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Political Business Cycles and Russian Elections, or the Manipulations of "Chudar"

Daniel Treisman
University of California, Los Angeles
and Hoover Institution, Stanford

Vladimir Gimpelson
University of Tokyo, Tokyo and IMEMO, Moscow

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Abstract

Political business cycle theories tend to focus on one policy instrument or macroeconomic lever at a time. Efforts to find empirical evidence of opportunistic business cycles have turned up rather meager results. We suggest that these facts may be related. If ways of manipulating the economy to win votes are thought of as substitutes, with changing relative costs, one would expect rational policymakers to switch between them in different periods as costs change. We illustrate this argument with a discussion of Russia. In Russia, four nationwide votes have been held since 1993. We deduce the set of policies that a rational, behind-the-scenes strategist—the "Chudar" of the title—would recommend to an incumbent who believes the voters to vote retrospectively. We show that the expectations are born out closely in the actual macroeconomic data.

Daniel Treisman
University of California, Los Angeles
and Hoover Institution, Stanford

Vladimir Gimpelson
University of Tokyo, Tokyo and IMEMO, Moscow

POLITICAL BUSINESS CYCLES AND RUSSIAN ELECTIONS, OR THE MANIPULATIONS OF "CHUDAR"*

By **Daniel Treisman**, UCLA, Los Angeles and Hoover Institution, Stanford
and **Vladimir Gimpelson,** University of Tokyo, Tokyo and IMEMO, Moscow

For decades—if not centuries—observers have believed that politicians try to manipulate the macroeconomy to increase growth or disposable income in the period before elections. This piece of political lore was formalized by Nordhaus in 1975, under the name the "political business cycle".[1] It has since been "rationalized"—i.e., made consistent with the assumption that voters are rational.[2] And this type of political business cycle has been given the qualifier "opportunistic" to distinguish it from "partisan" theories, which associate different macroeconomic policies with different parties in government.[3]

Despite its quite impressive theoretical evolution, the opportunistic political business cycle has fared far less well in empirical tests. Evidence has generally seemed mixed at best. As one expert on the subject puts it: "There are confirming episodes, in some countries, some of the time, but rarely has rigorous, systematic empirical analysis given consistent support to the theory."[4] A recent particularly rigorous and systematic search for such effects in the US and OECD countries found that "opportunistic cycles are relatively small and unsystematic".[5] Alesina et al. did find pre-electoral cycles in monetary and fiscal policy, but not in all countries—the US was a notable exception—

and not in all periods in the same country. The evidence from developing countries is also mixed.[6]

The apparent weakness of empirical support has called forth a number of refinements to the theory. Some have suggested controlling for institutional features that might affect the extent of such cycles or for features of particular elections that might render macroeconomic manipulation more or less attractive to incumbents. If pre-electoral booms are costly, incumbents that have a large lead in the polls may be less likely to indulge in them than those that face a close race.[7] The incentive may also be weaker for incumbents that are far behind and anticipate losing in any case.[8] In countries with more independent central banks or with fixed exchange rates, the ability of governments to influence monetary policy may be much more restricted.[9]

The refinement this article suggests is that different monetary and fiscal instruments—and means of financing government spending—should be considered substitutes. The range of levers available to an incumbent government for shaping economic outcomes—each with their different costs, benefits, target groups, and ease of manipulation—is usually quite large. Voters are generally assumed to dislike inflation, unemployment, high taxes, and high interest rates, and to like increasing real wages, increasing real pensions, as well as increasing real spending on health, education, social policy, and transfers to their regions. Governments—with the cooperation of parliamentary majorities—have a variety of ways to affect these: influence over money supply growth, rates of public spending on social services and job creation schemes, tax

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rates, and the minimum wage, state-provided pension and other benefits. Those measures that require additional spending can be financed by additional taxes or other revenues, additional public borrowing, or additional money creation—each of which, in turn, has effects on the economic variables thought to influence voters.[10] Given (a) the variety of targets, levers, and means of finance; (b) the likelihood that the relative costs of these will vary between elections; (c) the likelihood that different groups of voters, sensitive to different economic variables, will turn out to be the "swing" voters in different elections; and (d) the assumption that incumbent politicians are reasonably intelligent and motivated to get reelected, it is hardly surprising that attempts to test for the influence of one target or lever across different times and places turn up weak results.

How, then, should one proceed in the attempt to understand the interaction of economics and elections? One line of work we hope to pursue in future studies. This is to specify the relative costs of different instruments in different settings, to derive predictions about which instruments will be used opportunistically in different types of elections, and to test these predictions on the available national and cross-national data. A second, complementary line of inquiry that is illustrative rather than theoretically conclusive is the one we pursue here. We focus on recent elections in one country, Russia, that is particularly rich in detail and weakly institutionalized. We imagine what policies would be recommended to incumbents by a rational, reelection-motivated, behind-the-scenes political strategist who believes the public to vote retrospectively and to consider a number of economic variables—the "Chudar" of the title. And we examine whether such policies or macroeconomic traces of them can be identified in the economic data.[11]

Russia is a rich and rewarding case for studies of this kind. Four nationwide votes were held in the period from April 1993 to July 1996—one referendum, two parliamentary elections (one combined with a constitutional referendum), and one presidential election. Deep ideological divisions coincided with an unsettled economy. A semi-presidential constitution—with concentrations of fiscal power in both presidency and parliament—seemed at times to add an element of competitive bidding to central politics. Even under the more presidential "Yeltsin constitution" enacted in December 1993, it was the parliament that voted on and amended the budget, and the parliamentary leadership also had obvious motive to try to win support through pre-electoral spending binges and expansionary policy.[12] The underlying logic of these elections is keenly debated. The role of money—both public and private—is a subject of controversy.[13] Some have found evidence that economic or fiscal variables influenced voting.[14] Others contend that voting results can be explained by fundamental ideological differences between voters.[15]

Our conclusion is that "Chudar" did an effective job. (As already noted, we do not examine here whether opportunistic political business cycle strategies succeeded in increasing incumbents' votes, only whether they were employed.) We find that, just as expected, certain instruments and means of finance were used more in some elections than others. To take the most notable example, in a country where voters are not affected much by changes in interest rates, inflationary money creation will be a far more electorally costly means of financing preelection spending than the issue of government securities.[16] However, for a government to issue securities, a government bond market must exist. We find that monetary cycles were stronger in Russia in the period before the

treasury bill market reached full strength in early 1996, but that they were largely replaced by cycles in the issue of treasury bills and interest rates during that year's presidential campaign.

