity level of the public organization will be partly determined by the total number of meetings, and partly by the fraction of hard workers meeting other hard workers in the total number of meetings.

To some extent, organisations may control for go-slow strategies. As pointed out in a model by Lui (1986) – also in a corruption context – (control becomes more difficult as the fraction of go-slow bureaucrats increases. Furthermore, a lazy official will have a lower propensity to report others as lazy. The relative gain of going slow increases. The model introduces overlapping generations, with officials living in two periods. A higher fraction of generations living at the end of their working life tends to be lazy.

Moreover, being ‘caught’ lazy by a lazy superior should normally result in lower (or no) effective punishment than when caught by a hard-working one (Andvig & Moene (1990)). Again, if the population of officials are on average hard-working, it does not pay to be lazy. If they are lazy, it is better to follow the crowd. So far, we have assumed that agents have been motivated by private gains. However, if agents follow some social norms, and the norms themselves are strongly influenced by beliefs about average behaviour in the group, behaviour will still cluster around different activity levels (Schlicht, 1981) in ways that may be observationally identical to the private gain behaviour.

What may cause a switch between the equilibria? Here the hierarchical character of the organisations is important. We have seen that the bureaucrats’ beliefs about what the others are doing is important. In particular, they will be

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37 Andvig and Moene (1993) is an attempt to model the interaction among different effort levels explicitly in pair-wise meetings in a population of officials.

strongly influenced by the top leadership's behaviour and attitudes, since these normally are public knowledge. Naturally, these are fast moving variables. News about shifts in leadership style with their implications for promotion criteria may travel fast. The same applies for definite changes in ideology which normally will influence the perceived promotion criteria for most members of the organisation.

Public threats of harsher punishment for laziness etc. may work in the same way, if they are credible. When internalised, of course a much slower process, ideology has the additional advantage that it can deliver certain punishment, even in the case when laziness cannot be discovered by others. Ideology, which is believed in, makes for 'committed' officials (Frank, 1988).

Leadership is also important along another slow route. The expected disutility for a lazy official meeting a superior who is working hard, is likely to be higher than meeting a hard worker at the same level. On average, a superior is also likely to meet more people than other officials. So, a few hard-working leaders may have strong effects on the behaviour of individuals directly, through what we have called the transaction technology. These direct interactions with inferiors in task-solving situations give also leaders important information about the inferiors' capabilities.

Among the shocks that may cause the behaviour to switch, are news that convinces officials that the probability of promotion has significantly changed, for example by announcing that the organization is going to shrink or expand.<sup>38</sup>

The fact that extensive firing implies a break of contract means that public organisations will be slow to decrease their demand for labour. If budgets are cut, working expenses will normally be cut more severely than wage budgets. The result is a still stronger negative effect on the activity level, while the employment level will only move slowly.

## **6. Fragility of the Soviet-type of economy and the role of communist parties**

What we have so far argued, is that the effort levels of public bureaucracies tend to be in labile equilibrium where the agents adjust to a given speed. When single inferiors try to change their activity levels, forces arise that move them back to the standard speed. The standard speed may change, however, if many agents receive common signals that their rate of activity is supposed to change through, for example, shifting criteria for promotion, or if the leadership changes its activity rates.

The main characteristic of the Soviet-type of economy was that the whole economy was organised as one public bureaucracy. Unlike most bureaucracies, the main things shuffled across offices (the enterprises) were not messages, but real goods and services. Like a standard bureaucracy there were no hard price charges as long as the movement was internal to the bureaucracy. The prices attached to the goods and services were mainly accounting devices to keep track of what the offices were doing, making it possible to compare the reports

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<sup>38</sup> The negative effect on the probability of promotion is one of the reasons why it is extraordinarily difficult to shrink public organisations and keep up their activity levels.

from different offices, aggregate the reports to consistent ones at the higher levels, and so on. The prices were not so important for the behaviour.<sup>39</sup> Only when the goods left the bureaucracy and went to the private consumers were real price charges made. Labour was the only item on the bureaucracy's ledger that represented a real cost. The lack of price charges implies that the first condition for direct activity spillovers applies also to the Soviet-type of economy. Internal transactions in the Soviet bureaucracy were in this sense also task oriented.

At the higher levels the central problem was to coordinate the different offices so that their plans for delivery and acquirement meshed. In order to do so, the specification of its transaction technology, which office to communicate with whom, was exceptionally important so that the higher levels were not overwhelmed with information. In theory the economy was coordinated by a production and delivery plan.

In practice the old planned economy might be considered more like a kind of multilateral bartering system where the subordinate offices had to do a considerable amount of searching themselves. The lack of price charges led to a situation where excess demand arose, which implied that most of the search costs had to be borne by the office which needed to acquire the good. The specification of the transaction technology reduced the search costs, however. Coordinating sectors, while not dealing in planning in the strict sense they were supposed to do according to the formal bureaucratic rules, nevertheless had an important role to play by actively reducing the large search costs involved.<sup>40</sup>

Third, promotion was an essential part of the system. Since the capitalist road was closed, moving up the hierarchical ladder was, with the partial exception for unusual talent in arts, science or athletics, the only way to become (modestly) rich. If there exists any economic incentive in a hierarchic system which might correspond to the profit motive, it is the striving for promotion. Only by being promoted you may change your lifestyle, become powerful, or at least fairly rich. Corresponding to the fear of losing your wealth there also exists the fear of losing your position. These are all extremely strong motivations. The joining of income, prestige and power components – all working in the same direction – made a strong incentive brew. Soviet economic bureaucracy displayed the third characteristic in our 'model' of the fragility of public bureaucracies.

Moreover, the mechanisms for promotion, hiring and firing were also important from a coordination point of view, since they represented an enormous saving of informational costs of steering. Although management positions in the Soviet Union were numerous, the number of significant actions that should be coordinated was by far much higher, since each person had some

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39 This does not mean that the offices were completely uninterested in the prices. Higher accounting prices implied in most cases an easier life either because it eased plan-fulfilling directly, and they increased the stock of cash the office got access to and thereby also increased the ease by which it might get access to inputs outside the regular channels. A recent discussion of the role of prices in the old system based on new archive material is Harrison and Kim (2001).

40 Instead of starting out with planning models, I believe a more appropriate starting point for a *positive* theory of material allocation inside a centrally planned economy would be some version of Diamond's (1982) coconut island. Here we could let the central planners try to speed up production by limiting the trading space and thereby reduce searching time at the 'market'. Or we could let them force prospective climbers up into the higher trees at gun point and thereby reduce the externality involved. In order to fit the case better a number of modifications are, of course, necessary.

kind of structure making his actions auto-correlated from the leadership's point of view. It was much easier to control individuals through personnel policies than to control all their actions through extensive formal control systems tied to output deliveries.

This explains why the *Nomenklatura* system became so important in the centrally planned economies, why the Communist Party's control of hiring policies was so important. As long as this centralised employment mechanism of managers was in operation, either by the formalised *Nomenklatura* principles of the Soviet Union or through more informal arrangement as in Yugoslavia,<sup>41</sup> it was possible to manage the centrally planned economies. The communist parties functioned as their capital 'markets', shifting the leadership teams of the enterprises. For many reasons a Soviet type of economy had to be able to put substantial downward pressure on its agents in order to function properly. Without central control of the important hiring and promotion decisions, such central control becomes impossible. It was left firmly in the hand of the Communist Party – like the Communist Party itself once had become controlled by Stalin through his conquest of the employment function inside the Party.

How was that power exercised? How likely was it to gain promotion.? How was promotion connected to effort?

