The Popularity of

Russian Presidents

Why did Boris Yeltsin's approval rating fall drastically, whereas
Vladimir Putin's surged during his first months and remained at
unprecedented heights throughout his presidency? Analyzing time
series of presidential approval since 1993, I find that the popularity
of each closely followed perceptions of economic performance,
which, in turn, reflected objective economic indicators. Perceptions
of the political situation contributed, but these were caused in part
by economic perceptions. Most other factors invoked by
commentators had only marginal, temporary effects. Simulations
suggest the sudden improvement in the Russian economy in 1999
would have carried Putin—or another Kremlin candidate—to
victory in the 2000 election without any war in Chechnya or
terrorist bombings. Had Yeltsin presided over Putin's economy,
simulations suggest he would have been similarly popular. Had
Putin been president in the 1990s, his rating would have sunk even
lower than Yeltsin's.

Daniel Treisman

Department of Political Science
University of California, Los Angeles
4289 Bunche Hall
Los Angeles California 90095
treisman@polisci.ucla.edu

12 May 2008

Preliminary draft, comments welcome.

1 Introduction

Since his appointment as prime minister in August 1999, Vladimir Putin has become by far the most popular politician in Russia's recent history. During his first three months, the share of respondents saying that on the whole they approved of Putin's performance jumped from 31 to 78 percent. This astronomical rating followed him when, in January 2000, he became acting president. In his years in the Kremlin, Putin's rating rose as high as 87 percent and never fell below 60 percent. By contrast, Yeltsin's approval peaked in October 1991, soon after his election, and rollercoastered down to just six percent in March 1999.

The reasons for Putin's popularity—and Yeltsin's loss of it—have been fiercely debated. The initial surge in Putin's rating coincided with the outbreak of the second Chechen war, and many have seen this as a traditional wartime rally. Just as Putin came to power, a band of guerrillas under Chechen warlord Shamil Basayev infiltrated the southern republic of Dagestan to bolster local pockets of Islamic extremists. The next month, explosions destroyed four apartment buildings in Dagestan, Moscow, and Rostov regions, killing around 300 people. Central authorities immediately announced a Chechen connection. To respond to Basayev's challenge, Putin ordered troops into Dagestan and Chechnya and later, while television cameras rolled, promised to seek out and destroy the terrorists wherever they might hide.

Many—both Putin's supporters and his opponents—attribute his meteoric rise in the polls to his forceful response. "People believed that he, personally, could protect them," Yeltsin wrote in his memoirs. "That's what explains his surge in popularity" (Yeltsin 2000, p.338). The commentator Andrei Piontkovsky, one of the Kremlin's harshest critics, agrees: "Putin's popularity is based solely on the war in Chechnya" (Piontkovsky 2006, p.3). To explain what

sustained the president's ratings even as polls showed support for the Chechnya war dwindling, critics point to growing control by the Kremlin over national television stations and much of the print media.[1] Some refer to a historically rooted culture of deference to authority that supposedly leads Russians to admire "strong" leaders even when they disagree with them.

But there are other possibilities. Some believe Putin's broad appeal is tied to his personal style, and the contrast with that of his predecessor. For years, Russians had cringed at the gaffes and excesses of the ailing and at times visibly inebriated Yeltsin. Putin, by contrast, was disciplined, energetic, sober, and verbally precise. A former spy, he seemed to some to embody the virtues of the ideal intelligence agent: a cool head, athletic physique, and devotion to the national interest. As one Russian journalist, Vladimir Soloviev, put it: "He is, if you like, our James Bond."[2]

Russians might also approve of Putin because of particular policies. Many of his innovations have been presented as part of a campaign to reestablish "order" after the disorienting changes of the 1990s. While continuing economic reforms, Putin set out to destroy the power of the so-called oligarchs, who had accumulated massive wealth under Yeltsin. During his first term, the Kremlin replaced the leadership team in Gazprom, forced the media magnates Boris Berezovsky and Vladimir Gusinsky into exile, and arrested Mikhail Khodorkovsky, head of the Yukos oil company. Putin promised to fight crime and corruption, and tightened central control over regional governors. He also appealed to the growing nostalgia of older Russians, restoring the Soviet era music to the national anthem and unveiling a plaque to KGB chief and

---

[1] In the words of Garry Kasparov: "You cannot talk about polls and popularity when all of the media are under state control" (Remnick 2007).

[2] Andrew Harding, "Why is Putin Popular?", BBC News, 8 March, 2000, http://news.bbc.co.uk/1/hi/world/europe/669247.stm.

former General Secretary Yuri Andropov. Although most objective indicators do not suggest Russia has become much more orderly, Putin's popularity is often linked to this campaign.

Finally, some attribute Putin's appeal to the dramatic, sustained economic recovery that occurred on his watch. As the international price of oil rose from $10 a barrel in December 1998 to $94 a barrel in January 2008, the Russian economy took off.[3] Real disposable incomes have increased by 11 percent a year on average since 2000. That economic perceptions affect government approval is a cliché in most Western countries, although scholars differ on whether retrospective or prospective evaluations are more important, and whether citizens pay more attention to their personal finances or to the nation's prosperity. Some see similar factors at work in Russia. Economic performance, in Leon Aron's view, was "by far the single most important explanation of Putin's popularity."[4]

Understanding what shapes presidential popularity in Russia is important for several reasons. First, it has some direct practical implications for Russian politics. If generating support for an incumbent president requires only the projection of a particular image, then it makes sense for the Kremlin's political technicians to seek to monopolize the mass media. If it was the fight against Chechen terrorists that made Putin popular, then—sadly—such conflicts are likely to flare up periodically as elections approach. If, however, it was the country's economic recovery that won the incumbent approval, the implications are more benign: Putin's successors will need to concentrate on the nuts and bolts of economic management.

Second, this question cuts to the heart of fundamental debates about the nature of politics in postcommunist Russia. Some see Russia in recent decades—as in its previous history—as a

---

[3] These oil prices are the average free on board spot price for Mediterranean Russian Urals crude oil. See the US Energy Information Administration at http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.

[4] Leon Aron, "Putin's Risks," American Enterprise Institute, *Russian Outlook*, Winter 2005, p.3.

place in which the key individual in the Kremlin has unusual freedom to direct the country's course. The wrenching changes that occurred as Russia lurched from Gorbachev to Yeltsin, and then to Putin reflect, in this view, the different directions in which these three leaders thought to take their country. The ideas of leaders, some argue, have mattered far more than institutions, interest groups, or ordinary citizens (Aslund 2007, pp.285-88). Adherents of this view differ in why they think Russia's presidents have such a free hand. Some attribute this to cultural traditions of autocracy and deference, while others see it as resulting from political institutions that are either too weak or else too tilted by the 1993 constitution in favor of executive power.

A competing view is that Russia's leaders are subject to constraints, albeit ones that can change rapidly and unexpectedly. They have been held back or empowered by public opinion, which has followed cycles rooted in economic performance. Only when their ratings were high could presidents realize their agendas and sideline their rivals. Moreover, the Kremlin has had only a limited ability to manipulate presidential popularity through control of the media or other technical fixes. The policy freedom enjoyed by Putin is, in this view, similar to, although more extreme than, that enjoyed by leaders in other countries whose popularity remains high for long periods. No doubt Putin's ideas did differ from those of Gorbachev and Yeltsin. But the main thing that distinguished him from his two predecessors was that he came to power at a time of strong economic recovery.

Is Russia an empty canvas on which authoritarian rulers paint whatever they wish? Or do certain leaders only become powerful because they arrive in office at a time of economic revival? Do Russian citizens defer to their rulers because of a culture of respect for strength or because they have been manipulated and misled by a state-controlled media? Or do they evaluate their leaders on the basis of mundane, bread-and-butter issues?

While there are many theories about the popularity of Russian presidents, there have been few attempts to test them systematically.[5] In this paper, I use statistical techniques and survey data to assess the evidence. I look first at what polls reveal directly about the determinants of presidential popularity. Then, with regressions using error correction models, I evaluate whether factors related to the different explanations help to predict the path of approval under Yeltsin and Putin. To preview the results, I find that public perceptions of the state of the Russian economy do an excellent job in predicting both the decline in Yeltsin's rating, and the surge and plateau in Putin's. Indeed, merely entering economic perceptions data into a simple statistical model derived from the Yeltsin period generates a predicted path of approval for Yeltsin's successor that surges upward in much the manner of Putin's actual rating. Simulations suggest that had Russians' perceptions of economic performance under the two presidents been exchanged, Yeltsin would have remained extremely popular, and Putin's rating would have fallen even lower than Yeltsin's.

Citizens' assessments of the current political situation help to predict Putin's rating, but the evidence suggests these are caused (in part) by economic perceptions. Although the high correlation between the various economic perceptions measures makes it difficult to distinguish their effects, the strongest evidence linked retrospective sociotropic evaluations to presidential approval. Finally, I show that economic perceptions are themselves well predicted by previous values of economic indicators—the real wage, wage arrears, inflation, and unemployment. In large part, people believed the economy was doing better or worse because it was. However, respondents focused on different economic variables when forming assessments of the state of the national economy, its future course, and the state of their family finances. The relationships

---

[5] Mishler and Willerton (2003) is a notable exception.

between the objective data and Russians' perceptions were also somewhat different under the two presidents.

I failed to find evidence for various common beliefs about recent Russian politics. Dynamic measures of press freedom in Russia are imperfect. But, using Freedom House's annual press freedom data, I did not find any evidence that falling press freedom under Putin was associated with his rising popularity—if anything, the reverse. Most strikingly, although support for Putin's tough line on Chechnya probably accelerated the surge in his popularity by a few months in late 1999, it was not necessary. A very similar surge, fueled by the unexpected economic recovery, would have borne him—or any other Kremlin incumbent—to a similarly high rating. Over time, the Chechen war probably lowered Putin's popularity, just as the first war had lowered Yeltsin's.

My findings are consistent with those of some articles that have examined cross-sections of individual level data. For instance, Rose, Mishler and Munro (2004) and Rose (2007b) found in cross-sectional studies of individual respondents, that a positive evaluation of the current economic system was the strongest predictor of support for the current system of government.[6] Of course, there are reasons to study the dynamics of aggregate opinion as well as the thinking of invididual voters. For one thing, one can expect quite different qualities in the aggregates and in the individual elements of which they consist. As Erikson, MacKuen and Stimson (2002) argue, in the area of US public opinion there is a "radical discontinuity between the impressions and conclusions reached from the study of individuals and aggregates." While individual opinions tend to be "backward-looking and inertial," uninformed, and internally inconsistent, aggregate opinion, is "quite nimble," adapting rapidly and in intelligible ways to changes in economic conditions and presidential actions. Knowledge of the individual voter "turns out not to be a

---

[6] See also Hesli and Bashkirova (2001), Duch (1995), and Miller, Reisinger, and Hesli (1996).

reliable guide for generalizing to the electorate and its role in democratic politics" (Ibid, p.3). By design, cross-sectional and time series studies focus on different questions and emphasize different variables. While cross-sectional studies are the best way to assess differences among individuals, they cannot accurately measure the effects of factors that affect all individuals in the same way, but vary greatly over time. The only time series analysis of Russian presidential approval I am aware of is Mishler and Willerton (2003), which examined data up to 2000, and so was not able to draw strong comparisons between the Yeltsin and Putin periods. I extend their analysis in various ways, and, using the more extensive data now available, draw somewhat different conclusions.

2 Data on presidential approval

The main data I analyze come from a face-to-face survey conducted periodically by the Russian Center for Public Opinion Research (VCIOM) until September 2003, and subsequently by its successor, the Levada Center.[7] VCIOM was created in 1988 by two Russian sociologists, Tatyana Zaslavskaya and Boris Grushin. From 1992, it was directed by Yuri Levada, a sociologist who had been fired from Moscow State University in 1969 for "ideological mistakes in his lectures." VCIOM acquired a reputation as the most professional and politically independent of Russia's half dozen leading polling organizations. This political independence is believed to have been the cause of a hostile takeover by the state in 2003, in which Levada was fired. All the center's researchers left with him to set up the private Levada Center, which continued the polls.

---

[7] A subset of these data, for the Yeltsin period and first 18 months of Putin's presidency, were analyzed in Mishler and Willerton (2003).

The surveys are of a nationally representative sample of voting-age citizens, who are interviewed in their homes. From late 1991, VCIOM included the question: "What evaluation from 1 (lowest) to 10 (highest) would you give the President of Russia Boris Yeltsin?" After Putin became acting president in January 2000, his name replaced Yeltsin's. VCIOM published the average responses. Since mid-1994, this question has been asked once every two months; before that, the gaps were sometimes longer. To create a series of evenly spaced observations, I linearly interpolated missing values. From late 1996, VCIOM also asked: "On the whole do you approve or disapprove of the performance of Boris Yeltsin [after December 1999, Vladimir Putin]?" This was asked monthly, although with some gaps before 2000. Again, I used linear interpolation to fill the gaps.[8] Although the approval question is in some ways closer to the standard used in Western surveys,[9] I focus on the 10-point scale question because it is available for a longer series.[10] During the period for which both are available the two are highly correlated, both in levels ($r = .99$) and in first differences ($r = .80$).