The next section derives expectations about the way in which a rational politician would have tried to exploit the political business cycle in Russia during this period. The following section examines the evidence for the expected phenomena. A fourth section explores some of the tradeoffs between different instruments for pre-electoral manipulation in Russia. The final section concludes.

CHUDAR'S CHOICE

Imagine the task of a behind-the-scenes political strategist advising the incumbent president or main parliamentary parties in Russia's recent elections or referenda. For easy reference, let us call this strategist "Chudar". The name—a composite of two actual political strategists on the government side, Anatoli Chubais and Yegor Gaidar—is not supposed to imply that either of these actual figures calculated or acted in the implied way during actual election campaigns. Rather, what follows is a pure thought experiment aimed at deducing a logical prediction from historically existing conditions and assumptions about motivation.[17]

The fictional Chudar would have found his services in demand four times in the mid-1990s. On four separate occasions, the incumbent president or parliamentary leadership hoped to win backing from a large contingent of voters in nationwide polls. The first, in April 1993, was a referendum in which voters were asked four questions—whether they had confidence in President Yeltsin, whether they supported his economic

and social policies, whether they thought there should be early elections for the President, and whether they thought there should be early elections for the parliament. Support for Yeltsin proved unexpectedly strong. Polls had predicted a majority for him, but only a minority in favor of his policies. In fact, with a turnout of 64 percent of the electorate, the official results gave Yeltsin 58.7 percent on the first question and 53.0 percent on the second. (49.5 percent favored early presidential elections, while 67.2 percent favored early elections for the parliament.)

The next national vote came in December 1993, when parliamentary elections were held along with a referendum on a draft constitution that Yeltsin hoped to get approved. The "Russia's Choice" bloc of Yegor Gaidar ran as clearly the party of the incumbents. Though not formally endorsed by Yeltsin, it contained various serving members of the government, along with elites from all Moscow circles. In the end, it received 15.5 percent of the votes in a proportional representation party-list ballot. The constitution was announced to have received the support of 58.4 percent of the voters, though questions were raised about authenticity of the count.[18]

Voters then enjoyed a two-year respite, at least at the national level, before parliamentary elections were held again in December 1995. The pro-government, incumbent-backed bloc this time was Prime Minister Viktor Chernomyrdin's "Our Home is Russia", which won just 10.1 percent of the party-list vote. Finally, much of the spring of 1996 was taken up with the campaign for the Russian presidency. A first round ballot was held in June, and then the second round runoff between Yeltsin and Communist Party leader Gennadi Zyuganov took place in early July. Yeltsin won 35.3 percent in the first round, and 53.8 percent in the second.

What advice would Chudar have offered to incumbents during each of these campaigns? Consider the range of arrows at his disposal and targets at which he might aim. Russian voters might be thought *ceteris paribus* to prefer lower unemployment, lower inflation, higher money incomes (wages, pensions, and social allowances) and shorter delays in paying them, lower rates of poverty[19], and greater federal government spending on health, education, social policy, and transfers to their region. Since most taxes in Russia during this period were levied on enterprises not individuals, tax levels might be expected to feature less centrally in voters' utility functions. Since consumer debt was minute and mortgages virtually unheard of, interest rates would not have been a major direct influence on voters. The attitude of voters toward various other economic variables is more debatable, and so these will be ignored for now. One might expect Chudar to advocate measures to satisfy some or all of these popular preferences in the pre-election period.

The arrows the Russian federal authorities had to shoot at these targets included the following: influence over monetary policy (through bargaining or threats vis-à-vis the head of the central bank), ability to decree or introduce legislation to raise the minimum wage or minimum pension, to spend more or shift the balance of spending, to pay public sector wage arrears, to prevent rises in unemployment by keeping insolvent enterprises afloat (either through subsidies or by not enforcing bankruptcy), and to excuse or soften enforcement of enterprise tax obligations. Most of these measures involve additional spending, whether from on-budget or off-budget sources, or retargeting of already assigned budgetary allocations.

Additional spending can typically be financed in three main ways: through money creation, tax increases, or debt financing (including bond issues and direct foreign borrowing). In Russia, an additional source of finance was provided by privatization revenues. Each of these has electoral or other costs, and these varied in Russia across the four polls. Since the general public was not affected much directly by higher interest rates, short-term bond finance would have been a relatively attractive option.[20] The main limit on this, obviously enough, was whether a treasury bond market existed, and what scale of issues it could support. The Russian treasury bond market was founded only in May 1993, a month after the April referendum, and achieved a significant volume only in 1995-6. Increasing taxes on enterprises—or tightening up enforcement of already existing taxes—stood to alienate workers whose enterprise-provided benefits or jobs suffered as a result.[21] Privatization revenues were hard to manipulate in the short run—big increases could be generated only by individual sales of the most lucrative firms, and the money might take a long time to come in.[22] Money creation would have been the least attractive method, since in Russia as elsewhere increases in the monetary base translated into increases in inflation, affecting all consumers.[23] By mid 1995, public recognition of the link between increases in the money supply and inflation was growing. One might expect therefore that as the government bond market gathered steam from 1994, it would substitute in part for money creation and as a means of financing pre-election federal splurges.

The four cases differ significantly in the amount of time Chudar would have had to act. While the 1995 and 1996 elections were foreseen years in advance, giving incumbents as much time as they wished to prepare, it only became clear that the April

1993 referendum would be held about one month before the actual vote.[24] The December 1993 election, which followed the military storming of the White House in September, was announced just a couple of months before the actual date.[25] These circumstances define the windows within which one might expect to see electorally-induced manipulation of the economy—no more than one month in the first case, two months in the second, and up to five or six months in the third and fourth.