While downwards adjusted, economic growth rates during the Stalin era are still considered high. All informal evidence speaks to a bureaucracy which at times worked at a frantic pace. To some extent, the industrialisation drive of the 1930s may have been the effect of one such self-sustained, high-speed bureaucratic equilibrium. The Stalin era bureaucracy was newly established and fast growing (i.e. job openings were many and the likelihood of promotion high). While all the killings of the period created fear and destruction of large quantities of manpower, they also brought promotion possibilities. Income inequality was fairly high.

When the system was introduced to several new countries in Eastern Europe in the early post-World War II years, growth rates were also high, promotions frequent. The slowing down of economic growth in the former Soviet Union during the Brezhnev era is usually explained by its lack of technological dynamism, the increased informational costs associated with central direction as the economy became more complex, and the lack of proper mechanisms for making sensible investment decisions. All these factors were clearly important, but the bureaucratic mechanisms outlined above may still be the key.<sup>42</sup>

By way of contrast, the sudden but short-lived improvement of Soviet economic performance during Andropov and the early Gorbachev indicates that the Soviet bureaucracy was still able to respond to political shocks signalling that increased effort was to be expected. In 1986 the growth rate of GNP increased to 3.9 per cent, a doubling compared to the 1980–85 average (CIA figures as reported in Jeffries 1993, 40). This improvement is most likely to be

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41 The informal employment function of the ruling party in Yugoslavia is the main reason why I find it reasonable to join it to the post-socialist area, despite its more extensive use of markets, the labour involvement in the daily decision-making processes and the restricted role of formal central planning.

42 Downs (1967) made a brief application of his notion of rigidity cycles to the Soviet Union (which is somewhat similar to our explanation), and predicted a slow-down before the real slow-down of economic growth had taken place.

associated with the tightening of discipline of the existing apparatus at that time.

Another indication of the co-variation of activity levels in the centrally directed economies we may find in the so-called socialist investment cycle literature. The first order expectation of the investment cycle literature was that the supply of consumer goods should move counter-cyclically, i.e. opposite to consumption. If the administrative forces outlined here are dominating, the supply of consumer goods should move pro-cyclically, however. Mihályi (1989, 90–91) reports that, in general, investment and consumption indeed have moved pro-cyclically in the former socialist countries. Due to, inter alia, the importance of several lag mechanisms, a far more extensive empirical scrutiny of the time series in question will be required to reach conclusive results.

Somewhat surprisingly, the system of personnel decisions has not been any central part of the economic analyses of the Soviet economies.<sup>43</sup> The analytical discussion has focused on bonus maximisation and the so-called ratchet effect. The choice of plan indicators to tie the bonus to changed constantly, particularly since the mid 1960s. A major point was, however, that bonuses were awarded according to *some* indicator of plan fulfilment, not absolute achievement, such as realised levels of production. Enterprises that produced exactly the same amount of products using the same input, but had received different plan indicators would get different rewards. If they over-fulfilled the plan, the plan was adjusted upwards next year. This implied that bonus maximisation constituted an economic force which made the officials try to supply as little output, and demand as much input, as possible. That is, when supply from one firm to another is considered as a meeting between officials, it normally pays for a lazy official to meet a hard-working one, not conforming to our main assumption.

However, to be a hard worker in this context did not pay, as Granick once pointed out (Conyngham, 1982: 18). The passive bonus maximisation behaviour with the ratchet effect was a go-slow equilibrium where either the probability of promotions was low or promotions were based on passive plan fulfilment. In this kind of equilibrium it never paid to be a hard worker. However, even in this situation I believe straight bonus maximisation behaviour could be a misleading assumption. The bonus actually received was always, in part, influenced by informal considerations. Readjustments of plans were continuously made. It was well recognised that strict application of any given bonus criteria would always give rise to abnormalities, since actual achievement hinged upon too many factors to make it possible to reward them directly. This does not imply that the deduced abnormalities which followed from any of the given schemes were pure fiction, only that they were likely to be modified by some voice of common sense.<sup>44</sup>

Second, while bonuses received were one determining factor in promotion, promotion clearly was influenced by a host of other factors. If mobility was

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43 The main reason for this lack of attention was that personnel decisions had not been modelled by economists at the time. This situation has recently changed and personnel economics is now an expanding field, cf. Lazear (1996).

44 Granick (1980) claimed that the enterprise in the Soviet Union should not be considered as any maximising unit at all. The ministry should, since that was the lowest unit where plan targets were normally kept constant during a year.. Moreover, unlike before the period 1969–1977 did not show any indications of ‘taut’ planning.

high, it could pay for the individual leader to promise to reveal the firm's true capacity; if that could result in promotion for him. On the downside he would not worry if his present office got its delivery quotas adjusted upwards since he then was likely to have left the plant anyway.<sup>45</sup> Political loyalty was also, of course, an important consideration, in addition to many other leadership qualifications such as his 'drive'.

In the system's more activist periods, promotion was more closely related to the vector of characteristics of a 'hard worker' than to formal plan fulfilment, and the economic value of expected promotion much higher than bonus payments. A hard worker was likely to complain if he met and could recognise another official as 'lazy', and his formal or informal complaints would reduce the latter's chance of promotion, if not worse consequences were to follow. The meeting with a hard-working superior could cause a simple plan-fulfilling bonus maximiser lose his job. As mentioned several times, promotion was likely to be a stronger motivational drive than bonuses when the probability of promotion (and demotion) was high.<sup>46</sup>

Also, within the CPEs, more direct sociological or psychological mechanisms should be working in the same way as the economically motivated spillover mechanisms in generating multiple equilibria. For example, if leaders of enterprises adhere to what they guess to be the average behaviour of their (reference) group, one may also get several equilibria. The degree of dedication to the party's policies may be tied to what the others were doing; this may also reinforce the promotion mechanism.

In the main works of the literature, Granick (1975) is emphasising the role of promotions and vertical mobility in these economies. Among economists who more recently have considered the Perestroika reforms from the point of view of the workings of the former economic bureaucracy, inter alia emphasising the role of promotions and its likely response to the different measures, have been Aven (1992, 1991b) and Ellman & Kontorovich (1992).

Describing the negative effects of Perestroika policies, Aven (1992, 228) – who already then had significant inside experience with the Soviet system – emphasised the role of the Party's exclusion from economic management: In addition to pressures coming from the central plan and the centralized distribution of finance, Aven pointed to the role of managerial promotion (and dismissals) as important central levers which had lost force during Perestroika. He considered the break of this lever to have been the main initial cause of the economic decline in the area of the former Soviet Union.

Ellman & Kontorovich (1992, 20–22) mentioned three disintegrating features of Perestroika: (i) the attack on the old bureaucratic apparatus, (ii) the disintegration of the old ideology and (iii) the gradual exclusion of the party from the economic decision-making. Although not pinpointing any exact mechan-

45 According to Berliner (1952) that was the situation around 1950. Plant managers rarely stayed more than 2–3 years. In the classical Stalin period this was certainly not the case, if we may believe Bek's novel, *The New Appointment*, where slowdowns in the rate of production meant in the best case, the firing of the manager and the appointment of a new one.

