

Through Thick and Through Thin: Economic Shocks, Transfers and Strategic Priorities in Russia*

Timothy Frye, Israel Marques, Eugenia Nazrullaeva, Denis Ivanov, Andrei Yakovlev

December 16, 2015

Abstract

While many scholars have examined whether politicians favor core or swing supporters during normal politics, we examine these competing logics during an economic crisis when governments face especially hard choices. We use new fiscal data from 83 regions in Russia during the economic crisis of 2008–2010 to explore two types of redistribution: social transfers and targeted investment funds. In line with core voter models, we find that regions more supportive of United Russia during elections received greater social transfers and more targeted investment funds than other regions. During the financial crisis politically loyal regions were even more richly rewarded. Thus, while economic crises often overturn patterns of economic redistribution, the economic crisis of 2008–10 in Russia reinforced them. These results are informative given the frequency of economic crisis in lower and middle-income countries and the ongoing debate over the impact of elections on policy in hybrid and authoritarian governments.

Key words: Distributive Politics, Fiscal Federalism, Economic Crisis, Swing Voters, Core Voters, Federal Transfers, Russia

JEL codes: D72, H77, R50

*This The article was prepared within the framework of the Basic Research Program at the National Research University Higher School of Economics (HSE) and supported within the framework of a subsidy granted to the HSE by the Government of the Russian Federation for the implementation of the Global Competitiveness Program. We would like to thank Andrei Blokhin, Lev Freinkman, and participants at the International Center for the Study of Institutions and Development's conference "Studying Institutions and Development in Russia: New Data and New Approaches" for helpful feedback and comments. All errors remain our own.

1 Introduction

Fiscal crises provide an excellent opportunity to examine a central question in political economy: given existing constraints, how do governments allocate resources to sub-national units? In times of plenty, governments often spend without great discrimination, but in times of want, governments face difficult trade-offs between building support via distributive politics and economic efficiency ([Gourevitch \(1986\)](#)). Which strategy governments pursue has important implications for the stability of those and power, the resilience of countries to economic shocks, and for broader economic development. While existing work on distributive politics and fiscal federalism has established that governments around the world allocate resources with an eye towards both political and economic factors, the trade-offs between these two strategies have gone under-explored. At best, one is used as a control in papers exploring the other, without attention to when politics trumps economics and vice-a-versa. In this paper, we shed light on this problem by exploring two broad sets of explanations for how governments allocate fiscal resources amongst regions: one set political and another economic. Each strategy entails its own potential pay-offs and suggests different policy-making priorities. By examining how pre-existing strategies shift in the face of exogenous shocks, this paper attempts to shed light on policymakers true priorities, which are masked in good times by the ability to pursue multiple strategies simultaneously.

Political explanations for transfers suggest that politicians distribute resources to groups in ways that will insure support at the ballot box and help officials maintain power. Who benefits from such politically motivated strategies is a matter of debate, however. Some argue that politicians are

more likely to try to grow the size of their coalitions, favoring “swing” voters and regions that are historically indifferent between voting for and against the party in power. Distributing resources to such groups denies them to the opposition and is a cheap way of securing additional votes (Dixit and Londregan (1996), Lindbeck and Weibull (1987), Stokes (2005)). Others suggest that politicians favor their current, “core” supporters and regions whose policy preferences are in line with the current government given. Distributing resources to such groups ensures their continued loyalty and encourages them to turn-out (c.f. Cox (2010), Cox and McCubbins (1986), Diaz-Cayeros, Estevez, and Magaloni (2012)). Empirical results for such models are mixed, however. This is in part because a rich literature has explored resource allocation largely during periods of normal politics, when government strategies are less fiscally constrained and multiple strategies can be pursued simultaneously (Marques et al. (2013)). By exploring how government fiscal strategy shifts in response to crisis, we can both identify whether political motives drive distribution and which groups are prioritized. Specifically, one would expect that exogenous crises would force officials to focus on those groups they regard as highest priority, whether “swing” or “core”.

Economic explanations for fiscal allocations to sub-national units instead suggest that economic factors drive the policy choices of political elites. According to this argument, transfers during good times are akin to investments made by government officials in regions that can encourage economic development, help to buttress economically vulnerable sectors of the populace, and smooth out economic shocks. During economic crises, this argument suggests that governments should alter their strategy in order to devote resources to particularly hard hit regions in order to

promote spending and jump start stalled regional economies. Doing so can avert the worst macro- and socio-economic effects of crises, speeding national recovery and cushion the effects of crisis on the populace. Such arguments have featured particularly prominently in the policy debates about stimulus packages in the wake of the 2008 financial crisis (c.f., [Krugman \(2012\)](#), [Reinhart and Rogoff \(2011\)](#)).

To explore these arguments, we examine changing patterns of government distribution in Russia between 2000 and 2011, with a particular focus on the effect of the global financial crisis that began in 2008. As an external exogenous shock, we argue that the crisis hit Russia's regional economies and general populace particularly hard, at the same time that it constrained the central government's fiscal strategies. Consequently, central authorities had to make hard choices about which priorities were most important, giving us valuable leverage over the question of whether politics or economics is the primary driver of policy. Using data on changes in the distribution of two types of social transfers across Russia's more than 80 regions, we find mixed evidence for the economic approach. Regions with weak economies received significantly greater social transfers on average throughout the period, but the size of transfers was not conditional on the fiscal crisis. That is, the government supported slow growing regions with social transfers in crisis and non-crisis years alike and did not alter its strategy substantially. More strikingly, our findings suggest that the federal government responded to the financial crisis by doubling down on its preexisting strategy of allocating resources with an eye to politics. From 2000–2011, the government granted more transfers to regions in which the pro-government United Russia party had especially high margins

of victory, consistent with a strategy of rewarding “core” supporters. After the crisis, however, the importance of high-margins of victory for predicting transfers increased, as did the magnitude of transfers to these relative to others.

Our results contribute to several debates of more general interest. First, they are consistent with core voter models of political redistribution and provide little evidence in support of swing voter models. This said, the long-record of mixed results in this literature, suggests caution. The more important finding for work on distributive politics is that in times of economic trouble governments are likely to double down on their pre-existing politically oriented strategies. Second, they indicate that national elections shaped economic policy even in a competitive authoritarian regime like Russia and that the importance of these elections for policy only increase as economic problems proliferate. This finding is in line with recent work which suggests that elections shape economic policy even where they are a weak tool for replacing incumbents ([Blaydes \(2013\)](#), [Magaloni \(2006\)](#), [Reuter and Robertson \(2012\)](#)), as well as recent work highlighting the political dangers of economic crisis for elites ([Reuter and Gandhi \(2011\)](#)). It also contrasts with a traditional view that elections under autocracy have little impact on policy.

Third, the results indicate that the economic crisis in Russia reinforced existing patterns of redistribution. Scholars have often remarked that economic crises have the potential to undermine existing political coalitions and reconfigure the political arena ([Drazen and Grilli \(1993\)](#), [Gourevitch \(1986\)](#), [Haggard and Kaufman \(1995\)](#), [Nelson \(1990\)](#)). Economic crises may change the distribution of power among political elites by weakening some constituencies and strengthening

others. Crisis also may limit the government's capacity to use state resources to buy political support from voters. Each of these consequences of economic crisis can alter patterns of economic redistribution. Yet, in Russia we find that the government redoubled its efforts to reward politically loyal regions during the economic crisis. In this way, the economic crisis of 2008 – 2010 did not change existing patterns of state privilege, but reinforced them. This result is noteworthy given the frequency of economic crisis in developing and middle-income countries.

Our study is distinctive in several respects. First, we measure resource allocation using two indicators that allow us to capture different dimensions of electoral targeting. Our first indicator measures the total transfers per capita from the federal government captured by a region, while our second measures investment funds (FAIP in Russian) allocated to regional governments that provide wide discretion in their use. This allows us to explore how the central government weighed considerations of buying support from regional mass publics using social transfers and from regional political elites using FAIP. As the results are consistent across both measures, we infer that the Kremlin aimed to buy support from both political elites and the mass public in core regions during the economic crisis using a similar logic. Second, our empirical analysis takes advantage of the great heterogeneity of Russia's more than 80 subnational units while also controlling for contextual factors that may be hard to capture in cross-national studies. Third, by studying the impact of an economic crisis whose sources are largely (although not exclusively) exogenous to Russia, we can obtain a cleaner "crisis" effect than is often the case. More generally, whereas most studies of distributive politics focus on periods of normal politics, we examine whether economic

crisis reinforces or alters the distribution of resources during periods of fiscal stress and limited resources. By observing how pre-existing strategies change, that is, we can gain better leverage over what factors governments truly prioritize when making transfers.

We also distinguish ourselves from previous work on transfers in Russia by taking into account that our examination of the political determinants of fiscal transfers likely suffer from endogeneity bias ([Jarocinska \(2010\)](#), [Popov \(2004\)](#), [Treisman \(1998, 1996\)](#)). This is because past vote shares may be driven by unobserved variables that are correlated with transfers (c.f. [Diaz-Cayeros, Estevez, and Magaloni \(2012\)](#), [Magaloni \(2006\)](#)). To begin to mitigate this potential source of bias, we estimate our results using both the level and the first difference of transfers and find similar results. More importantly, to the extent that these potentially endogenous factors are present in both crisis years and non-crisis years, we should be able to estimate the conditional effect of vote shares on transfers without bias ([Denisova et al. \(2009\)](#)). For example, to the extent that corruption influences both vote shares and transfers we would expect these effects to operate in both crisis and non-crisis years. While it may be difficult to estimate the direct effect of past voting shares on the level of transfers, we can be more confident about identifying whether the impact of past vote shares on transfers is different in crisis and non-crisis years.

