

The Limits of Control: Networks of the Legislative Cosponsorship and the Individual Strategies of the Legislators in the Authoritarian Parliaments

Abstract.

This paper develops the theoretical framework and research design for studying co-sponsorship networks in authoritarian legislatures. There are still gaps in understanding legislators' cooperation in an authoritarian context despite these studies being widely implemented in research on parliaments in democracies. Additionally, many scholars agree that parliaments in most authoritarian regimes do not play a decisive role in politics. In recent years, however, there has been a growing interest in uncovering the role of parliaments in authoritarian regimes. Despite their lesser role in representing public interests, legislative bodies may serve authoritarian elites in a number of ways. Essentially, they legitimize autocratic policies and serve as normative actions. Furthermore, the ongoing research projects in a number of authoritarian states reveal the different impacts of these legislatures on policy processes despite the considerable constraints imposed by authoritarian regimes.

The formation of coalitions is widely known as the basic mechanism of legislative action. The members of parliaments collaborate in different ways from seeking the support of exact initiatives to the establishment of long-term ties and alignment on a wide range of political and policy views. As the democratic parliaments are well studied there is rich literature on coalitions in these settings. However, we still may pose the question of the relevance of the search for coalitions in authoritarian parliaments. For instance, the political stability, that is maintained by the parliamentary coalitions in a democratic setting, stands on the other foundations in non-democracies. So are there coalitions in the authoritarian parliaments? If yes, what is the purpose of the coalitions? As there is always a ruling majority that is capable of adopting any initiative that comes from the autocrat, influential interest group, or arises inside the faction the role of the coalitions is presumably different from the democratic ones. To what extent do members of such legislatures follow their personal strategies and collaborate with each other when there are no exogenetic directions from the ruling elites? What are the limits of authoritarian control of the parliament? And what is the room for the individual strategies of the legislators to follow their lobbying framework or the voters' interests?

In the proposed study we fulfill at least two basic goals. First, we develop the theoretical framework to apply the co-sponsorship networks methodology in the research of authoritarian parliaments. Second, we are going to conduct a study of co-sponsorship networks that emerged during the 7th convocation of the State Duma of the Russian Federation. We will use the data for the legislative co-sponsorship network obtained from the database of the Federal Assembly via API. The structured data contains information about MPs and the bills that they have sponsored or co-sponsored. Finally, we will test the hypotheses on different predictors for the emergence of co-sponsorship ties and explain the individual strategies that legislators follow.

Introduction.

Recent studies of the Russian political regime have revealed the numerous dimensions of contemporary authoritarian rule. However, there are still many gaps in understanding of the role that the parliament - the Federal Assembly of the Russian Federation - plays in policy-making. Since Vladimir Putin came to power and started several political reforms aiming to build the so-called “vertical of power” and “manageable democracy” the understanding of the Russian political regime has changed step-by-step. According to the argumentation of the researchers of that transformation, the political regime in Russia was described in terms of the hybrid regime (Diamond, 2002), competitive authoritarianism (Levitsky and Way, 2002), party-based authoritarianism (Gel’man, 2008), and electoral authoritarianism (Golosov, 2011). The transformations of the Federal Assembly were also implemented both politically and institutionally. And in the long run, the ruling elite formed the legislature that political scientists consider to be completely dependent (Gel’man, 2008; Roberts, 2012). Unfortunately, we still do not know much about the micro-level of policy-making in Russia due to different reasons ranging from the relatively small number of scholars who focus on Russian politics to difficulties with obtaining empirical data. The scholars mostly focus on the institutional design of the Russian political regime and governance but pay less attention to the microlevel of political interactions within the system and the ruling bodies.

Nevertheless, there is increasing scholarly interest in uncovering the role of parliaments in authoritarian settings. As the legislative bodies play a lesser role in the representation of public interests they may fulfill a number of functions in favor of authoritarian elites. Basically, they provide legitimization of the policies elaborated by autocrats (Malesky & Schuler, 2010; Simison, 2020) and thus fulfill the role of normative action. Furthermore, the ongoing research projects all over the wide range of authoritarian states uncover the different

impact of these legislatures on the policy processes despite the considerable limitations constrained by the authoritarian regimes.

However, several questions remain when we go into details of the routine policy-making in the legislative branch of power. In our study, we pose two:

Q1: What are the MPs' strategies in the parliament?

Q2: Is there any contestation and/or collaboration among MPs, factions, and committees when there are no directions from the top of the power hierarchy?