46 It is, of course, extremely difficult to discriminate empirically between this and the opposite view: that since promotion probabilities and bonus size were closely related, one may as well consider agents as bonus maximisers, which has been the most common view. However, the small changes which actually occurred when bonus systems changed dramatically, and the big changes which took place when leadership styles shifted, support the point of view outlined here.

ism, their interaction was evidently the authors' explanation of the economic disintegration. They did not develop any theory of the interaction of these mechanisms, however. They did not consider that the old planning system of the Soviet Union was in any sense doomed in the short run. The system might even be capable of increasing the rate of production through an increased reliance on disciplinary measures. They pointed to the increase in production in the years 1983–86, which was caused by Andropov's and the early Gorbachev's insistence on the need for discipline and more vigorous action. The old system was capable of working at different activity levels.

Gorbachev's major mistake was that he was not aware that 'the system was brittle and that if sharply attacked would simply disintegrate' (ibid. p. 27). But how could he know? Neither his Soviet advisors, nor Western economists had addressed that question systematically.

Summing up the argument, we have made three major points: A) By being a centralised hierarchy, the Soviet-type economy was capable of sustaining widely different activity levels where the signal and example from the main decision centre was of decisive importance. B) Through their control of the employment of managers and the criteria for promotion, it was the communist parties which held the key determining impact on the effort levels in the bureaucracy. Hence, C) any major loss of power on the part of these parties would be expected to give rise to a major short-run decline in production. In all the countries we consider here communist parties lost power and this was the major shock that released the production decline.

However, the size of the production decline varied across countries. That variation needs to be explained. Some of the variation we may explain by differences in the initial shocks, for example by the strength in the loss of power, and the degree of initial shake-up of the ruling behaviours *signalled* at the time of the shocks. Some of the variation may be related to the transition paths themselves, whether they were politically chosen or forced into by more externally imposed circumstances. In this section I have emphasised the policy shock and the old structure on which it was initially working. What about corruption?

## **7. Corruption in the socialist countries – impact on and impacted by their institutional architecture**

It is generally agreed that corruption was increasing in the socialist economies the last two decades or so of their existence. Again, we have to be careful before we draw any conclusion about the underlying reality on the basis of these *perceived* increases. As pointed out by Holmes (1993, 4–5), around the early 1980s a large number of anti-corruption campaigns were taking place in a number of socialist countries. The underlying reason for these campaigns was probably a belief that corruption itself had become a more severe problem. However, the fact of the campaigns increased the public's awareness of corruption as an issue. The same did the fact that several of the leading politicians in the Soviet Union climbed in the Party in a role of corruption fighter (Andropov, Shevardnadze, Heydar Aliev) and the major power struggles were fought around corruption accusations (Clark, 1993, 145–201). Clearly, the public's perception of an increasing rate of corruption was unavoidable.



In this case I believe it was rooted in facts. Since no indexes of corruption were available at the time, evidence has to be sought in even more roundabout ways: judgments about the likely effects of changes in economic policies, in the political and economic structure; and observations of other variables linked to corruption, particularly the size of the second economy, the number of newspaper stories about corruption (Holmes, 1993) or the number of people convicted for economic crime including corruption (Clark, 1993). Many stories of more or less anecdotal kind supports this impression. Of particular importance are the stories of large-scale corruption such as the famous Uzbek cotton scam, since it is almost prohibitively difficult to organise a large number of people in a network of corrupt transactions in low-corruption surroundings. That is, a single story may then have strong implications for the quantitative assessment of the situation.

A clear quantitative indication of the increasing size of the second economy is the detailed study of it made by Treml and Alexeev (1993) where they showed that the statistical correlation between official income and savings, and income and the registered sale of important consumer goods, weakened strongly in the period between 1965 and the late 1980s (even for alcohol). A reasonable interpretation is that the lack of correlation was due to the fact that a larger share of the households' income originated from unofficial sources, and a larger share of consumer goods items was sold outside the official channels. An indication of the likely positive connection between corruption and the size of the second economy over time we may get through looking at the following table which shows a rough cross-section correlation between the estimated size of pre-transition second economies and the economic crime conviction rates:

*Table 5. Corruption and second economy. Estimates before and after the transition of some former Soviet Union countries*

Country	Conviction rates per million population 1965–1990	Control of corruption 1997/98	Unofficial economy share (%) 1979	Unofficial economy share (%) 1995
Armenia	7.27	-0.80	...	...
Azerbaijan	21.85	-1.00	50	70
Belarus	0.20	-0.65	43	35
Estonia	2.14		22	22
Georgia	15.00	-0.74	50	71
Kazakhstan	1.21	-0.87	50	50
Kyrgyz Republic	3.85	-0.76	...	...
Latvia	0.00	-0.26	34	41
Lithuania	1.41	0.03	34	31
Moldova	4.63	-0.39	43	48
Russia	2.81	-0.62	27	46
Tajikistan	2.00	-1.32	...	...
Turkmenistan	4.06	-1.29	...	...
Ukraine	1.70	-0.89	38	57
Uzbekistan	2.71	-0.96	50	29

Sources: Clark, (1993, Table 3.5), Kaufmann et al. (2002, Table2), Alexeev & Pyle (2001, Table 5–6).

The pre-transition conviction rates are of course a very rough corruption indicator. The high rates in Azerbaijan may, for example reflect the effectiveness of Aliev's anticorruption campaign in fighting *competing* corrupt networks, not his own (Vaksberg, 1991) and the low rates in Tajikistan ineffective economic policing, and so on.

Nevertheless, the high corruption rates in such Soviet areas as Georgia and Azerbaijan were reflected in the bribe rates for entry to the universities. For example, while the bribe rate for the entry to medical studies at Moscow university was 6,000 roubles in 1979 and rising, the rate was 15,000 roubles in Georgia and 30,000 in Azerbaijan (Simis, 1982, 167). These bribe rates were likely to capture some of the capitalised value of expected bribe income of the future medical doctors in the areas, hence the capitalised value of their future bribe income. It is also rather obvious that any large-scale second economy will need governmental protection, particularly from the monitoring organisations such as the police. Such protection would normally demand corruption, but in some areas it may have been mixed with political motives.

Why did corruption levels increase in the socialist countries, particularly in the former Soviet Union? Most of the analytical attention to corruption in the former socialist countries focused on what we may call 'internal' corruption, a form of corruption tied to the planning process itself. In its original form the tautness of plans 'forced' the managers to break rules in order to achieve plan-fulfilment. One of the necessary steps might be to bribe an input supplier. In most cases the method used was not corruption in the strict sense, but rather pulling strings of influence of a more personal or political nature, *blat*, where monetary payment to the enterprise that delivered goods outside the plan was normally of second order importance. Furthermore, the formal breach of the plan was more often than not made in order to fulfil the aim of their organisations, not to further the private interests of the involved parties.

A major mechanism for containing corruption of the internal kind, not sufficiently emphasised in the literature, was the non-monetised way used for allocation of goods across enterprises. The income received by a supplying firm could not be spent at will, but showed up only in their ledgers at the monobank. The share of 'cash' that an enterprise could hide away from its planned wage and bonus allocation was not sufficient to buy significant amount of inputs (that is bribes). Instead, one had to rely on the channels of influence mentioned, and/or complicated, illegal or semi-legal multilateral barter deals. Particularly for the input-producing parts of the economy, the transaction costs for completing corrupt deals were so high and the expected private gain from bribing was so low that the evolution of large-scale commercially motivated corruption was to a large extent contained (Andvig, 1985).

Some of the incentives for this pure plan-motivated kind of 'corruption' were unlikely to have become much stronger during the Breznev period since planning became much less taut. The need for breaking the rules to acquire the input necessary to fulfil the plan lessened.

