**Online Appendix**

Huang I S-H and Sheng S-Y (2020) Rethinking the Decentralization of Legislative Organization and its Implications for Policymaking: Evidence from Taiwan. *Government and Opposition: An International Journal of Comparative Politics*.

**Appendix 1:** Details of Variables Coding

|  |  |
| --- | --- |
| **Variables** | **Coding**  |
| **Success (Dependent Variable)** | 1: The given bill is enacted; 0: Otherwise.Success rate in each term:2nd LY (1993-1996): 21.813rd LY (1996-1999): 22.914th LY (1999-2002): 30.705th LY (2002-2005): 25.906th LY (2005-2007): 29.547th LY (2008-2012): 25.23 |
| **Initiators**  | *Government* (Dummy Variable) 1: Bills proposed by the Executive Yuan unitarily or jointly with the Examination Yuan, Control Yuan and Judicial Yuan.0: Bills introduced from the Legislative Yuan.*Majority Party*, *Minority Party*, *Small Party*1: 1. Bills proposed by the caucus of a given party (e.g. the majority party) or
2. Bills proposed by individual legislators and whose 90% of sponsors and cosponsors are from a given party (e.g. the majority party)

0: Other bills. *Cross-Party*1:1. Bills jointly proposed by multiple party caucuses or
2. Bills proposed by individual legislators from multiple parties and whose composition of sponsors and cosponsors does not meet the 90% criterion.

0: Other bills.  |
| Government |
| Majority Party |
| Small Party |
| Cross-Party  |
|  Minority Party (base) |
| **1999 Decentralization** | Dummy Variable1: Bills proposed after the 1999 legislative decentralization (4th-7th LY).0: Bills proposed before the 1999 legislative decentralization (2nd-3rd LY). |
| **Participation of Government**  | A bill is labelled as *Government Only* if members from the LY do not propose any bills regarding the same law; *Both Branches* if the government and members from the LY both introduce bills concerning the same law.Bills proposed by members from the LY are labelled as *Legislature Only* if the government does not propose a bill concerning the same law. These bills are treated as the base category in the model. |
| Government Only |
| Both Branches |
| Legislature Only (base) |
| **Types of Bills**  | *Minor Revisions* (Dummy Variable) 1: Bills that revise 4 or fewer articles.0: Others, including bills of new laws and grand revisions.New Laws: Bills that propose a new law.Grand Revisions: Bills that revise 5 or more articles. |
| Minor Revisions |
| Others (base) |
| **Timing of Bills**  | From the 2nd to the 6th LY, there were six sessions during each three-year term. In the 7th LY, there were eight sessions in the four-year term. We classify all bills into three categories according to the date on which a given bill is proposed.*First Session*:1: Bills proposed in the first session of a parliamentary term.0: Other bills.*Mid Session***:** 1: Bills proposed in sessions other than the first and final session of a parliamentary term.0: Other bills.Final Session (base category): 1: Bills proposed in the final session of a parliamentary term.0: Other bills. |
| First Session |
| Mid Sessions |
| Final Session (base) |
| **Media Coverage**  | The Parliamentary Library (2015) maintained an archive of news coverage from all major newspapers in Taiwan. For each given bill, the number of news stories regarding the legislation is counted from three months before a given term to two weeks after the end of the term. We create a dummy variable with 1 indicating the number of the news stories over the respective legislation is above the average in the given term and 0 indicating the number is below the average. |
| Above Average |
| Blow Average (base) |
| **Governing Party Seat Share** | Governing party seat share when the given bill is proposed. 2nd LY (1993-1996): 58.393rd LY (1996-1999): 51.834th LY (1999-2000/5/20): 54.674th LY (2000/5/20-2002): 31.11 (divided government)5th LY (2002-2005): 38.676th LY (2005-2007): 39.567th LY (2008-2012): 71.68 |
| **Governing Party Unity** | Average governing party unity score when the given bill is proposed. The data is taken from Hawang (2016).2nd LY (1993-1996): 63.23rd LY (1996-1999): 70.94th LY (1999-2000/5/20): 71.44th LY (2000/5/20-2002): 94.8 (divided government)5th LY (2002-2005): 94.46th LY (2005-2007): 93.57th LY (2008-2012): 72.6 |
| **Effective Number of Parties** | The effective number of parties in the LY when the given bill is proposed. The effective number of parties is calculated with the formula proposed by Laakso and Taagepera (1979): $$\frac{1}{\sum\_{i=1}^{n}p\_{i}^{2}}$$Where $p\_{i}$ is the seat share of the party i in the given term of LY.According to Wang (2013) and Wu (2007), the effective number of party during each term is as follows:2nd LY (1993-1996): 2.193rd LY (1996-1999): 2.54th LY (1999-2000/5/20): 2.464th LY (2000/5/20-2002): 2.76 (divided government)5th LY (2002-2005): 3.486th LY (2005-2007): 3.267th LY (2008-2012): 1.75 |
| **Year trend** | Trend variable indicating the order of the year in which the legislative bill was proposed.  |