In section 2, we discuss the political economy literature on resource allocation and present our hypotheses. In section 3, we provide background information on spending policy in Russia that will put our argument in context. In section 4, we discuss the data and methodological strategy and we present our results in section 5 before concluding in section 6.

2 Theory

Politicians are often thought to take into account political factors in the distribution of targetable goods, but how they do so is a matter of debate. The canonical literature on the topic begins with the assumption of two vote-maximizing parties competing over voters with fixed ideological preferences in a system of compulsory voting (Cox and McCubbins (1986), Dixit and Londregan (1996), Lindbeck and Weibull (1987), Stokes (2005)). Parties offer a basket of transfers to voters who cast ballots based on their ideological proximity to the party and their level of consumption, which includes transfers. In the basic models, ideological affinities are fixed, so parties can only woo voters by offering them transfers. The major divide in the literature is over which types of voters politicians target.

In one set of models, vote maximizing parties shower largess on “swing” supporters, who, thanks to their weak ideological attachments, will sell their support at a lower price (Dixit and Londregan (1996), Lindbeck and Weibull (1987), Stokes (2005)). A key assumption of the model is that voters with a sufficiently strong ideological affinity cannot be persuaded to change their votes via transfers. As a consequence, rather than waste resources on those who will back them or the opposition regardless of transfers, politicians try to influence those whose ideological attachments leave them largely indifferent (Dixit and Londregan (1996), Lindbeck and Weibull (1987), Stokes (2005)).

A second set of models instead argues that politicians favor “core” supporters whose ideo-

logical affinity is closer to them or who have historically supported the party. In the canonical model, politicians face informational and commitment problems in dealing with swing voters. In the former case, politicians know too little about “swing” voters to target transfers programs to them effectively. In the latter case, politicians can never be sure that “transfers” will actually result in votes, since “swing” voters can take their money and vote however they wish. In either case, the possibility of wasting transfers makes strategies of targeting one’s core supporters more attractive, since insures support and turnout (Cox (2010), Cox and McCubbins (1986), Dixit and Londregan (1996)). More recent extensions of the model also highlight the fact that politician have a secondary interest in generating rents, conditional on winning elections. Ansolabehere and Snyder (2006) and Vaishnav and Sircar (2011) develop models and provide empirical evidence that such rent-seeking motives can induce transfers to core voters.

Recently scholars have rejuvenated this debate by relaxing some assumptions of the canonical literature in ways that flesh out the logic of “core” voting models. Cox (2009) and Nichter (2008) note that both the canonical and more recent models focus exclusively on persuasion (attempts to change voters’ preferences) rather than on mobilization (attempts to influence voters’ decision to participate in the election). In their models, introducing the possibility of strategic abstention allows core voters to extract greater transfers than most models of political redistribution allow. Key to this argument is the credibility of core voters’ threat of abstention. Cox (2009:350) notes that the “explicit or implicit threat of sitting the election out is credible, because the individuals issuing the threat must bear private costs to participate in the election. It is true that their abstention rate raises

the probability that the other (and dispreferred) party will win the election; but the change in the probability is negligible. Thus, on an individual basis it is rational to abstain and a threat to abstain is by no means empty.” Where mobilization considerations are paramount, parties should tend to direct resources toward their core supporters.

In the case at hand we might expect core voters to be especially prized as the mobilization of voters was quite important for the pro-government party, United Russia. [Blaydes \(2013\)](#), [Magaloni \(2006\)](#), [Reuter \(2010\)](#), [Reuter and Robertson \(2012\)](#), [Simpser \(2013\)](#) and others have noted the importance of voter mobilization in hybrid regimes, including Russia, where large margins of victory for the incumbent help to deter challengers from within the regime and to discourage popular mobilization against the regime. The Russian government’s extensive efforts to mobilize votes are well documented ([Frye, Reuter, Szakonyi \(2014\)](#), [Hale \(2006\)](#)).

A second set of recent models are more germane to our focus on economic crisis. Both [Diaz-Cayeros, Estevez, and Magaloni \(2012\)](#) and [Marques et al. \(2013\)](#) relax the assumption that partisan attachments are fixed and model voting behavior as a multi-period game with several elections. [Diaz-Cayeros, Estevez, and Magaloni \(2012\)](#) endogenize partisan attachments by arguing that incumbents who neglect core supporters today risk turning them into swing or opposition supporters tomorrow. As [Cox and McCubbins \(1986\)](#) point out, “it seems irrational in the long-run for any group to be totally unresponsive to redistributions of welfare” (382). Drawing on work on economic voting, which indicates that voters punish incumbents for poor economic performance (c.f. [Duch and Stevenson \(2006\)](#), [Erikson, MacKuen, and Stimson \(2002\)](#), [Treisman \(2011\)](#)), [Diaz-](#)

Cayeros, Estevez, and Magaloni (2012) argue that incumbents use transfers to core supporters to bolster the ideological affinity of their political base and guard against future defection. Doing so is an optimal strategy, as it insures that winning elections today is cheaper tomorrow.

Marques et al. (2013) take a different approach which directly incorporates the state of the economy into voters' utility function. Like Diaz-Cayeros, Estevez, and Magaloni (2012) they argue that voters' present ideological affinity is a function of past consumption. They argue, however, that it is also a function of the ability of their chosen party to deliver strong economic outcomes. When their chosen party presides over a declining economy, damaging their consumption, voters' affinity for that party begins to erode. In such circumstances, transfers are necessary to prevent supporters from defecting or becoming swing voters. When the economy is strong, however, "core" supporters require no transfers to maintain their loyalty, thus freeing up funds to make transfers to "swing" voters.

Existing literature has much less to say about how economic crises, per se, may influence the decision to allocate benefits to core or swing voters. Numerous studies have documented how incumbents are especially vulnerable to electoral defeat during periods of economic crisis, when negative consumption shocks shake voter loyalty and increase the attractiveness of opposition candidates (Bratton and van de Walle (1992), Lewis-Beck (1988, 2000), Remmer (1991)). In these periods, decisions about how and where monies are transferred can have considerable impact on the electoral fates of incumbents, regardless of the benefits that they may provide to the general economy. But less attention has been paid to whether politicians target resources differently during

an economic crisis. This is particularly puzzling, as empirical work on fiscal transfers has done little to resolve the tension between the core and swing voter models, with studies finding support for both models across a wide variety of developed and developing settings.¹ In part, these mixed results may stem from the ability of politicians to pursue multiple strategies simultaneously across different sub-national units when times are good. [Marques et al. \(2013\)](#), for example, find that both effects holds in Russia, where central authorities make allocations to sub-national regions expecting them to produce a given vote share. Transfers are awarded based on the interaction of economic growth outcomes with historical voting patterns, allowing both “core” and “swing” regions to gain transfers under some circumstances.

Although the primary focus of our paper is on trade-offs between economic and political criteria for allocating transfers, one of our contributions is to attempt to better identify the priorities of politicians with respect to politically based transfers. Studying how politicians react to crisis situations, where fiscal resources become tighter and the threat to power stronger should be a logical way to suss out the true priorities of politicians. In this paper, we take advantage of the 2008 financial crisis in order to do so.

¹Examples of studies finding support for the core voter hypothesis include [Ansolabehere and Snyder \(2006\)](#), [Brusco, Nazareno, and Stokes \(2004\)](#), [Calvo and Murillo \(2004\)](#), [Hiskey \(2003\)](#), [Jarocinska \(2010\)](#), [Larcinese, Leonzio, and Testa \(2006\)](#), [Popov \(2004\)](#), while [Dahlberg and Johansson \(2002\)](#), [Herron and Theodos \(2004\)](#), [Kwon \(2005\)](#), [Schady \(2000\)](#), [Stokes \(2005\)](#) find support for the swing voter hypothesis.

2.1 Economic Sources of Redistribution

A second broad line of argument suggests that governments take into account economic conditions when allocating resources during an economic crisis. Politicians may seek to distribute resources to dampen the economic effects of the crisis via increases in spending, but they also face trade-offs between alleviating economic pain and pursuing pre-crisis spending priorities. Such trade-offs are only made more stark by the revenue declines which typically accompany economic shocks. For governments with purely economic motives, classic Keynesian economics argues that governments faced with a sudden collapse in demand should resort to general across the board increases in spending in order to push the economy out of recession ([Keynes \(1936\)](#)). Indeed, in their study of more than 120 recessions between 1961 and 2007, [Claessens et al. \(2006\)](#) find that policy tends to be countercyclical during recessions as governments boost spending to stimulate demand.

How such spending is targeted has important implications for the macroeconomy. Empirical evidence on how to target funds is mixed, however, and has tended to focus primarily on the effectiveness of policy instruments, such as tax rebates or industrial subsidies, aimed at particular constituencies rather than at cross-regional differences (*c.f.* [Oh and Reis \(2012\)](#), [Parker et al. \(2011\)](#)).

National politicians face incentives to use features of the economic crisis as a cue when making policy choices. Economic crises typically create a “scissors” effect for sub-national governments, in which economic shocks put pressure on tax revenues at the same time that the social safety net becomes subject to high demands. Consequently, regional authorities often find themselves

needing to implement countercyclical policies at the precise time that they should be ramping up benefits (Blochliger et al. (2010)). Due to the greater policy tools and resources available, central officials are pressured to act in order to reduce social tensions, dampen political protest, and prevent catastrophic collapses in regional service provision (Bratton and van de Walle (1992), Davies (2011), Davies et al. (2010), Remmer (1991), Robertson (2010)). At the same time, targeting distressed regions may be helpful for purely economic reasons. To the extent that regions with the sharpest declines also tend to see the largest drops in living standards and consumption, targeting benefits to these regions may ensure that expenditures are quickly cycled back into the economy as consumption (Baldacci, de Melo, Inchauste (2002)). Both of these logics suggest that politicians will direct transfers to the regions hardest hit by the economic crisis.

