

# Aid effectiveness and imperfect monitoring: EU development aid as Prisoner's Dilemma

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## Abstract

This paper analyzes the effectiveness of EU development aid to the economies of the former Soviet Union under conditions of imperfect monitoring. Transnational sovereignty partnerships (TSPs) suggest a novel type of aid recipient and an institutional component of the TACIS program. TSPs are composed of distributive planners and developmental entrepreneurs. Distributive planners set the development strategy and developmental entrepreneurs implement it based on EU development aid. I model the delivery of EU development aid to the former Soviet Union as an infinitely repeated Prisoner's Dilemma with private signals. Aid effectiveness occurs when the European Commission signals that it will finance another TSP, without reducing its expected profit from aid implementation.

*JEL:* F35, F36, P33, P52

## Keywords

Aid effectiveness, aid evaluation, developmental entrepreneurs, distributive planners, European Commission, imperfect monitoring, Prisoner's Dilemma, TACIS

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## Introduction

Unlike standard schemes of developmental cooperation, EU development aid to the former Soviet Union has been entangled with the recipient's institutions. Instead of concentrating on the provision of grants and loans to federal or regional budgets, EU aid bureaucrats have worked collectively with federal, regional, and local bureaucrats in the former Soviet Union to achieve common policy ends. Aid effectiveness may be evaluated not only in terms of the foreign policy preferences of the donor, but also in terms of the economic policy preferences of the recipient. In the formal section of this paper, I focus on the analysis of EU aid effectiveness as an infinitely repeated Prisoner's Dilemma with imperfect monitoring.

I define aid effectiveness as contractual completeness (Grigoriadis, 2011). An aid program is effective when its contractual conditions are met by the recipient. The direct welfare effects of aid are not a critical question in this paper; rather than exploring whether the low-income tail of the population distribution becomes better off with the implementation of aid projects, I approach development aid as a consolidating factor of domestic state capacity (Akram, 2003). The aid–trade relationship is not as profitable for the recipient as it is for the donor; while export-oriented trade policies are a sufficient condition for high growth rates, they do not satisfy the recipient-induced aid intentionality (Krueger, 1980). Because it is usually the case that the recipient is rich in raw materials and the donor in services and technologically advanced commodities, development aid is inclined to offset the recipient's losses from trade. EU development aid—more than any other form of development assistance—advances the commercial interests of the EU member-states by committing to aid contracts which reduce the recipient's financial dependence in the long run.

This contradictory set of incentives can be explained if one looks more closely at the literature on aid effectiveness. As Olson points out, rapid economic growth should not be the imminent goal of aid programs (Olson, 1963). Rather than treating the public sector as a necessary evil in the aid implementation process, EU aid bureaucrats work primarily on aid contracts that facilitate the provision of public goods by the recipient government, and thus advance its administrative capacity and quality of welfare provision (Krueger, 1986). Collier and Dollar, in their comprehensive review of aid effectiveness, contend that aid does not induce policy change and in fact the opposite is likely—policy reform can create a favorable environment for the successful implementation of aid contracts (Collier and Dollar, 2004: 255–264).

This paper has a two-fold purpose. First, it proposes a model that adds to a research program started with the treatment of EU development aid as a

soft budget constraint (Grigoriadis, 2011, 2013). Second, it elaborates on the term *transnational sovereignty partnership* (Grigoriadis, 2011). A transnational sovereignty partnership is a recipient institution composed of a post-Soviet bureaucracy and a consortium of developmental NGOs that implement the assigned aid contract. Its financing depends exclusively on the EU development aid. It is assumed that post-Soviet aid bureaucrats distribute financial resources with the purpose of maintaining a minimum of social subsistence to their poorest group of citizens;<sup>1</sup> aid implementation becomes feasible with the donor's supervision and the recipient's administrative accountability. This is why post-Soviet aid bureaucrats are defined as distributive planners (Grigoriadis, 2011). Developmental NGOs and businesses are agents rather than counterbalancing institutions of governmental policy; they do not complement the absence of state capacity, but reinforce the government's role as provider of public and social services.<sup>2</sup> This takes place at the expense of transparency and democratic accountability.

Unlike the soft budget constraint model, which maps aid delivery as a two-period extensive game, my model here is a Prisoner's Dilemma with an infinite time horizon and private signals as strategies. Moreover, both actors—the European Union as the donor and the transnational sovereignty partnership (TSP) as the recipient—decide simultaneously rather than sequentially. The donor does not know whether the recipient actually implements the aid contract or not; nor does the recipient know whether the donor will continue financing the aid contract with him or another TSP.

The TACIS program in Russia and the other states of the former Soviet Union provided long-term incentives for the strategic adjustment of post-Soviet recipient bureaucracies to the aid delivery conditions proposed by the European Commission. The formation of transnational sovereignty partnerships between central or regional bureaucracies on the one hand, and business or NGO consortia on the other facilitated the institutional commitment of both the donor and the recipient toward aid effectiveness. This is why modeling the completeness of TACIS contracts as a Prisoner's Dilemma with imperfect signals is an appropriate research strategy that treats the increase of the recipient's bureaucratic capacity not only as an outcome equivalent to the standard definition of aid effectiveness, but also as an inherent component of the development aid process. Evidence from TACIS contracts in Russian social policy suggests that EU development aid has been effective to the extent that the aid delivery services of European and Russian NGOs were coordinated with the policy priorities of the country's central political institutions, such as the State Duma, and the relevant administrative agencies. This implies that aid effectiveness in its proce-

dural form leads to the recipient's multifaceted involvement in aid implementation, and therefore makes contractual completeness more likely.