Source: Authors

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**Appendix 2:** AdditionalNarrative about the 1999 Legislative Decentralization

Legislative performance in the LY had been devastatingly poor since the first entire Legislative Yuan election 1992. The LY suffered from ceaseless public criticisms of its poor legislative product and inefficient policy-making process, and meanwhile, the public opinion demanded strongly for parliamentary reforms (Central Daily News 1995; China Times 1997; Hsieh 1996; United Daily News 1995; Liberty Times 1996).

 Ever since Liu Song-Fan (KMT) was elected as the speaker in 1993, he had a mission to improve the efficiency and quality of legislation in the LY by institutionalizing a negotiation mechanism that allow the governing and opposition parties to peacefully deliberate the legislation (Chang 1993). Informally, the LY did process several bills with negotiations. However, without any legal effects, the deals made through the informal, case-by-case negotiations were not binding (Hou 2003; Yang 1993). The opposing forces continued to boycott numerous pieces of legislation by proposing numerous motions and by fierce physical conflicts. The frequency of parliamentary violence reached a historical high (Batto et al. 2016).

 Entering into the 3rd Legislative Yuan, the KMT owned 52% of the seats (85 out of 164), the KMT leadership started to work out a mechanism of negotiations that would avoid possible legislative frustration (Youth Daily News 1996). While the two opposition parties (i.e. the DPP and the NP) are threatening, to win over the KMT in the legislative arena still required the two parties, who stood distantly from each other on the national identity issue, to fully cooperate with each other, and they have to count on the dissenting KMT members. Moreover, they could not continue to boycott without paying the reputational cost as the public was so tired of the chaotic and inefficient policy-making performance that hindered the legislation concerning the public interest (Hou 2003; Huang 1998; Liberty Times 1996; Shang and Chen 1996). In the legislative process of *the Labour Standard Act*, *the Organized Crime Prevention Act*, *the Compulsory Automobile Liability Insurance*, the government budget and several pieces of legislation, the governing party and the two opposition parties ceased the “dogfights” and enacted legislation through informal negotiations (Chu 1996; Hou 2003).

 After tasting the benefits of negotiations, the governing party and opposition parties, which shared a common interest to revive the performance and public image of the LY, recognized that a parliamentary reform should be carried out in a timely manner (Chen 1997; Huang 1997). President Lee Teng-Hui, who was also the chair of the KMT, publicly declared in 1998 that carrying out parliamentary reforms to improve legislative effectiveness and efficiency is an important goal of the KMT (Chang 1998; Chang 1999; Chou 2 et al. 2011; Ho 1998; Wu 1998). He particularly emphasized the importance of negotiations with the opposition parties (Huang 1998; Taiwan Times 1998), and the KMT’s plan was to institutionalize a formal party negotiation mechanism through which the parties may make deals that are legally binding (Lo 1998; Zhai 1998). The attempt was not to hold sway in the LY, but to more or less decrease the frequency of severe conflicts and level down the influence of the “dogfights” on uncontroversial legislation (Hou 2003; Tsai 2009). The Policy Advisory Council of the KMT chaired by the vice president, Lien Zhan, with President Lee in presence, decided the outline of the reform bills (Ho 1999; Lo 1998). With the support from the summit of the KMT, Speaker Liu, who saw legalizing the party negotiation mechanism as his personal mission (Zhai 1998), vowed to carry out the reform bills regardless whether he could be reelected as the speaker (Chen 1999; Lin 1999). On the other hand, the DPP allied with the NP demanding a reform that would prevent the legislators’ corruptive behaviour. Meanwhile, they requested a greater share of the committee chairmanship (Chen 1999; Chen and Lo 1999; Lo 1998).