An economic logic for geographical transfers therefore suggests that regions experiencing the largest economic declines receive greater transfers during a crisis. Because geography may overlap with other economic motives for transfers, we control for many other economic factors that may influence the distribution of resources in our empirical analyses.

3 Russian Background

3.1 Transfers and FAIP Funds

In Russia fiscal relations between the federal and regional tiers of government are strictly vertical: the federal government provides funds to regions and regions to municipalities. Regional and local

governments are responsible for the provision of vast public goods including health care and social programs, primary and secondary education, road infrastructure, utilities, and public transportation. At the same time, sub-national governments enjoy little fiscal autonomy. Federal law restricts variation in regional tax rates and regional governments depend on centrally-redistributed grants.² At the onset of the crisis, federal grants made up about 20 percent of consolidated regional and local budget revenue and this proportion was much higher in economically depressed regions.³

We examine two types of redistribution from the central government to the regions: social transfers that largely flow to the public and targeted investment funds (FAIP) that largely flow through regional governments. Social transfers are much larger in scale, directed more toward the populace and offer fewer opportunities for manipulation by regional political elites because they are more formulaic. In contrast, FAIP allow greater opportunities for elite rent-seeking, although both forms of spending can be used for political ends.

Social transfers include subsidies, subventions, and discretionary grants. Subsidies often take the form of ear-marked matching grants that are targeted to specific industries and enterprises (e.g., crop farming), so they may be excludable and prone to political bias. Subventions cover social benefits and the day-to-day operation of government agencies, and can be seen as a kind of non-excludable public good. Subventions are often fees received by regional governments for

²As of the end of 2008, regional tier of Russian government was composed of 83 regions, or, more officially, federal subjects, named in Russian *oblast'*, *kray*, *respublica*, *gorod*, *avtonomnaya oblast'* or *avtonomnyy okrug*. Local tier consisted of 507 incorporated cities (*gorodskoy okrug*), 236 boroughs of Moscow and Saint Petersburg, 1810 districts (*municipalnyy rayon*), the latter are turn subdivided into 21608 townships (*poseleniye*).

³Including budgets of public health insurance funds which are technically separated from regional budgets and cover primarily day-to-day operation costs of hospitals and clinics.

administering federal programs and are allocated based on unified need-based rules, so on paper they allow little wiggle room for regional elites. Discretionary grants include formula-based grants as well as extraordinary bailout grants and take different forms across regions. This program gives the federal government leeway to use these funds for political purposes.

The structure of intergovernmental grants received by the regional tier is shown in Table 1.

Table 1: Structure of Intergovernmental Grants

Year	Discretionary Grants	Subsidies	Subventions	Other Grants
2008	34%	39%	16%	10%
2009	39%	36%	19%	6%
2010	37%	30%	27%	5%

Source: Russian Federal Treasury, Authors' calculations.

In addition to social transfers, the federal government provides funds to regions through the Federal Targeted Investment Program (FAIP). These funds include matching grants to regional governments and direct spending by federal agencies in the regions. FAIP funds are spent primarily on investment in energy and transportation infrastructure, public buildings, health care and educational facilities, and housing for government employees. FAIP is also tightly connected to federal-level priorities like 2012 APEC Summit in Vladivostok, Primorsky Kray and 2014 Winter Olympics in Sochi, Krasnodarsky Kray. FAIP is a much smaller stream of funding than social transfers ⁴. Nevertheless, FAIP provide greater opportunities for rent-seeking, because the distribution of FAIP funds is much less subject to explicit rules. This discretion makes FAIP a potentially powerful tool for generating rents and securing loyalty from political elites.

⁴See Figure 1 in the "Supplementary Online Appendix".

The global economic crisis hit Russia especially hard. In 2009 GDP dropped by 7.8% a figure much higher than in other BRIC countries (-1.5% in South Africa, -0.3% in Brazil, +8.5% in India and +9.2% in China). Unemployment also increased from around 6% in 2007-08 to 8.2% in 2009. The government tempered unemployment with spending on public works and informal pressure on firms, while many firms masked unemployment by reducing working hours, cutting bonuses and placing employees on semi-voluntary unpaid leaves ([Gimpelson and Kapelyushnikov \(2011\)](#)).

The crisis had heterogeneous effects across regions. The drop in gross regional product (GRP) in 2009 was highest in Moscow (-12.8%) and in regions specializing in metallurgy and automobiles, while heavily subsidized and economically depressed agrarian regions were less hard hit (“Russia’s Regions”, 2011). In Russia as a whole, industrial production declined by 9.3% and in some regional economies dominated by pro-cyclical industries the drop was more than 10% (e.g. 27% in Samara Region home to the major automotive company “AVTOVAZ”).

During the crisis Russian public finances were volatile and pro-cyclical. The fall in oil prices severely hit the federal budget and eroded corporate profits which impoverished many regional governments. In 2009 federal budget revenues (without national wealth funds and government-owned social insurance funds) decreased by 27.3%; the revenues of regional and local governments (without regional health insurance funds) fell by 12.1%. As a part of a stimulus package, federal spending increased by 18.6% while regional and local budget expenses were cut by 8% (all in constant prices). To finance the federal deficit, the federal government tapped national wealth funds, but this was not an option for regional governments even though they shared responsibility for anti-

crisis measures and for maintaining social peace (see, e.g., Prime Minister Vladimir Putin speech in Pikalevo on 4 June 2009). Thus, the significance of federal bailouts for regional governments increased dramatically. The federal government provided 1.493 trillion rubles in fiscal grants to the regions in 2009 – a 32 per cent increase from 2008. For the most part, this additional money seemed to come in the form of discretionary grants. For example, the share of discretionary grants in total grants increased to 39 per cent in 2009 (see Table 1 above)⁵.

3.2 2007 Duma Elections

Having explored the depth of the crisis in Russia, we now turn to several other political variables of interest. We measure regional voters' loyalty to the ruling elite by the results of parliamentary elections in December 2007 – the last elections before the economic crisis. The voting system was party-list proportional representation with a single nationwide constituency and an electoral threshold of 7%. The elections resulted in a landslide for the pro-government political party: United Russia (UR) which received 64.3% of the popular vote and secured 315 of 450 seats in the Duma. The Communist Party of the Russian Federation (KPRF) was the runner-up and received only 11.6% of the vote. Two other parties entered the parliament with about 8% popular vote each. UR received an absolute majority of votes in all regions.

Support for UR was higher in rural areas as well as in regions with high levels of public sector

⁵A detailed overview of the Russian federal stimulus package for regional and local tiers of government can be seen in [Vartapetov \(2011\)](#). The federal government responded to the difficult situation of the regional governments by increasing discretionary grants and extraordinary ones especially, expanding labor market interventions, and relaxing requirements for regional participation in matching grants. Regional governments sought to stimulate demand by expanding programs to modernize public transportation, support small business, and build urban infrastructure.

employment. The share of pensioners in a region was negatively associated with the margin of victory for UR (inter alia due to a skew toward young voters in core supporter republics of the Caucasus). Gross regional product (GRP) per capita was not correlated with the UR margin of victory. Among UR “core” regions there are both economically depressed areas like the Caucasus and relatively prosperous regions like Tyumen, Tatarstan, and Bashkortostan.

Votes for the KPRF were highest in their traditional base in South-Western Russia (the former “Red Belt”) but also in Moscow and Saint Petersburg where votes for communists could be seen as a protest against UR. The KPRF’s best electoral result of 19.17% was in Tambov Region.

Like other observers, we recognize that these electoral results are very likely influenced by vote fraud. We also note that there is debate about the extent to which vote fraud at the regional level is coordinated (or not) with officials in Moscow ([Myagkov, Ordeshook, Shakin \(2007\)](#)). However, to the extent that officials in the Kremlin base their redistribution decisions on official vote totals, we should not be overly concerned that vote totals include fraud. For example, [Reuter and Robertson \(2012\)](#) find that official vote totals are correlated with the re-appointment rates of regional governors, which suggests that official vote totals hold some informational value for the Kremlin.

4 Data and Methodology

4.1 The ICSID Data on FAIP and Transfers

We use a unique database of the ICSID (HSE), which contains official statistics on federal targeted investment programs (FAIP)⁶ from 2006-2011 and federal transfers⁷ from 2000-2011. We use the price index in construction as a deflator for FAIP, and consumer price index as a deflator for transfers (2006 is the base year). We include 77 regions in the final sample: dropping the Chechen Republic, Ingush Republic, Yamalo-Nenets AO, Nenets AO; Khanty-Mansi AO (regions with gaps in statistical information and districts included into larger regions), and Chukotka AO (to eliminate an outlier in terms of per capita transfers and FAIP funds). Figures 1 and 2 describe the dynamics of total transfers and FAIP funds (on average) in constant 2006 prices (see Table 2 for descriptive statistics). We can see that regions received more transfers, on average, during the crisis in 2009.

To estimate the sources of redistribution we use a pooled OLS approach for a panel of 77 regions in 2008–2011, before analyzing data from 2000-2011. We cannot control for region-level fixed effects as we are interested in the impact of electoral outcomes of the 2007 Duma elections on the disbursement of federal funds, i.e. the United Russia vote margin, which is invariant for the period of interest (we discuss other time-invariant variables as well).

The empirical literature on political redistribution tends to rely on either surveys of voters that include measures of the receipt of benefits and vote choice at the individual level or on admin-

⁶Federal targeted investment programs, <http://faip.economy.gov.ru>

⁷Source: Federal Treasury, <http://www.roskazna.ru>

istrative data that includes measures of transfers to administrative units and voting results from administrative units. The latter strategy is quite common, but also relies on the assumption that parties are targeting core voters in core regions, which is difficult to assess without individual-level data. For a justification of using regional level data to study the political allocations of resources see [Dahlberg and Johansson \(2002\)](#).