In this paper, I focus on the mutual informational asymmetry between the donor and the recipient rather than the complex organizational forms that the recipient takes in the post-Soviet administrative environment. Hence, contrary to the soft budget constraint model under perfect information, the donor can only infer from the recipient's private signals if the latter has completed the aid contract or not. Similarly, the recipient can only infer from the donor's private signals if the latter plans to keep refinancing, reject refinancing, or start refinancing another TSP for the same aid project. The donor needs to compute the cost of noncompletion by the recipient; the same holds for the recipient, who also needs to estimate the cost of his bankruptcy in case the donor signals that he does not intend to refinance him or that he intends to continue with another business. Important here are the institutional specificities of the TACIS Program which operated between 1992 and 2007 and relied on project aid and collaborative state–society mechanisms rather than grants or budget support.

Modeling the implementation of TACIS contracts in the former Soviet Union as an infinitely repeated Prisoner's Dilemma suggests that aid effectiveness occurs when the European Commission as the donor can credibly make the threat to the current TSP that it will continue the implementation of the TACIS contract with another TSP, if the first TSP has not fulfilled its contractual obligations in the current period. The internal structure of the TSP as a composite of the recipient's bureaucracy on the one hand and a consortia of NGOs or businesses of the donor and the recipient on the other implies that the European Commission can choose from a sequence of TSPs in order to have the TACIS contract implemented in any time period (Grigoriadis, 2011). Thus, the TSP is always incentivized to signal contract completion, in order to infinitely receive financing from the donor.

The article is structured as follows. In Section 2, I analyze the coordination between developmental entrepreneurs and distributive planners from the aspects of transnational sovereignty and monitoring institutions of the European Union. In Section 3, I analyze the role of private information and, more specifically, imperfect monitoring in aid effectiveness. Section 4 provides evaluation evidence from TACIS contracts in the area of social policy that were implemented in the former Soviet Union between 1992 and 2007. Section 5 concludes.

## Transnational sovereignty and European Union aid monitoring

Casella and Eichengreen argue that foreign aid can be conducive to stabilization if it is announced and disbursed early in the inflation process; timing seems to play a significant role in aid effectiveness because it affects the incentive structures of high and low-cost players in the recipient economy (Casella and Eichengreen, 1996). The government is enabled to impose less distortionary taxes and still implement a successful stabilization program; in any case, foreign aid reduces the distributional costs of inflation among interest groups and facilitates macroeconomic adjustment (Casella and Eichengreen, 1996). Local aid agents do not come from the federal or regional bureaucracy, but civil society, business, and scholarly networks; thus, the recipient's bureaucratic capacity is not eroded by financial incentives provided by the EU to domestic administrators (Knack and Rahman, 2007). The exclusion of the recipient's bureaucracy from the core of aid implementation generates a direct accountability mechanism between the EU and its contractors; thus, central and local bureaucrats do not have any of the rent-seeking incentives that are usually produced by the competitive supply of multiple aid loans and grants (Knack and Rahman, 2007).

As has been suggested before, the European Commission proposes an aid delivery model relying on two types of domestic actors that jointly form a transnational sovereignty partnership: developmental entrepreneurs and distributive planners. Developmental entrepreneurs substitute for rather than complement political entrepreneurs at the civil society level. Differentiated forms of non-representative government in Russia, Ukraine, and Kazakhstan do not allow the institutional independence of civil society from the state and its policy objectives. Given the competition for aid resources available to developmental NGOs and businesses, only developmental organizations with a successful implementation record are likely to survive for more than one aid delivery period.

Unlike other forms of multilateral or bilateral aid, EU development aid has not relied on the corrosion of the recipient's administrative capacity; aid contracts do not serve as indirect bribes to bureaucrats or elected officials. Post-Soviet bureaucrats maintain the highest degree of information with respect to the needs of the population; this is why the European Commission makes its aid delivery decisions based on the information received by the recipient governments (Knack and Rahman, 2007). Particularly when it comes to the Russian case, Desai et al. indicate that fiscal autonomy in Russian regions leads to increased economic growth while at the same time creating incentives for rent-seeking both for regional politicians and for

local large-scale firms (2005). Thus, they propose a combination of fiscal decentralization and political centralization so that growth rates remain high and rent-seeking incentives at the local level are eliminated.

Easterly (2002: 241–246) describes foreign aid bureaucracies as a “cartel of good intentions”—a cartel which does not intend to sign risky contracts, because the marginal cost of monitoring will be higher and the probability of success will be lower. This logical pattern may explain why EU aid bureaucrats are less likely to approve contracts directed to less stable bureaucratic environments. Nevertheless, it is still unclear whether increased administrative and fiscal independence from the center leads to higher levels of subnational stability. In transition economies, reduced bureaucratic and fiscal capacity reveals the institutional dominance of the central government over the regional ones. Remmer (2004: 86–89) makes the well-founded statement that aid flows increase the size of the public sector in recipient countries; this phenomenon consolidates incentives for the increase of public spending while creating counterincentives for revenue generation through taxation. Boone (1996: 315–317) does not directly test the impact of aid on growth, but he focuses on its effect on government consumption; he concludes that aid has a strong impact on government consumption, but a very marginal one on poverty alleviation.