The data are shown in Figure 1. On the left, Yeltsin's rating bumps its way down from its October 1991 peak. On the right, we see Putin's remarkable eight years with an approval rating consistently above 60 percent. No American president since regular polling began in the 1930s has equaled this record. Eisenhower came closest, but even his rating fell into the 50s and occasionally the 40s.[11] No British prime minister has come close at least since the first MORI poll in 1979.[12]

---

[8] In the approval question, sample sizes were about 1600; in the 10-point scale questions, the size was usually from 2,100 to about 2,400.

[9] For instance, the Gallup poll asks Americans: "Do you approve or disapprove of the way that [president's name] is handling his job as President?"

[10] Mishler and Willerton (2003) also take this approach.

[11] I base this on the Gallup poll, the historical data from which are available at the American Presidency Project, at http://www.presidency.ucsb.edu/data/popularity.php.

Figure 1.   Presidential Approval, Russia 1991-2007
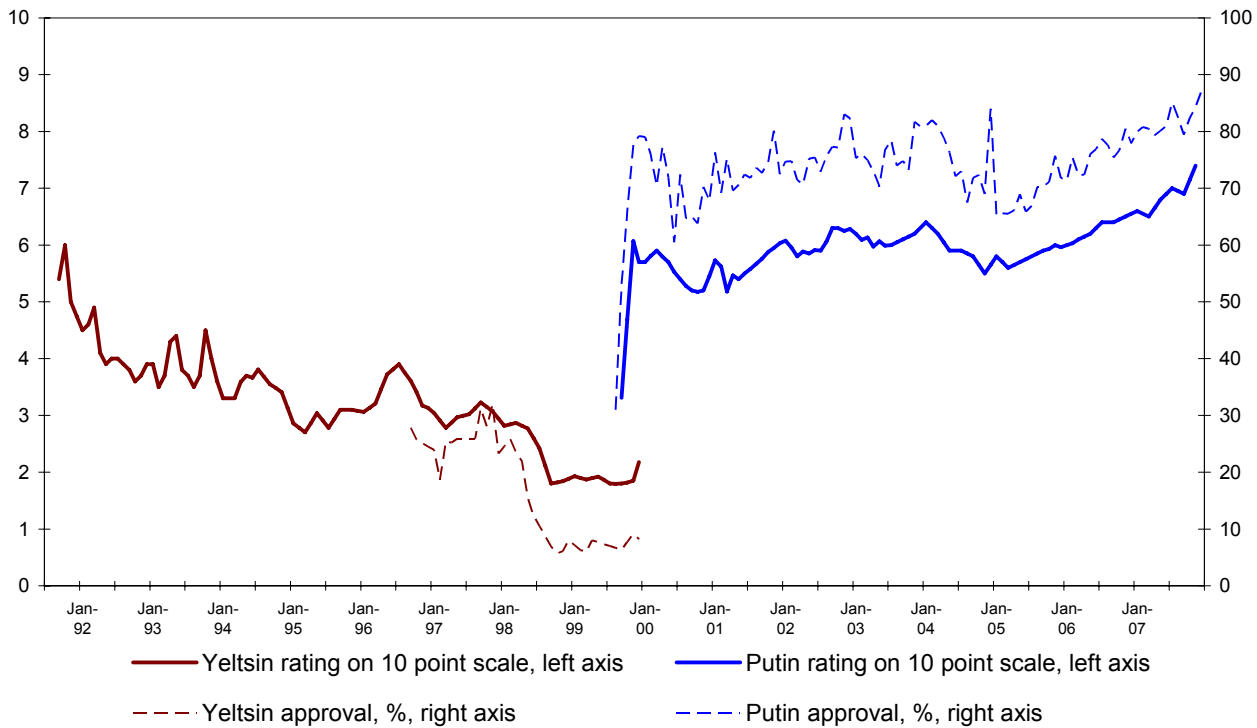
Note: Yeltsin approval is percentage of respondents saying on the whole they approve of the peformance of Boris Yeltsin. Likewise for Putin approval. Ratings on 10 point scale are average answer to question: "What evaluation from 1 (lowest) to 10 (highest) would you give the President of Russia (name of president)?" Surveys of VCIOM and Levada Center. Missing months interpolated. For detailed sources, see appendix.

A natural first question, then, is whether the results are believable. Might Putin's high ratings have been faked by the pollsters to please the Kremlin, or reflect the insincere replies of intimidated respondents? There are reasons to feel reassured on these points. First, it is hard to believe that VCIOM was slanting its results to please the Kremlin given the impeccable credentials of its leaders and the fact that the government took over the organization in 2003 because it was viewed as insufficiently loyal. A variety of Western polling organizations (such as the Pew Research Center for the People and the Press and the New Russia Barometer) have worked with the Levada group and found it highly professional. Second, it also seems unlikely that many respondents are intimidated from answering honestly given their willingness to

---

[12] See the Ipsos-MORI polls at http://www.ipsos-mori.com/polls/trends/satisfac.shtml.

express harsh criticism on other questions. Asked in January 2004 whether there was more or less corruption and abuse of power in the highest state organs than a year before, 30 percent said "more," 45 percent said "the same amount," and only 13 percent said "less" (with 12 percent "don't know").[13] Respondents were not shy to give Yeltsin a six percent approval rating and Putin just 31 percent in 1999. During the period of Putin's sky-high ratings, his governments never had the approval of more than 46 percent of respondents. And the public has not been afraid to dissent from key Putin policies such as the military occupation of Chechnya, which, except for a brief initial period, a majority of respondents have consistently rejected (see below).[14]

3 Possible explanations

I now examine arguments about presidential approval. I look first at available polls that speak directly to the plausibility of the hypothesis, and then run time series regressions to test whether measures of the variable in question help to predict the path of the president's rating on the 10-point scale. I run separate regressions for the two presidents because Figure 1 leaves little doubt that the underlying process changed between their terms.

---

[13] Results at www.russiavotes.org, Slide 450.

[14] Wyman (1997, pp.5-19) provides an excellent discussion of the difficulties and common criticisms of polling in Russia, and concludes that most of these problems are those faced by survey researchers worldwide. Beyond the positivity bias that makes respondents everywhere more likely to answer yes than no, "there is no evidence specific to Russia that respondents.... engage in self-censorship." To ascertain whether respondents were afraid to give critical opinions, Rose (2007) asked respondents in 13 postcommunist countries in 2004-5 whether they thought "people today are afraid to say what they think to strangers." Among Russian respondents, 25 percent thought people were afraid to some extent, while 74 percent thought they were not. This was the lowest reported fear level for all 13 countries. He also found that those who did think people were afraid to say what they think to strangers—and who presumably were somewhat afraid themselves—were only very slightly more likely to express a positive opinion of the current regime, suggesting that distortions due to self-censorship are minor. See, also, the discussion in Rose, Mishler, and Munro (2007, pp.73-4).

In constructing variables to include in the regressions, one must make some assumptions about the pattern of influence over time. While some factors have a continuous effect, others represent short-term shocks, the impact of which might be expected to fade as new events and other issues compete for citizens' attention. Theory tells us little about how long a given shock should last. I tried to let the data reveal the most appropriate formulation, trying variables that assumed, respectively, (1) a permanent change in opinion, (2) a change in the first month, disappearing over five months at the rate of 20 percent a month, (3) a change in the first month, disappearing over three months, at the rate of 33 percent a month, (4) a change in the first month, disappearing completely in the next month. In each case, I present the formulation that proved most significant. I also follow common practice in including a control for the number of months the president had been in office. In the US, the president's approval rating typically falls over time, even after controlling for other factors. Mueller (1973) argued that citizens start out with unrealistically high expectations of their president and, over time, become disappointed. Most studies, therefore, include a variable measuring the leader's tenure.

3.1 Chechnya and terrorism

In other countries, the public has often rallied behind national leaders at the start of wars (Mueller 1973). This was thought to be an important determinant of presidential popularity in Russia, during both the first and second Chechen wars.

Polls suggest the public viewed the two quite differently. Yeltsin's dispatching of troops to Chechnya in December 1994 was widely condemned. In January 1995, two thirds or more of Russian respondents opposed the military operation (Jeffries 2002, p.372). By the summer, 71 percent disapproved of Yeltsin's actions with regard to Chechnya, while only 16 percent

approved.[15] However, by 1999 opinion had soured on the compromise achieved in August 1996, under which Chechnya was in effect parceled up between warlords, who staged cross-border raids and took hostages for ransom. In October 1999, 74 percent said they supported a major military operation to liquidate the illegal armed groups in Chechnya.[16] Asked that month what attracted them about Vladimir Putin, 24 percent of respondents chose "I support his policy on Chechnya"—the second most popular answer.[17]

However, backing for Putin's approach proved fickle. By July 2000, about two thirds of Russians thought Putin's attempts to rout the insurgents in Chechnya mostly or completely unsuccessful, and the share did not fall below 60 percent until 2006. By November 2000, more Russians thought the government should start peace negotiations with the rebels than thought it should continue the military operation.[18] And by early 2001, fewer than one in ten respondents gave Putin's Chechnya policy as a reason they were attracted to him. If Putin's hard line on Chechnya helped him in the first months of his presidency, it seems likely that the benefit diminished over time.

To look for effects of the two Chechen wars on presidential approval, I constructed several variables. To capture the impact of the first war's start, I constructed a variable that took the value one for the first month of the war, December 1994, followed by, respectively, five months of -.2, three months of -.33, or one month of -1 to capture the fade out of the initial rally. In addition, to pick up changes in opinion that lasted for the duration of the war, I included a

---

[15] VCIOM, Omnibus poll 1995-4, 11 July – 10 August, 1995, 2983 respondents, at http://sofist.socpol.ru.

[16] VCIOM, Express poll, 1999-11, 29 Oct – 2 Nov, 1999, 1600 respondents, at http://sofist.socpol.ru.

[17] Respondents could check multiple options.

[18] This temporarily reversed after the Nordost terrorist attack in October 2002.

variable that took the value 1 in December 1994 and -1 in August 1996, when the Khasavyurt

Accords were signed. For the second war, better data were available, and so I could include

directly a measure of the percentage of the population that agreed with Putin that Russia should

continue the military operation rather than begin peace negotiations. VCIOM's and the Levada

Center's polls on this were taken monthly, and sometimes even weekly (in which case I averaged

to get a monthly value). Since dating the "end" of the second war is a matter of some

controversy, I included a variable which measured the proportion that answered a poll question

about what was happening in Chechnya by saying that "war is continuing." There were many

gaps in this series; I assigned the value 1 to the months from January to March 2000, and then

interpolated missing values. I also tested whether approval differed significantly in months

following the Budyennovsk, Nordost, and Beslan terrorist attacks, all of which created a

nationwide sense of vulnerability. In each case, I tried using variables under which the change

was permanent, faded over five months, three months, or one month.

3.2   Personal style

Polls bear out the contention that Russians were attracted by Putin's image of youthful vigor and

put off by Yeltsin's physical decline. When asked to choose qualities they found attractive about

Putin, from 30 to 47 percent of respondents chose "he is an energetic, decisive, strong-willed

person." Only nine percent of respondents said this of Yeltsin in January 2000. Even as early as

1996, the third most frequent thing respondents said they did not like about Yeltsin was that he

was "a sick, weak person."[19]

But did the presidents' images explain their varying levels of support? The time series

---

[19] VCIOM Express 1996-3, 15-20 February, 1996, 1584 respondents, at http://sofist.socpol.ru.

data available to test this are far from ideal. I constructed a variable measuring the percentage that said they were attracted to Putin by his energy, decisiveness and strong will. Polls have been taken on this off and on since October 1999, but the gaps are long, sometimes lasting as much as a year, so the ratio of interpolated data to actual readings is high. The data on this also end at October 2006. To avoid losing cases, I do not include this in the main regressions, but report the results of including the variable separately.

One can also seek evidence on this by focusing on particular incidents. One episode often thought to have punctured Putin's image of decisiveness was his slow and insensitive reaction when the Kursk nuclear submarine sank in the Barents Sea in 2000. While the Navy top brass ignored offers of Western help and delayed mounting a rescue mission, Putin continued a holiday in the South, where he was shown on the news waterskiing. I constructed variables for the Kursk disaster, with a permanent effect and with a five month, three month, or one month fade-out. During the Yeltsin period, one might expect the president's popularity to fall during months in which he was hospitalized (Mishler and Willerton 2003). I constructed a variable taking the value one in the first month (of any consecutive set of months) that Yeltsin was reported to have been in the hospital, and -1 in the next month which he was reported to have spent entirely out of the hospital. Finally, one of the most embarrassing moments in Yeltsin's presidency came in September 1994, when television showed him drunkenly conducting a military band in Berlin. I constructed variables assuming this had a permanent effect, or a five-, three-, or one-month fade-out.

3.3 Imposing order

Many Russians say, in answer to survey questions, that they support strong leaders and are

willing to sacrifice some civil or political rights in return for order. Moreover, the proportion of advocates of a "strong hand" may have grown over time. For instance, Stephen Whitefield (2005) found in 1995 that 44 percent of Russian respondents agreed with the statement that it would be "worthwhile to support a leader who could solve the main problems facing Russia today even if he overthrew democracy," and six years later the proportion had risen to 47 percent.[20]

From the start, Putin promised to restore "order" after the turbulent 1990s, to fight crime and corruption, and to reimpose central control over wayward local officials. A former KGB officer, he seemed to have the appropriate experience and connections. Could this explain Putin's popularity?