4.2 Modeling Strategy

We consider the disbursement of federal funds, with total transfers and FAIP funds being two important sources of regional budgets' revenue. We use the following baseline model:

$$y_{it} = c + \rho y_{it-1} + \theta D_t + \alpha z_i + \gamma z_i D_t + \delta p_{it} + \phi p_{it} D_t + x'_{it} \beta + \varepsilon_{it}, \quad (1)$$

where y_{it} is logged per capita transfers of a region i in time t (or logged FAIP funds per capita). There is a substantial degree of inertia (planning from the previous level), therefore, we use the autoregressive model of order one, controlling for y_{it-1} . D_t (1×3) denotes fixed time effects. ε_{it} are idiosyncratic error terms, possibly serially correlated and heteroskedastic.

z_i is an electoral outcome variable: it equals the United Russia vote margin of victory in 2007 Parliamentary elections (the United Russia vote share minus the runner-up vote share). Since the main variable of interest is electoral results in 2007, we can identify a relationship between the vote margin in 2007 and transfers in subsequent periods. Concerns about possible endogeneity – caused

by omitted variable bias and/or reverse causality between y_{it} and controls x_{it} – are discussed in the next section.

p_{it} measures the magnitude of the economic shock faced by each region, which is captured with the index of industrial production (logged, therefore, it is basically a growth rate of the volume of industrial production). We have chosen the industrial production index since it is more sensitive to economic fluctuations in the short-run, unlike unemployment rates or GDP growth rates. In practice, the index of industrial production was a useful benchmark for government officials because these figures were made available more quickly than growth rates or unemployment rates.

In this paper, our main variables of interest are the interaction terms $\gamma z_i D_t$ and $\phi p_{it} D_t$, which interact our measure of vote margins with our political and economic variables respectively. Recall that the main goal of the paper is to identify changes in the economic or political logic of transfers due to economic crisis. We can detect shifts in strategy if we see that the patterns of significance for the pre- and post-crisis period interactions are different. Intuitively, if the interactions are statistically significant before, but not after, the crisis then a previous strategy was abandoned, whereas the opposite pattern would indicate a new strategy was adopted. It is also important to compare the signs on the co-efficient. Opposite signs before and after the crisis indicate shifts in targeting strategy, while similar sign indicate that strategies were intensified.

x'_{it} include socio-economic control variables. We include in all model specifications a change in tax income per capita (logged) to proxy for a region's capacity to accumulate funds other than

from the federal center, thus possibly being targeted less during the crisis. The more tax income a region can secure, the less the federal center needs to support it. We also control for the ratio of youth per 1,000 population (logged). In the online appendix we add model specifications with additional control variables. We display descriptive statistics for all the main variables of interest and control variables in Table 2.⁸

In our baseline specification we cannot control for unobserved region-specific heterogeneity (region-level fixed effects⁹, as we are interested in the effect of the last 2007 Duma elections, and z_i in this case does not change in time during the period of interest 2008–2011. There are some techniques for tackling the issue of fixed effects in the presence of time-invariant covariates, including the fixed effect vector decomposition approach (e.g., see FEVD in [Plumper and Troeger \(2007\)](#)). However, the FEVD approach, is not without critics (see [Greene \(2011\)](#)), and does not allow us to disentangle the main effect from its interaction terms with the time effects for 2009 and 2010. Therefore, in this version of the paper we use the OLS estimator, but we cluster-correct standard errors for possible serial correlation and heteroskedasticity using the clustered by regions jackknife approach, which produces data-driven standard errors and allows us to control for influential observations ([Tukey \(1958\)](#)). As a robustness check to deal with omitted variable bias (potentially caused by not controlling directly for region-specific individual effects), we run a group fixed effects estimator suggested in [Bonhomme and Manresa \(2012\)](#), which is generated endogenously

⁸We present the distribution of the UR vote margin, along with the vote shares for United Russia and the KPRF in the 2007 elections in Figure 2 of the "[Supplementary Online Appendix](#)".

⁹We believe that the assumptions of the random effects linear models that individual effects are not correlated with the time-varying covariates does not hold in our case, and thus may lead to further specification errors.

from time-invariant clusters of observations for regions.

5 Results and Discussion

Our main estimation results for Equation 1 are presented in Table 3 (columns 1–3) for the period 2008–2011. Recall that the dependent variable for this equation is total transfers per capita (logged) and the main independent variable is United Russia’s Duma vote margin in 2007. First, note that transfers per capita is a highly persistent process, with the coefficient for the lagged dependent variable around 0.8–0.9. Since we deal with the short four-year period, the problem of nonstationarity is less severe in our case. However, to eliminate possible problems related to nonstationarity and endogeneity we also estimate Equation 1 with the first difference in transfers per capita (logged) on the left-hand side, and our main results are the same (see columns 4–6 in Table 3).

We can see that in the baseline specification Model 3.1 the effect of UR vote margin is insignificant across the time period of 2008–2011. More importantly for our purposes in Model 3.2, we begin to examine whether the relationship of UR vote margin is conditional on the crisis years by introducing interaction terms for each year in the period 2008–2011, and pay special attention to the “crisis years” of 2009 and 2010. We obtain results generally consistent with “core” voter models. Although, the margin of victory variable and its interaction with the crisis dummy for 2009 is statistically insignificant ($p - value = 5\%$), the coefficient on the interaction of UR Vote Margin and dummy for 2010 is positive and significant. In Model 3.3, we include additional controls by also interacting the fall of industrial production with dummy variables for each year and improve the

precision of estimates. In this specification, the interaction term UR vote margin and for the years 2009 and 2010 are both positive and statistically significant. That the results are somewhat stronger and more precisely estimated for the year 2010 compared to 2009 may be due to the timing of the financial crisis, which hit Russia late in 2008 and accelerated in 2009. Given some necessary lag in disbursing transfers, it may have taken some time for the government to respond to the economic shock.

In Models 3.4–6, we use first differences of total transfers in an attempt to reduce concerns about endogeneity and find very similar results. The vote margin for United Russia in 2007 is not correlated with annual changes in transfers across regions over the entire time period of 2008–2011 as indicated in Model 4. More important for our purposes, we find that the UR vote margin is related to annual changes in transfers during the crisis year of 2010 as indicated in Models 3.5–6. Moreover, coefficients on interaction terms for both crisis years and UR Vote margin become statistically significant in Model 6. This suggests that the impact of the core voter logic was especially pronounced during the economic crisis.

The results indicate that political considerations may have mattered more during the crisis year 2010 than in other years. To investigate whether the effect is also significant in 2009, we calculate simulated predicted values for an average region with median levels of industrial production growth (along with 95% confidence intervals) using the Clarify 2.0 software (by Tomz et al. (2003)) from Model 3.2. Figures 3–6 (Appendix B) suggest that the core-region effect exists during the crisis in 2009 for values of UR Vote Margin less than .6 (mean = .52, standard error = .13).

Moreover, this effect is more precisely estimated in 2010. In sum, regions in which United Russia won the 2007 elections with higher margin see more per capita transfers during the crisis.

As we discussed in the theory section, apart from political motives economic considerations may also be driving the distribution of federal funds during the crisis. We can also see from Model 3.1 and Model 3.4 in Table 3 that the direct effect of growth in industrial production is significant and negative, and consistent for the whole period 2008–2011. This implies that the federal center supported the hardest hit regions throughout the crisis. However, we also find in subsequent analyses in Table 3 that there is no significant difference in the impact of the fall in industrial production in crisis and non-crisis years as the coefficients on interaction terms involving industrial production during the crisis years of 2009 and 2010 are not significant. Thus, on average across 2008–2011, regions with greater declines in industrial production received more transfers, but there was little difference in the impact of industrial decline on transfers in crisis and non-crisis years.

5.1 Elites and Masses

Like many studies we have examined how political imperatives shape social transfers to the mass public. However, total transfers are not the only source of funds regions receive from the federal government and political imperatives may shape other forms of redistribution as well. We use another important source of federal money, the FAIP funds, to test whether the same logic applies to funds that are directed more toward regional political elites.

This analysis provides nuance to the debate on the politics of redistribution. FAIP funds flow through the regional government and are more discretionary than social transfers. Simplifying considerably, they can be seen as benefiting regional elites who have considerable discretion in how these funds are used. Thus, the analysis sheds light on whether the same factors influence redistribution to the mass public and to regional elites. FAIP are more particularistic than social transfers in that they can be targeted at specific regional elites. They are also more excludable as regional governments can use these funds to benefit specific groups and not others.

We estimate models similar to those used in Table 3, but use FAIP funds rather than social transfers as the dependent variable. The results (see Table 4) are largely consistent with our analysis of social transfers. In Models 4.1 and 4.4, we find that that vote margin for United Russia is not correlated with the distribution of FAIP funds across the entire period of 2008–2011. As above, there is no direct effect of vote margin on transfers during the crisis.

However, in Models 4.2 and 4.3 where we are interested in the conditional effects of UR vote margin on FAIP levels, we observe higher transfers of the FAIP funds in 2010 to those regions which produced better electoral results for United Russia in 2007, i.e. the core voter effect exists. Similarly, in Models 4.5 and 4.6, where we use the first difference of annual transfers of FAIP funds, we find that the change in the the distribution of FAIP funds also followed a core voter logic in 2010. Simulated predicted values from Figures 7–10 (Appendix B) confirm these findings. Most generally, these results suggests that politicians followed a roughly similar logic in allocating social transfers and FAIP during the economic crisis.