Governmental accountability is another factor that matters for aid effectiveness. Holmes (1999: 3–4) contends that it should be the key issue in foreign aid planning toward Russia; without an accountable government, foreign aid delivery will be consistently fragmented. He points out that in a country with a tradition of state interventionism, governmental accountability should be the policy outcome sought by donors in the first place. This is why he proposes solid institutional alliances between the donor, the Russian government, and nonstate actors such as NGOs or interest group associations. The increasing federal concentration of EU development aid to Russia can be a useful extension of Holmes’s enlightening take. Donors do not want to work with governments that cannot contribute to project success. Putin’s federal reforms in 2000 severely weakened Russia’s structure as a federal state. The capacity of the Russian Ministry of Justice to prevent regional laws from even coming into force, the institutional reinforcement of the seven presidential envoys, and the frequent exertion of political pressures on regional courts are clear signs that Russia has been transforming itself into a hybrid polity in which formal rules are combined with vertical administrative intervention, which is in most cases unconstitutional (Hahn, 2001).

It has to be noted here that the existence of developmental NGOs in the former Soviet Union depends on the funding they receive from the European

Commission or other multilateral institutions that work directly with them or through their respective national governments. The more stringent the monitoring imposed by the donor, the more objective the criteria for the continuation of aid financing and favorable tendering decisions. As mentioned previously, informational transfers from post-Soviet recipient governments to the European Commission define the policy areas of aid contracts decided in Brussels. This is why aid governance in the former Soviet Union has been linked with collaborative activity between distributive planners and developmental entrepreneurs. If post-Soviet planners were not committed to the provision of public goods, then EU development aid would not have been the main developmental pillar of structural adjustment and transition for all post-Soviet economies. Instead, they would have been better off receiving bilateral aid from reciprocal donors or other multilateral organizations (Grigoriadis, 2013: 47–53). Aid disbursed by the latter is associated with conditionality ties directed toward the central government without further donor supervision or involvement of developmental entrepreneurs from the donor's side (Bräutigam, 1992).

EU development aid reflects the institutional structure of the organization it comes from; a hybrid governance form that lies between national and international structures. Rather than evaluating the aid budget of the European Union in terms of the audience costs faced by contributing member-states, it is reasonable to argue that their volume of aid participation consolidates the policy areas that have been delegated to EU institutions: primarily trade, monetary policy, and energy security (Milner, 2006). Bräutigam (2000) argues that aid intensity over a protracted period leads to aid dependence. Moreover, aid dependence generates a coordination game among three sets of players: politicians and bureaucrats, national and regional interest groups, and aid organizations (Bräutigam, 2001). The difference between standard bilateral aid packages and TACIS contracts is that aid intensity does not make domestic macroeconomic stability directly contingent on the approval of aid flows by the Commission. Rather than capturing the budgetary balance of the recipient, EU development aid reinforces the role of the European Union as the most preferable currency area and commercial partner.<sup>3</sup> At the same time, it ensures the continuity of energy supplies from Russia and Kazakhstan through Ukraine to Western European economies. High or low levels of bureaucratic capacity on the recipient's side define the distributive ability of post-Soviet planners, which is the key condition for aid effectiveness from the recipient's perspective. Hefeker and Michaelowa (2005: 164–167, 173) evoke the concept of process rather than goal-oriented conditionality in order to argue that process conditionality is

more inclined to produce pro-poor growth, because it provides them with a voice in the aid distribution process.

Commitment to public goods as a strategy can dominate the accumulation of personal rents only when the reform of legal institutions, public infrastructure, and social services increases governmental legitimacy and improves the performance of post-Soviet bureaucracies. The presence of a strong public sector is a key component of EU aid effectiveness, because in the post-Soviet space the real institutional choice is not between public and privatized governance, but between a strong state and the absence of it. Hence, while it maintains its indirect conditionality clauses, EU development aid reinforces national development strategies in Russia, Ukraine, and Kazakhstan. The treatment of the European Union as a paradigmatic set of institutions toward which post-Soviet economies should converge is a key normative assumption underpinning the delivery of EU development aid in the post-Soviet space.

Transnational sovereignty partnerships are idiosyncratic institutions composed of a public core and private entities as implementation branches. Contrary to standard public–private partnerships, which have considerably reduced transaction costs in aid delivery, EU development aid has transformed post-Soviet bureaucracies in an unintended but unique way. Transnational sovereignty partnerships are U-form organizations that combine the public mandate of a regional or central bureaucracy and the flexibility of civic or corporate organizations. That way, they constitute the post-Soviet planner's institutional response to the incentive structure proposed by the TACIS program (Grigoriadis, 2011).

Zhuravskaya argues that Russian intergovernmental relations in the 1990s undermined the bureaucratic capacity of local authorities, because they stripped them of the option of accumulating their own tax revenue base, independently from their hierarchically superior regional and federal governments (Zhuravskaya, 2000). What may be inferred from her argument is that EU development aid, while not offering an autonomous resource base for the local administrative planners, supports projects that set common policy objectives for both the EU and the beneficiary government, whether central or regional. In the former Soviet Union, bureaucracies preceded and often captured transitions to more representative forms of government. Thus, state capacity may not be inherently linked to the development of electoral institutions.

Oi (1992) introduces the definition of local state corporatism as a positive outcome of Chinese fiscal reform. The expansion of the revenue



base for local bureaucrats incentivized their transformation into local entrepreneurs and thus the creation of a rural industry with public participation and oversight. In the former Soviet Union, I observe the inverse process. Private organizations fulfill the mandate of public agencies and thus developmental entrepreneurs become de facto accountable to the public officials of their administrative jurisdiction. EU development aid strengthens the institutional position of both administrators and local entrepreneurs, since the market presence of the latter depends on two factors: first, political approval by the bureaucracy and second, formation of consortia with European NGOs. The inherent contradiction in Russian civil society becomes obvious here. Civic organizations and business groups must have an *ex-ante* alignment of their declared organizational goals and objectives with central or regional bureaucracies, in order to participate in the aid delivery process.