 On 13 January, 1999, the KMT, DPP and NP, as well as individual legislators cheered for the enactment of the reform bills (B-R Chen 1999; S-L Chen 1999; Liu 1999). President Lee publicly expressed his appreciation toward the parliamentary reform and his belief that this reform may greatly enhance legislative efficiency (Hsiao 1999; Lo 1999). Wang Jing-Ping, who served as the speaker of the LY from 1999 to 2015, appraised the effect of the 1999 parliamentary reform in general and that of the party negotiation mechanism in particular. He articulated that the legislative productivity increased and the legislative obstructions were effectively reduced after the reform (Wang 2003). Ke Chien-Ming, who has long been the party whip for the DPP, remembered that the 1999 reform has helped smooth the legislative process (Ke 2013). In addition, descriptive studies on the LY also reported that the legislative productivity (i.e. the number of bills enacted) in the LY has to a certain extent increased after 1999 (Lo 2006; Wang 2003)

 To sum up, the legislative organization in Taiwan has been further decentralized when the parliament was paralysed. The governing party back then did not opt to centralize the legislative powers and rights in its hands, and the reform was not led by the opposition parties. Rather, it was the governing majority party that took the lead to formulate the reform bills that grant the other parties and individual legislators with more access points to influence legislation and install power-sharing mechanisms in the formal legislative rules. The opposition parties focused more on the constraints over legislators’ corruptive behaviour, rather than on acquiring more legislative rights and powers. Of course, they did not turn down the gift from the majority party.

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**Appendix 3:** Key Changes Made by National Assembly Advancement Act in South Korea

In a nutshell, the amendment to the National Assembly Act enacted in 2012 provides the minority with the following accesses to defer the legislation of the government or majority party.

1. It allows a filibuster, with the approval from one third of all legislators, to unlimitedly debate on an agenda. To end the debate requires the approval from three fifths of all legislators (Article 106).
2. To expeditiously process an agenda (fast-track process) requires the approval from three fifths of the members in the respective standing committee or three fifths of all legislators (Article 85-2).
3. An agenda coordination committee, where the majority and minority have equal representation, can be formed in any standing committees upon the request of one third of the committee members. The agenda coordination committee shall pass a resolution on the coordinated agenda with the consent of two thirds of its members (Article 57-2).

**Appendix 4:** Complementary Interpretation of Regression Coefficients

Although the results for non-linear models should better be interpreted with the predicted outcomes, we offer a complementary interpretation of the regression coefficients here in order to make our findings clearer to readers.

 In Table 2, the positive coefficient for *Decentralization* means that on average, there is an increase (.69) in the log-odds for the minority party (i.e. when *Government*, *Majority Party*, *Small Party* and *Cross-Party* are all equal to 0). In terms of the odds ratio, the odds of legislative success for the minority party after the decentralization are about twice the odds before. The negative coefficient for each interaction term means that the increase after decentralization for each actor is smaller than the increase for the minority party. When taking into account the interaction terms, there is some increase in the odds of legislative success for each actor, and the coefficients should be interpreted as: (note: The coefficients shown on Table 2 are slightly different due to rounding.)

 When *Government* is 1, on average, the increase in the log-odds after the decentralization is .52 (.69-.17); In terms of the odds ratio, for the government’s bills, the odds of legislative success after decentralization are on average exp(.52)=1.99803\*.8444607=1.69 times the odds before.

 When *Majority Party* is 1, on average, the increase in the log-odds after the decentralization is .16 (.69-.53); In terms of the odds ratio, for the majority party (caucus and legislators)’s bills, the odds of legislative success after the decentralization are on average exp(.16)=1.99803\*.5879468=1.17 times the odds before.

 When *Small Party* is 1, on average, the increase in the log-odds after the decentralization is .01 (.69-.68); In terms of the odds ratio, for the small parties’ bills, the odds of legislative success after the decentralization are on average exp(.01)=1.99803\*.5049678=1.01 times the odds before.

 When *Cross-Party* is 1, on average, the increase in the log-odds after the decentralization is .40 (.69-.29); In terms of the odds ratio, for the cross-party bills, the odds of legislative success after the decentralization are on average exp(.40)=1.99803\*.7451794=1.49 times the odds before.

 We can also calculate back how on average the success rate for all bills has changed after the decentralization as if the interaction terms were not included. For all bills, the odds of legislative success after the decentralization are on average about 1.50 times that before (p<.001). The predicted success rate has increased by .07 after the decentralization. Hence, the decentralization greased the legislative wheels and slightly improved the chance of legislative success. Compared to a paralysed parliament where only about 20 % of the bills could be enacted, adding the 7% is not trivial, and this is why all the legislative actors appraised the parliamentary reform (Please see Appendix 2).

 The coefficient for the additive dummy variable for each type of initiator indicates the difference in the log-odds between each category and the base category (i.e. the minority party) before the decentralization (when decentralization=0). The coefficients for the interaction terms should therefore be interpreted as how much the **difference** between each category and the base category changed after decentralization. Hence, the negative coefficients for the interaction terms mean that the gaps between each type of initiator and the base category have been reduced after decentralization (when *Decentralization*=1). This implies that the legislative capacity has been more equalized across all types of initiators after the legislative decentralization.