5.2 Inference Problems & Robustness Checks

We face at least two inference challenges with our modeling framework. First, endogeneity caused by possible omitted variables that are correlated with both voting shares and transfers may influence the results. No observational study can fully address these concerns but we take some steps in this direction. We use the year on year change in transfers rather than the annual level of transfers in our analyses and find little change in the results (Table 3). The annual change in transfers is less likely to suffer from omitted variables that drive both past election results and transfers. In addition, to the extent that potentially endogenous factors linking voting results and policy outcomes are present in both crisis and non-crisis years, we can estimate the difference between transfers in crisis and non-crisis years without bias. Second, our results may be influenced by omitted region-specific individual effects. To insure the robustness of our results we ran the group fixed effects estimator suggested in [Bonhomme and Manresa \(2012\)](#), which allows to cluster regions based on common time trajectories during the period 2008–2011 and deal with grouped fixed effects instead of region-level ones. The estimation results can be found in Section 4 of the ["Supplementary Online Appendix"](#) (Table 14). Controlling for group fixed effects suggest that our main findings remain robust.

We run several additional robustness checks to confirm our results. First of all, we have tried a range of different control variables, e.g., gross regional product (GRP) growth rates (as well as GRP levels) and growth in tax rates, when estimating Equation 1. The main problem is collinearity between growth in tax income per capita and GRP rates and other variables of interest. Therefore,

we excluded GRP from the final specifications. We also controlled for the share of employees in industry and the share of employees in the public sector (see Table 11 in the ["Supplementary Online Appendix"](#)). Additionally, we also checked specifications which measured the economic shock using the unemployment level, the share of people living in poverty, and the income inequality Gini indicator (Table 12 and Table 13, ["Supplementary Online Appendix"](#)). The index of industrial production seems to better capture the immediate reaction of regional economies to the crisis, whereas the more long run measures, such as poverty and inequality tend to lag behind the real state of the economy. The results remain largely unchanged regardless of the inclusion of these covariates. As an additional robustness check we controlled for the share of population in a region which lives in cities dominated by single companies, (that is monogorods), using this variable as a proxy for a collective action potential, as regions with a higher monogorod population may be specifically targeted by the federal center.

We also try excluding regions which are considered outliers in most regional studies, i.e. Moscow city and St. Petersburg city, as well as Primorie and Krasnodar regions (these regions received higher FAIP funds due to the APEC summit in 2012 and the Sochi Olympics in 2014). Our results remain robust (see Tables 8–10 the ["Supplementary Online Appendix"](#)).

We check the robustness of the core-region effect using the Communist Party vote share instead of the UR vote margin in Equation 1 (Table 7, ["Supplementary Online Appendix"](#)). We obtain a negative and marginally significant ($p - value = 10.5\%$) coefficient on the interaction term for the year 2010 and the share of the Communist Party vote, indicating that regions which showed better

results for the United Russia main challenger were “punished” in terms of transfers. See the tables with the results and the simulated predicted values graphs in Section 4 of the online appendix.

We additionally control for the presence of a large business group in the region, which may have attracted funds both due to lobbying and to government concerns about their higher vulnerability during the crisis. Because the most powerful regional economic elites on the national stage tend to be members of large holding companies doing business in Russia’s regions, it could be that FAIP is related to lobbying by these groups for regional funds. To take this factor into account we use data on the presence of business interests in Russian regions from [Zubarevich \(2005\)](#)¹⁰. In general, we find that the presence of a unified business group is not significantly associated with transfers in 2008–2011.

Because 2010 is both a crisis year and a year preceding a national election, it makes sense to analyze whether the increases in transfers to politically loyal regions in 2010 are part of a larger political business cycle. First, we re-estimate the main specification using a longer panel for periods 2000–2008 and 2000–2011 (see Table 3 in the [”Supplementary Online Appendix”](#)).¹² Our results confirm the main finding of Author (2013) that federal funds in the 2000’s were concentrated on regions with higher UR vote margin in the 1999, 2003, and 2007 elections. That is, politically loyal

¹⁰This data was updated by Natalia Zubarevich for ICSID for 2011. In our analysis we focus on regions with dominant business interest, which is indicated by the presence of one large holding company.¹¹ For other regions Zubarevich reported that there were competing holding companies or a lack of business with national reach. In the former case, dueling business groups are likely unable to put pressure on the federal government, since their power over regional politics and machines is likely diluted by conflict. In the later case, businesses without national reach are unlikely to have the resources necessary to pressure the center.

¹²For the longer period we have sufficient variation in the lagged United Russia vote margin variable to introduce fixed effects. In addition, we interact the vote margin variable with dummy variables for pre-election years, election years, and post-election years to assess the potential effects of the political business cycle.

regions received greater increases in transfers on average across the entire period of 2000–2011. This results suggests support for core vote models. However, we also see no consistent political business cycles as the coefficients on interaction terms capturing the effects of pre-election, election, and post-election years and UR vote margin are imprecisely estimated.¹³ In sum, we do not find strong general support in favor of the political business cycle mechanism driving the core voter effect in 2010, which suggests that the crisis mechanism, rather than pre-election considerations, is primarily driving our results. These results differ from [Magaloni \(2006\)](#) and [Blaydes \(2013\)](#) who find electoral business cycles in Mexico and Egypt, respectively, using longer time periods.

We should bear in mind that the results come from a single crisis in a single country and generalizing to other settings without taking into account the specific conditions of the crisis or the local political system is unwarranted. Note also that our analyses focus on pork barrel spending to regional elites and mass publics rather than on pre-election gifts to individuals, which may or may not follow this logic.

6 Conclusion

In conclusion, many scholars have examined whether politicians favor core or swing supporters in periods of “normal” politics and these studies have produced rather mixed results. To help

¹³In Table 4 of the [“Supplementary Online Appendix”](#), we also re-estimate our models, introducing separate dummy variables for every pre-election, election, and post-election year, to discern whether the effect in the pre-election year 2010 was more pronounced than similar effects in the pre-election years of 2002 and 2006, which would confirm the argument that the magnitude of the political business cycle effect is amplified by the crisis. We obtain a positive and significant coefficient for the interaction term between the UR vote margin and the year dummy for 2010, which suggests that this year is different from the other pre-election years.

advance this debate, we examine these competing theories in a specific setting: the economic crisis of 2008–11. More specifically, we explore how the economic crisis shaped the incentives of politicians to favor core or swing supporters across Russia’s more than 80 regions. This is a good setting to test these theories as an economic crisis forces the government to make tradeoffs across priorities. Moreover, these results may be informative for other settings as economic crisis is an all too common occurrence in lower and middle-income countries.

We find that past electoral results provide a clue to how the federal government allocated transfers during the economic crisis. Regions that voted more strongly for United Russia received greater transfers during the crisis, while regions that voted more strongly for the main opposition party, the Communist Party of the Russian Federation, received fewer transfers during the crisis. These results indicate that the central government not only rewarded politically loyal regions, but also punished politically disloyal regions. The economic crisis appears to have heightened incentives to use transfers for political purposes.

We also find that politicians allocated resources in Russia according to an economic logic because declines in industrial production were associated with greater redistribution. However, this relationship is not conditional on economic crisis. More research may determine whether these transfers were motivated by a belief that transfers would produce greater economic stimulus or would reduce the likelihood of political protest.

More generally, our results support core voter models of economic redistribution rather than swing voter models. They also suggest that the core voter model was especially potent during

the economic crisis. This result is informative in that economic crises often force governments to choose which constituencies to support and transfers given during a crisis may be an especially informative signal of political loyalty to one's core constituents.

In addition, they indicate that electoral results shape policy outcomes even in a setting in which elections are dominated by a single party and are conducted with many shortcomings. While we do not find evidence of a political business cycle under competitive autocracy as do some other studies, we do find that transfers to the masses and to regional political elites were influenced by electoral results during the financial crisis. Moreover, our research finds that economic crisis reinforced patterns of state privilege rather than undermining them. Many scholars have noted that economic crises offer an opportunity to restructure political coalitions, but here we find that politicians in the central government redoubled efforts to keep their existing coalition intact ([Drazen and Grilli \(1993\)](#)).

Finally, our results indicate that the federal government targeted transfers to the mass public and investment funds to regional elites using a similar logic. This is important because scholars studying redistribution often focus on a single policy instrument which raises the possibility that the effects of the policy understudy are offset by policies in other areas. We find that this is not the case, at least in relation to social transfers and FAIP, as both types of redistribution follow a similar pattern. By analyzing two different sources of redistribution, we can be more confident in our results. In addition, we can more precisely identify the targets of different types of politically motivated redistribution.

References

- Ansolabehere, S. and Snyder, Jr., J.M. (2006). Party Control of State Government and the Distribution of Public Expenditures. *Scandinavian Journal of Economics*, 108(4): 547-569.
- Baldacci, E., L. de Melo, and G. Inchauste (2002). Financial Crisis, Poverty, and Income Distribution. *IMF Working Paper 02/4*. Washington, D.C.
- Baum, C.F., Nichols, A., and M.E. Schaffer (2010). Evaluating one-way and two-way cluster-robust covariance matrix estimates. 16th UK Stata Users Group Meeting, September 2010. <http://www.stata.com/meeting/uk10/UKSUG10.Baum.pdf>
- Biswas, r., Marjit, S., and V. Marimoutou (2010). Fiscal Federalism, State Lobbying and Discretionary Finance: Evidence from India. *Economics and Politics*, 22:1.
- Blochliker, H. et al. (2010). Sub-central Governments and the Economic Crisis: Impact and Policy Responses. *OECD Economics Department Working Papers No. 752*, OECD Publishing. Available at: <http://dx.doi.org/10.1787/5kml6xq5bgwc-en>.
- Blaydes, L. Elections and Distributive Politics in Mubarak's Egypt, 2011. Cambridge University Press, 2013.
- Bonhomme, S., and E. Manresa (2012). Grouped Patterns of Heterogeneity in Panel Data. <http://sites.harvard.edu/fs/docs/icb.topic1078592.files/bonhomme2012.pdf>
- Bratton, M. and N. van de Walle (1992). Protest and Political Reform in Africa. *Comparative Politics*. 24:4, 419-442.
- Brollo, F. and T. Nannicini (2013). Tying Your Enemy's Hands in Close Races: The Politics of Federal Transfers in Brazil. *American Political Science Review* 106:4.
- Brusco, V., Nazareno, M., Stokes, S. (2004). Vote Buying in Argentina. *Latin American Research Review*, 39(2):66 - 88.
- Calvo, E., and Murillo, M.V. (2004) Who Delivers? Partisan Clients in the Argentine Electoral Market. *American Journal of Political Science*, 48(4), 742-757.
- Claessens, S., M.A. Kose, and M. E. Terrones. (2006). When Crises Collide. *Finance and Development*, 45:4.
- Cox, G.W.(2010). Swing voters, core voters, and distributive politics. in I. Shapiro, S. C. Stokes, E. J. Wood, & A. S. Kirshner (Eds.), *Political representation* (pp.342-357). Cambridge, England: Cambridge University Press.
- Cox, G., and McCubbins, M. (1986). Electoral Politics in a Redistributive Game. *Journal of Politics*, 48, 370-89.