## The model

It is now possible to consider an infinitely repeated game with imperfect monitoring and two players: the European Commission (EC) and a transnational sovereignty partnership (TSP). The European Commission chooses from a set of actions  $S_i = \{N, F, R\}$ , where  $F$  stands for its decision to refinance an incomplete contract with the same TSP and  $R$  denotes its decision to refinance an incomplete contract with a different TSP;  $N$  stands for negation to refinance; and the TSP implementing the aid contract is indexed by  $i$ . The TSP chooses from the set of actions  $\Theta_i = \{C, I\}$ , where  $C$  denotes the completion of the assigned aid contract and  $I$  denotes the incomplete status of aid tasks assigned after the aid delivery period is over. Each of the two players is fully aware of his strategy, but observes only an imperfect—private—signal of the other player's strategy. Hence, it is necessary to define the imperfect signal sets for both EC and TSP; these are  $S_i^P = \{F^P, N^P, R^P\}$  and  $\Theta_i^P = \{C^P, I^P\}$  respectively.

There is a probability that player 1 (the European Commission) observes the other player's (TSP) signal incorrectly.<sup>4</sup> This may happen first when the TSP has completed the contract and the donor thinks that it has not done so, and second when the TSP has not completed the contract and the donor thinks that it has done so. Similarly, I define a probability that player 2 (TSP) observes the other player's signal incorrectly.

Thus, there is the following set of probabilities for player 1:

$$\pi_{EC}(\theta_{TSP}^P | s_{EC}) = \{\pi_{EC}(C^P | N), \pi_{EC}(I^P | N), \pi_{EC}(C^P | F), \pi_{EC}(I^P | F), \pi_{EC}(C^P | R), \pi_{EC}(I^P | R)\}$$

Similarly, there is the following set of probabilities for player 2:

$$\pi_{TSP}(s_{EC}^P | \theta_{TSP}) = \{\pi_{TSP}(N^P | C), \pi_{TSP}(N^P | I), \pi_{TSP}(F^P | C), \pi_{TSP}(F^P | I), \pi_{TSP}(R^P | C), \pi_{TSP}(R^P | I)\}$$

### Proposition 1

*Under imperfect monitoring in EU development aid the donor follows a mixed strategy of private signals: he chooses between not refinancing an aid contract with the same TSP and hiring a different TSP for its completion in a subsequent period.*

### Corollary 1

*The transnational sovereignty partnership as the recipient always opts to signal contractual completion.*

I derive all equilibria possible when either of the two players does not correctly observe the other player's action and thus has an incentive to deviate. I propose an application of the probability distribution presented by Sekiguchi (1997), which holds for both players and reveals the essence of imperfect monitoring:

$$\begin{aligned} \pi(F^P, C^P | F, I) &= \pi(F^P, C^P | N, C) = \pi(F^P, C^P | R, C) = \\ \pi(F^P, I^P | F, C) &= \pi(F^P, I^P | R, I) = \pi(F^P, I^P | N, I) = \\ \pi(R^P, C^P | R, I) &= \pi(R^P, C^P | F, C) = \pi(R^P, C^P | N, C) = \\ \pi(R^P, I^P | R, C) &= \pi(N^P, C^P | N, I) = \pi(N^P, C^P | F, C) = \\ \pi(N^P, C^P | R, C) &= \pi(N^P, I^P | R, I) = \pi(N^P, I^P | F, I) = \\ \pi(N^P, I^P | R, I) &= \pi(N^P, I^P | R, C) = \pi(R^P, I^P | F, I) = \\ \pi(R^P, I^P | N, I) &= \pi(R^P, I^P | N, C) = \xi_1 \end{aligned}$$

$$\begin{aligned}
\pi(F^P, I^P | R, C) &= \pi(F^P, I^P | N, C) = \\
\pi(R^P, I^P | F, C) &= \pi(R^P, I^P | N, C) = \\
\pi(N^P, I^P | F, C) &= \pi(N^P, I^P | R, C) = \\
\pi(F^P, C^P | R, I) &= \pi(F^P, C^P | N, I) = \\
\pi(R^P, C^P | F, I) &= \pi(R^P, C^P | N, I) = \\
\text{and} \quad \pi(N^P, C^P | F, I) &= \pi(N^P, C^P | R, I) = \xi_2
\end{aligned}$$

$$\begin{aligned}
\pi(F^P, C^P | F, C) &= \pi(F^P, I^P | F, I) = \\
\pi(R^P, C^P | R, C) &= \pi(R^P, I^P | R, I) = \\
\pi(N^P, C^P | N, C) &= \\
\pi(N^P, I^P | N, I) &= 1 - 2\xi_1 - \xi_2
\end{aligned}$$

where  $\xi_1$  denotes the probability that one of the two players perceives the signal incorrectly but not the other, and  $\xi_2$  denotes the probability that both players perceive the other's signal incorrectly. When both  $\xi_1$  and  $\xi_2$  tend to zero, perfect monitoring is possible (Sekiguchi, 1997).