INTERPRETING THE EVIDENCE

How well does the observed course of macroeconomic indicators and policy variables follow the advice that Chudar would have given? Evidence of political manipulation would be a departure from the trends in an expansionary direction during the relevant pre-election periods. The "substitutes" hypothesis of this article implies that we would not expect to see cycles in all macroeconomic variables and policy instruments around all elections, but we would expect to see cycles in at least some in all pre-election periods. We examined the data on change in the real minimum wage, change in the real minimum pension, change in the growth rate of the real monetary base, and the level of real federal spending on health, education, and social policy, and on transfers to regions. We also considered the rate of net issue of the main kinds of treasury bonds—GKOs and OFZs. Each of these was subject to direct political manipulation by the incumbent government, parliament, or by the Central Bank. We also examined economic outcomes: change in unemployment, in the real average wage, in the rate of increase of wage arrears, in the percentage in poverty, and in inflation. In addition, we looked for change in the inflation rate in the third and fourth months *after* each vote, since monetary policy

changes tended to translate into inflation with a 3-6 month lag. Opportunistic political business cycle theories predict a boost in inflation after the election.

In each case, we seasonally adjusted the data in order to avoid mistaking seasonal variations for election-related political manipulations. Where a trend was visible in the data, we also detrended the data for the same reason. (The procedure used, based on those presented in Gourieroux and Monfort 1997, is described in the appendix.[26]) For each indicator, we calculated the value for the relevant pre-vote period (one month for April 1993, two for December 1993, four for December 1995, and five for June 1996), and compared it to the mean for all equal-length periods between early 1992 and mid-1998. The difference between the pre-election value and the mean for all equal length periods is given for each indicator and pre-vote period in Table 1, expressed as a multiple of the relevant series' standard deviation. For example, the top left cell shows that the real minimum wage increased in the month before the April 1993 referendum by more than two standard deviations more than the average monthly real minimum wage increase. The top right cell shows that during the five months before the 1996 presidential election, the real minimum wage increased by .16 standard deviations more than in the average five-month period. All those cases where the pre-election observations have the sign predicted by opportunistic business cycle theory are in bold.

A quick glance at Table 1 suggests that 35 out of 43—or about 81 percent—of the indicators studied had values on the same side of the mean as opportunistic political business cycle theory would have predicted. In all the pre-election periods for which data were available, the real minimum wage, the average real wage, and the volume of

outstanding treasury bonds rose more than average.[27] Also, in both cases for which data were available, federal spending on transfers to the regions was higher than average during the pre-election periods. In all four cases, an above-average spurt of inflation was recorded in the third and fourth months after the election, as the lagged effect of pre-

Table 1: Signs of Opportunistic Political Business Cycles in Russia
Each figure is the mean value for the pre-vote period expressed in standard deviations above or below the mean for all equal-length periods. Figures in bold are on the side of the mean predicted by OPBC theory.

	Referendum	**Parliamentary Election**	**Parliamentary Election**	**Presidential Election**
	March-April 1993 (1mth)	**October-December 1993 (2 mths)**	**August-December 1995 (4 mths)**	**January-June 1996 (5 mths)**
POLICY INSTRUMENTS AND MEANS OF FINANCE				
Change in real minimum wage (%)	**2.01**	**2.18**	**.31**	**.16**
Change in real minimum pension (%)	-.86	**2.30**	**.10**	**2.46**
Real federal spending on health, education and social policy (Dec 1995 bn Rs)	n.a.	n.a.	**2.88**	-.44
Real federal spending on transfers to regions (bn Dec 1995 Rs)	n.a.	n.a.	**.81**	**.63**
Change in rate of growth of real monetary base (% pts)	**.65**	**.91**	**1.06**	-.40
Change in volume of GKOs and OFZs outstanding (Dec 1995 bn Rs)	n.a.	**.03**	**.42**	**2.22**
ECONOMIC OUTCOMES				
Unemployment change[a] (% pts)	**-.78**	1.50	**-.27**	**-.84**
Change in real average wage (%)	**3.23**	**.57**	**.45**	**.13**
Change in rate of increase of real wage arrears (% points)	**-1.03**	**-1.07**	.09	**-.30**
Change in percent of population in poverty (% pts)	**-2.14**	**-1.47**	.07	.25
Increase in inflation rate (% pts)	.16	**-1.08**	**-2.15**	**-.24**
Increase in inflation rate between second and fourth months *after* the vote (% pts)	**3.09**	**.03**	**.19**	**.86**

[a] ILO/OECD definition
All series seasonally adjusted and detrended where a trend visible in the data (see appendix for details)

election policies kicked in. In three of the four pre-vote periods, the real minimum pension grew more than average and growth of the real monetary base sped up more than average; inflation, unemployment, and the growth rate of real wage arrears all increased *less* than average. In each pre-election period, at least two indicators were two or more standard deviations away from the mean in the predicted direction—a level which in the Normal distribution occurs by chance only about 5 percent of the time. Thus, the results fit with the expectation that some indicators would prove significant in all elections, but not necessarily the same ones in the same elections.

How strong is the aggregate evidence that politicians manipulated the economy in pre-election periods? With this many indicators, one would expect some of them to appear significant purely by chance. Since the series are not independent (they all occurred over the same months, and were probably affected by the same shocks), one cannot simply combine the probability values for the different statistics. However, a way to assess the aggregate significance is available. Using Zellner's seemingly unrelated regression estimation method (SURE), it is possible to estimate sets of equations, allowing for correlation between the residuals of different equations within the set. One can then test the hypothesis that none of the political business cycle indicators was significantly different in the pre-electoral and in other months.

We estimated sets of equations of the following form:

$$Y = \alpha + \beta_1 Y_{t-1} + \beta_2 E + \varepsilon$$

where Y represents each of the first 11 indicators of political business cycle manipulation listed in Table 1, and E represents a dummy taking the value one in months during the pre-electoral periods and zero in other months.[28] As there was probably autocorrelation in many of the data streams, we included a one-period lagged value of the dependent variable on the right hand side of each estimated equation.[29] An F-test was then used to test the null hypothesis that the values of β_2 for all equations in the system were zero.