- Davies, S. (2011). Regional resilience in the 2008-2010 downturn: comparative evidence from European countries. *Cambridge Journal of Regions, Economy and Society*, 4, 369-382.
- Davies, S., S. Kah, and C. Woods (2011). Regional Dimensions of the Financial and Economic Crisis. *European Policy Research Paper 70*.
- de Janvry, A., E. Sadoulet, P. Solomon, and R. Vakis (2006). Uninsured Risk and Asset Protection: Can Conditional Cash Transfer Programs Serve as Safety Nets. *Social Policy Discussion Paper 0604*. Washington, D.C. The World Bank.
- Dahlberg, M. and Johansson, E. (2002) On the Vote-Purchasing Behavior of Incumbent Governments. *The American Political Science Review*, 96(1), 27–40.
- Denisova, I., Eller, M., Frye, T., and E. Zhuravskaya (2009) Who Wants to Revise Privatization? The Complementarity of Market Skills and Institutions. *American Political Science Review*, 103(2), 284–304.
- Diaz-Cayeros, A., F. Estevez, and Magaloni, B. (2012) From Clientalism to Entitlements: The Politics of Social Transfers in Mexico, 1989–2006. Mimeo. Available at: www.stanford.edu/~albertod/buyingvotes/buyingvotes.html
- Dixit, A., and Londregan, J. (1996) The Determinants of Success of Special Interests in Redistributive Politics. *Journal of Politics*, 58, 1132–55.
- Drazen, A., and V. Grilli (1993) The Benefit of Crises for Economic Reforms. *The American Economic Review*, 83(3), 598–607.
- Ducanes, G., Cagas, M.-A., Qin, D., Quising, P., Razzaque, M.-A. (2006) Macroeconomic Effects of Fiscal Policies: Empirical Evidence from Bangladesh, China, Indonesia and Philippines. *Working Paper No. 654*, Department of Economics, Queen Mary University of London.
- Duch, R. and Stevenson, R. (2006) Assessing the Magnitude of the Economic Vote over time and Across Nations. *Electoral Studies*, 25, 528–47.
- Erikson, R.S., MacKuen, M.B., and Stimson, J.A. (2002). *The Macro Polity*. New York: Cambridge University Press.
- Eichengreen, B., and J. von Hagen (1996) Federalism, Fiscal Restraints, and European Monetary Union. *American Economic Review* 86(2): 134-38.
- Fardoust S., Ravishankar, V.J. (2013). Subnational Fiscal Policy in Large Developing Countries: Some Lessons from the 2008-09 Crisis for Brazil, China and India. *Policy Research Working Paper 6409*, The World Bank. Fardoust, S., Lin, J.Y., Luo X. (2012) Demystifying China's fiscal stimulus. Policy Research Working Paper 6221, The World Bank.

- Frye, T., Reuter, O.J., Buckley, N. (2012) The Political Economy of Russian Gubernatorial Election and Appointment. *HSE Working Paper WP BRP 01/PS/2011*. Moscow: 2012.
- Frye, T., Reuter, O.J., and D. Szakonyi (2014) Political Machines at Work: Electoral Subversion and Workplace Mobilization. *World Politics*, 66(2), 195–228.
- Gimpelson, V., Kapelyushnikov, R. (2011) Labor Market Adjustment: Is Russia Different? Working paper WP3/2011/04. Moscow: HSE, 2011. 44p.
- Golden, M. and L. Picci (2008). Pork-barrel politics in postwar Italy, 1953 – 94. *American Journal of Political Science* 52:2.
- Gourevitch, P. (1986) Politics in Hard Times: Comparative Responses to International Economic Crises. Ithaca, New York: Cornell University Press.
- Cox, G. Swing voters, core voters and distributive politics. In *Political Representation*, ed. I. Shapiro, S. Stokes, E. Wood, and A.S. Kirshner. Cambridge University Press, 2009.
- Greene, W. (2011) Fixed Effects Vector Decomposition: A Magical Solution to the Problem of Time Invariant Variables in Fixed Effects Models? *Political Analysis*. 19(2), 135–146.
- Gurvich, E., Lebedinskaya, E., Simachev, Yu., Yakovlev, A. (2010) Russia Country Report. In: Bertelsmann Stiftung (ed.), *Managing the Crisis. A Comparative Assessment of Economic Governance in 14 Economies*. Gutersloh: Bertelsmann Stiftung, 2010.
- Haggard, S. and R.R. Kaufman. *The Political Economy of Democratic Transitions*. Princeton: Princeton University Press, 1995.
- Hale, H. E. *Why Not Parties in Russia? Democracy, Federalism and the State*. New York: Cambridge University Press, 2006.
- Herron and Theodos (2004) Government Redistribution in the Shadow of Legislative Elections: A Study of the Illinois Member Initiative Grants Program. *Legislative Studies Quarterly*, 29(2), 287–311.
- Hiskey, J. T. (2003) Demand-Based Development and Local Electoral Environments in Mexico. *Comparative Politics*, 36(1), 41–59.
- J.M. Keynes (1936). *The General Theory of Employment, Interest, and Money*.
- Jarocinska, E. (2010) Intergovernmental Grants in Russia: Vote-buying or Bargaining Power of Regions. *Economics of Transition*, 18(2), 405–427.
- Khemani, S. (2013). *Buying Votes Vs. Supplying Public Services: Political Incentives to Underinvest in Pro-poor Policies*. *Policy Research Working paper 6339*. Washington, DC, United States, World Bank.

- Tomz, M., Wittenberg, J., and G. King (2003) Clarify: Software for Interpreting and Presenting Statistical Results, <http://www.stanford.edu/tomz/software/clarify.pdf>.
- Krugman, P. (2012). End This Depression Now! New York: Norton Press.
- Kwon, H.Y. (2005). Targeting Public Spending in New Democracies: Evidence from South Korea. *British Journal of Politics*, 35: 321-341.
- Larcinese, V. Leonzio, R., Testa, C. (2006). Allocating the U.S. Federal Budget to the States: The Impact of the President. *Journal of Politics*, 68(2): 447-456.
- Lewis-Beck, M. (1988) Economics and Elections: The Major Western Democracies. Ann Arbor: University of Michigan Press.
- Lewis-beck, M., and Stegmaier, M. (2000) Economic Determinants of Electoral Outcomes. *Annual Review of Political Science*, 3, 183–219.
- Lindbeck, A., and J. Weibull, J. (1987) Balanced budget redistribution and the outcome of political competition. *Public Choice*, 52, 273–297.
- Magaloni, B. (2006) Voting for Autocracy: Hegemonic Party Survival and its Demis in Mexico. New York: Cambridge University Press.
- Marques, I., Nazrullaeva, E., and A. Yakovlev (2016). Substituting Distribution for Growth: The Political Logic of Intergovernmental Transfers in the Russian Federation. *Economics and Politics* Forthcoming.
- Myagkov, M., Ordeshook, P., and D. Shakin (2007) The Disappearance of Fraud: The Forensics of Ukraine’s 2006 Parliamentary Elections. *Post-Soviet Affairs*, 23(3), 218–239.
- Nelson, J.M. Economic Crisis and Policy Choice: The Politics of Adjustment in Less Developed Countries. Princeton University Press, 1990.
- Nichter, S. (2008) Vote Buying or Turnout Buying? Machine politics and the Secret Ballot. *American Political Science Review*, 102(1), 19–31.
- Oh, H. and R. Reis (2012). Targeted transfers and the fiscal response to the great recession. *Journal of Monetary Economics*, 59, S50-S64.
- Parker, J.A., Souleles, N.S., Johnson, D.S., and R. McClelland (2011). Consumer spending and the economic stimulus payments of 2008. *NBER Working Paper* 16684.
- Plumper, T., and V. Troeger (2007) Efficient Estimation of Time-Invariant and Rarely Changing Variables in Finite Sample Panel Analyses with Unit Fixed Effects. *Political Analysis*. 15(2), 124–139.