Other aspects of the development worked in the opposite direction. Moreover it changed the nature of the corruption that was related to the planning

process. The general softening of monitoring combined with the less taut planning made it easier to produce goods outside the plan. In particular, the softening of planned restrictions on the allocation of hard money to the enterprises made it more easy to buy inputs through bribes. At the other side of the ledger, the fact that it became easier to sell outside the plan (i.e. easier to receive hard cash bribes), transformed the soft incentive of gaining an easy life through easy plans (high input allocations and low output obligations) to the hard incentive of gaining more cash bribes through easier plans.

At the cash borders of the planned economy, the consumer goods industries, the transaction costs making corrupt deals, had, of course, always been modest. Combined with the usual state of excess demand in the consumption goods markets, it led to bribing being a dominant way to get access to scarce goods. For example, when a sample of people in Czechoslovakia was asked in 1989 about the area in which bribery was most prevalent, 26% mentioned retail sales as the number one sector (Lizal and Kocenda, 2000). In 1998 corruption in retail sales had of course more or less disappeared.

In times of easier income policy, excess demand increased and the extent of corruption to gain access to legally produced consumer goods increased. At the same time such policies tended to reduce the supply of labour and thereby also consumer goods, worsening the excess demand. One of the paradoxes of the socialist economy was that the strengthening of democratic forces and the authorities' support of popular demands normally resulted in a worsening economic situation for the population with longer queues, more corruption, an expansion in the second economy and more criminal activities. It was from this loosening of control that more elaborate schemes for creating second economy enterprises could be built.

Changes in policy was one short-run cause of increasing corruption rates. As shown, easing of monetary policy had effects of both the internal and the border type of corruption. The growth of the second economy had, first, effects on the border type of corruption, increasing the demand for bribes at the same time as its growth implied a gradual decrease in the transaction costs of corrupt deals. In certain areas, such as in the Caucasus, the scale of the second economy was sufficient to make the border and internal types of corruption merge. When an enterprise was able to keep part of its output outside the plan, one part of the cash demand was coming from enterprises willing to acquire input outside the plan and pay for it in order to satisfy its plan. The second part was coming from (legal) enterprises that needed extra input in order to make itself able to sell output outside the plan, and a third part of the demand came from enterprises wholly working outside the plan, enterprises completely submerged in the underground economy.

Many individualised public services (or punishment) such as hospital services, schooling, jailing, which confronted the individual, private consumer, had similar corruption characteristics as retailing; small transaction costs since demand in cash money, excess demand, and so on. The demand for bribes in the police and judicial sectors became exceptionally strong due to the growth of the second economy, the weak rights of individuals and the harsh penal codes. As pointed out before, the lack of ideological underpinnings of independent judiciary and police, made for a low cost supply.

In principle, foreign trade was another sector where the socialist economies hit cash demand. Since the customers here were not forced to buy from a socialist supplier, their incentives for bribing were in general more modest. Moreover, foreign trade was concentrated in large, specialised foreign trade organisations that were strictly monitored almost to the end, the customers were not interlinked with suppliers. Hence, foreign trade did not in general become any nucleus for expanding corruption second-economy clusters, like the other cash demand sectors.<sup>47</sup> That changed after the transition.

Summing up, while corruption was likely to have increased during most of the last decade before the transition, it appears bounded from above in most geographical areas due to three factors: (1) the restrictions on monetary transactions which were particularly important for the input-producing industries, (2) the routine character and task-orientation of most economic transactions, and (3) the continued presence of a large number of monitoring organisations. Compared to capitalist countries with similar corruption incidence, corruption was a significant problem in retailing in most socialist countries, but less of a problem in investment and infrastructure. Bribes were paid by buyers, not suppliers. An important braking mechanism was the limited role of money, not only for resource allocation within the planning process, but also for its limited ability to buy secure property rights in luxury goods. Not only were most valuable private property allocated through political channels, the ones actually bought needed a continual political acceptance of possession to be safely kept. At this point the ideology of the communist parties, however perverted, functioned as a real brake on the elite's ability to acquire luxuries and private properties through illegal means such as bribe collection.

## **8. Corruption in the FSEs. The role and effects on the Communist Party**

What about the specific role of the Communist Party and the prevalence of pre- and post transition corruption? According to many journalistic accounts, the private accumulation of wealth into the hands of many members of the leadership of the communist parties was essential for both pre- and post-transition corruption. Handelman (1994, 99) summarised this view: 'The Communist Party remains the source of one of the richest accumulations of private wealth in the world, and the ethics of the Party mafia dominates the post-Soviet world.' In the final analysis the Party was the main and undisputed power-holder in the pre-transition period. Then it might be a matter of definition whether this private accumulation was the result of corruption or legitimate power-holding. Given the communist ideology's insistence of

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<sup>47</sup> There might have been exceptions to this. Cross-border networks were likely to have been significant between the Caucasus and Turkey, maybe also between the Caucasus and Iran. These networks still exist, but with the exception of oil, now probably dealing in different products. Caucasian Jews probably also had wider international networks with some pre-transition impact. With impact here I mean an ability to feed goods into or out from the Soviet second economy. As far as I know little is known about these international aspects of the Soviet second economy. I have, for example, not found any reference in the social anthropological studies of Altman and Mars, cf. Altman (1989) and Altman & Mars (1983). Well-informed rumours about the origin of some of the largest recent private fortunes in Azerbaijan tell about such origins, in this case exports of embezzled oil.

equality and the Party members' duty to sacrifice their private interests, any of the acts leading to private wealth had to be hidden, whether they were legal or not. Since the technology of secrecy applied in corruption had to be used in any case, I will consider them simply as acts of corruption.

Despite all the good stories about private misuse of power by Party leaders collected by competent economic journalists from this period such as the ones found in Vaksberg (1991), the overall picture drawn remains unclear and misleading. This happens when Handelman describes the Nomenklatura institution as such as corrupt, when in fact it was a key lever in the economic machinery of Soviet government. It might under certain conditions lead to extensive corruption and economic stagnation, but under other conditions it might contribute to rapid growth. Let us now look more into the specific roles of the Party, and the ways it was linked to the economy in general.

We have already noted that while the main economic units, the enterprises, were organised by the state into functionally based ministries, the Party was organised into geographical units. Since the Party was the main power-holder, that was unavoidable. Ultimate power normally implies control of a population in a definite area of space. From a corruption point of view it is important to note that the Party was not supposed to be directly involved in day-to-day economic operations, and that it was organised formally as outside the state apparatus. One main role was a general political and economic monitoring of the different institutions within its area of responsibility.<sup>48</sup> A second main role was to employ people in state leadership positions. The mix of these two responsibilities implied that a local party leadership would establish local networks of personalised information gathering. The Party itself was, however, monitored by separate monitoring organisations like the KGB. Although monitored, the Party remained the key power-holder since it kept its employing function. Neither the KGB nor the Militia could by themselves fire or employ leaders in other organisations, but the Party might fire leaders in the KGB.

Given these two roles, what were the main corrupt income opportunities under socialism? First of all, the predominance of soft economic incentives in the legal economy implied that the leaders of the regular enterprises did not have strong reasons to bribe, and the cash restraints implied the means for hard cash bribing were limited. That said, it is clear that their multilateral local connections made leading Party members to be in a good position for making informal multilateral barter deals (apply their 'blat'), from which they could get substantial commissions in kind. In order for Party leaders to become rich, the development of the informal, partly illegal second economy, was probably crucial. Allied with purely information gathering institutions like KGB or local policing units, Party leaders could here cash in on their monitoring role. Considerable local returns to scale were present, so the corrupt income opportunities in areas with high incidence of second eco-

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<sup>48</sup> The Party monitoring of large economic units located in a particular geographical subunit was normally the responsibility of the Party leadership of a larger geographical unit; in the case of the largest enterprises the Party at the national level. The party leadership inside an institution was in general partly subordinated to the CEO of the institution, and partly to the local Party leadership. The last tie was the stronger one, a party insider often acted more like an informer that would send information about the CEO of the enterprise to the Party Nomenklatura employing network.

nomy activities such as in Azerbaijan or Georgia, also opened up possibilities for large-scale Party corruption.