The stage game payoffs for the European Commission and the Transnational Sovereignty Partnership are defined in the following way:

$$\begin{aligned}
U_{EC}(N, C^P) &= \Theta_t \\
U_{EC}(N, I^P) &= U_{TSP}(I, N^P) = U_{TSP}(I, R^P) = 0 \\
U_{EC}(F, C^P) &= -U_{TSP}(I, F^P) = -L_{t+1} \\
U_{EC}(F, I^P) &= \Theta_{t+1} - L_{t+1} \\
U_{EC}(R, C^P) &= -\bar{L}_{t+1} \\
U_{EC}(R, I^P) &= \Theta_{t+1} - \bar{L}_{t+1} \\
U_{TSP}(C, N^P) &= U_{TSP}(C, R^P) = L_t \\
U_{TSP}(C, F^P) &= L_t + L_{t+1}
\end{aligned}$$

where  $\Theta_t$  is the profit for the European Commission derived from aid contract completion in period  $t$ ,  $\Theta_{t+1}$  is the profit for the European Commission when the aid contract is completed in period  $t+1$ ,  $L_t$  denotes the cost of completing an aid contract in period  $t$ ,  $L_{t+1}$  denotes the cost of completing an aid contract in period  $t+1$  with the same TSP,

and  $\bar{L}_{t+1}$  denotes the cost of contractual completion in period  $t+1$  with a different TSP. The normalized *ex-ante* payoffs, such that  $U_i^{ex} : \{N, F, R\} \times \{C, I\} \rightarrow \mathbb{R}$ , where  $i=EC, TSP$ , have the following form (Piccione, 2002):

$$\begin{aligned}
 U_{EC}^{ex}(N, C) &= \theta_i(\lambda_i) \\
 U_{EC}^{ex}(N, I) &= U_{TSP}^{ex}(I, N) = U_{TSP}^{ex}(I, R) = 0 \\
 U_{EC}^{ex}(F, C) &= -U_{TSP}^{ex}(I, F) = -l_{t+1}(\lambda_i) \\
 U_{EC}^{ex}(F, I) &= \theta_{t+1}(\lambda_i) - l_{t+1}(\lambda_i) \\
 U_{EC}^{ex}(R, C) &= -\bar{l}_{t+1}(\lambda_i) \\
 U_{EC}^{ex}(R, I) &= \theta_{t+1}(\lambda_i) - \bar{l}_{t+1}(\lambda_i) \\
 U_{TSP}^{ex}(C, N) &= U_{TSP}^{ex}(C, R) = l_t(\lambda_i) \\
 U_{TSP}^{ex}(C, F) &= l_t(\lambda_i) + l_{t+1}(\lambda_i)
 \end{aligned}$$

where  $\lambda_i = \{\xi_1, \xi_2\}$ .

The expected payoff of any player  $i$  is given by  $V_i(\psi) = \sum_{\zeta \in Z} U_{ii}(\psi_{ii}, \zeta_{ii})\pi(\zeta | \psi)$ , where  $\psi_i$  is the strategy played by player  $i$  and  $\zeta_i$  is the signal observed by player  $i$  (Sekiguchi, 1997). The average expected payoff for any player  $i$ , when the game is repeated for an infinite amount of periods, is  $F_i(\psi) = (1 - \delta) \sum_{t=1}^{\infty} \delta^{t-1} E[V_i(\psi(t) | \pi)]$ , where  $\pi$  stands for the probability distribution function.

The European Commission is worse off if it accepts refinancing an aid contract, when the latter is complete, rather than when it denies refinancing an aid contract, when the latter is not complete. It does not make a difference for the current TSP whether the European Commission denies refinancing or decides to continue aid implementation with another TSP when the assigned aid contract is already complete.

There is one Nash Equilibrium in pure strategies, which is  $\{N, C\}$ . It is also clear that under conditions of perfect information, both the European Commission and the TSP have an interest in infinitely playing  $\{N, C\}$ ; the donor will not have to provide any more financial support and the recipient organization will not lose the contract continuation to another TSP. Table 1 suggests that  $C$  is a dominant strategy for TSP.

**Table I.** EU development aid as Prisoner's Dilemma.

TSP→	C	I
EC ↓		
N	$\theta_t, I_t$	0, 0
F	$-I_{t+1}, I_t + I_{t+1}$	$\theta_{t+1} - I_{t+1}, I_{t+1}$
R	$-\bar{\theta}_{t+1}, \theta_t$	$\theta_{t+1} - \bar{I}_{t+1}, 0$

Given that TSP will prefer to complete the contract in period 1, I suggest the following system of equations:

$$W^0 = (1 - \delta)(1 - 2\xi_1 - \xi_2)\theta_t + \delta[W^1\xi_1 + W^0(1 - \xi_1)]$$

$$W^0 = (1 - \delta)(1 - 3\xi_1)\theta_t + \delta[W^1(1 - \xi_1) + W^0\xi_1]$$

where it is assumed that the European Commission receives a continuation payoff  $W^1$  when the TSP observes  $R$ , and  $W^0$  when the TSP observes  $N$ . Table 1 indicates that  $R$  weakly dominates  $F$ ; this is why the European Commission chooses between  $N$  and  $R$ .