- Popov, V. (2004) Fiscal Federalism in Russia: Rules Versus Electoral Politics. *Comparative Economic Studies*, 44(4), 515–541.
- Reinhart, C., and K. Rogoff (2011) *This Time is Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press.
- Remmer, K. (1991). The Political Impact of Economic Crisis in Latin America in the 1980's. *American Political Science Review*, 85, 777-800.
- Reuter, O. J. (2010) The Politics of Dominant Party Formation: United Russia and Russia's Governors. *Europe-Asia Studies*, 62(2), 293–327.
- Reuter, O.J., and Gandhi, J. (2011) Economic Performance and Elite Defection from Hegemonic Parties. *British Journal of Political Science*, 41(1), 83–110.
- Reuter, O. J. and G. Robertson (2012) Sub-national Appointments in Authoritarian Regimes: Evidence from Russian Gubernatorial Appointments. *Journal of Politics*, 74(4), 1023–1037.
- Robertson, G. (2010) *The Politics of Protest in Hybrid Regimes: Managing Dissent in Post-Communist Russia*. New York: Cambridge University Press.
- J. Rodden (2006). *Hamilton's Paradox: The Promise and Peril of Fiscal Federalism*. Cambridge: Cambridge University Press.
- Schady, N.R. (2000) The Political Economy of Expenditures by the Peruvian Social Fund (FONCODES), 1991–1995. *American Political Science Review*, 94(2), 289–304.
- Shleifer, A., Vishny, R. (1993) Corruption. *The Quarterly Journal of Economics*, 108(3), 599-617
- Simpser, Alberto. *Why Governments and Parties Manipulate Elections: Theory, Practice and Implications*. New York: Cambridge University Press, 2013.
- Spilimbergo, A., Symansky, S., Blanchard O., and C. Cottarelli (2008). *Fiscal Policy for the Crisis. IMF Staff Position Note SPN/08/01*. Washington, D.C. International Monetary Fund.
- Stokes, S.C. (2005) Perverse Accountability: A Formal Model of Machine Politics with Evidence from Argentina. *American Political Science Review*, 99, 315–325.
- Stokes, S.C., Dunning, T., Nazareno, M. and V. Brusco. *Brokers, Voters, and Clientelism: The Puzzle of Distributive Politics*. New York: Cambridge University Press, 2013.
- Treisman, D. (1998) Fiscal Redistribution in a Fragile Federation: Moscow and the Regions in 1994. *British Journal of Political Science*, 28, 185–222.
- Treisman, D. (1996) The Politics of Intergovernmental Transfers in Post-Soviet Russia. *British Journal of Political Science*, 26, 299–335.

- Treisman, D. (2011) Presidential Popularity in a Hybrid Regime: Russia Under Yeltsin and Putin. *American Journal of Political Science*, 55(3), 590–609.
- Tukey, J. W. (1958) Bias and Confidence in Not-Quite Large Samples (Abstract). *Annals of Mathematical Statistics*, 2(9), 614.
- Wildasin, D.E. (1997) Externalities and Bailouts: Hard and Soft Budget Constraints in Intergovernmental Fiscal Relations. *Working Paper 1843*. Washington, DC, United States: World Bank.
- World Bank (2004). *Poverty in Mexico: An Assessment of Conditions, Trends, and Government Strategy*. Mexico City. World Bank.
- World Bank (2011). *Social Expenditure and Fiscal Federalism in Russia*. World Bank. Report No 54392-RU.
- Vaishnav and Sircar (2011) Core or Swing? The Role of Electoral Context in Shaping Pork Barrel. Working Paper.
- Vartaptetov, K. (2011) Russian Fiscal Federalism under Stress: Federal Support of Regions during the Global Financial Crisis. *Eurasian Geography and Economics*, 4, 529–542.
- Zubarevich Natalia (2005). *Krypnyi biznes v regionakh Rossii: territorialnye strategii razvitiya I socialnye interesy*. Moscow: NISP.

A Data Description: Graphs

Figure 1: Total Transfers, 1,000 Rub Per Capita, On Average (With 95% CI)

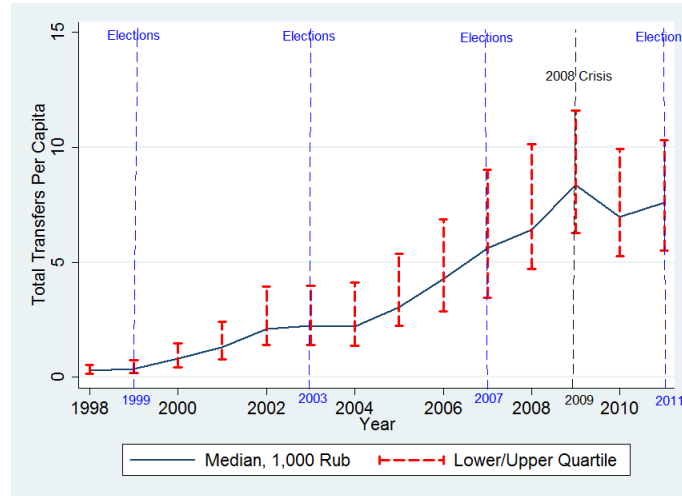
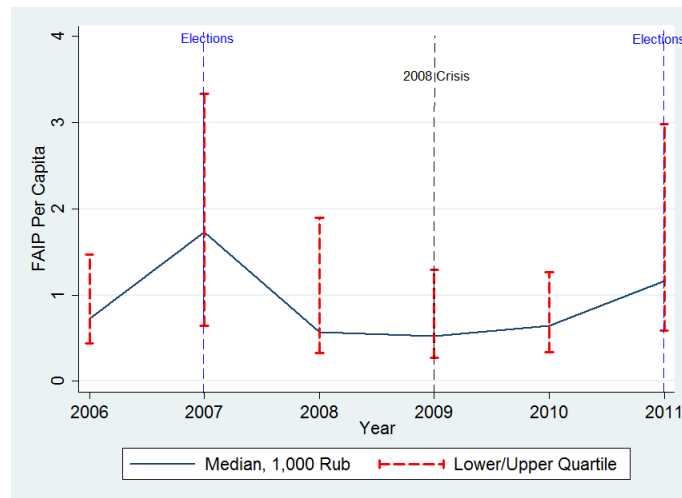


Figure 2: FAIP Total, 1,000 Rub Per Capita, On Average (With 95% CI)



B Simulated Effects of Electoral Outcomes

B.1 Total Transfers

Simulated effects are given for Model 3, Table 3.

Figure 3: Effect on Total Transfers, 2008

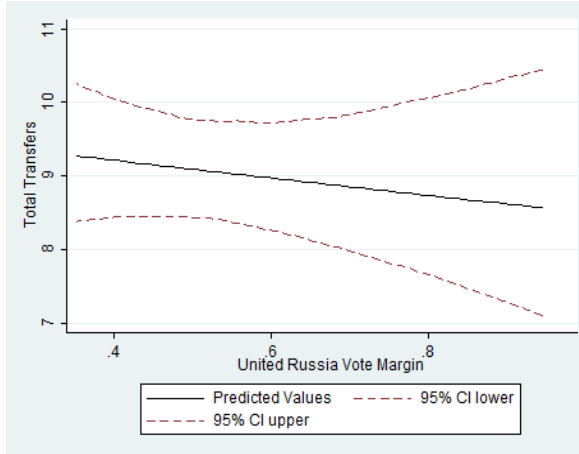


Figure 5: Effect on Total Transfers, 2009

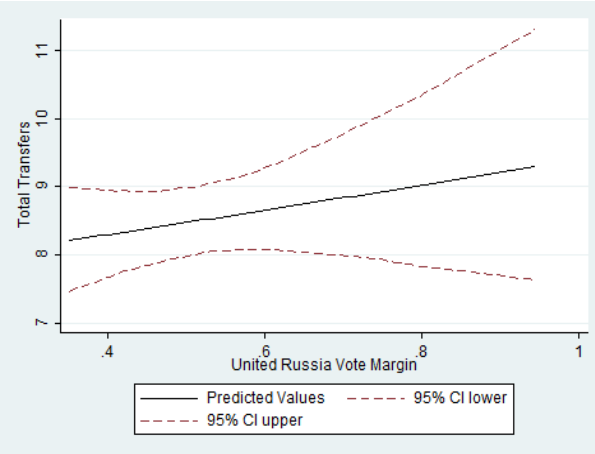


Figure 4: Effect on Total Transfers, 2010

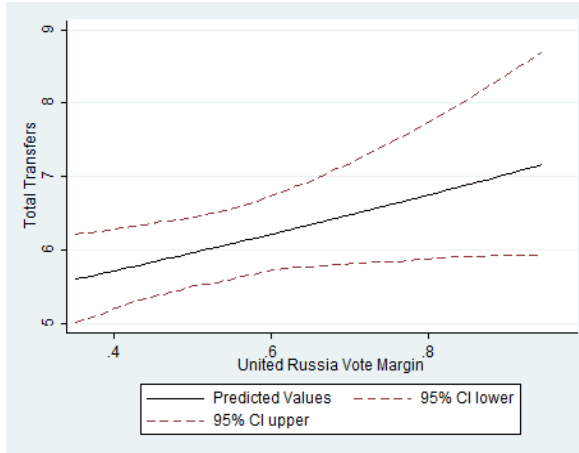
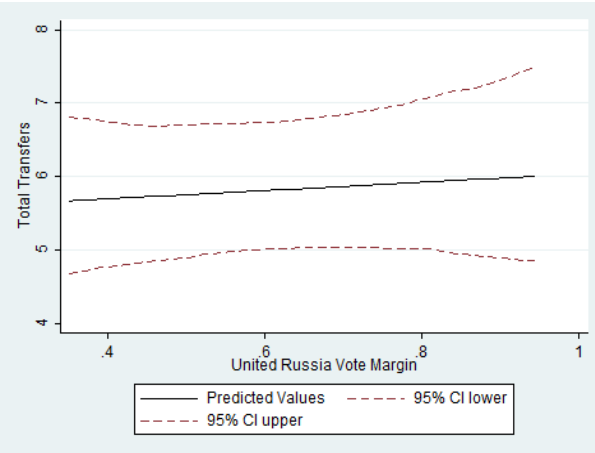


Figure 6: Effect on Total Transfers, 2011



B.2 FAIP Funds

Simulated effects are given for Model 3, Table 4.