Regarding the other main activity, the Nomenklatura employment function, basically the same considerations apply. In the Stalin era the value of promotion (or the value of avoiding a death sentence or a prison camp) would evidently have been high, and maybe the only hard economic incentive in the system, but the ability of a potential manager to pay up front for a promotion would be very limited, given the cash control.

With the expansion of an illegal, second economy, and less stringent cash limitations that would change, however. Some CEO positions as well as positions directly or indirectly involved, such as local party leadership positions became quite lucrative. Hence the Party employment function also had potential value. We might say that the Communist Party's role as a capital market in fact became capitalised in the regions with high second economy rates. According to Simis (1982, 36), at least from the early 1970s there were fairly open auction sales of ministerial posts in Georgia and Azerbaijan with separate prices for access to the bidding process (nomination) and the actual position itself. Both Party officials and state officials had to be paid. The actual outcome was determined by a mix of bid size, clan membership and Party politics.

This kind of operations was not likely to take place in areas where the size of the second economy was significantly smaller. Summing up, the incidence of and income from corruption in local Party leadership were likely to be uneven across geographical areas. Its presumed distance from significant economic transactions with the exception of the Party's employment function, constrained the leaders' ability to transform their public power into private income in most areas. However, threshold effects may have been present, making the employment function a significant source of illegal income in the high-corrupt areas of the former Soviet Union. Passing the threshold when positions could be sold locally, the Party's role in monitoring that economy (including its corruption) disintegrated, both causing the official economy to shrink and corruption to rise.

What about the role of the Communist Party in the socialist countries for the incidence of corruption in the post-socialist countries? Formally, of course, its direct role had dwindled to nothing in the economies we are considering, together with the breakdown of the socialist system itself. Nevertheless, as pointed out before, structural and ideological leftovers from the Party's role operated or were likely to operate in most of the post-socialist countries: Strong tendencies to make public officials be appointed politically – which experience shows go together with high corruption rates – high bribability of police and the judiciary, and the survival of loose Party-related networks probably may also have eased some corrupt deals in the new environment.

In countries which have developed forms of genuine political competition after the transition, direct (informal) Party organised corruption would be rare, however. In the areas where formerly position sales could be observed – the areas of high second economy/ high corruption incidence – the lasting effects of socialist Party corruption have proved more direct, however. First, the former Party networks in those areas proved to have a higher direct sur-

vival value and remained the politically leading network in most cases.<sup>49</sup> Second, while the official ideology changed, the former Party networks succeeded in reducing the strength of political competition, and securing most of the corrupt income prospects for the Party (now *party*) leadership. Third, a basic way to collect income corruptly was through keeping control of the old Party's employment function, although that function made not the same economic sense for the overall efficiency of operations as it had in the old system.

Nevertheless, for several reasons the employment function generated even higher corrupt income opportunities in the new environment. First, the fruits of the corrupt efforts could now safely be kept, which increased the demand for bribes (and supply of extortion). Second, the main income also in the legal economy was now in terms of hard money. Combined with the unavoidable perceived excess supply situation that characterises the new economic system (i.e. monopolistic competition) the supply of bribes from enterprises were increasing as well as their direct payment for political decisions. Third, given the hard income opportunities for enterprises, the higher positions in the enterprises became more valuable. Fourth, the shrinking of geographical areas made scope for large new areas for bribe demands in the customs. All together, the change in economic system increased corrupt collection possibilities, which for the intact political networks implied that the value of their employment function increased.

Note that the capital value of positions hinged upon a fair amount of central control, i.e. significant internal and external stability of the controlling political network. Prospective incumbents of profitable positions would not be willing to pay the capital value of the associated corrupt income if they risked to lose the position due to frequent change of effective controllers. An additional influence was the prospects for receiving credit for loans against the security of expected future corrupt income attached to the position. Here the usefulness of possessing large family networks was evident.

It is worth noting that the privatisation of public assets in the sense that private owners gained independent control of major income-generating assets would weaken networks of this kind. Certainly, if a non-member of the network was allowed to buy, and part of the payment was a bribe, the network might increase its short-run take, and it would, of course, still be able to tax it corruptly, but it would lose the capital value of the positions it was formerly able to control. In the longer run this means that a reduced network income would be shared by the same number of members, hence a reduced expected value of being a member of the network. If, more likely, the buyer was an insider, the network would in addition risk its membership stability through social contagion, since other members may find it more profitable to acquire their own chunks of public, physical capital rather than possessing a bribe-generating position which presupposes continuous political goodwill.

Moreover there is evidently a trade-off between position sales and privatisation as a methods for the individual member of the elite in the post-socialist countries to become swiftly rich. If the sales of positions are frequent and highly valued, the incumbents would also have to feed on the pri-

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<sup>49</sup> Kirgistan is arguably an exception.

vatised enterprises, which would reduce their capital value and expected income. As a larger share of capital becomes privatised, the aggregate value of the employment function decreases. For the single member of the elite, this leaves a difficult question of when would be the optimal point of exiting the network and become a private owner of capital. If he exits too early, he might buy the assets cheaply and gain by the increase in capital value as the network's taxing strength weakens, but he loses his network income, and risks initial excessive taxing. It is probably not coincidental that despite all formal intentional declarations of fast privatisation, in the areas of where position sales are common, the actual rate of privatisation has in most cases been fairly slow.

Here I have emphasised a high initial corruption rate as a mechanism which assisted in the survival of the Communist Party network into the post-socialist period. It is possible that this empirical association is of a coflux character, and that the main explanation for both the survival of Party structures and the high corruption levels, may be sought in the partly hidden clan structures based on family or geographical characteristics of members, which partly overlap, and partly conflict with the Party structures, but apparently have played important roles in most of the high corruption areas where old Party leaders kept control into post-socialism.<sup>50</sup> The key characteristic of modern clans is that they seek to influence and collect resources from modern public apparatuses. They are clearly informal network organisations, but with several hierarchical features. Their mutual ties are either based on family or close friendship relationships, which make them very adept in performing multilateral and many-sided transactions. Like a family network, the Communist Party was also built in a way where each connecting point was supposed to receive many different kinds of messages, making it ideal for handling many-sided transactions. The important role of personnel issues made it also focus on personal links between individuals in leadership positions, whether they were composed of old friendship, family or Party links. The present half hidden ideology is clearly more family-inspired, however (Yurukel, 1999).