A problem for this argument is that those who favored a "strong" hand and other antidemocratic norms were in general less likely to favor Putin than to back the Communist leader Gennady Zyuganov or the ultranationalist Vladimir Zhirinovsky. In fact, Whitefield found it was supporters of democracy that tended to favor Putin.[21] And from fairly early on, Russians were skeptical of Putin's claims. Roughly twice a year between 2000 and 2007, VCIOM or the Levada Center asked respondents how successful Putin had recently been in imposing order in

---

[20] Whether this reveals a cultural predilection for authoritarian rule or just a response to extreme conditions that is similar to—although perhaps stronger than—those found in other countries is hard to say. After the terrorist attacks of 9/11, large majorities of American and British respondents said they were willing to compromise civil liberties in the interest of domestic security. In a YouGov poll of a representative sample of British respondents, 70 percent said they were "willing to see some reduction in our civil liberties in order to improve security in this country" ("Observer Terrorism Poll: Full Results," *The Observer*, September 23, 2001, http://observer.guardian.co.uk/waronterrorism/story/0,,556343,00.html). A New York Times/CBS poll around the same time found that 64 percent of US respondents thought that in wartime "it was a good idea for the president to have authority to change rights usually guaranteed by the Constitution" (Robin Toner and Janet Elder, "A Nation Challenged: Attitudes; Public is Wary but Supportive on Rights Curbs," *New York Times,* December 12, 2001).

[21] This was confirmed by a Pew Research Center poll that asked a similar question and again found Putin's approval was lower among those favoring a leader with a "strong hand" (Morin and Samaranayake 2006). Rose, Mishler, and Munro (2004) also found that support for Putin did not predict support for undemocratic forms of government.

the country. On average 47 percent thought he had been successful to some extent, while 49 percent thought he had been unsuccessful.[22] There was no clear trend over time. When asked more specific questions, those seeing deterioration vastly outnumbered those seeing improvement. Each year since 2000, at least 25 percent more thought that citizens' personal security had gotten worse than thought it had gotten better. Each year, at least 15 percent more saw deterioration in law enforcement than saw improvement.[23] While at the start of his term, 29 percent said they were attracted to Putin because he was "someone who could impose order in the country," by October 2006 the share saying this had fallen to 13 percent.

Following the lead of Mishler and Willerton (2003), I constructed a measure of citizens' perceptions of the political situation from a question regularly used by VCIOM/Levada Center. The question asked: "Overall, how would you assess the political situation in Russia?" I subtracted the proportion choosing "critical, explosive," and "tense" from the share choosing "calm" and "favorable," as usual, interpolating for missing months. To test whether approval of Putin's measures against the oligarchs earned him support, I created variables for the month of Khodorkovsky's arrest. To see if indulging nostalgia for Soviet times added to Putin's appeal, I also created variables for Putin's restoration of the previous Soviet-era music to the national anthem. Polls at the time found a large plurality—46 percent in a VCIOM poll, 50 percent in a poll by ROMIR—in favor of the Soviet Alexandrov version.[24] Under Yeltsin, the epitome of political disorder occurred when, in October 1993, tanks bombarded the parliament building to

---

[22] See "Prezident: otsenki dyeatel'nosti," Levada Center, at http://www.levada.ru/ocenki.html.

[23] Levada Center press release, at http://www.levada.ru/press/2007120703.html.

[24] VCIOM Express poll, 2000-22, 27-30 October, 2000, 1,600 respondents, and Romir Omnibus poll, 2000-11, 1-30 November, 2000, 2,000 respondents. Results available at http://sofist.socpol.ru.

flush out legislators who had rejected Yeltsin's instruction to dissolve. I created variables to capture effects of this moment of trauma.

3.4 Media coverage

Since 1999, the Kremlin's efforts to control television have led to the takeover of the last independent networks either by state corporations or by loyal businessmen. Strong criticism of the president—although not the government—has largely disappeared from mainstream television. On the basis of survey results from late 1999, White et al. (2005, p.192) concluded that bias in the official media played a major role in Putin's rise: "The decisive factor in this dramatic reversal of fortunes appeared to be the media, particularly state television." Constructing a measure of change in the way the media covered the president was difficult. For lack of a more sophisticated measure, I used the organization Freedom House's annual index of press freedom, with the annual value used for each month of the relevant year.

3.5 Economics

Economic performance—and, especially, perceptions of it—have been shown to influence approval of incumbents in countries such as the US, France, and Britain (Erikson, MacKuen and Stimson 2002, Lafay 1991, Clarke and Stewart 1995, Sanders 2000). It is natural to think they might play a similar role in Russia, where various scholars have found economic influences on voting (Colton 2000, Tucker 2006). Such economic effects might be either retrospective or prospective, and might focus on respondents' own economic circumstances or on their view of conditions nationwide.

Previous analyses of data from Russia and other post-Soviet countries have found evidence of all four types of economic influences on the popularity of incumbent officials. For instance, Hesli and Bashkirova (2001), looking at cross-sectional surveys from a number of years, found evidence of all four effects on support for Yeltsin. Mishler and Willerton (2003), looking at time series data on approval in Yeltsin's term and the beginning of Putin's noted the influence of retrospective evaluations of both the national economy and family finances. Rose et al (2004, p.209) also found in a cross-section that respondents' evaluations of current economic performance were the strongest predictor of support for the existing political regime.

Data were available in the VCIOM/Levada Center surveys to test three hypotheses—prospective and retrospective evaluations of the national economy, and retrospective evaluations of family finances. To measure retrospective evaluations of the national economy, I use the question: "How would you assess Russia's present economic situation?" Respondents could answer "very good," "good," "in between," "bad," "very bad," or "don't know." I constructed a variable measuring the percentage that said "very good" or "good" minus the percentage that said "very bad" or "bad."[25] To measure retrospective evaluations of personal finances, I use the question: "How would you assess the current material situation of your family," which had the same choice of answers. Again, I subtracted the percentages saying "very bad" or "bad" from those saying "very good" or "good." For prospective evaluations of the national economy, I use the question: "What do you think awaits Russia in the economy in the coming several months?" Respondents chose between "a significant improvement of the situation," "some improvement of the situation," "some deterioration of the situation," "a significant deterioration of the situation," and "don't know." I subtracted the percentage

---

[25] As with the presidential approval variable, this was generally available every second month, with some longer and some shorter gaps. To avoid irregular gaps in the data, I interpolated missing values linearly.

anticipating deterioration from that anticipating improvement. Unfortunately, no question was available for a comparable time period on prospective evaluations of personal finances.

4   Explaining presidential approval: analysis

Before proceeding to regressions, some statistical issues must be resolved. As is well-known, simple OLS regressions on non-stationary data may produce spurious results. Based on Augmented Dickey Fuller (ADF) tests, we cannot confidently reject the possibility that presidential approval is non-stationary for either the Yeltsin presidency (test statistic = -2.36, p = .15) or the Putin presidency (test statistic = .65, p = .99). However, tests suggest both are stationary in first differences. ADF tests also indicate that some of the independent variables—all three of the economic perceptions variables, the political perceptions measure, and the measure of support for continuing military operations in Chechnya—are not stationary in levels, although all are in first differences.

One common method for analyzing non-stationary time series is to run OLS regressions using an error correction model (ECM). ECMs simultaneously estimate the long-run relationship between time series variables and the short-run dynamics of adjustment when shocks knock the system out of equilibrium. (They have been recommended for the analysis of stationary series as well because of the way they illuminate the short-run and long-run relationships; see Beck (1991), De Boef and Keele (2006).) When the dynamic variables are cointegrated, the residuals from the OLS regressions will be stationary, and ADF tests can be used to check that this is the case. Error correction models have been used to analyze presidential popularity in the US (see, e.g., Eichenberg, Stoll, and Lebo 2006). I use the single equation method, and run regressions of the form:

$$\Delta Y_t = \beta_0 + \sum_{i=1}^{M} \beta_{1i} \Delta Y_{t-i} + \sum_{i=0}^{M} \beta_{2i} \Delta X_{1,t-i} + \beta_3 Y_{t-1} + \beta_4 X_{t-1} + \beta_5 W_t + \varepsilon_t \qquad (1)$$

where Δ is the first difference operator, Y is average presidential approval on the 10-point scale, X is a non-stationary independent variable, and W is a stationary independent variable assumed to have an effect on change in the level of approval.[26] More independent variables can be included on the right-hand side. If they are non-stationary, a one-period lag of the level and multiple lags of the differenced variable are included, as is shown for X in equation 1. If they are stationary, just the level is included, as shown for W. Multiple lags of the dependent and independent variables are included to pick up delayed effects and to ensure that the residuals are not autocorrelated. I experimented with various values of M, starting from quite general models, focusing on those lag structures for which tests suggested the residuals were uncorrelated, and trading off parsimony against goodness of fit.[27] In Table 2, I show models with six lags of the key differenced variables. Models 1 and 4 include just economic variables; 2 and 5 add the political perceptions variable; then 3 and 6 include other political variables. In model 3, to achieve uncorrelated residuals it was necessary to drop two lags of the national economy variable.

What do the results show? First, note that there are many significant coefficients for different lags of the various economic effects, in both the Yeltsin and Putin periods. Note also the high R-squareds of most of the models, even when the lags of the dependent variable are left out. The three economic perceptions variables, along with the number of months the president

---

[26] Durr (1992) reports Monte Carlo simulations that show that the single equation method is less vulnerable to accidental associations than the Engle and Granger two-step technique.

[27] In doing this, I referred to the Akaike Information Criterion (AIC), often used to guide how many lags should be included in dynamic regressions. Going strictly by the AIC, models with many more lags—as many as 14—would have been preferred. However, given the limited length of the time series, this would use up so many degrees of freedom as to risk overfitting. A six-lag structure, when this eliminated autocorrelation, seemed the best compromise.

had been in office, can by themselves predict about two thirds of the variation in Yeltsin's rating and more than half that in Putin's. I present joint statistical significance tests for the lags of each differenced economic variable. The national economy and economic expectations variables are significant in all models; the lags of differenced family finances are significant during the Yeltsin years, but less so under Putin.

Disentangling the partial effects of the different factors is complicated by the close relationships among the various economic and political perceptions variables. In levels, the three economic variables and the political situation one are correlated at from $r = .71$ to $r = .96$. In first differences, the correlations are lower, but still reach as high as $r = .50$. These correlations are not surprising; theoretically, one might expect a number of connections. First, the same factors— inflation, income growth, unemployment—are likely to influence both the respondent's personal finances and her perceptions of the national economy. Second, perceived current conditions are bound to influence economic expectations. Third, current economic conditions are also likely to affect the degree of political tension. I investigate these conjectures in the appendix and find support for them.

Given the complex interactions between these variables, the partial effects could be quite misleading. Without good instruments to identify the separate effects of these variables, it is hard to confidently assess the relative importance of retrospective and prospective evaluations, or of sociotropic and egocentric considerations. For what it is worth, since reading the net effects from Table 2 is difficult, I plot simulations in Figures 2a and 2b of the partial effects of the economic and political situations variables, holding constant other variables. The graphs show the estimated impact over time on presidential popularity of a permanent one standard deviation improvement in the explanatory variable. The economic effects are calculated from the models