The widespread metaphor “the mad printer” that was promoted by politicians and mass media to depict the State Duma has done a lot to entrench the stereotype of the Parliament as the downward institution. Nevertheless, some researchers discover the substantive impacts of the Russian parliament and MPs, in particular, on the legislative process. For instance, Krol (2017) suggests that loyalty is rewarded with support for the legislative proposals of individual members, and amendments to government bills are high in quantity and often relatively significant. Noble (2020) goes further and argues that amendments implemented by the State Duma can result from intraexecutive policy-making processes, unresolved in the prelegislative, cabinet-level stage. Besides, it appears that the legislators often see their activity as real law-making and perform in the legislative arena to promote their careers in the regime's hierarchy (Shirikov, 2021). We argue that the micro level of interactions within the framework of the authoritarian parliament may contribute to the understanding of the mechanics of the regime and policy-making, especially when the legislature focuses on issues that are of little importance for the ruling elite.

As Gandhi *et al* (Gandhi, Noble, Svolik, 2020, p. 1360) mention there are three basic analytical approaches to investigate the legislative process in authoritarian regimes. According to the first one, the role of the parliaments in non-democratic settings is limited by their ceremonial purpose. They are formed and maintained to imitate democratic constitutionalism to the political decisions, which are made by small elite groups within the non-institutional framework. The second approach focuses on legislatures as protodemocratic institutions that possess the potential to transform into democratic ones, or vice versa eroded institutions, which still function as the real versions of themselves.

In our study, we use the third logic as the starting point. We assume that there are real politics and policymaking in authoritarian parliaments but they are limited by the strategic goals of the ruling elite and controlled to fulfill the tasks of authoritarian interest groups. Thus, the nominally democratic institutions are serving authoritarian strategies. However, the legislators have some window of opportunity when following their

personal strategies. Moreover, they even may bargain about the limits of independent behavior in exchange for political loyalty and control.

As we can see in Table 1 the quantity of the bills sponsored by MPs increases with each convocation of the State Duma. The trend reflects at least two important transformations of the legislature that occurred recently. The first one is the decrease in the number of veto players and veto points inside the Parliament (Pomiguev & Alekseev, 2021). The second is our assumption about the overall growth of MPs' legislative activity. Thus, we propose that the MPs may establish co-sponsorship ties in order to increase the probability of their bills being adopted and to minimize the influence of veto players as well.

Parliamentary coalitions in authoritarian regimes.

The formation of coalitions is widely known as the basic mechanism of legislative action. The members of parliaments collaborate in different ways from seeking the support of exact initiatives to the establishment of long-term ties and alignment on a wide range of political and policy views. As the democratic parliaments are well studied there is a rich literature on coalitions in these settings. However, we still may pose the question of the relevance of the search for coalitions in authoritarian parliaments. For instance, the political stability, that is maintained by the parliamentary coalitions in a democratic setting, stands on the other foundations in non-democracies. So are there coalitions in the authoritarian parliaments? If yes, what is the purpose of the coalitions? As there is always a ruling majority that is capable of adopting any initiative that comes from the autocrat, influential interest group, or arises inside the faction the role of the coalitions is presumably different from the democratic ones. To what extent do members of such legislatures follow their personal strategies and collaborate with each other when there are no exogenetic directions from the ruling elites? What are the limits of authoritarian control of the parliament? And what is the room for the individual strategies of the legislators to follow their lobbying framework or the voters' interests?

Some scholars assume that the decision-making in the authoritarian context in some aspects is rather similar to the democratic ones. For instance, some policies are developed within the framework of chaos and conflict where the legislative institutions pursue the very important function for the regime. They serve as the arena for the inner-regime political competition of authoritarian elites, interest groups, and influential representatives of the bureaucracy (Williamson, Magaloni, 2020 p. 1528). Thus, the coalitions in non-democratic regimes are not only possible but also might be essential to provide the mechanisms of political struggle between elite groups. Following this logic, the recent studies of authoritarian regimes reconsider the

role of legislatures, which were traditionally considered to be the controlled facade institutions imitating democratic procedures and being just a rubber stamp. Certainly, the autocratic context is still taken into account.

Focusing on post-communist Russia the scholars argue that the Kremlin was aimed at creating a disciplined, cohesive, party majority in parliament, inclined towards the executive branch because it reduces the risks of uncertainty when imposing their agenda (Chaisty, 2008, p. 428). As a result, when the Kremlin developed majority support in the legislature, based on coalitions of a small number of effective parties that were more disciplined and less ideologically divided, the political process in the legislative branch of government became less inclusive.