So far we have discussed corruption in the Communist Party in the socialist economies and the effects of leftovers of the Party structure on post-socialist corruption behaviour. These were, of course, more easily exposed in the case when old structures survived as ruling political networks. What happened at the point of transition in the countries where the old network did not survive in recognisable shapes, such as in Russia? Did corruption play any

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50 Until recently modern clans have been much talked about in many post-socialist countries, as they were under socialism, at the same time as they – when they exist – operate in secret. These two characteristics are, of course, closely related, but have both made modern clans a very difficult research subject, where little solid evidence was produced. This has recently changed. Much interesting evidence about modern clan structures in Central Asia has been made available in works like Collins (2001) and Schatz (2001). Their structure and behaviour have had a more public and clear character than the Caucasian ones, where knowledge still is more uncertain and their existence more disputed. An empirical study on Azerbaijan is Yurukel (1997). A brief discussion of the role of clans in the sale of public positions in Azerbaijan, mostly based on second hand information may be found in Andvig (1999). The result was that clan and Party networks could easily shadow each other, where clans might control the Party in the socialist days and where old Party structures might coalesce into a post-socialist clan. In any case, their similarity of structure makes it difficult to decide whether the ruling Nakhchivan clan is mainly based on old family ties or mainly on partitions of the old Party/KGB network.



definite role then? Due to Solnick's (1998) work on Komsomol (the Communist youth organisation in the Soviet Union), we may have a reasoned guess about what also happened to the Communist Party in the Soviet Union. In the centre of the economic mechanism that caused or shadowed the disintegration of Komsomol was not corruption, but embezzlement. Roughly, the story was as follows:

In the whole period after the World War II Komsomol members and leaders were cynical about their system and their particular organisation. That did not change throughout the period, hence it might not explain the breakdown of the organisation in any direct way. The two main aims of the organisation were (1) ideological upbringing of a large majority of the youth and (2) screening of future leaders. In addition a major aim was to recruit youth for voluntary work in harvesting, construction, etc. In practice Komsomol was considered a failure in all its tasks and the organisation had low prestige. Nevertheless, it could not avoid being important due to its second task. It was, after all, the main entrance point for becoming a member of the Party. According to Solnick (1998), it was widely accepted that the Komsomol screening process ensured that the majority of Party entrants were opportunists with a cynical bent. Like most Soviet institutions Komsomol became built around quantitative success indicators which the local unit had to send upwards: number of members, number of new members, percentage of members compared to the population of possible members, and so on. The key instrument of control was in any case the number of members. The membership dues were an important resource, constituting about 80% of Komsomol's income. The local organisations had to pass the dues collected upwards (ibid., 92) without spending any. The local Komsomol had to cover their own expense by formulating requests also sent upwards in the hierarchy. Local branches were not even allowed to open their own bank accounts. Some discrepancy between membership reports and dues sent was allowed, however. In the Soviet context it is worth noting that the membership dues represented hard money. To reach the recruiting aims of the different parts of the organisation, new members were frequently forced to join.

The breakdown of Komsomol was triggered by a demographic downturn in the number of youths. In addition the membership was to be voluntary again. The result was a financial crisis. Moreover membership number was not any longer to be a major success indicator. Thereby the centre lost important information. In addition, several regional organisations were allowed to establish their own bank accounts and to spend what they earned, since the centre now had less resources to transfer back.

The local organisations were now self-financing, on *khozraschet*, as was the Soviet expression.<sup>51</sup> Today we would say that Komsomol introduced its NPM – New Public Management. Given this permission, the incentives of the local organisations *not* to transfer any money to the centre naturally increased. The centre, on the other hand, was allowed to keep all the funds it

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51 *Khozraschet* had in fact two different meanings in a Soviet context. It could simply mean that each enterprise's accounting income should cover its accounting expenses, i.e. its accounting profits should not be negative. This was the normal meaning in the classic Soviet system. In the later Perestrojka years, however, it was a question about positive, hard money profits. Evidently, in this case it was *khozraschet* in the latter, more radical meaning.

had developed throughout Komsomol history. The result was that the various sub-organisations of Komsomol either were dismantled, often allowing their professionals a temporary wage increase, or started to branch out into different kinds of business, employing many of the former Komsomol officials.

What made this breakdown of Komsomol to have system-wide consequences was, as pointed out in Solnick (1999), that the organisation's financial crisis led to a situation where many of its sub-organisations in 1987 were granted the privilege to turn non-cash credits into cash. This 'created a loophole that led to the creation of a number of so-called 'Komsomol banks'. These banks were able to turn tightly controlled Komsomol budget funds into easily circulated roubles. Later ...they were able to contract with other enterprises that lacked their financial flexibility and turned those enterprises' budgetary assets into cash as well' (ibid.).

The result was that some of these 'banks' became some of Russia's largest ones through which a large fraction of Russia's most profitable real assets moved into the hands of former Komsomol activists even before the formal privatisation started.. Similar processes took place inside the Communist Party, but with a delay.

In order to understand how this large-scale embezzlement was possible and in order to understand the role of corruption in the transition, it may be useful to regard the various aspects of the whole monetarisation process which were necessary to transform a centrally directed, multilateral barter economy into a capitalist market economy.

## 9. From hard budgets and soft money to soft budgets and hard money

The issues involved when transforming a 'natural' economy into a market economy has, of course, been a central subject for both social science and economic history for long, most often associated with the names of Karl Marx and Karl Polanyi. The transformation they considered was one of agriculturally based peasant or feudal economies, all decentralised, into market-based systems. The issue here has been a transformation of a single bureaucracy and public ownership into markets and private, capitalist ownership. Like the historically preceding transformation, both the new and the old order were sustained by differing norm systems. The shift in norm systems opened up for some forms of corruption. That is the Huntington argument. One important difference in the transition from socialism was the immediate feedback effects which the signal of system change had on the old order. The swiftness of the response was in this case related to the highly centralised character of the old order's production system. The most striking feedback effect was the bureaucracy responding with a production decline.<sup>52</sup> This, I

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52 While there were complex backward effects on the different agriculturally based economies when they were exposed to significant market forces at the same time as their specifics (for example, the form of landownership) had important forward effects on the capitalist economies that evolved, in the case of the socialist economies we are studying here, most of the backward effects have little interest after the basic political decision about a transition was made, since the system then simply disappeared. The exception was this production decline. Before the political decision was made, however, we have seen that there were significant effects of the growth of the second economy (i.e. an expansion of markets) on the workings of the system. The forward effects were considerable, however. A key difference compared to

argued, contributed in different ways directly to corruption through the Schumpeter effect. These responses were unique for the transition away from socialism.

An important characteristic of both kinds of transitions, however, have been what we may call the ‘monetarisation’ of the economy, a somewhat vague, but nevertheless important process. In the terms of Polanyi, as a consequence of the transition to a market economy the ‘special-purpose money’ of the socialist economies would have to change to the ‘all-purpose money’ of the capitalist market economies.<sup>53</sup>

Once more, regard the typical enterprise (or office) of a socialist economy that delivers its products to another enterprise and receives its major inputs (except labour) from other enterprises. It charges certain product prices (centrally determined), delivers certain quantities (to a large extent centrally determined), pays certain inputs (quantities determined) to given input prices (centrally determined). This means that the enterprise will have a certain income and certain expenditures. Normally the set-up will be such that income will be larger than expenditures and the enterprise will receive a certain profit out of which taxes will be deducted. In practice the enterprise might be in a quasi-monopoly situation. This may in many ways look like an ordinary capitalist enterprise except for the centrally fixation of variables.

In fact, the role these seemingly similar variables played in the economic system was quite different. The income the enterprise received had to be set aside in a certain account and withdrawals only made for certified transactions. It was single-purpose money. Certainly the wage expenditures and bonuses became multipurpose in the hands of the workers and managers, but from the enterprise’s point of view these expenditures needed separate permissions, and the income earned on sales could not be spent on such expenditures without these permissions. Allowed wage expenses could normally be paid out even in the case of negative profits. This system of monetary (and quantity controls) implied that incentives were soft in every direction.