21

Table 2. Explaining presidential approval, Russia 1991-2007

| | -------------Δ Yeltsin approval------------- | | | --------------Δ Putin approval-------------- | | |
	(1)	(2)	(3)	(4)	(5)	(6)
L1 approval	-.52*** (.11)	-.50*** (.12)	-.43*** (.07)	-.10* (.06)	-.15** (.05)	-.12* (.06)
L1 current economy	.03*** (.01)	.04*** (.01)	.02*** (.01)	.01 (.01)	.00 (.01)	.01 (.01)
L1 family finances	-.02** (.01)	-.01 (.01)	-.01** (.01)	-.00 (.01)	-.02* (.01)	-.00 (.01)
L1 Russia's ec. future	.02*** (.00)	.01*** (.00)	.01*** (.00)	.00 (.00)	-.00 (.00)	-.00 (.00)
L1 Russia's pol. situation		-.01** (.00)			.01**** (.00)	
L1 Δ approval	.50*** (.12)	.50*** (.12)	.47*** (.08)	.02 (.13)	.02 (.12)	-.07 (.17)
L2 Δ approval	-.17 (.13)	-.24* (.13)	.05 (.07)	-.16* (.08)	-.18* (.10)	-.19 (.15)
L3 Δ approval	.25** (.11)	.19* (.10)	-.03 (.07)	.01 (.07)	-.02 (.08)	.01 (.01)
L4 Δ approval	-.14 (.11)	-.19* (.11)	-.00 (.07)	.08 (.05)	.08 (.07)	.13*** (.04)
L5 Δ approval	.05 (.11)	-.02 (.11)	-.03 (.07)	.03 (.04)	-.02 (.06)	.00 (.00)
L6 Δ approval	.25*** (.08)	.14* (.08)	.11* (.06)	.07 (.05)	.08 (.06)	.13** (.05)
Δ current economy	.06*** (.01)	.05*** (.01)	.03*** (.01)	.02*** (.01)	.02** (.01)	.01** (.01)
L1 Δ current economy	-.05*** (.01)	-.05*** (.02)	-.01* (.01)	-.00 (.01)	.00 (.01)	.00 (.01)
L2 Δ current economy	.04** (.02)	.03* (.02)	-.01 (.01)	.01 (.01)	.01 (.01)	.01 (.01)
L3 Δ current economy	-.05*** (.02)	-.05*** (.01)	.00 (.01)	-.00 (.01)	.00 (.01)	.00 (.01)
L4 Δ current economy	.05*** (.02)	.05** (.02)	-.00 (.01)	.01 (.01)	.02 (.01)	.01 (.01)
L5 Δ current economy	-.03*** (.01)	-.04*** (.01)	(a)	-.00 (.01)	-.00 (.01)	-.00 (.01)
L6 Δ current economy	.01 (.01)	-.00 (.01)	(a)	.01** (.01)	.02*** (.01)	.01** (.01)
Sig as group	p = .00	p = .00	p = .00	p = .00	p = .02	p = .00
Δ family finances	-.01 (.01)	-.01** (.01)	.00 (.00)	-.01 (.01)	-.01 (.01)	-.00 (.01)
L1 Δ family finances	.02** (.01)	.02** (.01)	.00 (.01)	-.00 (.01)	.01 (.01)	-.00 (.01)
L2 Δ family finances	-.01 (.01)	-.01 (.01)	.01 (.01)	.01 (.01)	.02** (.01)	.01 (.01)
L3 Δ family finances	.01* (.01)	.01* (.01)	.00 (.01)	-.01 (.01)	-.01 (.01)	-.01* (.01)
L4 Δ family finances	.00 (.01)	-.00 (.01)	.01** (.00)	.02** (.01)	.02** (.01)	.03** (.01)
L5 Δ family finances	.01 (.01)	.01 (.01)	-.00 (.00)	-.01 (.01)	-.01 (.01)	-.01 (.01)
L6 Δ family finances	-.00 (.01)	-.00 (.01)	-.00 (.00)	.01* (.01)	.02* (.01)	.02** (.01)
Sig as group	p = .04	p = .04	p = .01	p = .17	p =.22	p = .05
Δ Russia's ec. future	.01 (.01)	.00 (.01)	.01*** (.00)	.01* (.00)	.01 (.00)	.01 (.00)
L1 Δ Russia's ec. future	-.01 (.01)	-.01 (.01)	-.02*** (.00)	.00 (.00)	.01 (.01)	.00 (.01)
L2 Δ Russia's ec. future	-.02*** (.01)	-.02*** (.01)	.00 (.01)	-.00 (.01)	-.00 (.01)	-.01 (.01)
L3 Δ Russia's ec. future	.00 (.01)	.00 (.01)	-.01*** (.00)	.01 (.01)	.01** (.01)	.02** (.01)
L4 Δ Russia's ec. future	-.02** (.01)	-.02** (.01)	.01 (.00)	-.02*** (.01)	-.02** (.01)	-.03*** (.01)
L5 Δ Russia's ec. future	.01 (.01)	.01* (.01)	-.01** (.00)	.00 (.01)	.01 (.01)	.01** (.01)
L6 Δ Russia's ec. future	-.02*** (.00)	.02*** (.01)	-.01** (.00)	-.02*** (.00)	-.01 (.01)	-.02*** (.00)
Sig as group	p = .00	p = .01	p = .00	p = .00	p = .02	p = .00

Table 2 continued

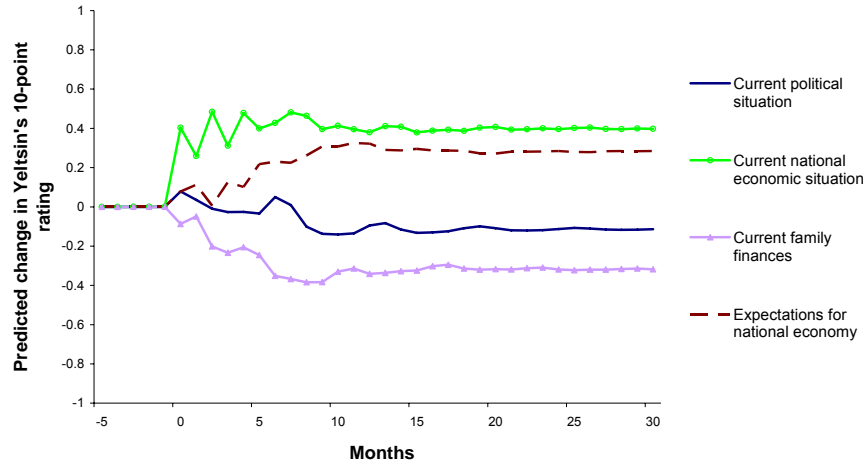|						
Δ Russia's pol. situation		.01* (.01)			.00 (.00)	
L1 Δ Russia's pol. sit.		.00 (.01)			-.02** (.01)	
L2 Δ Russia's pol. sit.		.01 (.01)			-.00 (.01)	
L3 Δ Russia's pol. sit.		.01 (.01)			-.01* (.01)	
L4 Δ Russia's pol. sit.		.01 (.01)			-.00 (.01)	
L5 Δ Russia's pol. sit.		.01 (,01)			-.00 (.01)	
L6 Δ Russia's pol. sit.		.14* (.08)			-.01 (.01)	
Sig as group		p = .15			p = .06	
Months in office	-.012*** (.00)	-.008** (.004)	-.010*** (.02)	-.001 (.002)	-.002 (.002)	.000 (.003)
White House storming (1 mth)			.65*** (.06)			
Drunk in Berlin (1 mth)			-.18*** (.05)			
Yeltsin hospitalized (1 mth)			-.02 (.02)			
Yeltsin 2nd honeymoon (6 mths)			-.22* (.11)			
Start of 1st Chechen war (6 mths)			.25* (.13)			
First Chechen war			-.24 (.15)			
Budyennovsk crisis (6 mths)			-.11** (.05)			
Putin 1st honeymoon (1 mth)						-.10 (.14)
Putin 2nd honeymoon (6 mths)						-.21** (.08)
L1 "War continuing" in Chechnya						-.78* (.39)
Δ "War continuing" in Chechnya						-1.00** (.40)
Nordost theater siege (1 mth)						.09*** (.03)
Beslan terrorist attack (1 mth)						.09*** (.02)
Sinking of Kursk (1 mth)						.18** (.07)
Soviet anthem restored (permanent)						.20* (.10)
Arrest of Khodorkovsky (6 mths)						.10 (.08)
FH press index (high: less free)						-.02* (.01)
Constant	4.17*** (.88)	3.69*** (.94)	3.32*** (.57)	.97** (.48)	1.00** (.47)	2.65*** (.92)
R^2	.8649	.9055	.9552	.5517	.6721	.6831
R^2 (no lags of dep.var.)	.6721	.7364	.8291	.5406	.6122	.5973
R^2 (model with *just* lags of dep.var., in levels and changes)	.2164	.2164	.2164	.1100	.1100	.1100
Durbin Watson	1.84	2.11	2.12	1.95	2.10	2.11
Breusch-Godfrey	.39 (p = .53)	1.50 (p = .22)	.41 (p = .52)	.06 (p = .81)	.64 (p = .42)	.76 (p = .38)
Arch LM	.78 (p = .38)	.06 (p = .81)	4.86 (p = .03)	18.20 (p=.00)	22.05 (p = .00)	6.45 (p = .01)
ADL on residuals	-8.26 (p = .00)	-9.79 (p = .00)	-9.02 (p = .00)	-9.43 (p = .00)	-10.15 (p = .00)	-24.48 (p = .00)
N	75	75	75	96	96	96

*** $p < .10$, ** $p < .05$, * $p < .10$. OLS with White heteroskedasticity-corrected standard errors in parentheses. "Sig as group" gives probability from Wald test to reject null hypothesis that all variables in the group directly above are jointly equal to zero. (a) dropped to reduce serial correlation. All Putin regressions start in January 2000.

that include just economic perceptions and the president's time in office (1 and 4); since perceptions of the political situation are influenced by economic perceptions, controlling for the former would lead to underestimates of the full effect of the latter. The political perceptions effect is estimated from models 2 and 5.

The graphs suggest that when Russians perceived an improvement in the state of the country's economy, this led them to give both Yeltsin and Putin higher ratings. The effect took from 5 to 10 months to filter through completely. Taking the graphs literally would suggest that evaluations of family finances had little effect or even a negative effect on presidential popularity. However, given the high correlation between perceived family finances and perceptions of the national economy (r = .79 under Yeltsin, r = .90 under Putin), I would hesitate to draw this conclusion. It might be that when respondents' own finances improve without any perceived improvement in the national economy, the respondents attribute this to their own efforts rather than the president's. This might even increase their disappointment with the president's economic management. But the pattern could also be caused simply by noise in the presence of collinearity. Improvements in economic expectations led to higher presidential approval under Yeltsin, but there was not much effect under Putin, at least controlling for family finances, which the analysis suggested help to cause economic expectations.
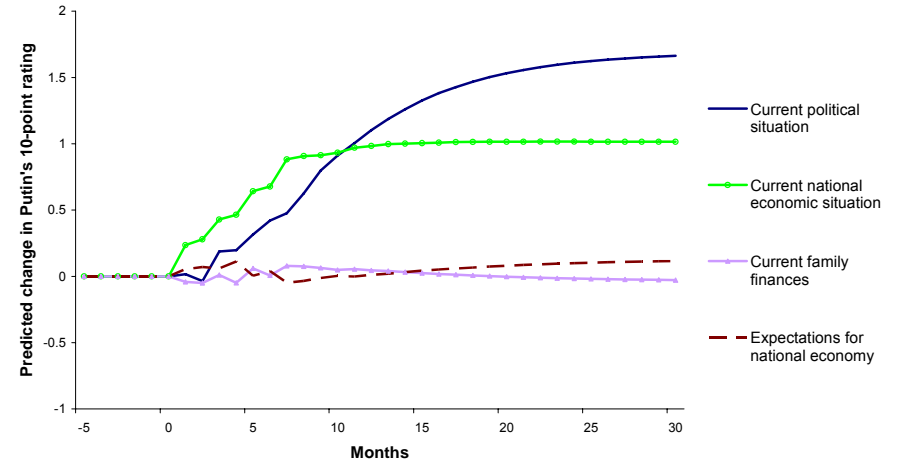
Finally, improved assessments of the political situation were associated with a large boost in Putin's popularity, with the full effect taking more than a year to fully materialize. This was so even controlling for the economic perceptions indicators that tests suggest help to cause the political assessments. (Recall the results in Figure A2b that suggest that improvements in perceptions of the Russian economy led to even larger improvements in evaluations of the political situation under Putin.) Under Yeltsin, increases in the political situation variable led to a

Figure 2a. Simulated effects of a permanent, one standard deviation improvement in economic or political perceptions, other things equal, on approval rating of President Yeltsin


- Current political situation
- Current national economic situation
- Current family finances
- Expectations for national economy

Source: author's simulations; economic measures from model 1 in Table 2; political situation from model 2 in Table 2.

Figure 2b. Simulated effects of a permanent, one standard deviation improvement in economic or political perceptions, other things equal, on approval rating of President Putin


- Current political situation
- Current national economic situation
- Current family finances
- Expectations for national economy

Source: author's simulations; economic variables from model 4 in Table 2; political situation from model 5 in Table 2.

Figure 2c. Simulated effects of a permanent, one standard deviation improvement in several variables simultaneously, other things equal, on approval rating of President Yeltsin

- All three economic variables
- Three economic variables plus political situation
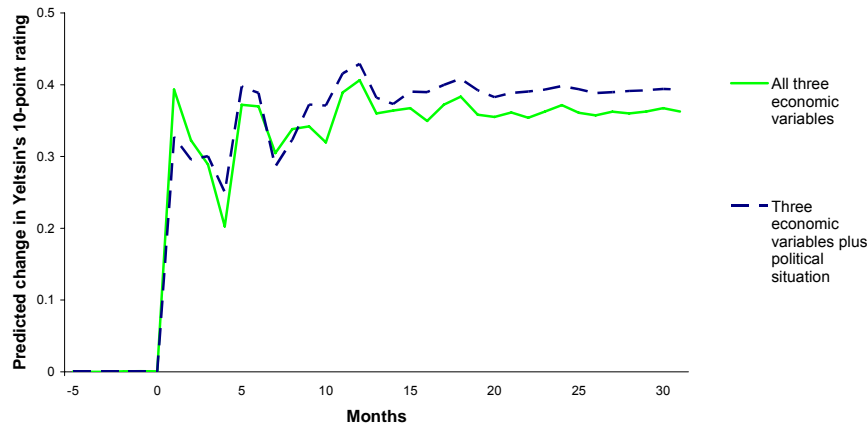
Source: author's simulations; economic measures from model 1 in Table 2; all four together from model 2 in Table 2.

Figure 2d. Simulated effects of a permanent, one standard deviation improvement in several variables simultaneously, other things equal, on approval rating of President Putin

- All three economic variables
- Three economic variables plus political situation
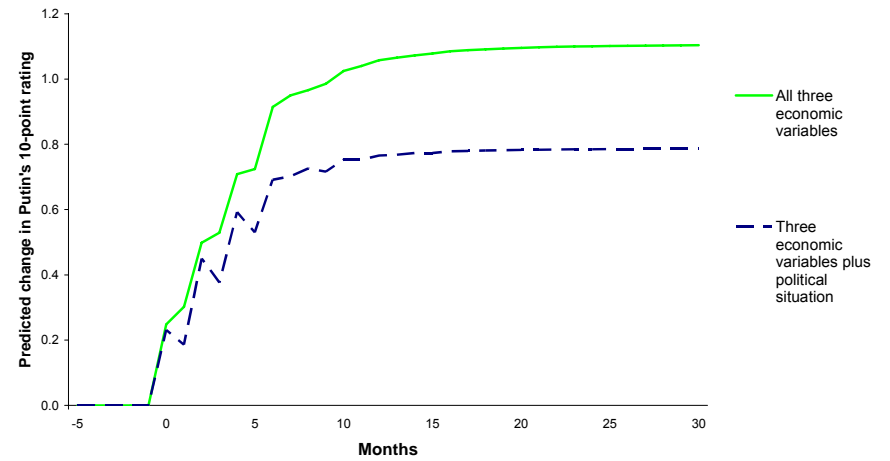
Source: author's simulations; economic measures from model 4 in Table 2; all four together from model 5 in Table 2.

small short-term rise in the president's popularity, but, other things equal, reduced popularity slightly after about eight months. Perhaps this suggests that *unless* an improved political situation is followed by subsequent improvements in the political or economic sphere, this creates disappointment that lowers the president's popularity. But, again, this might be noise in the estimation of highly correlated processes.