We performed this procedure: (a) for all 11 variables, and (b) for just the policy variables. And we also tried testing the significance of (a) all pre-electoral periods, and (b) specific pre-electoral periods.[30] Table 2 shows the F-values and their significance for

Table 2: Do Pre-Electoral Months Fit Predictions of Opportunistic Political Business Cycle Theory? Table shows F-statistic for rejecting the null hypothesis that no indicator of political business cycle manipulation was significant in the given pre-election period. Estimation by SURE, with one-period lags to control for autocorrelation.

	ALL VARIABLES						JUST POLICY VARIABLES					
	All Votes (A)	All Votes (B)	Ap 93	Dec 93	Dec 95	Jun 96	All Votes (A)	All Votes (B)	Ap 93	Dec 93	Dec 95	Jun 96
F	2.70	3.79	3.77	3.90	2.49	2.58	3.35	4.75	2.96	6.79	2.42	2.65
P	.017	.001	.002	.002	.033	.027	.013	.005	.042	.001	.060	.042
N	30	55	44	45	25	26	30	60	49	50	25	26
Non-SA	.20	.094	.183	.013	.017	.002	.077	.028	.021	.003	.036	.012

(A) all 11 variables included (requires excluding both 1993 votes)
(B) federal spending and treasury bill variables excluded for lack of data (all four votes included)

tests of the hypothesis that all coefficients on included opportunistic political business cycle indicators were zero. Looking at the values of all 11 variables before all elections for which there were data, the null hypothesis that pre-electoral months did *not* differ from other months in the ways predicted by opportunistic political business cycle theory

can be rejected at the .02 confidence level. Including all 11 variables meant excluding the 1993 referendum and election since data were not available for these on federal spending and treasury bond volume. We therefore also tried testing with the eight variables for which data were available in all four pre-vote periods. In this case, the null hypothesis can be rejected at a confidence level of .001. If one considers just the policy variables, the null hypothesis can be rejected at the .02 confidence level if all policy variables are included and the 1993 votes excluded, or at the .01 level if federal spending and treasury bond variables are excluded and all four votes are included.

For the April 1993 referendum and December 1993 election taken individually, the null hypothesis can be rejected at the .05 confidence level or higher, whether all variables are considered or just the policy variables. The null hypothesis that pre-electoral months were not significantly different in the way predicted by opportunistic political business cycle theory could be rejected at the .05 level for both the 1995 and 1996 elections if all variables were taken into account. If just the policy variables were considered, the confidence levels for these two elections were .07 and .06 respectively.

The estimated coefficients on the electoral-period dummies (the β_2's) suggested qualitatively similar conclusions to those derived from Table 1. The same variables that had values for the pre-election periods greater than 2 in Table 1 were also significant in the SURE regressions.[31]

In short, though no individual indicator of the opportunistic political business cycle—whether a policy lever or a macroeconomic outcome—was significant in all four periods, quite strong evidence exists that policymakers did manipulate the economy during the months before elections in Russia. Whether or not such strategies worked, the

fictional Chudar's advice appears to have been taken. As expected, the portfolio of manipulations differed from poll to poll. In some election campaigns, politicians attempted to buy votes by raising the minimum wage or minimum pension more than usual; in others they spent more on health, education and social services. While some of these changes were of large magnitude, many of the effects were not extreme.

TRICKS AND TRADEOFFS

A clear trade-off appears in the means by which increased pre-electoral spending was financed. In the first three cases, the rate of expansion of the real monetary base sped up during the pre-vote period. In the second two cases (December 1993 and December 1995), this was done late enough to avoid stimulating inflation before the election. (The large increases in the monetary base came only in December 1993 and November-December 1995.) But inflation did pick up after the vote: it rose more than average in the third and fourth months after each of the four votes.

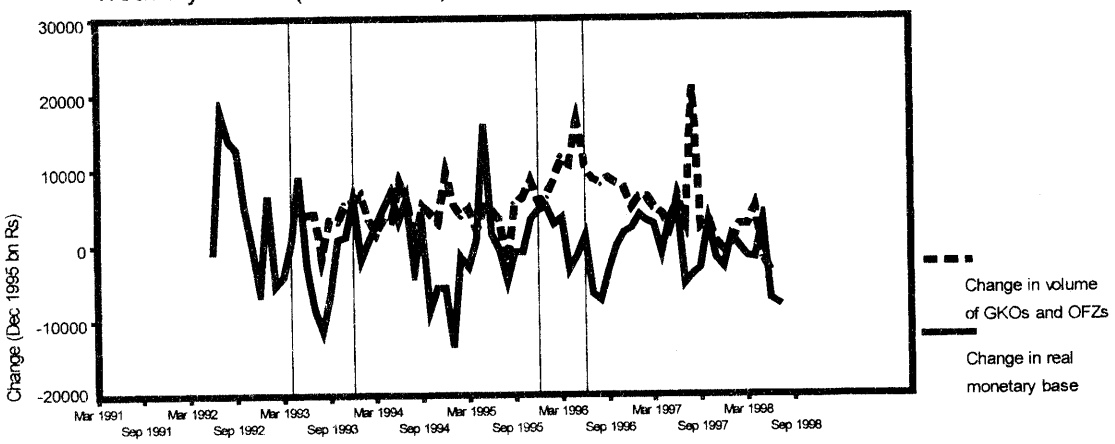
Why did growth of the monetary base not accelerate before the December 1996 presidential election? In isolation, this might suggest a decreasing tendency to resort to economic manipulation. However, consideration of the relative costs of different financing options suggests an obvious explanation. Especially once inflation had been stabilized at moderate levels, increasing it would be unpopular and risk another slide toward hyperinflation. In addition, large increases in the money supply would violate IMF conditions for continuing aid. Once government security markets had been established, they offered a less costly alternative. As Figure 1 shows, the fall in real monetary base growth in early 1996 was compensated by a sharp increase in net issues of the main

treasury bonds, GKOs and OFZs. The increase in the real value of outstanding GKOs and OFZs in the five months leading up to June 1996[32] was the second biggest for any five month period for which data existed. It was beaten only by the five month period leading up to July 1996—the month of the *second* round of the presidential election. Inflation did pick up somewhat after the presidential election, perhaps because of inflationary expectations created by the ballooning of government debt. But the post-election hangover was more evident in another indicator—real federal expenditures on debt service. While the inflation rate rose by a value .86 standard deviations greater than the mean in the third and fourth months after the election, real federal expenditure on debt service during the third and fourth months was 1.96 standard deviations more than the mean for all two-month periods. In fact, the only two months in which real federal debt payments were higher were the fourth and fifth months after the June 1996 vote (i.e., the third and fourth ones after the July second round vote).

