Can the exchange rate regime influence corruption?

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Abstract
This paper analyses the influence of the exchange rate regime of a country on the level of tolerated corruption with a special focus on the interdependency of monetary and fiscal policies. Using a simple theoretical framework based on Barro-Gordon-Model I compare independent monetary policy with a tight peg arrangement in order to find out which regime is more likely to induce governments to intensify the fight against corruption. It is shown that if corruption has a considerable positive impact on output, a tight peg regime can increase tolerated corruption. However, if corruption has a negative effect on output, a pegged exchange rate regime will lead to a lower level of tolerated corruption. The issue of particular interest appears to be the finding that a strong positive impact of corruption on output can induce governments to choose a fix peg regime while a weak positive impact of corruption (and a negative influence of corruption even more) provides an incentive to keep monetary independence.

Keywords: Exchange Rate Regime, Monetary Policy, Fiscal Policy, Corruption.

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Introduction

The design of monetary policy of developing and transition countries has been the subject of a long-running debate. Many developing and transition countries feature a deficit of credibility of monetary policy institutions, which has been systematically studied (e.g., Cukierman, 1992; Persson and Tabellini, 1990). Due to the lack of credibility, those countries are often recommended to choose a currency peg regime – whether as a unilateral peg to a dominant currency, or as a building of a monetary union, or in the form of a currency board, or dollarization. Another important feature of these economies is corruption, which includes inter alia rent-seeking behaviour of bureaucrats, weakness of public institutions, bribery and even "government pathologies", in terms of Aidt (2003). While corruption induces multifaceted effects, one of the non-ambiguous ones is deterioration of the government's budget, i.e., corruption affects fiscal policy. Since monetary policy (in the form of exchange rate regime), in turn, is in a certain sense incorporated into fiscal policy, one can assume that there is a link between the phenomenon of corruption and the desirability of certain exchange rate regimes.

My analysis is drawing on three different strands of economic research, which are rather disconnected from each other. Two of them concern monetary policy: the first one includes voluminous literature concerning the role of institutions for monetary policy (e.g., Kydland and Prescott, 1977; Barro and Gordon, 1983; Rogoff, 1985; Alesina and Tabellini, 1987; Walsh, 1995), whereby most authors attach great importance to the institutional design of monetary policy but corruption as a weakness of institutions is not explicitly modelled; and the second one is the literature about the interaction of fiscal policy and exchange rate regimes (De Kock and Grilli, 1993; Tornell and Velasco, 2000). As monetary policy can contribute to financing of public budget via seigniorage revenue, it must be considered as a part of fiscal policy. The focus of the analyses is put on the trade-off between lower inflation and higher taxation. The third strand is the research of the effects of corruption for the fiscal revenue (Aidt, 2003; Tornell and Velasco, 1992), which is too extensive to be referenced here[1]. Corruption is perceived to be a cause of tax leakage reducing the fiscal capacity.

However, the impact of corruption on the choice of monetary regime has not been sufficiently studied before, there are only few approaches tackling this question. The first important step was made by Huang and Wei (2006). They

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[1] Aidt (2003) provides a detailed survey.

utilize a framework developed in Alesina and Tabellini (1987) based on Barro-Gordon model and find out that currency peg regimes are not the best solution. In contrast, Hefeker (2010) argues for pegging to a stable currency, because it can reduce the level of corruption. In addition, he claims that a monetary union has ambiguous impacts. In his analysis Hefeker uses a combination of the models of Huang and Wei (2006) and De Kock and Grilli (1993).