For example, even though excess ‘demand’ normally was positive, the monopolist enterprise had only weak incentive in increasing its price, since the increase in income could not be spent without further permission. If the buyer was willing to pay some of the deliveries in hard (i.e. multi-purpose and uncontrolled) money, the enterprise could gain by an increase in price straight away,

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the classical transition problem was that while large parts the socialist economy were ‘natural’ in the sense of not being money-based, as were the pre-capitalist, the socialist economies were based upon a division of labour as extensive as the capitalist ones. This again implies that unlike the pre-capitalist transition, no political force, no primitive accumulation in the sense of Marx, was necessary in order to create labour markets. The option of withdrawing into almost self-sufficient individual survival was not available. That again led to a situation where extreme inequalities have developed in the former socialist countries where the production decline was steep. Whether that inequality will persist now when most of these former socialist economies have stabilised, is a major concern when gauging the welfare consequences of the transition in the longer run. Indirectly it will also influence the expected corruption rates since higher degrees of inequality appear to be related to higher corruption frequencies in a number of different situations.

53 The term ‘all-purpose’ is, of course, an exaggeration. If we have money at the left side and a complete list of goods and services deliverable in a society on the right side, no society would allow money to buy every item on the list. If that was the case, our notion of spheres would be meaningless. In particular, any public decision might then be possible to buy friends as well as husbands. The length of the list of items which money may buy determines the exchangeability of money. Even with respect to market economies the lengths of that list may vary considerably.

but how and why should the buyer be willing and able to do so? Certainly, a higher planned price would make life easier in the sense that it would be simpler to reach positive profits, and the enterprise might certainly bargain for it at the time when the price structure was up for readjustment, but a really important matter it was not.

Similarly, to pay taxes was a nuisance, but not a big deal, since profits could not be spent as wished anyway. In particular, the manager could not bring the profit into his private account of multi-purpose money. To resist tax increases for making life easier, again, made sense, but to really fight it made not much sense. In particular, to bribe the tax authorities, i.e. to spend hard money to avoid soft money taxes, would in most cases be pointless.

Then the output and input requirements that the enterprise was supposed to fulfil were more important matters, and the ratchet game where the enterprise try to get an as low output and as high input plan as possible with the planning authorities having the opposite preferences, has been the key analytical problem studied in the former socialist economy research. Not underlined in that literature was the fact that even in this case the incentive of the enterprise to hide its productive capacity was only of moderate strength, and might even be mitigated by more demanding promotion policies.

As we noted before, the incentive to hide became much stronger in the case when the enterprise could sell part of its product on a market, whether illegally or above the board as happened in China and the Soviet Union after 1987. In order for the remaining, planned system to work, however, a stricter monitoring of the enterprises was necessary. That probably happened in China, but certainly not in the Soviet Union where the Party signalled that it was giving up its key lever, the power to employ the managers, who from 1990 on were supposed to be elected by an enterprise council (Jeffries, 1993, 54).

As soon as the enterprises were allowed access on the markets on a larger scale the casual attitudes to prices and taxes did, of course, change drastically. Considered as managerial incentives they changed from soft to hard when the enterprises were allowed to spend their income at wish as the soft, single-purpose money at their old bank accounts became hard. As we saw in the case of Komsomol, the sequence by which bank accounts of the organisations and enterprises were to become all-purpose money, was crucial for the post-transitions standings of the various transactors.

When the rules were not completely clear, in the inter-enterprise credit- and debt-positions, each enterprise would try to keep its debts soft and its credits hard. In many cases the outcome was that a large number of enterprises budgets were soft, but the profit incentive had become hard. Moreover, both the workers of the enterprise and the Party were unable to monitor the transfer of enterprises' new, hard income into the managers' private accounts.<sup>54</sup> This patchwork of hard and soft positions, soft and hard prices, often invited difficult manoeuvring and frequently illegitimate economic behaviour, including corruption when that could influence desirable shifts in the hardness degree of the debts and credits.

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<sup>54</sup> Before the privatisation of the enterprises, this kind of behaviour was clearly a case of embezzlement. Since then, it may be considered as a way of defrauding minority owners according to the new rules of the game.

The switch from soft to hard prices (first partly illegal) which followed the partial price liberalisation triggered off the inflation process of the initial transition. That response should have been expected since the enterprises now had gotten a strong interest in the prices of their products and many were in position to increase them. The role of the inflation process as such for post-socialist corruption is likely to have been minor, so I will not discuss it any further. The strong shift in relative prices that was part of the outcome, however, contributed strongly to the overall production decline that took place in the later stages of the transition.<sup>55</sup>

The monetarisation of taxes had immediate impact on corruption rates. The traditional tax collecting apparatus was geared to a situation where the incentives of tax avoidance were weak. That changed, of course, over night as the taxes to be collected were hard money. Immediately it became much harder to collect them and the amount collected plunged. Moreover, the enterprises now had strong incentives for bribing tax officials, which they did on a large scale. This caused an immediate rise in the overall corruption rates. Moreover, many enterprises moved into the informal economy in order to avoid taxes altogether. This reduced taxes further and was also likely to increase the corruption rate. In most cases it was necessary to bribe at numerous points of the public administration to survive as an informal enterprise.

The effects of monetarisation on aggregate tax collection were reinforced by the production decline since many of public services were supposed to continue at old levels. The result was an income squeeze which made the single public employee try to collect his own private taxes or sell his services piece-rate, i.e. to extort or bribe. Azerbaijan was an extreme case. While in 1992 public budget revenue constituted 61.5% of GDP, in 1997 it was only 17.4%.<sup>56</sup> The spill-over effects from corruption in the tax collection authorities to the other public sectors were strong.

In this report we have outlined some general mechanisms working when economic systems or sub-systems are changing swiftly into market-dominated ones. I believe these mechanisms have been important in shaping subsequent corruption levels and forms. Most of the emphasis have been on the initial economic structure and the policy shock. It is clear that the specific changes both in institutions and policies *during* the transition have also been important, and the strength of those influences on present corruption has to be weighted

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55 The effects of the whole disorganisation, including the strong price shifts, on production levels have been nicely analysed in Blanchard and Kremer (1997). Some of the production decline was halted by the rise of the already mentioned 'virtual economy'. According to the new set of relative prices many of the enterprises which formally would have a positive (accounting) profits, could now only operate with negative profits, and would have to close if all prices remained hard. However, clusters of such enterprises were able to survive when some of the inputs received were charged only in soft prices. While it has become quite common to criticise these clusters of 'natural' barter economies ('grey' or illegal forms of central planning) as representing a drain on the official economy (Gaddy and Ickes, 2002) they may also in many instances be considered as attempts by workers to withdraw from the new market forces for survival. Unlike former-days peasants Soviet workers could not do on an individual basis. Clusters of enterprises were needed.

56 Shleifer and Treisman (2000). The experience of the different post-socialist countries with respect to tax collection were very different. In some it has even increased. The preceding discussion on monetarisation applies most directly to the area of the former Soviet Union. The East European countries had for the most part already been more closely interacting with the market economies and a larger part of their relative price structure was closer to the relative price structure ruling at the world market.

against the strength of the impacts considered here to make a final judgment. That is planned to be the theme of a follow-up.