To summarize, the difference between authoritarian and democratic parliaments is, firstly, that legislators, when developing and adopting bills in conditions of accountability to voters, are driven by incentives for re-election and need to solve the dilemmas of collective actions of parliamentary actors, and under authoritarianism, from due to the lack or weakness of electoral incentives, citizens' problems are not a priority for most legislators (Gandhi, Noble, Svolik, 2020, p. 1363-1364). Second, authoritarian legislatures are politically subordinate to the executive branch or the ruling party and, if necessary, these actors can bypass them when making decisions (*ibid.*, p. 1364). Thus, the legislature represents the interests of citizens in a "truncated" form, avoiding discussion of acute political issues and focusing in its work on the framework of what is permissible, which is established by the political regime. Studies show that at the level of implementation of legislative procedures and practices, the legislatures in authoritarian regimes make their significant contribution to the development of political decisions. For example, after analyzing the differences between bills and laws adopted in Russia, Kazakhstan, Ukraine, and Kyrgyzstan (N = 5271), Krol (2021) concluded that the legislative bodies in these countries amend the draft laws of the executive branch, changing their content on average by 43.2%. This means that MPs can significantly change draft laws with the help of parliamentary amendments.

The amendment is one of the main mechanisms by which the members of parliament influence the legislative process. For example, Noble (2020) in his study of the interaction between the State Duma, the Government, and the President, showed that cases of amendment can arise as a result of the implementation of policy-making processes within the executive authorities, which were not fully resolved at the preparatory stage, at the cabinet level. From this perspective, the executive authorities need legislatures as places for resolving intradepartmental disputes. Another work on the significance of the amendments introduced by the deputies of the State Duma of Russia shows that loyalty does not necessarily hinder the constructive role of parliament in the decision-making structure of the regime - deputies often amend government bills with the support of their

party groups (Krol, 2017, p. 466). But what is the incentive for the deputies of authoritarian parliaments themselves to create coalitions? In part, this question can be answered in terms of their interest in moving up the career ladder. The more active a deputy is, the more actively he is involved in the development of bills and their discussion, the more he receives a reputation gain and the denser his social ties become, which can later be converted into economic capital. So, in the study by A. Shirikov, based on biographical information and data on parliamentary speeches of politicians who worked in the State Duma of Russia in 2004-2016. it was concluded that MPs who put more effort into lawmaking are more likely to retain their seats in parliament. However, from the point of view of their career prospects, such efforts do not increase the likelihood of their appointment to positions in the executive branch (Shirikov, 2021).

But an even more significant structural factor driving coalition-building in authoritarian parliaments relates to the way the government and the executive branch use political coalitions to advance their political agendas. On the example of the Chinese legislative process, Liu et al (2020) conclude that effective bureaucratic management requires government institutions to create a political coalition in the national assembly. Within this framework, the co-sponsorship ties may be seen as the indicators of the short-term coalitions aimed to support interests, reduce the number of the veto players and veto points during the discussion and adoption of the certain bills.

Co-sponsorship of bills and network analysis of the MPs' collaboration.

Legislative co-sponsorship is a concept widely used in legislative studies to understand the patterns of collaboration, interdependence, and influence of individual legislators and groups. A rich literature in political science has recognized the importance of sponsorship and co-sponsorship at all stages of the legislative process. In one of the first network analyses of the bills' co-sponsorship Fowler (2006b) demonstrates that a weighted closeness centrality measure can be used to identify influential legislators. He also introduces the "connectedness" measure which aggregates information about the frequency of co-sponsorship and the number of co-sponsors on each bill to make inferences about the social distance between legislators and used to evaluate the legislative influence of the MPs (Fowler, 2006a).

The recent data-driven studies have revealed the role of connectedness in the legislative influence (Harward, Moffett, 2010; Rombach et al, 2014). Social networks among individuals or organizations play a crucial role in politics (Berardo, Scholz, 2010; Fischer, Sciarini, 2016; Ingold, Leifeld, 2014). Like any type of social actor, MPs do not act in isolation. Their behavior and success depend on their interactions with peers

(Ringe et al. 2013, p. 602). Collaboration enables MPs to access novel information, to learn about alternative perspectives, to build and connect different advocacy coalitions, and to secure support for their policy proposals. Most scholars argue that legislative networks are especially important in countries with a multiparty system and coalition governments. Nevertheless, as we demonstrated in the previous section the authoritarian parliaments may also be studied from this perspective.

One form of social relation among MPs visible to the public and relatively simple to assess for researchers is the co-sponsorship of parliamentary proposals (Ringe et al. 2016). Co-sponsoring parliamentary proposals signals support between MPs and may result from similar policy preferences or strategic considerations (Fischer et al. 2019). Co-sponsorship hints at a joint effort by multiple MPs, who may represent a variety of ideological positions (Craig 2015). Co-sponsorship is also a vehicle for one or several MPs to express support for others (Fowler 2006a). Unlike earlier work claiming that legislative co-sponsorship is not very informative (Kessler and Krehbiel 1996), ‘scholars and politicians alike appear to agree that co-sponsorship is a social act that is meaningful and significant’ (Tam Cho and Fowler 2010: 125). In agreement with this assessment, we argue that the relational resources of MPs stemming from their cosponsorship activities help to explain their agenda-setting success. The crucial question is then which co-sponsorship strategy is the most rewarding.