The shift from monetary to treasury bill finance also performed another function for the Yeltsin administration. Much was made of the role played in Yeltsin's campaign by a group of major bankers and tycoons, often labeled the "oligarchs". In early 1996, leaders of this group persuaded Yeltsin to hire Chubais to bring some order to his so-far uninspired campaign, and they subsequently supported the president financially and through their affiliated media outlets.[33] These same major bankers were heavy investors in the treasury bill market, and received an enormous return when rates on these securities soared.[34] A second source of public finance for pre-electoral manipulations came from the "shares-for-loans" privatization auctions of late 1995. Altogether in 1995 and 1996, cash privatization raised about 11 trillion rubles for all budgets, the bulk of which was used to

pay wage and pension arrears. (In 1994, privatization had yielded only 736 billion rubles.[35]) Again, these deals ended up transferring rights over some of Russia's most valuable oil and metals enterprises to leading members of the financial "oligarchy". In this way, funds for pre-electoral spending were provided without rekindling inflation, at the same time as key political allies were channeled covert rewards for their continuing support.

Figure 1: Change in Real Monetary Base and in Outstanding Treasury Bonds (GKO-OFZs)



Source: Russian Economic Trends,
data in December 1995 bn Rs, seasonally adjusted and detrended

The most consistent lever of pre-election manipulation was the minimum wage. The real minimum wage rose more than average in all four pre-vote periods. In two of these, the increase was more than two standard deviations greater than the average increase for equally long periods. In fact, between January 1992 and August 1998, the minimum wage was raised 14 times, of which 7 (or one half) were during the pre-

electoral periods.[36] The number of "pre-electoral" months—16—was only one fifth of the number of months in the period.[37] There are good reasons why politicians paid special attention to this lever. Adjustments to the minimum wage occur through a very public political process, and thus constitute a political signal that is far more visible to most voters than change in, say, the average real wage. But the impact of minimum wage increases is not just symbolic. All public sector wages are based on a uniform scale anchored to the minimum wage, and social allowances and family benefits are also calculated with reference to the official minimum wage. Increases in public sector wages probably also push up wages in the private sector.

Adjustments to the minimum pension were not so concentrated in pre-election months, in part because the minimum pension was adjusted far more often. There were 25 increases in the 76 months to April 1998, the latest month for which figures were available. But the pre-vote increases in this variable were particularly large when they did occur. Of the three biggest monthly increases in the real minimum pension, two came in pre-election months (November 1993 and May 1996).

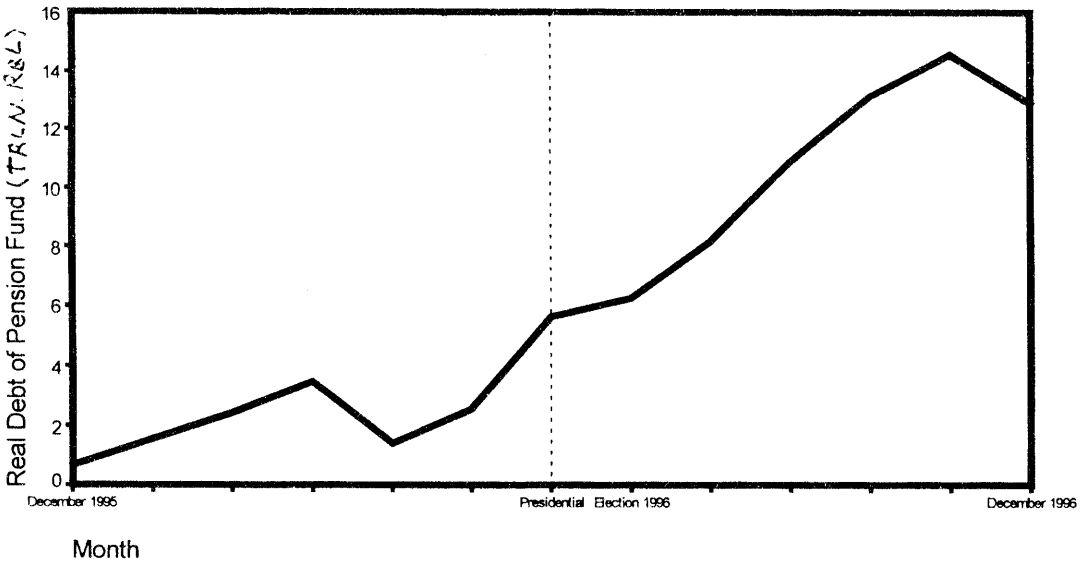
The real average wage rose more than average in all four pre-vote periods. Yet the increase was relatively small during the 1996 presidential campaign. A sign that Chudar was asleep at the wheel? Apparently not. While average wages throughout the whole economy are hard for the authorities to push up substantially, those in the budget-funded sector are more directly accessible—and these did rise. In the science sector, for instance, the year-on-year growth in real wages due was 12 percent in the year leading up to June 1996. With the 1996 elections safely over, the rate of real year-on-year wage growth in the sector fell from 15-16 percent in the second and third quarters of 1996 to just 3

percent in the first quarter of 1997. The lavish increases in wages due ultimately translated after the elections into growing unpaid wage debts.[38]

Wage and pension arrears represent a kind of macroeconomic tradeoff distinctive to post-communist Russia.[39] Rather than freeze nominal wages and pensions or fire workers, both private and government employers simply delay the promised payments. Wage arrears have grown dramatically in Russia since 1993, and had by 1996 become a hot political issue.[40] Pension arrears have also soared since 1996. In three of the four cases in Table 1, the pre-electoral change in wage arrears was consistent with opportunistic political business cycle theory. The exception is 1995, when real wage arrears increased slightly faster than average during the pre-election period. The best explanation is a simple tradeoff between alternative instruments—the kind that we argue that opportunistic political business cycle theory has tended to ignore. If high increases in real wages are promised without the finances to pay for them, high increases in wage arrears tend to result. The real wage due jumped in November 1995, and real wage arrears followed it up in December 1995 and even more in January 1996, demonstrating this pattern.