The solution of this system of equations is given through the following steps:

$$W^1 = \frac{(1 - \delta)(\xi_1 - \xi_2)\theta_t}{\delta(1 - 2\xi_1)} + W^0 \tag{1}$$

Then we insert (1) into any of the two system equations and get:

$$W^0 = \frac{\theta_t(-1 + 4\xi_1 - 5\xi_1^2 - \xi_1\xi_2 + \xi_2)}{2\xi_1 - 1} \tag{2}$$

Following the same process for  $W^1$

$$W^0 = \frac{(1 - \delta)(\xi_1 - \xi_2)\theta_t}{\delta(2\xi_1 - 1)} + W^1 \tag{3}$$

Then we insert (3) into any of the two system equations and get:

$$W^1 = \frac{\Pi_t[\delta(5\xi_1 - 5\xi_1^2 + \xi_1\xi_2 - 1) - (\xi_1 - \xi_2)]}{\delta(2\xi_1 - 1)} \tag{4}$$

Taking the limits for both (2) and (4), we observe that:

$$\begin{aligned} \lim_{\xi_1, \xi_2 \rightarrow 0} W^0 &= \theta_t \\ \lim_{\xi_1, \xi_2 \rightarrow 0} W^1 &= \theta_t \\ \Rightarrow \lim_{\xi_1, \xi_2 \rightarrow 0} W^0 &= \theta_t = \lim_{\xi_1, \xi_2 \rightarrow 0} W^1 \end{aligned}$$

Thus, under conditions of almost perfect monitoring—that is, when  $\xi_1$  and  $\xi_2$  tend to zero—the European Commission is indifferent between  $R$  and  $N$ . The donor knows that contractual completion is always the recipient's best reply. It is also true that the donor will always deny refinancing a complete contract. Nevertheless, the existence of a mixed strategy in private signals allows the donor to threaten an increase in the opportunity cost of the recipient by contracting with another TSP without reducing his own payoff from aid implementation over an infinite horizon.

### **Aid effectiveness and the TACIS program: Evidence from the field**

In the former Soviet Union, Russia has been the main focus of EU development aid compared to Ukraine and Central Asia. Nevertheless, if one compares Figures 1 and 2 (see Appendix 1), the order is reversed when TACIS volumes are measured in per capita terms; Central Asia ranks first. It needs to be stressed here that the large majority of EU development aid to Central Asia has been delivered to Kazakhstan. Russia's federal structure may explain its top ranking as an aid recipient in aggregate terms. Dollar and Levin make an interesting argument regarding the increasing selectivity of foreign aid; they state that foreign aid, and especially multi-lateral aid, is more likely to be directed toward administrative jurisdictions that implement the principles of good governance (Dollar and Levin, 2004: 14–15).

Figure 3 (see Appendix 1) indicates that economic development and financial stability have constituted the first priorities of the European Commission with regard to Russia, Ukraine, and Kazakhstan. Each of the five policy areas mentioned in Figure 3 entails a rich set of activities. Economic cooperation concentrates on economic reforms, development of banking and other financial services, and the promotion of

SMEs. Utilities and infrastructure contracts focus on energy, science and technology, transport, agriculture, and nuclear safety. The cross-border and neighborhood programs have taken a distinct and explicit interest in the regions of Kaliningrad, Baltic Sea, Karelia, the Arctic, and Southeast Finland—all regions where the European Union borders Russia. The legal and institutional reform sector covers programs expanding in the areas of judicial reform, taxation, environmental protection, public administration, and land reform. Finally, social affairs and civil society bring together health and education, social security, the European Initiative for Democracy and Human Rights, and management training.

Unlike in Russia, where energy and infrastructural reforms are second to financial and private sector development in policy significance, in Ukraine the order of policy significance is different. High HIV rates and the lack of a solid body of judicial and economic legislation induced aid contracts for social protection and legal reform. In Central Asia, the weak institutional environment required the reform of public administration as the first priority undertaken by the recipient government and the European Commission. This is the reason why domestic bureaucratic capacity and civil society development are predictive factors of aid effectiveness. Masud and Yontcheva (2005) suggest that NGO-directed aid has a much more substantial positive effect on infant mortality than aid disbursed to the central government. This implies that NGOs are more consistent than bureaucracies in their Millennium Development Goals commitments (Masud and Yontcheva, 2005: 12–13 and 19–20).

The creation of consortia between European companies and Russian NGOs did not allow a lot of space for financial mismanagement on the side of the recipient; the European Union has been practically recycling its aid flows through European legal persons, which subsequently provide the aid output to the Russian beneficiary (Ram, 2003). The TACIS Institution Building Partnership Program (TACIS IBPP) has been a core initiative of the European Commission for the promotion of local development and civil society in collaboration with official state structures in the Russian regions. The evaluation of TACIS IBPP contracts forms an interesting body of evidence explaining the failures and successes of aid implementation under conditions of imperfect monitoring. The main recipients of this program were civic organizations, regional authorities, and nonprofit professional organizations, while the coordinating role was assumed by the EU Delegation to Russia (Klaassens et al., 2006a). Under the umbrella of IBPP, among others, the following projects were considered:

1. TACIS/IBPP Contract No. 01-066.47972, which intended to regulate the relationship between regional authorities and independent media in Russian towns, between 17 December 2002 and 17 August 2004.
2. TACIS/IBPP Contract No. 01-249.47455, with the purpose of increasing the living conditions of children that were at risk of abandonment by their parents, between 18 December 2002 and 18 December 2004.
3. TACIS/IBPP Contract No. 115-214, on the creation of a cross-border network of entrepreneurship and development of SMEs in the Kaliningrad region and lasted for 18 months.
4. TACIS/IBPP Contract No. 03-311, on the assistance of juvenile delinquents in Moscow, St. Petersburg, and Irkutsk, between January 2006 and December 2007.
5. TACIS/IBPP Contract No. 062-501, which created an NGO in Kostroma with the purpose of assisting drug addicts; the financing of this institution by the European Commission lasted for two years.
6. TACIS/IBPP Contract No. 03-316, which promoted the social inclusion of disabled children, between April 2005 and April 2007 (Klaassens et al., 2006b).