In my contribution I start from the idea found in the works of Huang and Wei and Hefeker and intend to analyse the influence of the exchange rate regime of a country on the level of tolerated corruption. I aim at modifying the basic framework by changing the perception of the role of corruption. The thesis that the only effect of corruption on the economy is deterioration of the public budget is not beyond doubt. I assume that corruption can also influence output, and this influence can be either negative or positive. The impact of weak institutions on output has been controversially disputed: while many researchers argue that weak institutions are associated with slow economic growth (e.g., Mauro, 1995; Hall and Jones, 1999; Olson et al., 2000), a broad literature suggests that the lack of institutional quality can even lead to an increase of economic activity (Coppier and Michetti, 2006; Kaufmann and Wei, 1999; Barreto, 2000; Méon and Sekkat, 2008). The argument of "efficiency-enhancing corruption" in sense of the second best solution as a reaction to market or state failures can be incorporated in the analysis. Thus, my contribution differs from the previous works in two characteristics:

- Corruption is considered not only as a leakage from the fiscal revenue but also as a factor influencing the real output;

- Both negative and positive influence of corruption is modelled.

If corruption has a positive impact on output, a tight peg regime can lead to a higher tolerated corruption (if the positive effect of corruption is considerable, the distortive impact of taxation is rather low, and the initial level of corruption is relative unimportant). Both the output and level of public spending will decrease. In contrast, if corruption has a double negative effect, i.e. if it affects both the fiscal budget and the output, exchange rate pegging will lead to a lower tolerated corruption accompanied by a higher taxation and by fall in public spending. The output will go down as well, provided that the negative impact of corruption on output is not significant. These findings show that a fix peg regime, which can help to import monetary credibility, can at the same time be risky with respect to higher tolerated corruption. As for government's choice of exchange rate regime, one finds that a fix peg regime will be chosen if corruption has a strong positive influence on output. Otherwise, the government is expected to keep monetary independence.

The paper is structured as follows. Section 2 describes a basic theoretical framework. Sections 3 and 4 show how the policy mix of the government is made up under two different monetary arrangements. Section 5 compares the results of sections 3 and 4 and discusses the findings. Section 6 explores the government's choice. Section 7 concludes.

Basic setup

My theoretical framework is an extension of the model developed in Hefeker (2010), which combines ingredients of the models of De Kock and Grilli (1993), Huang and Wei (2006) and Alesina and Tabellini (1987). The economy is made up of three actors: the private sector, the central bank and the government. The private agents form rational expectations about the rate of inflation. The monetary and the fiscal authority act as two independent actors, playing a non-cooperative Nash-game against each other.

The real economy is represented by an in expectations augmented Phillips-curve, where output can be increased by unexpected inflation and is reduced by distortive taxation. The extent of the negative impact of distortive taxation is measured by α ($\alpha < 1$).

The main innovation of my approach, relative to Hefeker (2010) and Huang and Wei (2006), is that the real output can be also influenced by corruption, or more precisely, corruption can have either a negative or a positive impact on output. The former effect does not need to be specified in more detail, a variety of arguments have been put forward to support the thesis that the relation between corruption and growth is negative. This can be explained either by an adverse effect for investment (Mauro, 1995; Campos et al., 1999), by reducing the efficiency of public expenditures (Del Monte and Papagni, 2001), by misgovernance (Blackburn and Forgues-Puccio, 2007), or by distorting the factor requirements of firms (Dal Bó and Rossi, 2007).

The intuitive explanation of the assumption of a positive impact of corruption on output is simple. Corruption, considered as a lack of institutional quality, can be used by firms as a possibility to avoid taxes. As taxes are distortive, corruption can act as a way to compensate the distortion caused by the burden of taxation. The "efficient corruption" hypothesis is not new. Since an important contribution of Leff (1964), a variety of works was devoted to this idea. Corruption is thus considered as "grease money" which can lubricate the wheels of commerce or rigid administration (Coppier and Michetti, 2006; Kaufmann and Wei, 1999). Barreto (2000) found out that efficiency-enhancing effect of corruption results from the fact that corruption can reduce bureaucratic

inefficiency. However, this view is not without controversy (Aidt, 2003; Méon and Sekkat, 2005).