Although assessing the partial contributions of these variables is difficult given their complicated interactions, one can draw more confident conclusions about their aggregate impact. In Figures 2c and 2d, I plot the estimated effects of a simultaneous, permanent one standard deviation increase in all three economic perceptions variables, and then for these along with a one standard deviation permanent improvement in the political situation variable. A one standard deviation improvement in economic perceptions has a clear, substantial positive impact on the popularity of both Yeltsin and Putin. The estimated boost is greater for the latter than for the former. In both cases, the full effect takes about a year to work itself out. Adding political perceptions changes little under Yeltsin, and leads to a surprising lower total effect under Putin (again, I suspect this just reflects the high correlation among the variables, which leads to unstable estimates of their partial impact).

What do the regressions tell us about the initial jump in Putin's popularity? Suppose there had been no second Chechen War, no appartment bombings, no tightening of restrictions on the press? Would Putin's approval rating then have remained around its starting point of 31 percent, or slipped even lower like that of his predecessor?

Of course, we cannot know for sure. Still, the statitics allow us to explore the counterfactual. To see what economic perceptions alone would predict, I used the model from the Yeltsin period that includes only economic perceptions and months in office (Table 2, model 1),

and simply extrapolated forward using the actual economic perceptions data for the Putin presidency and restarting the months-in-office clock at 1 in January 2000. Figure 3 shows this prediction, along with Putin's actual approval. The prediction uses only the retrospective economic and family finance perceptions and the economic expectations data for the Putin period, along with the measure of the president's months in office and the parameter estimates from model 1.[28]

In Figure A3 in the appendix, I show results from a similar estimation using, instead of the 10-point rating, the percentage who said that overall they approved of the president's performance, and extrapolating forward from a model similar to Table 2, model 1. Since VCIOM only asked this question from September 1996, the data to estimate the model for the Yeltsin period were very limited. To extend the series back, I regressed the approval percentage on Yeltsin's 10-point rating for the September 1996-December 1999 period, and generated predicted values for approval that went back to the spring of 1993 (the two correlate at $r = .99$).

The striking finding from Figure 3 is that even without a Chechen war or any terrorist attacks, economic factors alone would have predicted a sharp jump in the popularity of the new president that looks remarkably like the one that actually occurred. Indeed, the jump in approval to be expected based on economic factors alone was even higher than the actual one, peaking at 6.7 on the ten-point scale. In late 1999, the Russian economy began to revive. Between August 1999 and June 2000, real wages rose by about 20 percent, while wage arrears and unemployment fell. This was enough to prompt an unexpected rebirth of economic optimism that would have sent support shooting up for any leader who happened to be in the Kremlin.

---

[28] No actual data on Putin's approval were used in calculating this. I take the actual Yeltsin rating as of the first month, September 1993, and then run the model to produce predictions for each subsequent month to November 2007, using the actual economic perceptions data, and restarting months-in-office at January 2000. I am, therefore, assuming nothing about Yeltsin's successor other than that he took office in January 2000, inherited Yeltsin's low initial popularity, and benefited from economic perceptions in the same way as Yeltsin.

Figure 3.   Predicting Putin's approval rating with economic perceptions
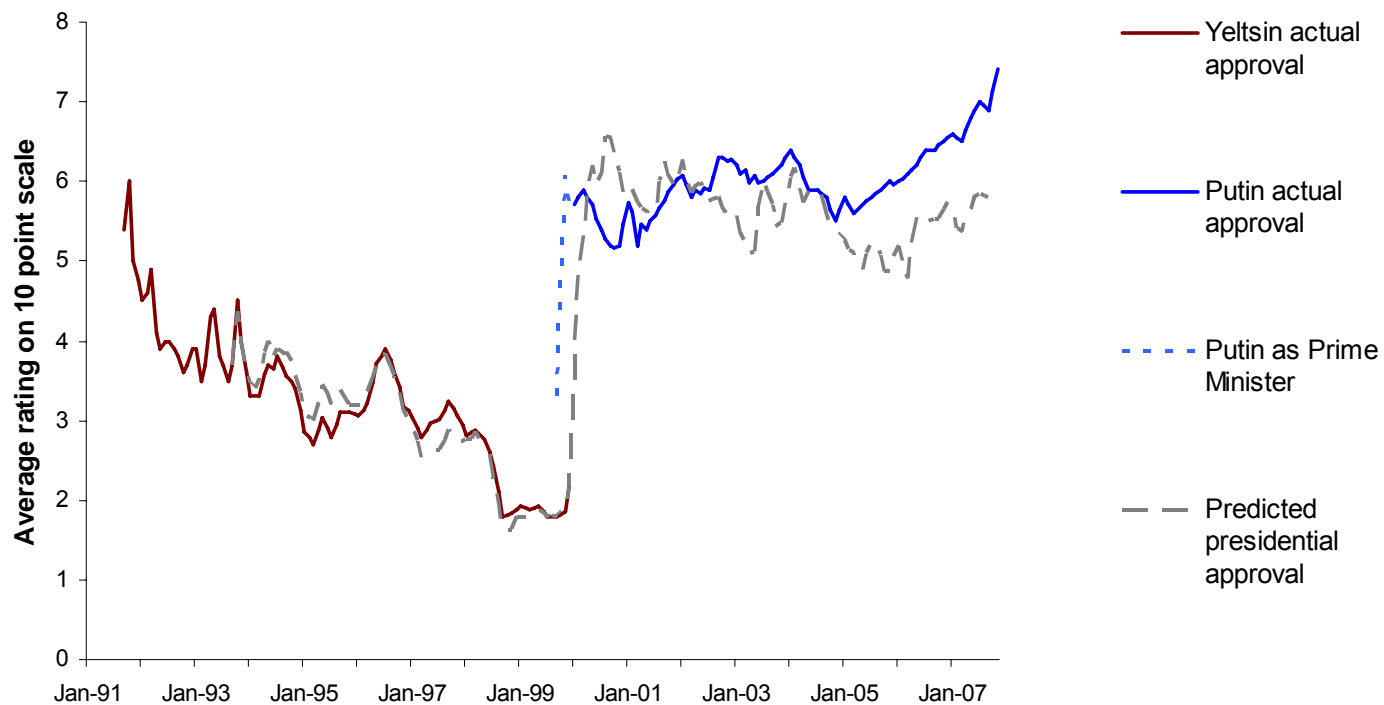
Source: VCIOM/Levada (see appendix for details) and author's calculations.

The main difference is that the surge in presidential popularity predicted by economic factors appears to begin a few months later. Those months were not unimportant. Putin would have to run for election in June, or, after Yeltsin resigned early, in March 2000. Still, by March, and definitely by June, Putin would have been more highly rated than Yeltsin when the latter won the 1996 election. As of March 2000, the economics-based predictions put Putin at 5.3, compared to the Yeltsin's 3.9 in July 1996. (The predicted proportion of Russians approving of Putin in March 2000, from Figure A3, was 56 percent.)

Even that may be too pessimistic a prediction. The estimations in Figure 3 assume that Putin's popularity as president had to begin around Yeltsin's final level in January 2000. It is

probably more realistic to assume that Putin's rating as president in January 2000 was based on his rating as prime minister in December 1999. As shown in Figure 3, Putin's rating as prime minister rose steeply between September and December 1999. This is usually associated with the Chechen events and terrorism. But what would economics predict? We can explore this by predicting forward with model 1, exactly as before, but instead of restarting the months-in-office clock in January 2000, restarting this in September 1999. Thus, we see what might have been expected to happen if Putin had taken over as acting president in September 1999. These results are shown in Figure 4. Now, economic factors prove enough to send Putin's popularity soaring from the start. Nevertheless, there is still a period of divergence between October 1999 and April 2000 during which Putin's actual popularity is higher than that predicted by just economic perceptions. This might, indeed, be associated with the Chechen events.

The importance of economic perceptions immediately raises the question: What causes these perceptions? Do they reflect actual economic conditions, or are they idiosyncratic, shaped, for instance, by government public relations? In Table A4 in the appendix, I run ECMs regressing the three economic perceptions measures on levels and lags of four important economic indicators— the real wage, real value of outstanding wage arrears, inflation (logged), and unemployment. Along with the lags of the dependent variable, these indicators explain about two thirds or more of the variation in perceptions.

How they do so is also interesting. The cointegrating regression part of model 1 in Table A4 suggests a long run equilibrium relationship between perceptions of the Russian economy and the real wage, wage arrears, and inflation. Higher real wages and lower wage arrears and inflation are associated in the long run with a more positive view of the national economy. Changes in these variables seem to have a rapid impact, affecting the average assessment of the national economy

29

strongly within the first couple of months. Falling unemployment may also improve perceptions of

the Russian economy, although with a longer lag.

Figure 4.   Predicting presidential approval with just economic perceptions, supposing a new president took over in September 1999
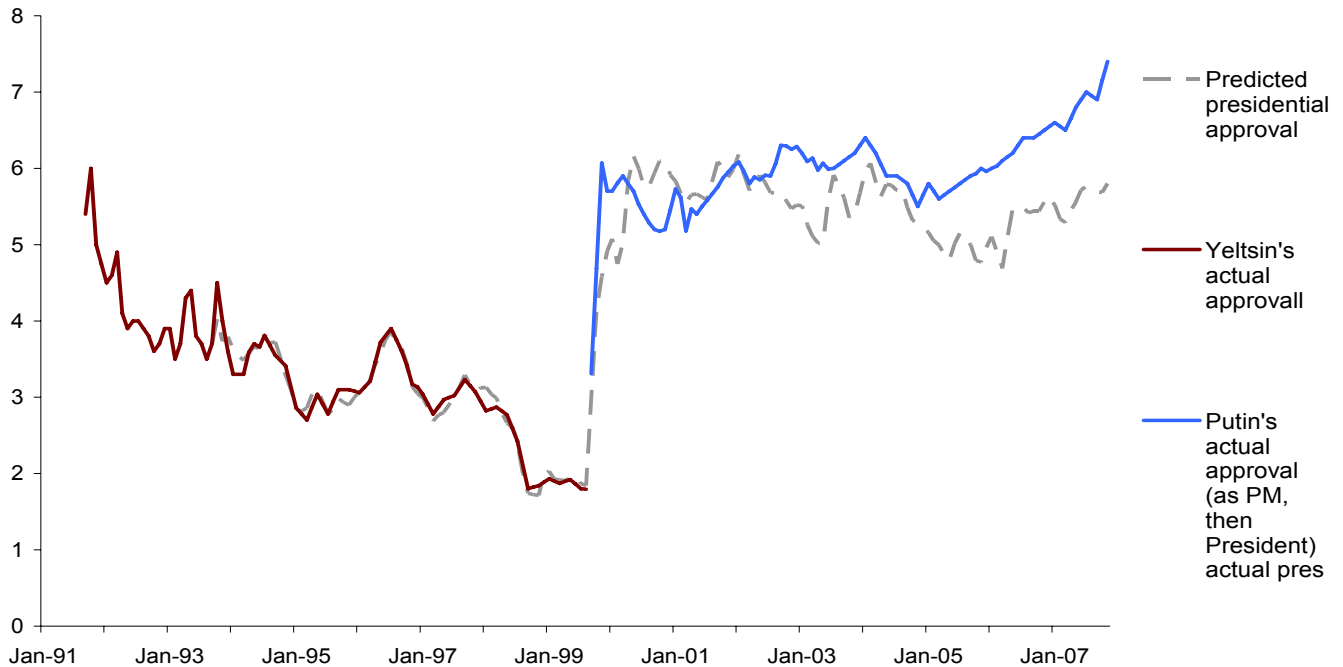
Source: VCIOM/Levada (see appendix for details) and author's

Respondents' evaluations of their families' finances seem most sensitive to inflation and

unemployment. In equilibrium, higher inflation and unemployment are associated with a more

negative view of family finances, and the adjustment is rapid, with economic changes affecting

perceptions in the first month. There may be some effect of real wages and wage arrears, but with a

lag of four months or more. Changes in real wages, wage arrears, inflation, and unemployment all

influence economic expectations in the anticipated way, but while inflation has a rapid impact,

most of the other variables appear to have more gradual effects.

Could misleading information in the media explain the remaining variation in economic

perceptions that is not related to the objective indicators? These residuals are shown in Figure A4 in the Appendix.[29] If the residuals represented pro-government propaganda, one might expect them to be greater during Putin's presidencies, and increase throughout his time in office as the press came under tighter control. We might also expect the residuals to increase during presidential election campaigns, when there is extra reason to convince voters that the economy is healthy.