The effectiveness of these contracts depended on the intensity of the socio-economic problem that they intended to resolve, the degree of collaboration between European and Russian partners of the consortium, and the ability of regional authorities to create a flexible environment for aid implementation. For example, TACIS/IBPP Contract No. 01-249.47455 led to a 50% decrease in child abandonments in the period after the contract was completed (Klaassens et al., 2006b: 37–40). The overall assessment of the TACIS IBPP instrument indicates the significant role played by local and regional authorities in the development of civil society. Contracts under the institutional framework of IBPP were generally successful, because they bolstered an efficient form of cooperation between the two main parts of transnational sovereignty partnerships: official state structures of the Russian regions, where IBPP was implemented, and the consortia of European and Russian legal persons that implemented it. Moreover, it became obvious that aid effectiveness at the regional level required a high degree of social participation from below.

Nevertheless, administrative delays and lack of effective monitoring of the distribution and coordination of bureaucratic tasks posed serious challenges to IBPP implementation. Replication of the program results in other regions or policy areas has not been possible due to the lack of a coherent and organized civil society. This reality has been also perpetuated by the absence of a serious interregional network among civic organizations on the territory



of the recipient. This is the reason why every contract proposed in the framework of IBPP has been very region- and group-specific (ECORYS IBPP, 2006). As the model in the previous section suggests, aid effectiveness occurs when the recipient abides by his contractual obligations to the donor. Nevertheless, imperfect monitoring may make the donor less ambitious than necessary in defining project objectives.

Furthermore, the TACIS contract on Pension Reform in Russia aimed at creating the required legal, institutional, and technical framework for the effective delivery of pensions (Barré, 2006). It included the following components:

1. Drafting regulations and amendments to the federal laws “On mandatory occupation pension systems in the Russian Federation” and “On Labor Pensions”;
2. Liberalization in investments of pension savings;
3. Training and operations manuals for employees at the Pension Fund and the Ministry of Public Health and Social Development;
4. Creation of an actuarial model setting up efficient replacement rates for the pension level of each socio-economic group.

This project required a complete transformation of Russia’s pension system such that the poor could continue paying their social insurance contributions while the federal government could keep paying pensions that cover the people’s basic needs and prevent structural mistakes in the allocation of investment funds.

The intervention of many political actors in the discussion of the federal law “On mandatory occupation pension systems in the Russian Federation” undermined the implementation of this TACIS contract (Barré, 2006: 29–33). The participation of multiple administrative agencies such as the Ministry of Economic Development and Trade, the Ministry of Public Health and Social Development, the Ministry of Finance, and the Legal Department of the Presidential Administration delayed the State Duma’s confirmation of this federal law. Moreover, the President’s decision to draft a law in support of families with many children demanded a reconsideration of many financial aspects of the proposed reform package.

Nevertheless, the delay in the State Duma’s passing of the basic law does not suggest that the TACIS contract on pension reform was not successful. On the contrary, it was the first major effort to reorganize the delivery of pensions to the majority of Russians in a way that improved their life quality and increased their life span. European and Russian

contractors as well as subcontractors—Arcadis BMB Management Consultants and East-West Institute from the European side, and the Institute of Labor and Social Insurance from the Russian side—provided high-quality services that not only improved the training of actuarial professionals in the Russian Pension Fund but also revised the current replacement rate (Barré, 2006: 29–33).

Last but not least, the TACIS contracts on social protection in Russia between 1991 and 1999 were effective to the extent that they were able to address the key problems of the Russian public administration and provide useful solutions. Also in that case, the cooperation between TACIS officials and the Russian government was not ideal due to frequent miscommunications and mutual distrust experienced at many implementation phases of these contracts (DRN-Linden Staff, 2000). Moreover, the cooperation between European Commission experts and Russian consultants participating in the project was not direct or easy. Hence, administrative capacity is not the only factor that matters in aid effectiveness. What also matters is the compatibility between the delivery mechanisms of the donor and the operational mechanisms of the recipient. Domestic political conditions such as corruption, cronyism, and bureaucratic freeriding can pose important constraints to aid effectiveness, but do not offset the recipient's incentives for aid implementation.

## Discussion

EU development aid to the former Soviet Union includes two types of compromise: the donor is required to adjust to the recipient's policy choices, and the recipient needs to abide by the donor's rules to receive development aid. Aid is effective when its respective aid contract is implemented. The observation of private signals by both the European Commission and the TSP leads to an interaction modeled as an infinitely repeated Prisoner's Dilemma. When the recipient is uncertain about future aid rents by the donor and the donor about contractual completion by the recipient, the TSP is always likely to complete the assigned aid contract. The European Commission follows a mixed strategy between not refinancing the contract and continuing with another TSP in the subsequent period. Hence, imperfect monitoring makes the European Commission indifferent between signaling abstention from refinancing the current TSP and collaboration with another TSP in the next period. At the same time, when the TSP is not certain about the continuity of aid flows in the future, it is more inclined to fulfill the aid contract in the current period.

This paper suggests that the effectiveness of EU development aid in the former Soviet Union is facilitated by the internal structure of the recipient, which allows the donor to threaten him with termination of aid flows. Evidence from the field confirms that contractual completion does not

always imply aid effectiveness. Institutional deficiencies in transition economies and divergence between the conditions of the donor and the capacity of the recipient have been the main constraints to the effectiveness of the TACIS Program. The distinction between distributive planners and development entrepreneurs reveals a hierarchical relationship between the state and civil society in Russia and elsewhere in the former Soviet Union.