Output is thus given by:

$$y = \bar{y} + (\pi - \pi^e) - \alpha\tau + \beta\theta, \qquad (1)$$

where y denotes the log of real output, $\bar{y}$ the log of the target level of real output, π and π^e are, respectively, the actual and expected inflation rates, α is a parameter measuring how distortive taxes are, τ is taxation, β is a parameter measuring the impact of corruption on the output, and θ is corruption. The parameter β can be either negative or positive, i.e., corruption can have either negative or positive impact on the real economy. First, I consider the positive impact of corruption since such approach can modify the findings of the previous works and then I turn to the negative effect of corruption. I assume $|\beta| < 1$.

Now let us look at the negative influence of corruption on the public budget, which can be considered as the reverse side of its positive impact on output. The effects of corruption causing deterioration of the government budget have been sufficiently studied in the literature (e.g., Aidt, 2003; Blackburn et al., 2008). This may arise if tax inspectors tolerate tax evasion in exchange for a bribe, or through theft by corrupt officials, or through access of interest groups to the budget (Tornell and Velasco**,** 1992). Corrupt politicians can divert public funds for personal use (Hefeker, 2010). In short, corruption associated with weak institutions leads to a leakage of the fiscal revenue.

To finance the public goods provision, the government has two sources of revenue: corporate taxation τ and seigniorage, which is thought to be transferred from the central bank to the budget. De Kock and Grilli (1993) argue that although it could be supposed that only unanticipated inflation brings revenues, also expected inflation contributes to the budget, since even in times of high inflation the private agents cannot do completely without money holdings. The budget constraint follows thus

$$g = \tau + \varpi(\pi - \pi^e) + s\pi^e - \theta, \qquad (2)$$

where ϖ and s, respectively, measure the contribution of the surprised and expected inflation to the budget.

The central bank's objective is summarized by a loss, which depends on values for the inflation and output. Costs rise with the departure of the output from its target level; changes to the zero-level of the inflation rate are also considered as generating costs (Barro and Gordon, 1983; Rogoff, 1985). The more the central bank aims to stabilize inflation at zero, the higher is the degree of conservatism of the central bank, measured with c (Rogoff, 1985). The objective function of the central bank can be thus described as

$$L = c\pi^2 + (y - \bar{y})^2 \qquad (3)$$

The government aims to stabilize inflation and output, as well as to provide public goods by minimizing the deviations of spending from a nonnegative target level $\bar{g}$ (costs of such deviations are measured by b, b > 0). This target level rises with the increasing activity of powerful interest groups influencing the government. Additionally, the government is responsible for the control of corruption. Both increase and reduction of corruption from the given initial level $\bar{\theta}$ can have negative consequences. On the one hand, the rise of corruption acts as a deterrent for foreign investors and causes concern of international financial organizations. On the other hand, the lowering of corruption can have a negative impact on the personal utility of the corrupt government parts or, if the government is benevolent, can result in a resistance of corrupt bureaucrats, which also leads to inefficiency (Hefeker, 2010). Hence, deviations in both directions from a given level assumed to give rise to costs, which are measured by γ, $\gamma > 0$. In case of $(\theta - \bar{\theta}) > 0$ one can interpret γ as costs of fighting corruption. The target level for inflation is normalized to zero. The government's objective function can thus be written as:

$$V = c\pi^2 + (y - \bar{y})^2 + b(g - \bar{g})^2 + \gamma(\theta - \bar{\theta})^2 \quad (4)$$

Independent Monetary Policy and Corruption

The first regime I consider is monetary independence, i.e., monetary policy is completely nationally defined.

As aforementioned, the central bank is independent and chooses the optimal inflation rate. The government determines the optimal taxation and the optimal level of corruption – and that simultaneously. As taxation and corruption are the factors influencing the fiscal capacity, the government has to optimize the mix of these two instruments: increasing the taxation makes possible tolerating higher corruption and lowering the taxation is associated with fighting

corruption more intensively. Hence, the optimal inflation rate, the optimal taxation and the optimal corruption level are chosen simultaneously.