Figure 7: Effect on FAIP Funds, 2008

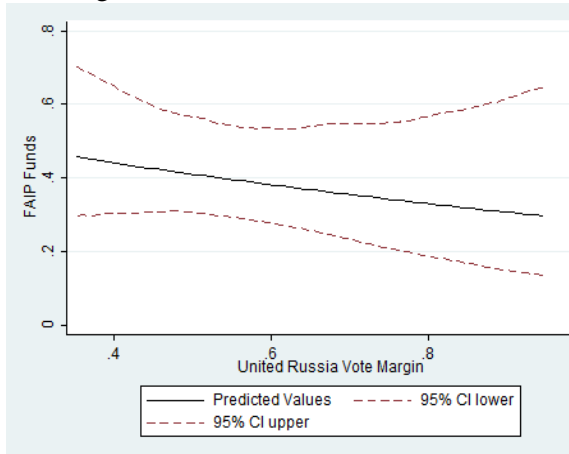


Figure 9: Effect on FAIP Funds, 2009

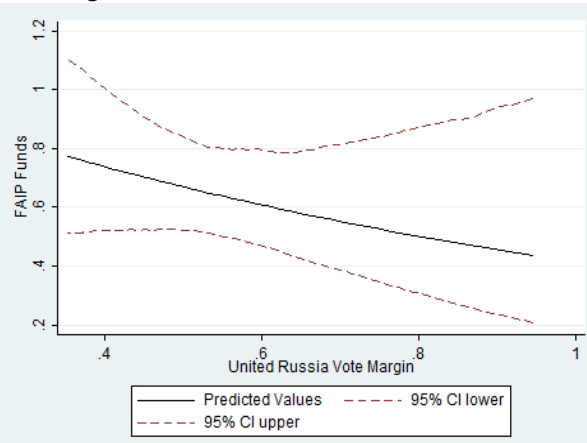


Figure 8: Effect on FAIP Funds, 2010

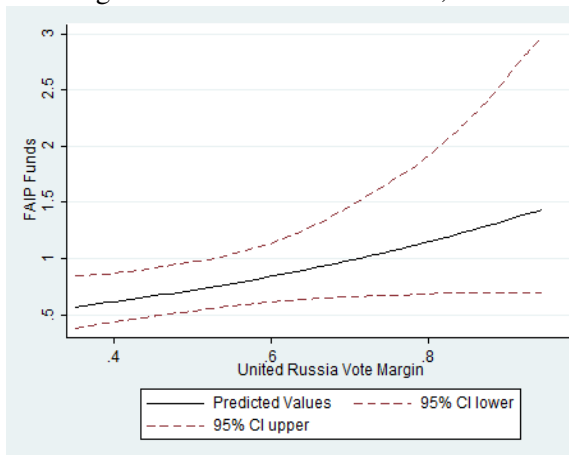
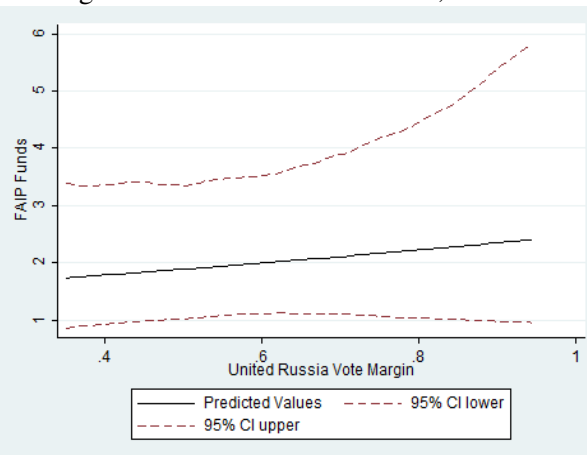


Figure 10: Effect on FAIP Funds, 2011



C Descriptive Statistics & Results

Table 2: Summary Statistics, 2008–2011, 77 Regions

Variable	Mean	Std. Dev.	Min.	Max.	N
Transfers Per Capita	9.754	8.423	2.67	66.281	308
FAIP Per Capita	1.776	2.895	0.006	24.119	308
UR Vote Margin in 2007 Duma Elections	0.516	0.124	0.352	0.944	308
UR Vote Share in 2007 Duma Elections	0.639	0.096	0.502	0.96	308
Industrial Production Index	1.038	0.104	0.74	1.449	308
Tax Revenue Per Capita (1,000 Rub, 2006 prices)	12.35	10.254	0.898	85.557	308
Ratio of Youth Per 1,000 Employed	269.899	48.853	194	534	308

Table 3: Total Transfers Per Capita, Log, 2008–2011: Effect of United Russia Vote Margin in 2007 Parliamentary Elections

	(1)	(2)	(3)	(4)	(5)	(6)
	Model	Model	Model	Model	Model	Model
L.Total Transfers P.C.	0.902*** (0.043)	0.903*** (0.042)	0.908*** (0.041)			
UR Vote Margin 2007	0.096 (0.114)	-0.115 (0.132)	-0.114 (0.132)	0.105 (0.100)	-0.130 (0.144)	-0.128 (0.141)
UR Vote Margin*D2009		0.261 (0.183)	0.309* (0.178)		0.307 (0.189)	0.357* (0.184)
UR Vote Margin*D2010		0.492*** (0.162)	0.476*** (0.167)		0.519*** (0.170)	0.499*** (0.176)
UR Vote Margin*D2011		0.087 (0.233)	0.192 (0.247)		0.114 (0.264)	0.229 (0.277)
Index of Industrial Production (Log)	-0.387** (0.158)	-0.404** (0.168)	-0.610*** (0.182)	-0.493*** (0.175)	-0.512*** (0.187)	-0.731*** (0.194)
Index of Ind Prod*D2009			0.060 (0.098)			0.062 (0.088)
Index of Ind Prod*D2010			0.001 (0.014)			-0.003 (0.031)
Index of Ind Prod*D2011			1.074** (0.493)			1.185** (0.483)
D.Tax Income Per Capita (Log)	-0.109 (0.111)	-0.098 (0.111)	-0.134 (0.115)	-0.143 (0.115)	-0.132 (0.115)	-0.169 (0.120)
Ratio of Youth (Log)	0.004 (0.116)	0.000 (0.118)	0.008 (0.118)	-0.180** (0.086)	-0.181** (0.088)	-0.163* (0.087)
D2009	-0.071 (0.049)	-0.205 (0.128)	-0.262** (0.125)	-0.109** (0.053)	-0.266* (0.134)	-0.326** (0.132)
D2010	-0.328*** (0.031)	-0.581*** (0.086)	-0.557*** (0.089)	-0.352*** (0.029)	-0.618*** (0.092)	-0.589*** (0.096)
D2011	-0.334* (0.179)	-0.360 (0.245)	-0.547** (0.260)	-0.398** (0.187)	-0.437 (0.265)	-0.639** (0.280)
Constant	0.359 (0.587)	0.485 (0.608)	0.439 (0.608)	1.206** (0.458)	1.336*** (0.485)	1.243** (0.481)
Observations	308	308	308	308	308	308

Jackknife cluster-robust standard errors in parentheses

Models (1–6) 77 Regions, w/o Chukotka AO

Models (1–3) Level of total transfers p.c. as a dependent variable

Models (4–6) Delta in total transfers (p.c.) as a dependent variable

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: FAIP Funds Per Capita, Log, 2008–2011: Effect of United Russia Vote Margin in 2007 Parliamentary Elections

	(1)	(2)	(3)	(4)	(5)	(6)
	Model	Model	Model	Model	Model	est6
L.FAIP Funds P.C.	0.783*** (0.044)	0.786*** (0.044)	0.765*** (0.045)			
UR Vote Margin 2007	0.147 (0.436)	-0.788 (0.668)	-0.787 (0.674)	0.349 (0.343)	-0.706 (0.647)	-0.698 (0.646)
UR Vote Margin*D2009		0.023 (1.020)	0.026 (1.015)		0.218 (1.123)	0.241 (1.132)
UR Vote Margin*D2010		2.335** (1.012)	2.348** (1.010)		2.628** (1.057)	2.635** (1.056)
UR Vote Margin*D2011		1.359 (0.870)	1.326 (0.868)		1.340 (0.953)	1.345 (0.946)
Index of Industrial Production (Log)	-0.780 (0.664)	-0.536 (0.682)	-0.668 (0.749)	-0.874 (0.734)	-0.654 (0.749)	-0.789 (0.854)
Index of Ind Prod*D2009			0.293** (0.129)			0.207* (0.115)
Index of Ind Prod*D2010			0.203*** (0.032)			0.071 (0.051)
Index of Ind Prod*D2011			-0.189 (2.040)			0.146 (2.009)
D.Tax Income Per Capita (Log)	0.207 (0.185)	0.188 (0.202)	0.192 (0.200)	0.087 (0.222)	0.081 (0.238)	0.068 (0.233)
Ratio of Youth (Log)	-0.076 (0.415)	-0.076 (0.411)	-0.078 (0.429)	-0.080 (0.317)	-0.082 (0.313)	-0.083 (0.311)
D2009	0.414** (0.178)	0.424 (0.557)	0.382 (0.559)	0.545*** (0.198)	0.453 (0.609)	0.416 (0.621)
D2010	0.665*** (0.135)	-0.558 (0.522)	-0.619 (0.525)	0.879*** (0.153)	-0.496 (0.552)	-0.505 (0.555)
D2011	1.635*** (0.354)	0.892 (0.671)	0.919 (0.697)	1.643*** (0.427)	0.929 (0.768)	0.902 (0.750)
Constant	-0.335 (2.152)	0.144 (2.164)	0.165 (2.258)	-0.503 (1.635)	0.047 (1.628)	0.056 (1.617)
Observations	308	308	308	308	308	308

Jackknife cluster-robust standard errors in parentheses

Models (1–6) 77 Regions, w/o Chukotka AO

Models (1–3) Level of FAIP funds p.c. as a dependent variable

Models (4–6) Delta in FAIP funds (p.c.) as a dependent variable

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$