MPs must decide how much effort to invest into developing ties with MPs from their own party family or establishing ties across party family lines. The distinction between ‘bonding’ and ‘bridging’ ties in political networks (e.g. Berardo 2014; Berardo and Scholz 2010) resonates with Granovetter’s (1973) well-known argument about strong versus weak ties. Bonding and bridging strategies differ in the underlying logic that influences why they become established, as well as in the signals MPs send to their peers. Bonding strategies strengthen relations with other MPs to whom an individual MP is already linked. They help to reciprocate and intensify existing relationships, and thus maximize credibility and decrease the risk of defection by proximate allies. In contrast, bridging strategies connect an MP to others who are further away. They allow an MP to reach out to others who are less similar, to access new information, and to receive support from a broader network (e.g. Berardo 2014; Berardo and Scholz 2010).

In our study, we assume that the data about co-sponsorship of the MPs reveals the different types of formal and informal connections between legislators in the Federal Assembly. The primary task of our research is the exploratory analysis of the co-sponsorship networks in the Russian Parliament.

What might account for an MP's choice to co-sponsor the bills? Our starting point is that there are *homophily* attributes that may predict co-sponsorship. It means that legislators who have some similarities are likely to collaborate when setting the agenda, developing the bills, and introducing them to the Federal Assembly.

We also expect to identify cohesive subgroups of MPs who represent different factions and/or committees. In case such collaboration occurs we will focus on the analysis of the above subgroups to investigate the reasons and motivations for collaboration. Since the MPs may use the strategies to obtain social and symbolic capital via co-sponsorship these subgroups probably are the indicators of patron-client relationships. We suggest the measure of "magnitude" to depict the role of the legislative leaders whose initiatives are frequently co-sponsored by the other MPs. It also indicates the role of brokers and veto-players who seal the legislature with the decision-makers outside the Parliament.

Our study contributes to the understanding of the functioning of parliaments in authoritarian regimes. We also reveal the strategies of the MPs who co-sponsor the bills to obtain the social and symbolic capital in favor of their future political careers. Finally, we introduce the concept of legislative "magnitude" that depicts the influence of key MPs in the Federal Assembly who aggregate social and symbolic capital and perform the patronage role.

Data and method.

We used the data for the legislative co-sponsorship network that was obtained from the database of the Federal Assembly via API. The structured data contains information about MPs and the bills that they have sponsored or co-sponsored.

The several types of network graphs are modeled:

- (g1) undirected graph of co-sponsorship for the period of the 7th convocation of the State Duma;
- (g2) directed graphs of co-sponsorship for each year ($N=5$) of the 7th convocation of the State Duma;

The undirected graph is the "snapshot" that showcases the network where co-sponsorship of the bill by the MPs returns the tie between them. The ties are weighted following the number of bills that MPs have co-sponsored. The directed graphs represent the networks of prestige. The ties are directed from the co-sponsors to the primary sponsor of the bill. The ties are weighted following the number of bills that MPs have co-sponsored.

The first step of the survey is an exploratory analysis of the co-sponsorship network. We pose the following hypotheses:

H1: MPs are likely to co-sponsor bills that are sponsored by legislators affiliated with the same faction;

H2: MPs are likely to co-sponsor bills that are sponsored by legislators affiliated with the same committee;

H3: MPs are likely to co-sponsor bills that are sponsored by legislators who represent the same electoral districts or regions;

H4: MPs are likely to co-sponsor bills that are sponsored by legislators of the same sex and/or close age;

H5: The legislators who hold the official positions in the Parliament have the higher ranks of prestige and centralities as other MPs tend to establish co-sponsorship ties with them;

H6: The cohesive subgroups of the MPs with heterophily are formed as a result of the “magnitude” of the legislators who hold the official positions in the Parliament;