The central bank aims to minimize the equation (3), subject to (1). It yields

$$\pi = \frac{\pi^e + \alpha\tau - \beta\theta}{c+1}$$ or, with rational expectations,

$$\pi^N = \frac{\alpha\tau - \beta\theta}{c}, \qquad (5)$$

where the index N indicates the nationally determined monetary policy. The optimal inflation rate is increasing in τ and decreasing in θ. This can be explained by the opposing effects of two parameters: taxation has a negative impact on the output and corruption can compensate this inefficiency. Then, if taxation increases, the central bank has to counteract by augmenting the inflation rate while an increase of corruption associated with a positive effect on the output would allow a lower inflation rate. An increase in the degree of conservatism of the central bank will also lead to a lower inflation.

The government minimizes the equation (4) in consideration of (1) and (2). The optimal taxation and the tolerated corruption can be obtained from the first-order conditions. This leads to

$$\tau = \theta\frac{\alpha\beta + b}{\alpha^2 + b} - \frac{b(s\pi - \overline{g})}{\alpha^2 + b}$$ for taxation,

and to

$$\theta = \tau\frac{\alpha\beta + b}{\beta^2 + b + \gamma} + \frac{b(s\pi - \overline{g}) + \gamma\overline{\theta}}{\beta^2 + b + \gamma}$$ for corruption. Solving these

equations simultaneously, yields the optimal taxation as

$$\tau^N = \frac{\gamma\overline{\theta}[c(\beta\alpha + b) + bs\beta] - bc\overline{g}[\beta(\alpha - \beta) - \gamma]}{bc(\alpha - \beta)^2 + \gamma c(\alpha^2 + b) + \gamma bs\alpha} \qquad (6)$$

and tolerated corruption as

$$\theta^N = \frac{\gamma\bar{\theta}\left[c(\alpha^2+b)+bs\alpha\right]-bc\bar{g}(\alpha(\alpha-\beta))}{bc(\alpha-\beta)^2+\gamma c(\alpha^2+b)+\gamma bs\alpha} \tag{7}$$

Both the optimal taxation and tolerated corruption are increasing in the initial level of corruption since it implies that fiscal revenue is lower, all else equal.

The equilibrium inflation rate is then:

$$\pi^N = \frac{\gamma b(\bar{\theta}(\alpha-\beta)+\bar{g}\alpha)}{bc(\alpha-\beta)^2+\gamma c(\alpha^2+b)+\gamma bs\alpha} \tag{8}$$

Increasing in the spending target.

Equilibrium spending follows

$$g^N = \frac{\bar{g}b\left[((\beta-\alpha)^2+\gamma)c+\alpha\gamma s\right]-\gamma\bar{\theta}\alpha c(\alpha-\beta)}{bc(\alpha-\beta)^2+\gamma c(\alpha^2+b)+\gamma bs\alpha} \tag{9}$$

Exchange Rate Pegs and Corruption

Due to problems of credibility of monetary policy, the independent monetary regime described above is often blamed to be suboptimal for developing and transition countries. As precisely these countries show a high level of corruption, it makes sense to consider an alternative design of monetary policy, reflected in an exchange rate peg (Calvo and Reinhard, 2002; Keller and Richardson, 2003). Following Hefeker, I analyze a tight peg regime in the form of currency board or dollarization since hard pegs provide more credibility than intermediate forms.

To cope with time-inconsistency in policy making and to import stability, the pegging country chooses an economy with a low inflation currency as an anchor country; to simplify the analysis one can assume that the latter has inflation rate $\bar{\pi}=0$. The inflation in the pegging country is completely exogenous; there is no reaction of the central bank to the policy choice of the government. This means that the government loses its seigniorage revenues.