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**Appendix 1. A brief statistical exploration of the relationship between production decline and corruption**

As mentioned in the text, there are so many sets of variables that have been shown to be correlated with corruption in a number of econometric cross-section studies of corruption, both in general country samples and for the sample of post-socialist countries, that it is necessary to be even more careful than usual in reading any causal connotations into statistical regression analyses of corruption, whether corruption enters at the right or the left side of the equations. Regarding the transition countries in particular, the development in many of the economic time series was so dramatic and many were so covariant that one may pick almost anyone and find it has some explanatory power when we use a corruption indicator as a left-hand variable. Nevertheless, it may have some interest to report a few of our results regarding the correlation between production decline and corruption when we treat corruption as the left-side variable. Let us first collect the relevant left- and right-hand variables in a table:

Table A1: Collection of variables applied

	PPP- adjusted GDP per capita (1989)	PPP GNP per capita in 1999	Cumulative output de- cline to low- est level (1989 = 1000)	Government effectiveness, 1997/98	Government effectiveness 2000/2001	Control of corruption 1997/98	Control of corruption 2000/01	Capture economy index	Administrative corruption % of revenues of all firms
<b>Country</b>									
Albania	629	3240	399	-0.65	-0.89	-0.99	-0.60	16	4.0
Armenia	2453	2360	651	-0.65	-1.03	-0.80	-0.80	7	4.6
Azerbaijan	2466	2450	631	-0.83	-0.95	-1.00	-1.05	41	5.7
Belarus	6667	6880	369	-0.66	-0.99	-0.65	-0.06	8	1.3
Bulgaria	5740	5070	368	-0.81	-0.26	-0.56	-0.16	28	2.1
Croatia	6919	7260	377	0.15	0.10	-0.46	-0.02	27	1.1
Czech Republic	8207	12840	154	0.59	0.58	0.38	0.31	11	2.5
Estonia	6475	8190	364	0.26	0.86	0.59	0.73	10	1.6
Georgia	2203	2540	746	-0.51	-0.72	-0.74	-0.69	24	4.3
Hungary	6081	11050	181	0.61	0.60	0.61	0.65	7	1.7
Kazakhstan	4133	4790	400	-0.82	-0.61	-0.87	-0.83	12	3.1
Kyrgyz Republic	2770	2420	504	-0.58	-0.61	-0.76	-0.85	29	5.3
Latvia	5204	6220	528	0.07	0.22	-0.26	-0.03	30	1.4
Lithuania	3603	6490	408	0.13	0.26	0.03	0.20	11	2.8
Macedonia, FYR	3720	4590	466	-0.58	-0.63	-0.52	-0.51	...	...
Moldovia	3687	2100	663	-0.46	-1.10	-0.39	-0.83	37	4.0
Poland	5687	8390	136	0.67	0.27	0.49	0.43	12	1.6
Romania	3535	5970	267	-0.57	-0.54	-0.46	-0.51	21	3.2
Russia	5627	6990	451	-0.59	-0.57	-0.62	-1.01	32	2.8
Slovak Republic	6969	10430	247	-0.03	0.23	0.03	0.23	24	2.5
Slovenia	11525	16050	204	0.57	0.70	1.02	1.09	7	1.4
Tajikistan	1778	...	740	-1.42	-1.31	-1.32	-1.08	...	...
Turkmenistan	3308	3340	595	-1.25	-1.23	-1.29	-1.12	...	...
Ukraine	4658	1160	638	-0.89	-0.75	-0.89	-0.90	32	4.4
Uzbekistan	2577	2230	144	-1.30	-0.86	-0.96	-0.66	6	4.4

Sources: Kaufmann, Kraay and Zoido-Lobaton(2002), Fischer and Sahay (2000)

Doing simple regressions, the level of GDP (in 1989) has the strongest explanatory power on the corruption indicators. Since the GDP-level of Albania is implausible, we delete Albania from the sample. Choosing 'Control of corruption 97/98', C(ontrol), as the corruption indicator, and GDP for 1989 as explanatory variable, we get 24 observations. Being the single explanatory variable, the GDP level 'explains' a surprisingly large part of the variation in the corruption level indicator across the post-socialist countries (Prob> F = 0.0000, R-squared = 0.5846. The equation fitting C(ontrol) ≈-

1.41 + 0.0002 lnGDP ) In general the results were ‘better’ with this corruption control variable than the others. The problem with it for explaining the ‘real’ is that it in principle should contain more perceived influences. However, if we instead choose the ‘administrative corruption as % of expense’-variable,  $C_{adm}$ , the result is roughly the same (Prob> F = 0.0000, R-squared = 0.5819.  $C_{adm} \approx 5.34 - 0.0005 \ln GDP$ ). This variable should better reflect the ‘real’ occurrence of corruption – at least some of the simpler forms of it. The difference in sign is of course due to the fact that corruption levels increase with increasing  $C_{adm}$  and decreasing  $C(ontrol)$ .

Despite the significance of the *GDP-level*, it does not exhaust the influence from the production side. Our theory deals with the role of production decline, the rate of growth, if negative. When we estimate the growth rate,  $g$ , from the information in the table, we get the following regression equations:

$$C(ontrol) \approx -1.28 + 0.0002 \ln GDP + 5.51 g \quad (\#observations = 23, \text{Prob}> F = 0.0000, \text{adjusted R-square} = 0.6282), \text{ and}$$

$$C_{adm} \approx 23.42 - 2.42 \ln GDP - 9.43 g \quad (\#observations = 21, \text{Prob}> F = 0.0001, \text{adjusted R-square} = 0.7424).$$

Given the small number of observations this indicates a surprisingly strong correlation, and with the expected signs. Since the growth rate was negative for most of the countries in this period it contributed in shifting the corruption level upwards.

A summary of the main characteristics of the four regressions reported here may be reported in the following table where each regression is reported in a separate column:

*Table A2: Some regression properties*

	$C(ontrol)$	$C(ontrol)$	$C_{adm}$	$C_{adm}$
Constant	-1.41 (0.000)	-1.28 (0.000)	5.34	23.42 (0.000)
LnGDP89	0.0002 (0.000)	0.0002 (0.000)	-0.0005 (0.000)	-2.42 (0.000)
Growth rate	----	5.51 (0.018)	-----	-9.43 (0.035)
R <sup>2</sup>	0.5846	0.6620	0.5819	0.7682
N	23	23	21	21
F	30.96	19.58	26.45	29.83

It will, of course, be premature to conclude that the regression results here (in particular the increase in the R<sup>2</sup> when the production decline is included) as any strong evidence for the Schumpeter hypothesis, but it certainly does not refute it, either. Looking at the partial correlation matrix (not presented here) we get a surprisingly strong negative correlation between the size of the production decline and the initial GDP level (a partial correlation coefficient of – 0.521). Somehow, the areas with lowest GDP also had the largest production decline. This may indicate that the initial corruption levels (or

generally those areas with the least efficient bureaucracies) may supply an important part of the explanation for the production decline itself. That is, a model of corruption which determines corruption levels and production (declines) endogenously is needed.

Presumably, one of the major reasons why GDP levels and production declines make for so nice regression equations fit, are their strong co-variation with an host of other variables also likely to be influential. To sort out their interrelationships, more details on transition characteristics, more variables and policies are necessary. That will be the subject of a follow-up



### **Summary**

The paper explores the apparently high incidence of corruption in those former socialist countries where the Communist Party lost power. It argues that part of the explanation of the high corruption incidence is to be sought in the simultaneous production decline which gives rise to a Schumpeter effect, where former bureaucrats are becoming corruption entrepreneurs. Another important factor is the swift change in the ruling norms giving rise to a Huntington effect an overshooting of the applicability of the market mechanism. An important driver of both effects is the monetation of the centralised multi-tiered bartering system of the old socialist economies. That process is briefly compared to older forms of market expansion into decentralised non-market agricultural economies as analysed by Polanyi and Marx.

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