The second stage of the study is the inferential analysis of the directed graphs. We make the distinction of the periods for the co-sponsorship in the different sessions to possess more detailed and representative data for inferential analysis. The Exponential random graph modeling (ERGM) provides the analysis of the evolution of the co-sponsorship networks within the convocation. This approach to inferential network analysis involves modeling the observed network graph using a set of statistics that include the topological characteristics of the entire graph as a whole, as well as the paired and individual characteristics of its individual vertices. Unlike common linear modeling methods such as logistic regression, ERGM mathematically describes not just individual interactions between actors in a network, but the observed layout of the graph as a whole. In this case, the probability density formula is represented by an exponential equation as:

$$P(N, \boldsymbol{\theta}) = \frac{1}{\sum_{N^* \in \mathcal{N}} \exp\{\boldsymbol{\theta}^\top \mathbf{h}(N^*)\}} \exp\{\boldsymbol{\theta}^\top \mathbf{h}(N)\} \quad \text{With}$$

increasing degrees of freedom, the number of possible implementations of the network graph grows exponentially. Similar to regression analysis, ERGM provides the explanation of the observed spectrum of the dependent variable using a set of empirical predictors. The ERGM equations can be transformed to calculate the odds ratio of the occurrence of a connection in any random pair of nodes in the network, depending on the predictor vector corresponding to this pair. Thus, the ERGM approach allows solving the same problems as the

standard logistic regression, while incorporating complex structural features of the network graph into the network model and overcoming the requirement of regression models for the independence of observations.

In our study, we used the standard maximum likelihood method based on Markov chain Monte-Carlo (MCMC). This algorithm involves the simulation of a series of chains of hypothetical implementations of network graphs. Each individual chain is a stochastic "walk" process in which the algorithm simulates different combinations of coefficients for each of the predictors in the model to estimate the integral of the ERGM probability density function. At each step of the chain, the values of the coefficients with the highest probability are selected following the current value of the integral. At the end of each chain, the algorithm evaluates the similarity of the structural characteristics of the simulated network graph with the observed one. If based on the results of a series of simulations, the algorithm manages to achieve sufficient convergence, it is used to calculate the final estimates of predictor coefficients, as well as the values of standard errors and confidence intervals.

Results and Discussion.

The exploratory step of the analysis revealed a very high density of the co-sponsorship network in the 7th convocation of the State Duma. The parameter that displays the proportion of the existing ties between MPs relative to the total possible number of ties. The density value ($D = 0,455$) shows that many MPs co-sponsor the bills with many others, so each one establishes a lot of cooperative ties when developing and promoting the bills. Probably co-sponsorship serves as the reciprocal action. On the one hand, it appears to be the mutual support of the bills. When the bills are co-sponsored by many MPs representing different factions and committees it has more probability to be adopted. On the other hand, it is also the indicator of symbolic capital when MPs show their support to each other and share the responsibility as well. We see such individual strategies also as logrolling - a mechanism for coordination and coalition building (Bernhard & Sulkin, 2013) which is a common strategy also for legislators in democratic parliaments.

Going further we looked into the homophily of the co-sponsorship ties. And it appears that MPs tend to co-sponsor the bills of their counterparts representing the same faction or committee as we supposed in hypotheses H1 and H2. However, these findings needed to be checked by the inferential analysis because of the noise in data (high density of the network as stated above). And on the contrary, there is no evidence for co-sponsorship homophily when it comes to such legislators' attributes as electoral districts or regions (H3), and sex and age (H4). It seems that demographic attributes are of no importance for the legislators in the Federal Assembly.

Our inferential network models are based on two types of statistical data. First, the network modeling was based on aggregated data on the number of co-sponsored bills for each available pair of MPs. The initial data was information on individual bills, which was then converted first into a table of correspondence for each pair of MPs, and then into matrices with a dimension in the form of the total number of deputies in the State Duma for each year of the 7th convocation. The primary analysis of the structure revealed the phenomenon of *brokerage*, in which the connections between network nodes i and j (MPs) are connected by outgoing connections from k intermediaries (brokers).

We found a model specification that evaluates such a characteristic for our co-sponsorship network graph. In particular, the *Geometrically weighted dyadwise shared partner distribution* statistics of the *Incoming Shared Partner* ("ISP") subtype was used. This measure evaluates the distribution of the sum of the number of brokers for each vertex, weighted using the "damping parameter" $\alpha = 0.69$. The use of the "decay rate" means that each next mediator for a pair of vertices i and j is weighted according to the formula:

$$\text{GWESPFF}(i, \alpha) = \sum_{j=1}^n x_{ij} e^\alpha \left\{ 1 - (1 - e^{-\alpha})^{\sum_{h=1}^n x_{ih} x_{hj}} \right\}$$

The results of the inferential network analysis using the ERGM method are shown in Figure 1. The basic diagnostics of the quality of the models presented here according to the AIC and BIC criteria demonstrates a non-optimal, but minimally acceptable quality of the models. The available predictors explain well the factors that contribute to the emergence of ties between deputies, but the model as a whole explains very poorly why deputies *do not* form ties. The suboptimal quality of model specification at this stage requires some caution in interpreting the strength of the identified statistical dependence, but at the same time, the diagnostic results allow us to judge with confidence the direction and statistical significance of the identified relationships.