The government chooses a mix of taxation and corruption by taking into account the rate of inflation in the anchor country (denoted as $\bar{\pi} = 0$). This leads to

$$\tau^P = \frac{\gamma\bar{\theta}(\beta\alpha + b) - b\bar{g}\left[\beta(\alpha - \beta) - \gamma\right]}{b(\alpha - \beta)^2 + \gamma(\alpha^2 + b)} \quad \text{for taxation} \qquad (10)$$

and to

$$\theta^P = \frac{\gamma\bar{\theta}(\alpha^2 + b) - b\bar{g}(\alpha(\alpha - \beta))}{b(\alpha - \beta)^2 + \gamma(\alpha^2 + b)} \quad \text{for tolerated corruption,} \qquad (11)$$

where P denotes the exchange rate peg.

The equilibrium spending follows

$$g^P = \frac{\bar{g}b\left[(\beta - \alpha)^2 + \gamma\right] - \gamma\bar{\theta}\alpha(\alpha - \beta)}{b(\alpha - \beta)^2 + \gamma(\alpha^2 + b)} \qquad (12)$$

Comparison of Monetary Regimes

To find out which monetary regime is more likely to induce the government to reduce corruption it is necessary to compare the independent monetary regime with a tight peg arrangement. In doing so, I consider two possible cases. Firstly, I place $\beta > 0$. This is the case if corruption has a positive impact on output. Secondly, I set $\beta < 0$ to allow for a negative relationship between corruption and output. It is clear that the rate of inflation will be lower under pegging to a very hard currency (with a rate of inflation of zero) in both cases.

   a) $\beta > 0$

As for the impact of pegging on the taxation, the crucial factor is $(\alpha - \beta)$. In case of $\beta > \alpha$, more taxation can be expected under pegging than under monetary autonomy, provided that $\overline{g} > \overline{\theta}$, i.e., if the initial level of corruption is not extremely high. This is not surprising: since there are two means to make up for the loss of seigniorage, increasing taxation and fighting corruption, and the distortive effect of taxation is rather low, the government increases taxation.

In case of $\alpha > \beta$ pegging leads to higher taxation, only if γ is sufficiently high. That is, if the distortive effect of taxation is rather strong, the government will choose more taxation, only if fighting corruption is very costly.

Turning to the impact of pegging on the tolerated corruption, we have the same crucial factor $(\alpha - \beta)$. In case of $\beta > \alpha$, the level of tolerated corruption will rise under a exchange rate pegging, provided that $\overline{g} > \overline{\theta}$. That is, if the positive impact of corruption on output is considerable and the initial level of corruption is not exceedingly high, an exchange rate peg leads to an increase of tolerated corruption. As corruption acts as a force compensating the distortive effect of taxation, an increase of taxation (which can be expected if $\beta > \alpha$) has to be accompanied by an increase of tolerated corruption.

In case of $\alpha > \beta$, an exchange rate peg leads to a decrease of tolerated corruption. First, if the distortive impact of taxation is rather strong, the government will unlikely increase taxation (excepting the situation with outstanding high costs of fighting corruption) and will thus be forced to reduce corruption to make up for the loss of seigniorage. Second, even if taxation increases, the positive effect of corruption for output is negligible, so that its compensating role is insignificant.

Pegging will imply a lower public spending because of the loss of seigniorage.

The output will fall as well under pegging. In spite of the compensating effect of a higher tolerated corruption in case of $\beta > \alpha$, this corrective action can obviously not make up for the distortive effect of more taxation.

These findings can be summarized in the following proposition.

Proposition 1:

In the case of $\beta > 0$ a tight peg regime will lead to a higher taxation associated to a higher tolerated corruption, provided that corruption has a strong positive impact on output, the distortive effect of taxation is rather weak and the initial corruption is not extremely high. If the positive effect of corruption for output is relatively weak and the distortive effect of taxation is rather strong, more taxation under pegging can be expected only in case of relatively high costs of fighting corruption. The level of tolerated corruption under pegging will fall in case of $\alpha > \beta$. Both the level of public spending and the output decrease under a fix peg.

b) $\beta < 0$

Also a negative impact of corruption on output must be taken into account; by setting $\beta < 0$ I incorporate this argument in my approach. This assumption implies the consideration of two negative effects of corruption: deterioration of fiscal capacity and lowering of the real output.