Pension arrears data were only available for 1996. For that year, though, they paint a vivid picture of Chudar's advice in action (see Figure 2). A sharp upward trend is visible throughout the year. But between March and June 1996—the peak months of the presidential campaign—a large bite has been taken out of the hillside.

Figure 2: Real Pension Arrears in 1996



Source: T.Maleva. *Finansovoye sostoyaniye pensionnogo fonda: vzglyad v srednesrochnuyu perspectivu* (Financial Account of the Pension Fund: Mid-Term Perspective). In: Maleva T., ed. *Sovremennye problemy pensionnoy sfery* (Pension System: Current Problems). Moscow Carnegie Center, Moscow, 1997.

CONCLUSION

Scholars seeking empirical support for the political lore that incumbents try to manipulate the economy to buy votes in periods before elections have often been disappointed by the apparent weakness of the evidence. This article contends that the reason for this may not lie in the restraint of politicians or their restricted scope. The tests that have generally been applied focus on one indicator at a time and neglect the possibility that rational incumbents will choose a different portfolio of manipulations in different elections. In fact, incumbents in any given election have a variety of ways to affect voters' economic position—minimum wage or pension legislation, monetary policy, different types of transfers, public spending, or tax cuts. If strategies require

increased spending, this can be financed by increasing taxes, borrowing, or the money supply. These different elements of strategy will have different relative costs and benefits for particular incumbents in particular elections. If they are rational, they will choose between them based on their net cost.

We illustrate the point with data from Russia. A researcher looking for business cycles in any one economic indicator would have to conclude that the evidence is patchy. But if one looks at the full range of available techniques, a different picture emerges—one in which pre-election manipulation is far more evident and significant, and in which rational tradeoffs appear to be made. In the periods before recent national votes in Russia, incumbents have variously increased real minimum wages or pensions and increased spending on popular programs such as health, education, social policy, and transfers to particular regions. But though they have always done some of these, they have never done all; and no one indicator was significant in each election. Among means of financing pre-electoral public spending, the data suggest a shift from printing money to issuing more government securities during the 1996 presidential campaign. Money supply increases (and maybe also bond increases) led to bursts of inflation in the post-election months, and the 1996 mass sale of treasury bills led to a spike in debt service payments after the vote.

Whether such political strategies succeed at buying votes for incumbents is a question for another time. Analysis of regional election results does suggest that regions where public spending was higher or increased relatively more and wage arrears were relatively lower, pro-reform incumbents performed better in all of these four votes.[41] The impact of economic factors on aggregate votes nationwide is a subject of some debate.

But the evidence does suggest that, whether or not the fictional Chudar of this article's title actually existed, someone appears to have been listening to his advice.

APPENDIX

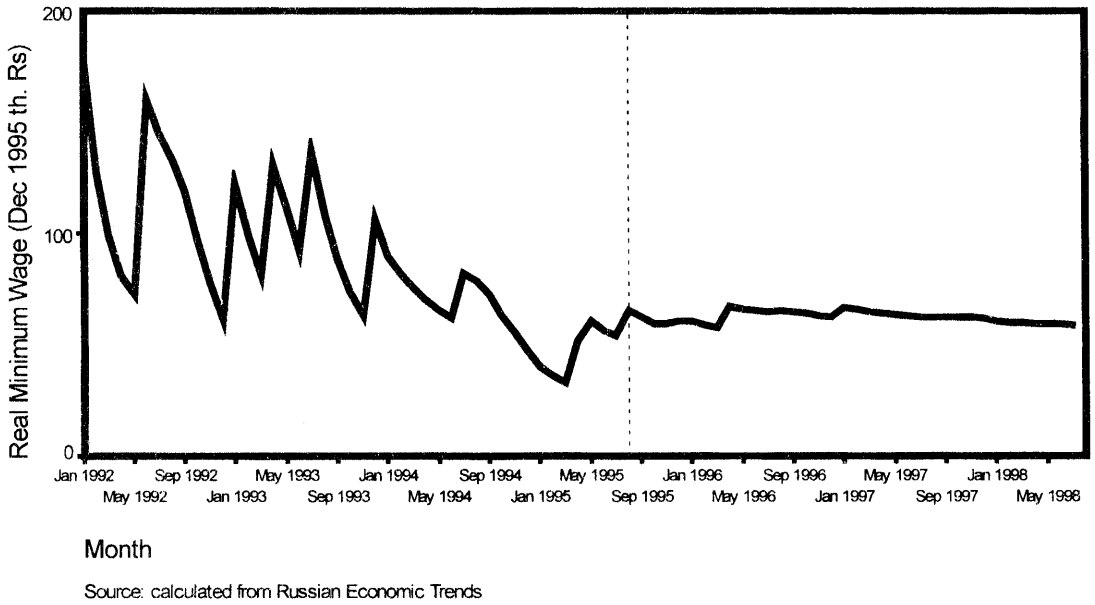
Notes on Seasonal Adjustment:

Unless otherwise noted, all data come from *Russian Economic Trends* online dataset. Data were seasonally adjusted and detrended when visual inspection of graphs suggested a clear trend.

1. Real Minimum Wage Change

Multiplicative seasonal adjustment of real minimum wage. Natural log of real minimum wage regressed on: 11 month dummies, a dummy for the period before August 1995 (when the first effective stabilization program brought the inflation rate down below 5 percent a month for at least one year), a variable for the trend before August 1995 (Jan 1990 = 1, July 1995 = 67), and a variable for the trend after August 1995 (Aug 1995 = 68, Jul 1998 = 103). S.A. real minimum wage = EXP(residuals + mean of the natural log of real minimum wage (= 4.28)). Change in S.A. real minimum wage calculated as first difference of S.A. real minimum wage. The need to separate out trends before and after macroeconomic stabilization is clear from inspecting Figure A1.