Taking into account all the above reservations, and also taking into account the fact that some estimates of the coefficients are statistically significant and stable, the following conclusions can be quite convincingly drawn:

- 1) The factor of common membership in the committee, and membership in a single faction has a consistently positive effect on the chance of forming ties between MPs.
- 2) Demographic characteristics (sex and age) are unambiguously statistically insignificant, i.e. have zero effect on the network structure of the State Duma.

3) Attributes of formal status within committees, as well as originating from the same region (the so-called "regional compatriotship") have a weakly expressed, but still identifiable positive effect on the chance of establishing ties between deputies. Most likely, this means that these factors have a very local significance (i.e., these effects affect a small group of deputies, but do not have any effect on the rest of the deputies in the State Duma).

4) The value of the "constant" parameter is sharply negative (although this is generally standard for network analysis), which indicates that in general, random deputies are not inclined to form connections with each other. Such a state is quite natural for the structure of an ordinary social network between people with a sufficiently large number of nodes. At the same time, taking into account the absence of predictors with a negative sign, we can conclude that the "constant" parameter completely captures all negative variability, i.e. factors that have a negative effect on the chance of ties between deputies. This potentially indicates the promise of studying the factors of political polarization in the State Duma, as well as the expansion of the number of predictors in the model as a whole.

REFERENCES

- Aleman E., Calvo E. Explaining policy ties in presidential congresses: A network analysis of bill initiation data, *Political Stud.* 61 (2) (2013) 356–377. doi: 10.1111\2Fj.1467-9248.2012.00964.x.
- Aref S., Neal Z. Detecting coalitions by optimally partitioning signed networks of political collaboration, *Sci. Rep.* 10 (1) (2020) 1–10. doi: 10.1038/s41598-020-58471-z.
- Berardo, R., Scholz J. (2010). Self-Organizing Policy Networks: Risk, Partner Selection and Cooperation in Estuaries. *American Journal of Political Science*, 54:3, 632–49.
- Bernhard, W. & Sulkin, T. (2013). Commitment and Consequences: Reneging on Cosponsorship Pledges in the U.S. House. *Legislative Studies Quarterly*, 38(4), 461–487. DOI:10.1111/lsq.12024
- Chasty P. The legislative effects of presidential partisan powers in Post-Communist Russia. *Government and opposition*. 2008. Vol. 43, N 3. P. 424–453. DOI:10.1111/j.1477-7053.2008.00261.x
- Desmarais B. A., Moscardelli V. G., Schaffner B. F., Kowal M. S., Measuring legislative collaboration: The Senate press events network, *Soc. Netw.* 40 (2015) 43–54. doi: 10.1016/j.socnet.2014.07.006.
- Diamond, L. (2002). Elections Without Democracy: Thinking About Hybrid Regimes. *Journal of Democracy* 13(2), 21-35. <https://doi.org/10.1353/jod.2002.0025>.

- Fischer, M., Sciarini P. (2016). Drivers of Collaboration in Political Decision-Making: A Cross-Sector Perspective. *The Journal of Politics*, 78:1, 63–74.
- Fowler, J. H. (2006a). Connecting the Congress: A study of cosponsorship networks. *Political Analysis*, 14(4), 456–487. <https://doi.org/10.1093/pan/mpl002>.
- Fowler, J. H. (2006b). Legislative cosponsorship networks in the U.S. House and Senate. *Social Networks*, 28(4), 454–465. <https://doi.org/10.1016/j.socnet.2005.11.003>.
- Gel'man, V. (2008). Party Politics in Russia: From Competition to Hierarchy, *Europe-Asia Studies*, 60:6, 913-930. <https://doi.org/10.1080/09668130802161165>.
- Gandhi J., Noble B. Svolik M. Legislatures and legislative politics without democracy. *Comparative political studies*. 2020. Vol. 53, N 9. P. 1359–1379. DOI: 10.1177/0010414020919930.
- Golosov, G. (2011). The Regional Roots of Electoral Authoritarianism in Russia, *Europe-Asia Studies*, 63:4, 623-639. <https://doi.org/10.1080/09668136.2011.566427>.
- Harward B. M., Moffett K. W. The calculus of cosponsorship in the US Senate, *Legis. Stud. Q.* 35 (1) (2010) 117–143. doi: 10.3162/036298010790821950.
- Holman M. R., Mahoney A. Stop, collaborate, and listen: Women's collaboration in US state legislatures, *Legis. Stud. Q.* 43 (2) (2018) 179-206. doi: 10.1111/lsq.12199.
- Ingold, K., Leifeld P. (2014). Structural and Institutional Determinants of Reputational Power in Policy Networks, *Journal of Public Administration Research and Theory*, 26:1, 1–18.
- Krol G. Amending legislatures in authoritarian regimes: power sharing in post-Soviet Eurasia. *Democratization*. 2021. Vol. 28, N 3. P. 562–582. DOI: 10.1080/13510347.2020.1830065
- Krol, G. (2017). Legislative performance of the Russian state duma: the role of parliament in an authoritarian regime. *East European Politics*, 33(4), 450–471. <https://doi.org/10.1080/21599165.2017.1346504>.
- Levitsky, S., Way, L.A. (2010). Competitive Authoritarianism: Hybrid Regimes After the Cold War. New York: Cambridge University Press.
- Lü X., Liu M., Li F. Policy coalition building in an authoritarian legislature: evidence from China's National Assemblies (1983–2007). *Comparative political studies*. 2020. Vol. 53, N 9. P. 1380–1416. DOI: 10.1177/0010414018797950.