This leads to more taxation, i.e., if corruption has two negative impacts, taxation will rise with exchange rate pegging in either case.

Tolerated corruption will go down.

A government has to optimize both fiscal capacity and the output. As an exchange rate peg leads to a loss of the seigniorage revenue, the government is pushed into increasing taxation, which in turn causes a distortive effect for output. Hence, the government will intensify the fight against corruption for two reasons: to compensate a budget leakage caused by the loss of seigniorage and to compensate a distortive impact of increased taxation.

The level of public spending decreases under a fix peg regime despite the fact that taxation increases and corruption falls, i.e., the negative impact of the loss of seigniorage revenues predominates.

The output under pegging decreases if β is sufficiently low. That is, the positive effect of fighting corruption is overcompensated by the distortive impact of more taxation if the negative impact of corruption on output is not significant.

This can be summarized as follows:

Proposition 2:

If corruption has a double negative effect, i.e., if it affects both fiscal budget and output, exchange rate pegging will lead to a lower tolerated corruption and to a higher taxation. The level of public spending decreases under a fix peg regime. The output goes down as well, provided that the negative impact of corruption on output is not significant.

The Government's Choice

To make a proposition about the government's choice of exchange rate regime, it is necessary to compare the level of government's loss under an independent monetary policy to those under a fix peg regime.

Working out the government's loss under two different monetary arrangements, one obtains

$$V^N = \frac{(\overline{\theta}(\alpha - \beta) + \overline{g}\alpha)^2 cb\gamma \left(\gamma c(b + \alpha^2) + cb(\alpha - \beta)^2 + \gamma b\right)}{(bc(\alpha - \beta)^2 + \gamma c(\alpha^2 + b) + \gamma bs\alpha)^2} \quad (13)$$

for independent monetary policy and

$$V^P = \frac{(\overline{\theta}(\alpha - \beta) + \overline{g}\alpha)^2 \gamma b}{b(\alpha - \beta)^2 + \gamma(\alpha^2 + b)} \quad (14)$$

for pegging.

Computing $V^N - V^P$ leads to

$$V^N - V^P = c(1 - 2s\alpha)\left(b(\alpha - \beta)^2 + \gamma(\alpha^2 + b)\right) - \gamma bs^2\alpha^2 \quad (15)$$

It is straightforward to see that the relationship between s and α, i.e., between the contribution of seigniorage to the budget and the distortive impact of taxation is crucial for making a proposition about government's choice of monetary regime.

To be more precise, if sα ≥ .5, the loss under pegging will always exceed the loss under independent monetary regime; hence, the latter will always be chosen. In other words, the government will always prefer a monetary independence to pegging if both s and α may increase unboundedly.

This result can be explained as follows. Taxation and seigniorage revenues are two alternative sources to finance the government budget. Since a fix peg regime leads to a loss of seigniorage, the government is forced to increase taxation. If the contribution of inflation to the budget is significant, an increase of taxation should be high and in the case of a strong distortive effect of taxation, this will lead to a significant distortion of output. Hence, if seigniorage represents an important source of government budget, the distortive influence of taxes has to be relatively low if the government moves to a fix peg regime. If this constraint is not satisfied, the government will abandon the option of pegging, although it helps to import monetary stability.

In contrast, if sα < .5, it is not clear which monetary arrangement will cause a greater loss for the government; in this case, certain conditions can be elaborated.

1) The higher the degree of conservatism of the central bank c, the more expected is pegging because it helps reduce inflation.

2) The higher the contribution of inflation to the budget s, the more expected is an independent monetary regime because pegging leads to a loss of seigniorage revenue.

In fact, these two results are not surprising; the most interesting question however is which impact on the government's choice corruption has.