Figure A1: Real Minimum Wage in Russia, 1992-98



Source: calculated from Russian Economic Trends

2. Real Minimum Pension

Multiplicative seasonal adjustment of real minimum pension. Natural log of real minimum pension regressed on: 11 month dummies. S.A. real minimum pension = EXP(residuals + mean of the natural log of real minimum pension (= 11.95)). Change in S.A. real minimum pension calculated as first difference of S.A. real minimum pension. Trend variables were not included, as there was no clear long-run trend. To capture short-run trends, four or five variables would have been required.

3. Real Federal Spending on Education, Health, and Social Policy

Additive seasonal adjustment. Real federal spending on education, health and social policy regressed on 11 month dummies. S.A. real fed spending = residuals + mean(real fed spending (= 2968.4)).

4. Real Federal Spending on Transfers to Regions

Additive seasonal adjustment. Real federal spending on transfers regressed on 11 month dummies. S.A. real fed transfers = residuals + mean(real fed transfers (= 3354.59)).

5. Change of Growth Rate of Real Monetary Base

Multiplicative seasonal adjustment of real monetary base. Natural log of real monetary base regressed on 11 month dummies, a dummy for the period before August 1995, and separate variables for the trend before and after August 1995. S.A. real monetary base = EXP[residuals + mean of natural log of real monetary base (= 11.66)]. Change of growth rate calculated as first difference of first difference of S.A. real monetary base.

6. Change in Real Volume of Outstanding GKOs and OFZs

Additive seasonal adjustment of change in real volume of GKOs + OFZs. Change in real volume regressed on 11 month dummies and trend variable. S.A. change in volume = residuals + mean of change in real volume (= 4990.6).

7. Change in Unemployment Rate (ILO definition)

Additive seasonal adjustment of monthly change in unemployment rate. Monthly change regressed on 11 month dummies. S.A. unemployment change = residuals + mean of monthly change (= .10). In SURE regressions, signs reversed (since fall in unemployment predicted by OPBC theory).

8. Change in Average Real Wage

Additive seasonal adjustment of change in average real wage. Change in percent regressed on 11 month dummies. S.A. average real wage change = residuals + mean of average real wage change (= .45). January 1992 excluded because of massive one-time drop in real wage caused by price liberalization.

9. Change in Rate of Growth of Real Wage Arrears

Additive seasonal adjustment of change in rate of growth of real wage arrears. Change (in percentage points) regressed on 11 month dummies. S.A. change = residuals + mean change in rate of growth of real wage arrears (= .35). For SURE regressions, signs reversed (since fall in rate of growth of real wage arrears predicted by OPBC theory).

10. Change in Percent of Population in Poverty

Multiplicative seasonal adjustment of percent with income below subsistence minimum. Natural log of percent regressed on 11 month dummies and trend variable. S.A. percent in poverty = EXP[residuals + mean(natural log of percent in poverty = 3.18)]. Change = first difference of s.a. percent in poverty (in percentage points). Data starts at March 1992 because of massive one-time change in percentage in poverty because of price liberalization in January 1992.

11. Change in Inflation Rate

Multiplicative seasonal adjustment of inflation rate. Inflation rate used is monthly % change in CPI. Natural log of inflation rate plus one (because inflation in some months

had small negative values) regressed on 11 month dummies, a dummy for the period before August 1995, and separate variables for the trend before and after August 1995. S.A. inflation rate = EXP[residuals + mean(ln(inflation rate + 1))] -1. Mean ln(inflation rate + 1)) = 1.79. S.A. change in inflation rate = first difference of S.A. inflation rate, in percentage points.

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[1] William Nordhaus, "The Political Business Cycle," *Review of Economic Studies*, 1975, 42, pp.169-90.

[2] K. Rogoff and A. Sibert, "Elections and Macroeconomic Policy Cycles," *Review of Economic Studies*, 1988, 55, pp.1-16; T. Persson and G. Tabellini, *Macroeconomic Policy, Credibility, and Politics*, 1990, Chur, Switzerland: Harwood Academic Publishers.

[3] Douglas Hibbs, "Political Parties and Macroeconomic Policy," *American Political Science Review*, 1977, 71, pp.1467-87.

[4] James E. Alt, "Employment versus Inflation: Party Ideology, Information and International Trade," in Ian Budge and David McKay, eds., *Developing Democracy*, London: Sage, 1994, p.99.

[5] Alberto Alesina, Nouriel Roubini, with Gerald D. Cohen, *Political Cycles and the Macroeconomy*, Cambridge, MA: MIT Press, 1997, p.254.

[6] Karen L. Remmer, "The Political Economy of Elections in Latin America, 1980-91," *American Political Science Review*, 87, 2, June 1993, pp.393-407.

[7] Kenneth A. Schultz, "The Politics of the Political Business Cycle," *British Journal of Political Science*, 1995, 25, pp.79-99.

[8] Simon Price, "Comment on 'The Politics of the Political Business Cycle'," *British Journal of Political Science*, 1998, 28, pp.201-10.

[9] William Clark and Mark Hallerberg, "Mobile Capital, Domestic Institutions, and Electorally-Induced Monetary and Fiscal Policy," Georgia Institute of Technology: manuscript, June 1998; Alesina, Roubini and Cohen, fn.2.

[10] To assume that policymakers choose a portfolio of revenue-raising methods that equates the marginal cost of each is, of course, the central insight of optimal taxation theory (see, for

instance, Robert Barro, "On the Determination of the Public Debt," *Journal of Political Economy*, 1979, 87, pp.940-71).

[11] We do not attempt to prove anything here about the effect of policies on voting. Rather, we focus on illustrating that actual policy was indeed similar to that which might have been expected from a rational manipulator of opportunistic political business cycles.

[12] Thus, the president, government, and both pro- and anti-reform factions in parliament, though disagreeing about almost everything else, shared a common interest as incumbents in boosting the economy prior to "their" elections. The parliament may also have had its own "Chudar", advising expansionary pre-election policies.

[13] Daniel Treisman, "Dollars and Democratization: The Role and Power of Money in Russia's Transitional Elections," *Comparative Politics*, November 1998, and "Why Yeltsin Won," *Foreign Affairs*, September-October, 1996; Michael McFaul, *Russia's 1996 Presidential Election*, Stanford, CA: Hoover Institution Pess, 1997.