- Malesky, E., & Schuler, P. (2010). Nodding or needling: analyzing delegate responsiveness in an authoritarian parliament. *American Political Science Review*, 104 (3), 482–502. <https://doi.org/10.1017/S0003055410000250>
- Montgomery J. M., Nyhan B. The effects of congressional staff networks in the US House of Representatives, *J. Politics* 79 (3) (2017) 745–761. doi: 10.1086/690301.
- Noble, B. (2020). Authoritarian amendments: legislative institutions as intraexecutive constraints in post-soviet Russia. *Comparative Political Studies*, 53(9), 1417–1454. DOI: 10.1177/0010414018797941.
- Pomiguev I.A., Alekseev D.V. Resetting Bills: Discontinuity as a Political Technology for Blocking Policy Decision. – *Polis. Political Studies*. 2021. No. 4. P. 176-191. (In Russ.) DOI: 10.17976/jpps/2021.04.13
- Porter M. A., Mucha P. J., Newman M. E., Friend A. J. Community structure in the United States House of Representatives, *Physica A* 386 (1) (2007) 414–438. doi: 10.1016/j.physa.2007.07.039.
- Ring, N., Victor J.N., Gross J.H. (2013). Keeping Your Friends Close and Your Enemies Closer? Information Networks in Legislative Politics. *British Journal of Political Science*, 43:3, 601–28.
- Roberts, S.P. (2012). United Russia and the dominant-party framework: understanding the Russian party of power in comparative perspective, *East European Politics*, 28:3, 225-240, DOI: 10.1080/21599165.2012.684754
- Rombach M. P., Porter M. A., Fowler J. H., Mucha P. J. Core-periphery structure in networks, *SIAM J. Appl. Math.* 74 (1) (2014) 167–190. doi: 10.1137/120881683.
- Shirikov, A. (2021). Who gets ahead in authoritarian parliaments? The case of the Russian state duma, *The Journal of Legislative Studies*. doi: 10.1080/13572334.2021.1940435.
- Simison, E. (2020). Supporters and opposition in authoritarian legislatures. *The Journal of Legislative Studies*, 1–20. doi: 10.1080/13572334.2020.1847375
- Williamson S., Magaloni B. Legislatures and policy making in authoritarian regimes. *Comparative political studies*. 2020. Vol. 53, N 9. P. 1525–1543. DOI: 10.1177/0010414020912288.
- Zhang Y., Friend A. J., Traud A. L., Porter M. A., Fowler J. H., Mucha P. J. Community structure in Congressional cosponsorship networks, *Physica A* 387 (7) (2008) 1705–1712. DOI: 10.1016/j.physa.2007.11.004