Neither of these expectations is quite borne out by the actual pattern of residuals. The unexplained variation in all three perceptions measures is positive—indicating unusually rosy economic perceptions—between 2001 and 2005. However, the residuals turn negative in 2005-7, surely the period in which Kremlin control of the press was the tightest. Both perceptions of the national economy and economic expectations peaked in March 2004, the date of Putin's reelection. This is consistent with the notion that the media create an upbeat impression of the economy during election campaigns. However, all the perceptions were gloomier than objectively indicated during the 2000 presidential campaign. During Yeltsin's 1996 reelection campaign, perceptions of the national economy were higher than predicted, and economic expectations were also slightly higher for a month or two. But perceived family finances were in the middle of a long fall.

In another attempt to assess whether the Kremlin's intimidation of the media affected Putin's popularity, I used Freedom House's index of press freedom. This is an admittedly weak test, since the index is updated only once a year. In fact, it was marginally significant with a negative coefficient, suggesting that increasing control of the press *reduced* support for Putin.

What about the impact of war in Chechnya? The regression in Table 2, model 3, suggests that the first Chechen war cost Yeltsin about .24 points on the rating scale for its duration (this is significant at only $p = .11$). However, this was offset initially by a rally as the war began, which

---

[29] These "residuals" are constructed as the difference between the actual economic perceptions and the levels predicted by starting with the initial value of the actual perception and adding on the predicted change in each subsequent month.

wore off over the course of six months. Yeltsin's rating went down by .11 points on the 10-point scale during the Budyennovsk terrorist attack. In the regressions that start at January 2000, the effect of the second Chechen war on Putin's popularity appears to be negative (Table 2, model 6). The more people considered that what was occurring in Chechnya was "war" rather than the "establishment of peace," the lower were increases in Putin's popularity. However, the Nordost and Beslan terrorist attacks both gave Putin a boost, albeit temporary and minute.

Of course, by January 2000 the Chechen war had been underway for some months. Experimenting with regressions using data going back to September 1999, and combining Putin's prime ministerial rating with his presidential one, I confirmed that the jump in Putin's approval in September, October, and November 1999 was larger than would be predicted by a regression on just economic perceptions during his two presidencies. It may well be that the surge in these months reflected in part public approval of Putin's tough reaction to the perceived terrorist threat.

Presidents' personal style may be important, but I found no clear evidence of this. Yeltsin's popularity was not significantly lower in months when he was hospitalized. Putin's image was supposed to have been tarnished by his apparent indifference after the tragedy of the Kursk's sinking. In fact, Putin's rating actually rose significantly during that month. Including the variable for the share of survey respondents attracted to Putin because "he's an energetic, decisive, forceful person" did not produce any significant results.

As occurs for US presidents, Yeltsin's popularity did decline with the passage of time, even controlling for other variables. Controlling for just economic perceptions, Yeltsin's 10-point rating fell by about .012 points a month or .14 points a year. About one quarter to one third of this could be explained by the fact that respondents' assessments of the political situation grew progressively gloomier during Yeltsin's tenure. However, I found no tendency for time to cut into Putin's appeal.

Some of the other events had the expected effects—although most were small and temporary. The storming of the White House in October 1993 was followed by a .65 point jump in Yeltsin's rating; however, this dissipated within a month. Yeltsin's drunken exploits in Berlin cost him .18 points that month, but he recovered quickly. Honeymoons appeared to be times when the incumbent's rating fell more than expected—perhaps an after-effect of the rise during the campaign. Putin got a boost of .2 points from his decision to restore the old Soviet music to the national anthem, and this was most significant when modeled as a permanent effect; it could be that this was the moment when Putin permanently won over some former communist voters.

But the economic effects were by far the clearest and most important. To put these in perspective, Figure 5 shows the ratings each president "would have" enjoyed had he presided over the perceived economic conditions of his counterpart's term. That is, I ran the model estimated on the Yeltsin period but with the economic perceptions data from under Putin, and vice versa. If we believe that the dramatic decline and recovery of the Russian economy was largely beyond the control of either president, this suggests that context was far more important than the identity of the president in determining each leader's popularity.

5. Conclusion

Some argue that Putin's extremely high popularity reflects Russians' approval of his disciplined, forceful personality, which contrasts with the image of the ailing, mercurial, and often inebriated Yeltsin. Others see in the support for Putin an endorsement of his military campaign to destroy the Chechen guerrillas and of his project of imposing order on Russian society. Still others suppose that Russians approve of Putin because they have been brainwashed by a state-controlled media from which criticism of the Kremlin has been eliminated.

Figure 5a. What if perceived economic conditions under Yeltsin had been the same as those under Putin?
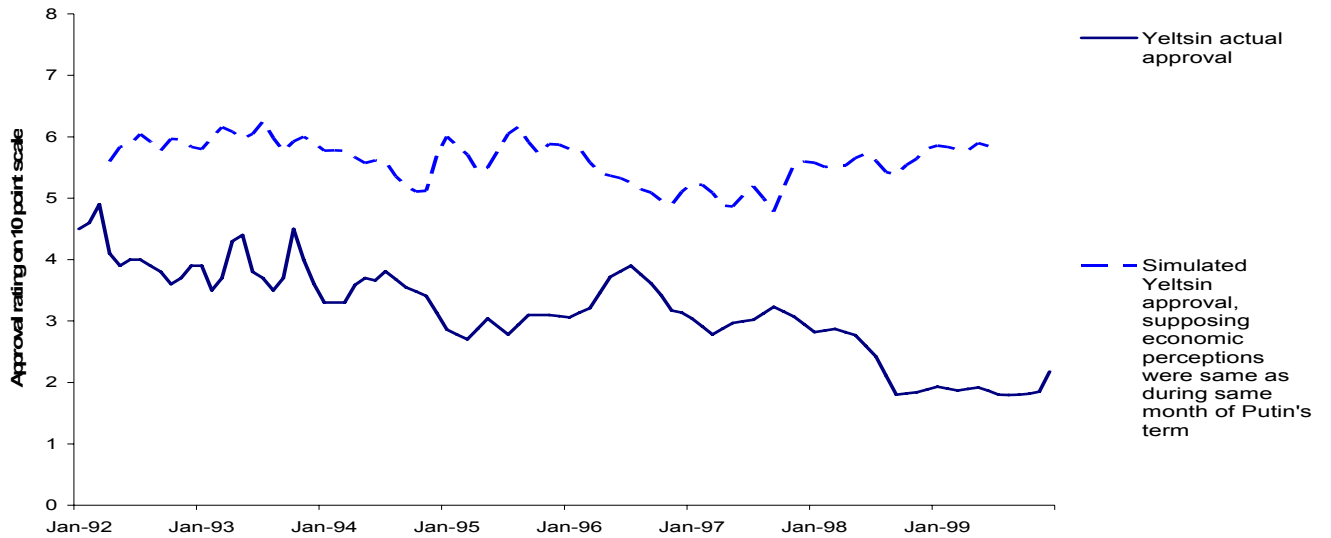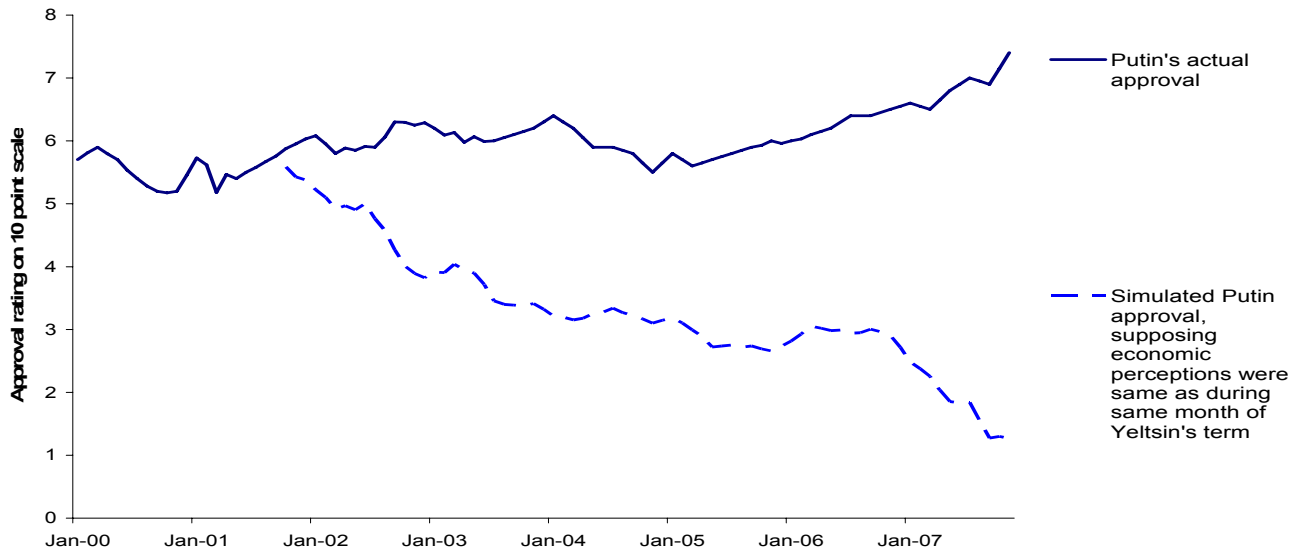

Figure 5b. What if perceived economic conditions under Putin had been the same as those under Yeltsin?

Analysis of the patterns of approval of Russia's presidents suggests none of these factors

has been fundamentally important. Most of the variation over time in presidents' approval ratings

can be explained with just measures of the public's perceptions of the economy during the

preceding six to eight months. Much like citizens in Western democracies, Russians approve of their president when they see the economy improving and feel confident about its future performance. Their assessments of the economy, in turn, reflect objective economic indicators—the levels and recent changes in real wages, wage arrears, inflation, and unemployment. When the economy is bad, Russians turn against their presidents without hesitation—witness Yeltsin's six percent approval rating in October 1998. But when collapse turns to recovery, they come to believe in their leaders' competence and become more optimistic.

These findings cast new light on several episodes in recent Russian history. In 1996, President Yeltsin performed a remarkable act of political self-resurrection. As of January, only six percent of voters planned to vote for his reelection. But his rating spiked upwards to peak right as voters went to the polls in June and July, before falling back right after the election. The convenient timing of this surge seemed to support the view that it was the pliant national media that won the election for Yeltsin through its enthusiastic endorsement and uncritical coverage.

However, as Figure 3 shows, the economic perceptions variables predict this wave of support quite accurately. Perceptions of the state of the Russian economy, and expectations of future performance, improved quite markedly in the fall of 1995 and spring of 1996. This was largely due to the taming of inflation in 1995 and a rise in the real wage. After the election, the real wage plateaued and inflation began to rise moderately, which, together with rising wage arrears and unemployment explains the subsequent fall in economic perceptions and the president's rating. The supportive media probably helped—in particular, by publicizing Yeltsin's promises of aid to different regions and groups and the government's efforts to pay down wage and pension arrears. In some regards, economic perceptions were more positive during the campaign than might have been

expected based on objective economic indicators. But more important may have been the government's efforts to stimulate the economy before voters went to the polls.[30]

An even more hotly debated period is that of late 1999, when Putin's rating rose even faster than Yeltsin's had, culminating in his victory in the March 2000 presidential election. This has often been attributed to the apartment bombings and rekindling of the Chechen war. As I showed, however, Putin's response to the Chechen threat merely advanced by a few months a surge in support for the Kremlin that would have occurred anyway because of the start of economic recovery. Neither Putin's tough words nor his image as a young, energetic, and decisive leader are necessary to explain the leap in his rating. Nor are these—or the Kremlin's increasing control over the media—necessary to explain why Putin's approval remained so high for the following seven years. Again, a subservient media may have helped, but it was not necessary. The dramatic, sustained improvement in economic conditions was sufficient.

The victory of Putin's loyal aide Dmitri Medvedev in the March 2008 election was widely seens as the result of heavy-handed Kremlin manipulation. With the two main liberal opposition candidates disqualified, and criticism of Medvedev virtually absent from national television, such manipulation was evident. However, simulations that I ran before the election suggested Medvedev's victory would have been virtually certain even in a completely fair and honest vote. Because of the long lags, by early 2008 it would have taken a true catastrophe to undermine support for the Kremlin candidate.

Given the sustained economic recovery in Russia since 1999, the Kremlin's crude efforts to guarantee electoral victories for first Putin and then Medvedev would seem to have been redundant. Both could have ridden to victory on the wave of economic expansion even in

---

[30] Treisman and Gimpelson (2001) find evidence of a political business cycle around this and other elections in the 1990s.

completely free and fair elections. Why the Kremlin insiders chose to give up the legitimacy associated with winning in an open contest is a question for another paper.

Finally, the political fates of Russia's first two presidents appear in retrospect to have been largely predetermined by the economic conditions that each inherited. Had Yeltsin presided over a period of economic recovery like that of 2000-08, he would likely have remained very popular, and his popularity would have helped him break through the many obstacles in the way of implementing his reform program. Similarly, had a liberal reformer come to power in 2000, the auspicious environment—with recovery underway and oil prices rising—would have given him a good chance of entrenching democracy and open markets in Russia. Had Putin come to power in the conditions faced by his predecessor, he would very likely have been viewed by his compatriots, by the time he left office, as one of post-communist Russia's greatest failures. As his popularity dwindled, the governors, businessmen, and special interests would have piled on as remorselessly as they did in the 1990s.