[14] Daniel Treisman, *After the Deluge: Regional Crises and Political Consolidation in Russia*, Ann Arbor: University of Michigan Press, 1999, Chapter 4; Timothy J. Colton, *Transitional Citizenship: Voting in Post-Soviet Russia*, forthcoming, Cambridge MA: Harvard University Press.

[15] Stephen White, Richard Rose, and Ian McAllister, *How Russia Votes*, Chatham, New Jersey: Chatham House 1996; McFaul (fn.13, p.7).

[16] Opinion polls clearly indicate the high public salience of inflation during this period. In March 1993, 84 percent of respondents said they were worried by inflation, dropping gradually to 68 percent in May 1996, still a remarkably high figure (see VCIOM, *Economic and Social Change: Public Opinion Monitoring; Bulletin of Information*, various issues, 1991-97, Moscow).

[17] To Russian-speakers, the word *chudar* may also suggest a "magician" or "miracle-worker", derived from *chudo*, miracle.

[18] See, for instance, Timothy J. Colton and Jerry Hough, eds., *Growing Pains: Russian Democracy and the Election of 1993*, Brookings Institution Press, 1998.

[19] Some evidence suggests that in Russia during this period lower poverty correlated with lower inflation; see B. Granville, J. Shapiro, and O Dynnikova, "Chem nizhe inflatsiya, tem menshe bednost: pervye resultaty dlya Rossii" (Less Inflation, Less Poverty: First Results for Russia), in A.Aslund and M.Dmitriev, eds., *Sotsialnaya politika v period perekhoda k rynku: problemy i resheniya,* Moscow, 1997.

[20] Higher interest rates might also help support the currency, which would keep import prices stable.

[21] In addition, the falling effectiveness of tax administration restricted this option; see Daniel Treisman "Russia's Taxing Problem," *Foreign Policy*, September 1998.

[22] The controversial "loans-for-shares" auctions in late 1995 were viewed by many observers at the time as a means by which the government raised cash to fund popular spending programs during the presidential campaign of 1996.

[23] In Russia, the inflationary kick tended to come about 3-6 months after the increase in the money supply, leaving a short window of opportunity for pre-election monetary finance.

[24] In a March 20 television address, Yeltsin declared that he was imposing a "special form of administration". The parliament responded with an attempt to impeach him on March 26, an attempt which failed. The two sides then compromised on holding the April 25 referendum.

[25] President Yeltsin had dissolved Parliament on September 21, provoking a standoff when deputies refused to leave the building. Only after this ended with the military storming of the White House on October 3-4 did it become clear that the new elections would be held. They took place on December 12.

[26] Christian Gourieroux and Alain Monfort, *Time Series and Dynamic Models*, New York: Cambridge University Press, 1997.

[27] In the last case, data were not available for 1993.

[28] Because the post-election inflation burst hypothesis did not coincide temporally with the pre-election periods, it was not clear how this could be included in the test.

[29] Durbin Watson statistics for regressions of the seasonally adjusted indicators on just an intercept ranged from 1.16 to 2.79.

[30] In the latter case, we excluded from the data all observations for other pre-electoral periods.

[31] Full analysis is available from the authors. The need to seasonally adjust the data was obvious from visual inspection. Various series had strong seasonal patterns. In Russia, macroeconomic discipline tended to give way in the spring and summer months before the imperative of financing supplies to the Far North during the few months when rivers were navigable. Various kinds of spending also had regular year-end spikes in December. Not to adjust would therefore risk exaggerating the impact of the pre-electoral periods (votes happened to fall in spring, summer, and December). Still, as an indication of the robustness of the results it is worth noting that even without seasonal adjustment most of the results in Table 2 would still hold. The null hypothesis of no difference could be rejected at the .05 level for the policy variables for each of the four votes taken separately, as well as for all four votes together. When the economic outcome variables are also included in the tests, the null hypothesis can still be rejected for the December 1993, December 1995 and June 1996 elections at $p < .05$. The hypothesis cannot be rejected for the April 1993 vote ($p = .18$), and can only be rejected at the .10 level for all four votes taken together.

[32] As before, deseasonalized and detrended.

[33] Though the importance of the aid of big business and the advertising campaign it helped put together in swinging the vote to Yeltsin is generally taken for granted, its significance can be questioned. According to one representative nationwide survey, 80 percent of voters had already made up their minds by one month before the election, the point at which the advertising campaign began in earnest (Colton, fn.14). See also Treisman, "Dollars and Democratization," fn.13.

[34] Treisman argues that the extremely high rates on treasury bills created by protecting the infant market from foreign investors until late 1996 helped to buy the support for macroeconomic stabilization of banks that had previously been profiting from inflation Daniel Treisman, "Fighting Inflation in a Transitional Order: Russia's Anomalous Stabilization," *World Politics*, January 1998.

[35] OECD, *Economic Survey of the Russian Federation*, Paris: OECD, 1997, p.139.

[36] Including the border months.

[37] The minimum wage was increased in April 1993; December 1993; August, November and December 1995; as well as January and April 1996. Interestingly, the minimum wage was also raised in May 1991, right before the first Russian presidential election.

[38] *Russian Economic Trends*, 1997, 3, p.52.

[39] See J. Earle and K. Sabirianova, "Wage Arrears in Russia: An Exploration of Causes and Consequences", 1998, SITE, Stockholm: mimeo; H. Lehmann, J. Wadsworth and A. Acquisti, "Grime and Punishment: Employment, Wages and Wage Arrears in the Russian Federation," paper prepared for the conference "Labor Markets in Transition", University of Michigan, Ann Arbor, 17-19 October, 1997; Vladimir Gimpelson, *Politics of Labor Market Adjustment*, 1998, Discussion Paper, Collegium Budapest, Budapest; Padma Desai and Todd Idson, "The Wage Arrears Crisis in Russia," 1997, Columbia University: mimeo.

[40] They continued to grow in 1997-98, increasing the pressure on public finance and politics.
[41] Daniel Treisman, *After the Deluge: Regional Crises and Political Consolidation*, University of Michigan Press, 1999.