3) If β is positive and $\beta > \alpha$, a high β implicates that the loss under independent monetary regime exceeds the loss under pegging. Hence, the government will choose pegging.

If β is positive and $\alpha > \beta$, a high β implicates that the loss under pegging exceeds the loss under independent monetary regime. The government will thus prefer an independent monetary policy to a fix peg regime. One obtains the same result for the case of a negative β.

This influence of corruption on the government's behaviour can be explained as follows. If corruption has a strong positive impact on output, it can compensate the distortion caused by a higher taxation which in turn is induced by moving to a fix peg regime, provided taxes are not extremely distortive. Hence, the government can choose pegging without a significant loss. In contrast, if the positive impact of corruption is rather weak and taxes are highly distortive or if corruption even has a negative influence on output, the distortion caused by a higher taxation can not be compensated; the government will consequently prefer an independent monetary policy to a fix peg regime.

These findings can be summarized in the following proposition.

Proposition 3:

If there is no inverse relationship between the contribution of inflation to the budget and the distortive impact of taxation, the government will always prefer monetary independence to pegging. Otherwise, certain conditions must be worked out. A high degree of conservatism of the central bank leads to pegging while a high contribution of seigniorage to the budget leads to an independent monetary policy. As for the influence of corruption, a strong positive impact of corruption on output induces the government to choose a fix peg regime while a weak positive impact of corruption (and a negative influence of corruption even more) provides an incentive to keep monetary independence.

Concluding remarks

In this contribution I analysed the effects of corruption on the choice of exchange rate regime since I think that the interaction between monetary policy, fiscal policy and corruption has not been sufficiently studied. I compared two different monetary arrangements in order to find out which regime is more likely to induce governments to intensify the fight against corruption. By utilizing an extension of the theoretical framework developed in Hefeker (2010) and based on a Barro-Gordon-Model, I generated some interesting results.

It can be shown that if corruption has a positive impact on output, a tight peg regime to a low inflation country, which helps to cope with problems of monetary credibility, can increase tolerated corruption. It is the case if the positive effect of corruption is relatively strong and the distortive impact of taxation is rather weak. While losing seigniorage revenues, the government is

forced to resort to an alternative source to finance the budget and since taxation does not distort output deeply, taxation will be increased.

Due to the distortion-compensating effect of corruption, the government will consequently tolerate a higher corruption as a corrective action to more taxation. The stronger is the positive influence of corruption, the less is the motivation of the government to improve institutional quality. The output will consequently decrease, as well as the level of public spending.

However, if corruption has a negative impact on output, an exchange rate pegging will lead to a lower tolerated corruption (accompanied by a higher taxation). In this case, the government will put more efforts to combat corruption in order to compensate a budget leakage caused by the loss of seigniorage and to reduce a distortion caused by increasing taxation. Nevertheless the public spending will fall and the output will go down as well, provided that the negative impact of corruption on output is not significant.

The issue of particular interest is which influence on the government's choice of the monetary arrangement corruption has. By comparing the government's loss under two different monetary regimes, I conclude that a strong positive influence of corruption on output motivates the government to choose a fix peg regime which leads, as we have seen above, to more taxation, to a higher tolerated corruption, to a lower overall public spending and to a lower output. In contrast, a weak positive influence of corruption accompanied by highly distortive taxes (and a negative influence of corruption even more) provides an incentive to keep monetary independence.

These findings cast doubt on the conventional wisdom that exchange rate pegs such as currency board or dollarization represent the most appropriate monetary regimes for transition countries or a sort of magic drug for the problems of transition. A pegging regime may be a solution of the problem of monetary credibility but at the same time it may have a discouraging effect on the government's willingness to combat corruption. Subject to a definition of corruption, one can estimate a positive impact of corruption, relative to its negative influence on the basis of empirical data, e.g., regularly provided by Kaufmann et al. (World Bank) in reports of governance indicators measuring six dimensions of governance such as regulatory quality, rule of law, and control of corruption. This can be an interesting issue for further research.

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