Appendix

1. Perceptions of the national economy and of family finances

Table A1. Regressions of perceptions of national economy on perceived family finances

|	Yeltsin presidency (1993-99)	Putin presidency (2000-07)	Whole period (1993-2007)
Family finances	.60*** (.07)	1.68*** (.11)	1.44*** (.09)
Constant	-44.73*** (3.29)	8.16*** (3.02)	-1.74 (3.28)
R^2	.6283	.8160	.8172
ADF test statistic for residuals	-3.48 (p = .00)	-3.61 (p = .01)	-3.88 (p = .00)
Memo: 1.ADF test statistic for perceptions of national economy	-1.63 (p = .47)	-1.22 (p = .66)	-0.01 (p = .96)
2. ADF test statistic for perceptions of family finances	-1.73 (p = .41)	-2.23 (p = .19)	-1.15 (p = .69)

*** p < .01, ** p < .05. White heteroskedasticity-corrected standard errors in parentheses.

We see that perceptions of the national economy and of family finances are cointegrated.

2. Family finances and economic expectations

Table A2 provides evidence of some delayed influence of perceived family finances on expectations for Russia's economic future. The effect is illustrated in Figure A1.

Figure A1. Predicted effect of a permanent one point increase in perceived state of family finances on expectations for national economy
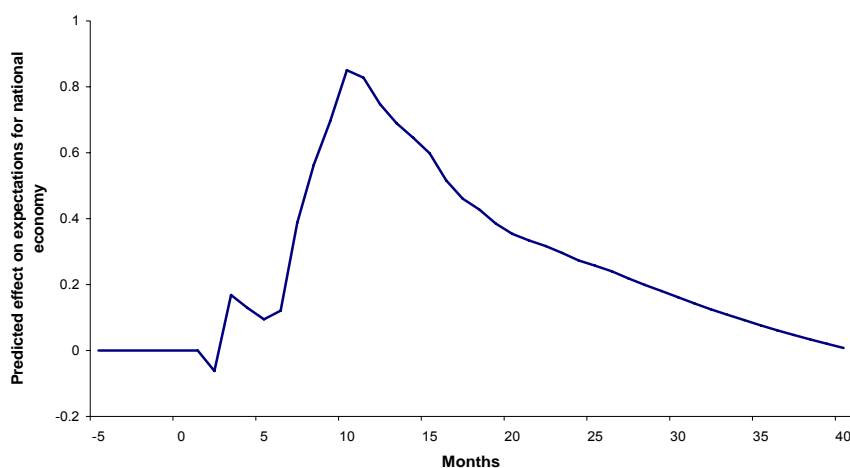
Source: VCIOM and Levada polling data, author's calculations.

Table A2. Modeling the interaction between perceived family finances and economic expectations

	Δ Family finances	Δ Russia's economic future
L1 Family finances	-.05 (.03)	-.01 (.04)
L1 Russia's economic future	.03* (.02)	-.02 (.02)
L1 Δ family finances	.61*** (.13)	-.05 (.10)
L2 Δ family finances	-.67*** (.17)	.29* (.15)
L3 Δ family finances	.38** (.17)	-.25 (.20)
L4 Δ family finances	.05 (.08)	.21 (.20)
L5 Δ family finances	-.02 (.08)	-.11 (.25)
L6 Δ family finances	.03 (.07)	.36** (.16)
L7 Δ family finances	-.00 (.07)	-.08 (.17)
L8 Δ family finances	-.04 (.04)	.28** (.12)
L1 Δ Russia's ec. future	-.00 (.04)	.79*** (.07)
L2 Δ Russia's ec. future	.08 (.07)	-.72*** (.11)
L3 Δ Russia's ec. future	-.08 (.08)	.56*** (.13)
L4 Δ Russia's ec. future	.05 (.08)	-.36** (.15)
L5 Δ Russia's ec. future	-.02 (.08)	.29* (.16)
L6 Δ Russia's ec. future	.03 (.07)	-.32*** (.11)
L7 Δ Russia's ec. Future	-.00 (.07)	.22* (.11)
L8 Δ Russia's ec. Future	-.04 (.04)	-.13* (.07)
Constant	-1.31 (1.01)	-.60 (1.23)
R^2	.4048	.4601
Durbin Watson	2.00	2.01
Breusch-Godfrey	.00 (p = .99)	.11 (p = .74)
Arch LM	9.09 (p = .00)	.29 (p = .59)
ADF for residuals	-12.85 (p = .00)	-12.92 (p = .00)
N	168	168

*** $p < .01$, ** $p < .05$. White heteroskedasticity-corrected standard errors in parentheses.

3. Economic and political perceptions

Table A3 shows evidence that changes in perceptions of the current economy lead to changes in perceptions of the political situation. Figure A2 shows the estimated effects.

Figure A2. Effect of a 1 unit improvement in perceived economic conditions on perceptions of the political situation, Yeltsin period
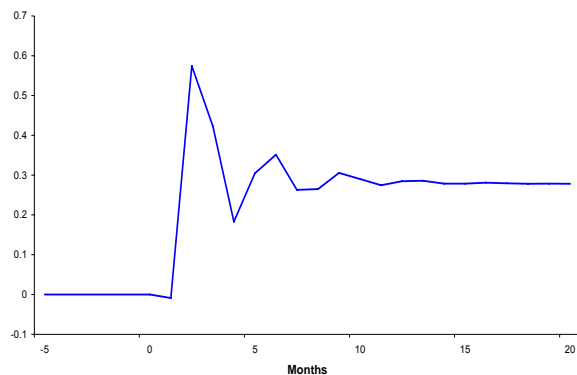
Figure A2b. Effect of a 1 unit improvement in perceived economic conditions on perceptions of the political situation, Putin period
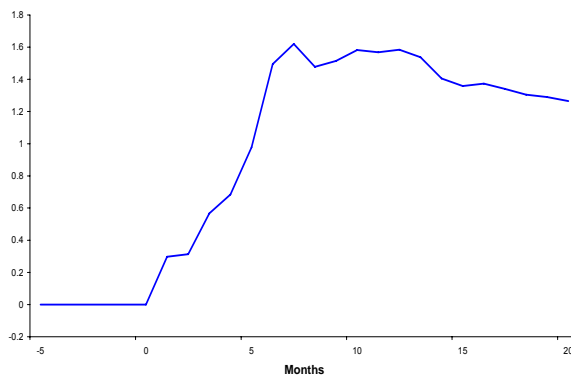
Table A3.   Modeling the interaction between economic and political perceptions

	-----Yeltsin period-----		------Putin period-------	
	Δ Russia's political situation	Δ current economy	Δ Russia's political situation	Δ current economy
L1 Russia's political situation	-.15*** (.07)	-.11** (.05)	-.21** (.08)	.07* (.04)
L1 current economy	.04 (.05)	-.03 (.04)	.28** (.12)	-.12** (.05)
L1 Δ Russia's political situation	.55*** (.18)	.07 (.13)	.86*** (.13)	.01 (.04)
L2 Δ Russia's political situation	-.49** (.20)	.05 (.14)	-.86*** (.14)	-.11* (.06)
L3 Δ Russia's political situation	.28 (.19)	-.06 (.12)	.77*** (.16)	.08 (.07)
L4 Δ Russia's political situation	-.16 (.15)	-.06 (.09)	-.47*** (.12)	-.07 (.05)
L5 Δ Russia's political situation			.36** (.15)	.09 (.06)
L1 Δ current economy	-.05 (.17)	.61*** (.14)	.02 (.16)	.68*** (.11)
L2 Δ current economy	.54** (.26)	-.25 (.18)	-.46** (.21)	-.75*** (.13)
L3 Δ current economy	-.43* (.23)	.13 (.17)	.28 (.21)	.48*** (.15)
L4 Δ current economy	.16 (.14)	.04 (.11)	-.47** (.18)	-.56*** (.10)
L5 Δ current economy			.41** (.20)	.24** (.11)
Constant	-9.55** (4.72)	-10.8*** (3.81)	4.56** (2.08)	-1.82* (.92)
R^2	.3721	.4350	.629	.570
Durbin Watson	1.98	1.98	1.90	1.88
Breusch-Godfrey	.21 (not sig.)	.02 (not sig.)	.95 (not sig.)	2.13 (not sig.)
Arch LM	.89 (not sig.)	.00 (not sig.)	.00 (not sig.)	.00 (not sig.)
ADF of residuals	-7.39 (p = .00)			
N	77	77	95	95

*** $p < .01$, ** $p < .05$. White heteroskedasticity-corrected standard errors in parentheses.

4.   Percentage of respondents approving of the incumbent president

Figure A3.   Percent of respondents who approved of President's performance, and approval predicted using just economic perceptions and months in office (extrapolated from Yeltsin period)
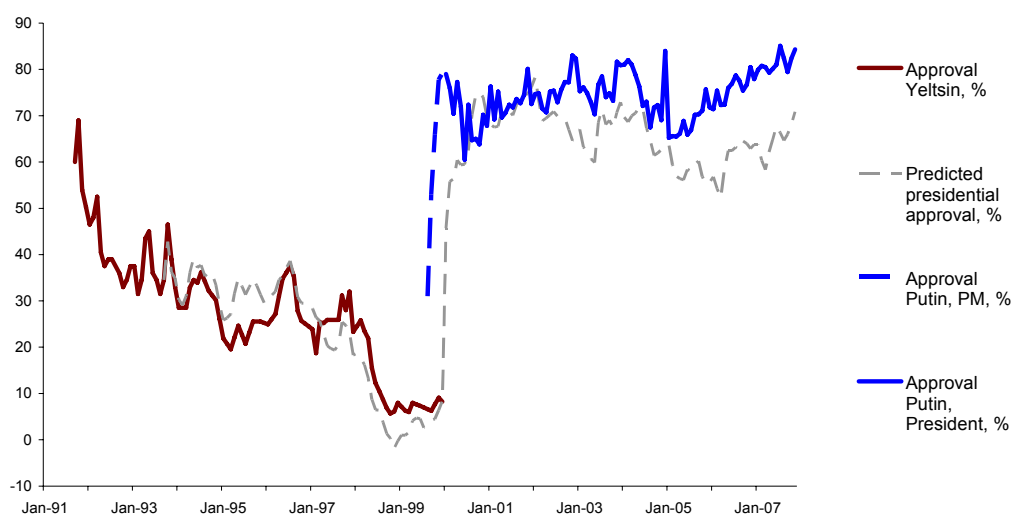
Note: Yeltsin's presidential approval is the actual poll responses after September 1996; before that it is the predicted value from a regression of approval on responses on the 10-point scale for the period Sept1996 to Dec 1999.

40

5. Determinants of economic perceptions

Table A4. Explaining public perceptions of the economy, Russia 1993-2007

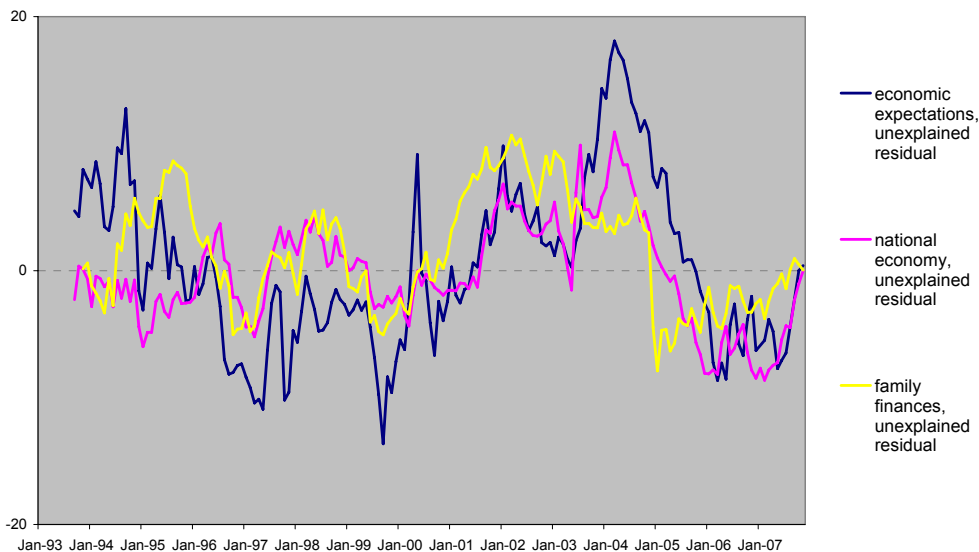|	1. Δ current economy	2. Δ family finances	3. Δ Russia's ec. Future
L1 level of dep. var.	-.21*** (.05)	-.30*** (.09)	-.17*** (.04)
L1 real wage	.004*** (.001)	-.00 (.00)	-.00 (.00)
L1 real wage arrears	-.016*** (.004)	-.004 (.004)	-.02* (.01)
L1 ln inflation	-5.42*** (1.71)	-4.18*** (1.59)	-2.85 (1.99)
L1 unemployment	-.46 (.31)	-1.55*** (.54)	.10 (.69)
L1 dep. var.	.58*** (.11)	.63*** (.11)	.66*** (.08)
L2 dep. var.	-.42*** (.12)	-.48*** (.14)	-.45*** (.10)
L3 dep. var.	.34*** (.11)	.26** (.13)	.38*** (.14)
L4 dep. var.	-.34*** (.09)	-.22 (.14)	-.22* (.12)
L5 dep. var.	.22*** (.07)	.04 (.11)	.15 (.15)
L6 dep. var.		.02 (.08)	-.07 (.10)
L7 dep. var.		-.02 (.06)	.09 (.09)
Δ real wage	.007*** (.001)	-.002 (.003)	.007* (.004)
L1 Δ real wage	.007*** (.002)	.002 (.003)	.013** (.005)
L2 Δ real wage	.002 (.003)	.005 (.004)	.017** (.006)
L3 Δ real wage	-.004 (.003)	.005 (.003)	.014** (.007)
L4 Δ real wage	-.001 (.002)	.009*** (.003)	.012** (.006)
L5 Δ real wage	-.001 (.002)	.008*** (.003)	.014** (.005
L6 Δ real wage		.007*** (.002)	.013*** (.004)
L7 Δ real wage		.006*** (.002)	.007** (.003)
Δ real wage arrears	-.05*** (.01)	-.02 (.02)	-.10*** (.03)
L1 Δ real wage arrears	-.03* (.02)	-.03 (.02)	-.03 (.04)
L2 Δ real wage arrears	-.02 (.01)	-.03 (.02)	.02 (.03)
L3 Δ real wage arrears	.01 (.01)	.01 (.02)	.05* (.03)
L4 Δ real wage arrears	.03*** (.01)	.00 (.02)	.02 (.03)
L5 Δ real wage arrears	.00 (.02)	-.07*** (.02)	.05* (.03)
L6 Δ real wage arrears		-.00 (.03)	.04 (.03)
L7 Δ real wage arrears		-.02 (.02)	-.09*** (.03)
Δ ln inflation	-3.87*** (1.34)	-3.41** (1.31)	-5.32** (2.22)
L1 Δ ln inflation	1.32 (1.58)	-.32 (1.90)	-2.74 (2.69)
L2 Δ ln inflation	.34 (1.45)	.57 (1.88)	-2.17 (3.14)
L3 Δ ln inflation	.63 (1.20)	-.95 (1.82)	3.71 (2.27)
L4 Δ ln inflation	3.03** (1.21)	-1.82 (1.92)	3.77 (2.53)
L5 Δ ln inflation	2.05** (.96)	-.57 (1.89)	3.98 (2.55)
L6 Δ ln inflation		.27 (1.54)	7.18*** (2.26)
L7 Δ ln inflation		1.39 (1.20)	1.84 (1.57)