Moreover, it unfolds the lack of horizontal structures in Russian-style economic systems and the inability of civil society to act independently from the state in policy implementation and the provision of public goods. Nevertheless, the formation of TSPs, whose internal structure reflects the principal-agent relationship between the state and civil society in the post-Soviet space, has had primarily positive implications for aid effectiveness. The central role of the recipient's bureaucracy, not only as a beneficiary of development aid but also as a participant in the aid delivery process, has induced a higher degree of cooperativeness with donor institutions. This is particularly the case when the TACIS program is compared to other models of development aid delivery which have been directed to the developing world. In order to fulfill their strategic role as players in the delivery of EU development aid, post-Soviet bureaucracies have been inclined to contribute toward contractual completion rather than continue to derive rents from the partial fulfillment or failure of aid programs. Experience from the TACIS program suggests that a strong recipient bureaucracy can be beneficial and not detrimental to aid effectiveness under conditions of imperfect monitoring. This occurs when the recipient has the dual capacity of beneficiary and institutional stakeholder in the development aid process.

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### **Notes**

1. There is continuity in the maintenance of a social welfare optimum both under socialism and during the transition period; see Way (2002: 579–598); Collier and Way (2004: 258–284).

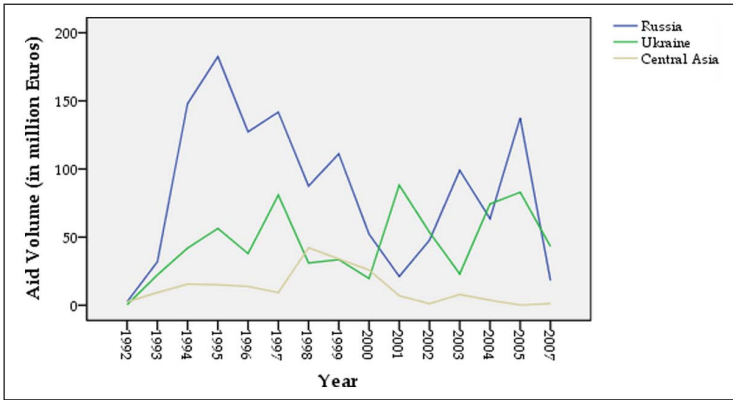
2. Contrary to Boschini and Olofsgard (2007: 1–33).
3. As Cassels (1996) argues, budget support alone is not an efficient solution. On the contrary, a combination of developmental instruments and objectives is more preferable.
4. The structure of the game applies the key theoretical contributions presented in Sekiguchi (1997) and Piccione (2002).

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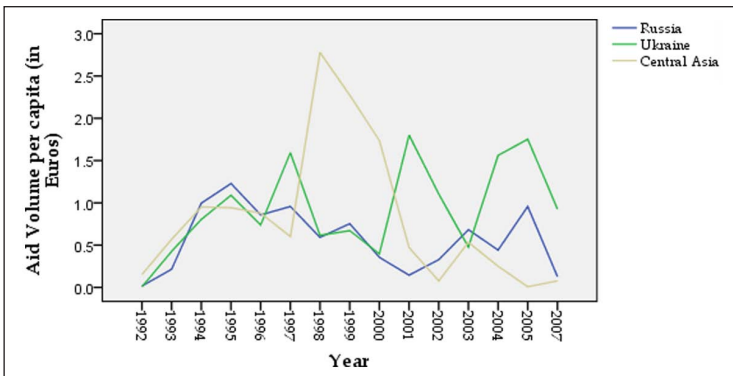
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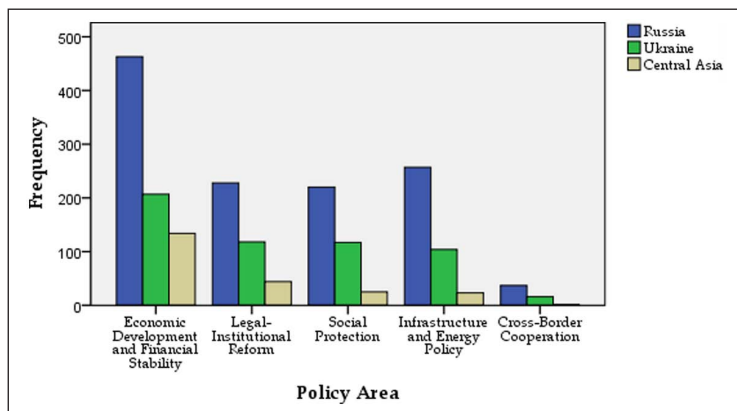
## Appendix I



**Figure 1.** The TACIS Program to Russia, Ukraine and Central Asia (aggregate).  
*Source:* EU Delegation to the Russian Federation. EuropeAid CRIS Data, Moscow, 2007.



**Figure 2.** The TACIS Program to Russia, Ukraine and Central Asia (per capita).  
*Source:* EU Delegation to the Russian Federation. EuropeAid CRIS Data. Moscow, 2007;  
 Federal Service of Statistics, Russia, 2010; State Service of Statistics, Ukraine, 2010; Statistics Agency, Kazakhstan, 2010.



**Figure 3.** Policy Areas of TACIS Contracts.

Source: EU Delegation to the Russian Federation. EuropeAid CRIS Data, Moscow, 2007.