ERGM Results

7-th State Duma Session

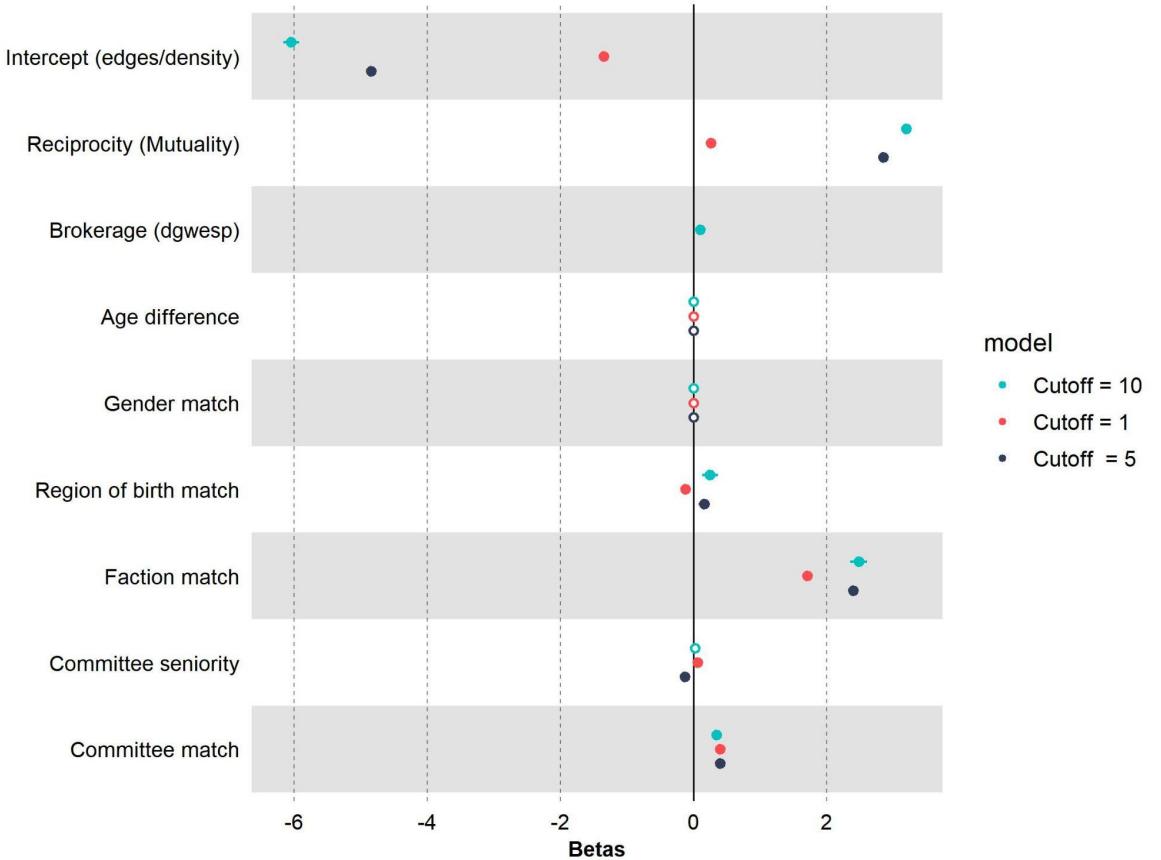


Figure 1. Exponential random graph modeling of the 7th convocation of State Duma of the Russian Federation.

Table 1. The legislative activity in the 3rd-7th Convocations of State Duma of the RF (Source: API of the Federal Assembly of the RF).

Sponsored by	III				IV				V				VI				VII			
	Intro duce d	Shar e of intro duce d, %	Ado pted	Shar e of adopt ed out of all intro duce d, %	Intro duce d	Share of intro duced, , %	Ado pted	Share of adopte d out of all introd uced,	Intro duce d	Share of intro duced, , %	Adop ted	Share of adopte d out of all introd uced,	Intro duce d	Shar e of intro duce d, %	Adop ted	Share of adopt ed out of all introd uced	Intro duce d	Shar e of intro duce d, %	Ado pted	Share of adopt ed out of all introd uced, %
The President of the RF	136	3,34	122	89,71	122	2,70	121	99,18	224	4,97	219	97,77	192	2,57	185	96,35	163	2,59	162	99,39
The Council of Federation (Upper Chamber of the Parliament)	51	1,25	3	5,88	38	0,84	6	15,79	21	0,47	3	14,29	6	0,08	5	83,33	2	0,03	2	100,00
Members of the Council of Federation	254	6,24	19	7,48	283	6,26	52	18,37	391	8,67	96	24,55	581	7,77	191	32,87	781	12,42	318	40,72
Deputies of the State Duma	2201	54,09	220	10,00	2006	44,36	458	22,83	1935	42,91	547	28,27	3588	47,97	680	18,95	2642	42,01	755	28,58
The Government of the RF	336	8,26	278	82,74	401	8,87	367	91,52	699	15,50	653	93,42	1326	17,73	1223	92,23	1669	26,54	1412	84,60
Legislative Assemblies of the Subjects of the RF	1056	25,95	42	3,98	1646	36,40	122	7,41	1208	26,79	131	10,84	1750	23,40	171	9,77	984	15,65	119	12,09
Supreme Court	30	0,74	5	16,67	22	0,49	13	59,09	20	0,44	12	60,00	32	0,43	25	78,13	48	0,76	31	64,58
Supreme Arbitrary Court	5	0,12	3	60,00	4	0,09	3	75,00	11	0,24	8	72,73	4	0,05	0	0,00	0	0,00	0	0,00
Constitutional Court	0	0,00			0	0,00			0	0,00			0	0,00			0	0,00		
Total	4069	100,0	692		4522	100,0	1142		4509	100,0	1669		7479	100,0	2480		6289	100,0	2799	