Δ unemployment	-.75 (.63)	-2.02** (.78)	-2.86** (1.29)
L1 Δ unemployment	.12 (.58)	1.35* (.78)	.18 (1.04)
L2 Δ unemployment	.22 (.58)	-.05 (.61)	.32 (.91)
L3 Δ unemployment	.34 (.55)	.71 (.57)	.73 (1.01)
L4 Δ unemployment	-.89* (.52)	-.82 (1.02)	-1.92** (.89)
L5 Δ unemployment	1.32** (.58)	.83 (1.13)	-.31 (1.04)
L6 Δ unemployment		1.49** (.70)	-.56 (.96)
L7 Δ unemployment		-1.03 (.75)	-2.10* (1.16)
L1. arrest of Khodorkovsky			3.57** (1.60)
Constant	-7.62** (3.11)	5.07 (4.32)	-.15 (7.74)
R^2	.6757	.7095	.6667
R^2 (model with just lags of level and changes in dep. var.)	.3943	.3520	.4007
Durbin Watson	1.96	2.02	1.94
Breusch-Godfrey	.30 (p = .59)	.30 (p = .59)	.56 (p = .45)
Arch LM	8.47 (p = .004)	2.08 (p = .15)	2.12 (p = .15)
N	171	169	171

*** $p < .10$, ** $p < .05$, * $p < .10$. OLS with White heteroskedasticity-corrected standard errors in parentheses.

6. Residual variation in economic perceptions, not explained by objective indicators

Figure A4.   Residual economic perceptions, not explained by
objective indicators

6. Variable definitions and data sources

Variable name	Definition	Source
Yeltsin	What evaluation from 1 (lowest) to 10 (highest) would you give the President of Russia Boris Yeltsin?; Sept 1992 to Mar 1994 approximated from graph in *Ekonomicheskie i Sotsial'nie peremeni: monitoring obshchestvennogo mnenia*, May/June 1994; missing values estimated by linear interpolation from the adjacent entries.	http://www.levada.ru/programs.html, *Ekonomicheskie i Sotsial'nie peremeni: monitoring obshchestvennogo mnenia*, various issues, Russiavotes.org
Putin	What evaluation from 1 (lowest) to 10 (highest) would you give the President of Russia Vladimir Putin?; missing values estimated by linear interpolation from the adjacent entries.	http://www.levada.ru/programs.html, *Ekonomicheskie i Sotsial'nie peremeni: monitoring obshchestvennogo mnenia*, various issues, Russiavotes.org
russec	How would you assess Russia's present economic situation? Very good + good - (Very bad + bad), %, there is also category "in between"; missing values linearly interpolated.	http://www.levada.ru/programs.html, *Ekonomicheskie i Sotsial'nie peremeni: monitoring obshchestvennogo mnenia*, various issues, Russiavotes.org
fammat	How would you assess your family's present material condition? Very good + good - (Very bad + bad), %, there is also category "in between"; missing values linearly interpolated.	http://www.levada.ru/programs.html, *Ekonomicheskie i Sotsial'nie peremeni: monitoring obshchestvennogo mnenia*, various issues, Russiavotes.org
Echope	What do you think, what awaits Russia in coming months in the economic sphere? significant improvement + minor improvement - significant deterioration - minor deterioration; missing values linearly interpolated.	Russiavotes.org and Levada Center
Polsit	"How, overall, would you assess the political situation in Russia?" Favorable + calm - tense - critical, explosive; missing values linearly interpolated.	Russiavotes.org, Levada Center, and *Ekonomicheskie i Sotsial'nie peremeni: monitoring obshchestvennogo mnenia* 1996, Jan-Feb.
Yelhop	Variable for six months from each time Yeltsin reported to be in hospital (including just for checkup); starts at 1 and falls by 1/6 each month for 6 months.	Search of Lexis-Nexis
Che1	Dummy with values 1 in Dec 1994, -1 in Aug 1996, 0 otherwise	
Months in office	since June 1991 (Yeltsin), since Dec 1999 (Putin)	
Whitehse	1 in Oct 1993; then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
Nordost	1 in Oct 2002; then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
Beslan	1 in Sept 2004; then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
Kursk	1 in Aug 2000 ; then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
Khodarrest	1 in Oct 2003; then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
Sovhymn	1 in Dec 2000; then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
Chechmil	Do you consider that it is necessary to continue military action in Chechnya or begin peaceful negotiations with the "fighters?"; % saying "continue military operation", missing values linearly interpolated.	Levada Center, Russiavotes.org
Rwage	Real average wage due, December 1997 prices, deflated by CPI.	Russian Economic Trends database and *Voprosy Statistiki* March 2007, + Goskomstat RF updates
Rwarrear	Estimated real wage arrears, index Dec 1995 = 100, deflated by CPI. Until Feb 1996, series from Goskomstat as in Russian Economic Trends database; from Feb 1996, Goskomstat figures for broader set of sectors; two series merged to form consistent index.	Russian Economic Trends Database, Goskomstat publications including *Sotsial'no-ekonomicheskoe polozhenie Rossii* , various issues, *Statisticheskii' biulleten'.*
Inflation	log (1 + monthly inflation of CPI)	Russian Economic Trends Databse with updates from Goskomstat RF.
Unemployment	Unemployment rate, ILO concept, end of month, %	Russian Economic Trends Database with updates from Goskomstat, *Informatsiia o sotsial'no-ekonomicheskom polozhenii Rossii*, various months

Variable definitions and data sources, continued

fhpress	Freedom House index of restrictions on the press, annual figures	Freedomhouse.org
Yhoney1	1 in July 1991; then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
Yhoney2	1 in Aug 1996; then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
Phoney1	1 in Jan 2000; then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
Phoney2	1 in Apr 2004, then negative values, summing to -1 over either 5, 3, or 1 months, or just zeros.	
energy	Percent who, in answer to "What attracts you about Vladimir Putin?" choose "he is an energetic, decisive, forceful person; missing values interpolated.	VCIOM polls from http://sofist.socpol.ru
Chechwar2	1 in Sep 99 – Mar 00; then, percent who, when asked "What do you think is happening right now in Chechnya?" choose "War continues" rather than "Peace is being established"; missing values linearly interpolated.	VCIOM polls and russiavotes.org

References

Aslund, Anders. 2007. *Russia's Capitalist Revolution: Why Market Reform Succeeded and Democracy Failed*, Washington, DC: Peterson Institute for International Economics.

Beck, Nathaniel. 1991. "Comparing Dynamic Specifications: The Case of Presidential Approval," *Political Analysis*, 3, pp.51-87.

Clarke, Harold D. and Marianne C. Stewart. 1995. "Economic Evaluations, Prime Ministerial Approval and Governing Party Support: Rival Models Reconsidered," *British Journal of Political Science*, 25, pp.145-70.

Colton, Timothy J. 2000. *Transitional Citizens: Voters and What Influences Them in the New Russia*, Cambridge, MA: Harvard University Press.

De Boef, Suzanna and Luke Keele. 2006. "Taking Time Seriously: Dynamic Regression Models," Penn State University, unpublished.

Duch, Raymond. 1995. "Economic Chaos and the Fragility of Democratic Transitions in Former Communist Regimes." *Journal ofPolitics*, 37, 1, pp. 121-58.

Durr, Robert H. 1992. "An Essay on Cointegration and Error Correction Models," *Political Analysis*, 4, pp.185-228.

Eichenberg, Richard D., Richard J. Stoll, with Matthew Lebo. 2006. "War President: The Approval Ratings of George W. Bush," *Journal of Conflict Resolution*, 50, 6, December, pp.783-808.

Erikson, Robert S., Michael B. MacKuen, and James A. Stimson. 2002. *The Macro Polity*, New York: Cambridge University Press.

Hesli, Vicki L. and Elena Bashkirova. 2001. "The Impact of Time and Economic Circumstances on Popular Evaluations of Russia's President," *International Political Science Review*, 22, 4, pp.379-98.

Jeffries, Ian. 2002. *The New Russia: A Handbook of Economic and Political Developments*, New York: Routledge.

Kovalev, Sergei. 2007. "Why Putin Wins," *The New York Review of Books*, 54, 18, 22 November.

Lafay, J.D. 1991. "Political Dyarchy and Popularity Functions: Lessons from the 1986 French Experience," in Norpoth, H., M. Lewis-Beck, and J.D. Lafay, *Economics and Politics: The Calculus of Support*, 1991, Ann Arbor: University of Michigan Press, pp.123-39.

Miller, Arthur H., William Reisinger, and Vickie L. Hesli. 1996. "Understanding Political Change in Post-Soviet Societies: A Further Commentary on Finifter and Mickiewicz." *American Political Science Review*, 90, 1, pp. 153-66.

Mishler, William and John P. Willerton. 2003. "The Dynamics of Presidential Popularity in Post-Communist Russia: Cultural Imperative versus Neo-Institutional Choice?" *Journal of Politics*, 65, 1, pp.111.141.

Morin, Richard, and Nilanthi Samaranayake. 2006. *The Putin Popularity Score: Increasingly Reviled in the West, Russia's Leader Enjoys Broad Support at Home*, Washington, DC: Pew Research Center for the People and the Press.

Mueller, John. 1973. *War, Presidents, and Public Opinion*, New York: Wiley.

Piontkovsky, Andrei. 2006. *Another Look Into Putin's Soul*, New York: Hudson Institute.

Remnick, David. 2007. "Letter from Moscow: The Tsar's Opponent," *The New Yorker*, October 1.

Rose, Richard. 2007a. "Going Public with Private Opinions: Are Post-Communist Citizens Afraid to Say What They Think?" *Journal of Elections, Public Opinion, and Parties*, 17, 2, pp.123-42.

Rose, Richard. 2007b. "The Impact of President Putin on Popular Support for Russia's Regime," *Post-Soviet Affairs*, 23, 3, pp.?.

Rose, Richard, William Mishler, and Neil Munro. 2004. "Resigned Acceptance of an Incomplete Democracy: Russia's Political Equilibrium," *Post-Soviet Affairs*, 20, 3, pp.195-218.

Sanders, David. 2000. "The real economy and the perceived economy in popularity functions: how much do voters need to know? A study of British data, 1974-97," *Electoral Studies*, 19, pp.275-94.

Treisman, Daniel. 1996. "Why Yeltsin Won," *Foreign Affairs*, September/October.

Treisman, Daniel and Vladimir Gimpelson. 2001. "Political Business Cycles and Russian Elections, Or the Manipulations of 'Chudar'," *British Journal of Political Science*, 31, April, pp.225-46.

Tucker, Joshua A. 2006. *Regional Economic Voting: Russia, Poland, Hungary, Slovakia and the Czech Republic, 1990-1999*, New York: Cambridge University Press.

White, Stephen, Sarah Oates, and Ian McAllister. 2005. "Media Effects and Russian Elections, 1999" *British Journal of Political Science*, 35, pp.191-208.

Whitefield, Stephen. 2005. "Putin's Popularity and Its Implications," in Alex Pravda, ed., *Leading Russia: Putin in Perspective, Essays in Honour of Archie Brown*, New York: Oxford University Press, pp.139-160.

Yeltsin, Boris. 2000. *Midnight Diaries*, New York: Public Affairs.