 Specifically, the log-odds for the majority party (caucus and legislators)’s bills is on average .47 greater than minority party before the decentralization, while it is on average .06 lower (.47-.53) than the minority party. In terms of the odds ratio, the odds of legislative success for the majority party’s bills are on average about 1.6 times the odds for the minority party before the decentralization, while the odds are on average .94 (1.6\*.59 or exp(-.06)) times the odds for the minority party after the decentralization. Clearly, the advantage of the majority party over the minority party has been largely reduced. As we mentioned in the article (p.2), the success rates for the majority party’s bills have been even lower than that for the minority party’s bills. However, the difference between the majority party and minority party is so small that we can still see their success rates as equalized. In Figure 2, the bars for the parties are almost flat after the decentralization. To be noted, simply because the majority party has no longer had advantage over the minority party does not mean that there was no increase in the chance of successful legislation for the majority party.

**Appendix 5:** Robustness Check

|  |  |  |
| --- | --- | --- |
|  | **Model A1 (Multilevel)** | **Model A2 (Pooled)** |
|  | **B (SE)** | **Odds ratio** | **B ( robust SE)** | **Odds ratio** |
| *Initiators (minority party=0)* |  |  |  |  |
| Government |  1.22 \*\*\* \*\*\*(.17)\*\*\* | 3.39 | 1.26 (0.17)\*\*\* | 3.51  |
| Majority party |  0.47 (0.19)\* | 1.60 | 0.47 (0.19)\* | 1.60 |
| Small party |  0.68 (0.41)σ | 1.98 | 0.73 (0.42)σ | 2.07 |
| Cross-party | 0.41 (0.16)\* | 1.51 | 0.43 (0.16)\*\* | 1.54 |
| *1999 Decentralization (before=0)* | 0.71 (0.30)\* | 2.03 | 0.67 (0.18)\*\*\* | 1.96 |
| *Interaction Terms* |  |  |  |  |
| Government\*Decentralization | -0.09 (0.19) | 0.92 | -0.16 (0.19) | 0.85 |
| Majority party\*Decentralization | -0.54 (0.21)\*\* | 0.58 | -0.53 (0.21)\* | 0.59 |
| Small party\*Decentralization | -0.68 (0.45) | 0.51 | -0.68 (0.45) | 0.51 |
|  Cross-party\*Decentralization | -0.28 (0.19) | 0.75 | -0.29 (0.18) | 0.75 |
| *Participation of Government (legislature only=0)* |  |  |  |  |
| Government only |  0.32 (0.10)\*\* | 1.38 | 0.26 (0.10)\*\* | 1.30 |
| Both branches | 0.63 (0.06)\*\*\* | 1.87 | 0.59 (0.06)\*\*\* | 1.81 |
| *Types of bills (others=0)* |  |  |  |  |
| Minor revisions | 0.19 (0.05)\*\*\* | 1.20 | 0.19 (0.05)\*\*\* | 1.21 |
| *Timing of bills (Final session=0)* |  |  |  |  |
| First session |  1.16 (0.10)\*\*\* | 3.19 | 1.13 (0.11)\*\*\* | 3.11 |
| Mid sessions |  0.81 (0.09)\*\*\* | 2.26 | 0.79 (0.09)\*\*\* | 2.21 |
| *Media coverage (below average=0)* |  -0.22 (0.05)\*\*\* | 0.80  | -0.22 (0.05)\*\*\* | 0.81 |
| *Governing party seat share* | 0.00 (0.01) | 1.00 | -0.01 (0.01) | 0.99 |
| *Governing party unity* | -0.03 (0.02)\* | 0.97 | -0.03 (0.01)\*\* | 0.97 |
| *Effective Number of Parties* | 0.50 (0.22)\* | 1.64  | 0.25 (0.12)\* | 1.28 |
| *Year trend* |  |  | 0.01 (0.02) | 1.01 |
| *Constant* | -2.25 (2.16) | 0.11 | -1.00 (1.24) | 0.37 |
| **Standard deviation (constant)** | 0.16 (0.05) |  |  |
| **Intra-class correlation** | 0.01 (0.01) |  |  |
| **Pseudo R-square** |  | 0.06 |  |
| **Number of cases** | 12,757 | 12,757 |  |
| **Number of groups** | 6 |  |  |

Note: 1. The dependent variable is a binary variable denoting whether a given bill is successfully enacted.

2. σ: p<0.1; \*: p<0.05; \*\*: p<0.01; \*\*\*: p<0.001.

We present additional models to check the robustness of our findings. Model A1 is a random intercept model with the same variables included in Table 2 shown in the main text of our paper. As the results show, the random intercept model does not differ much from the pooled model, and the intra-class correlation coefficient is around .01. Given the small number of second-level units (parliamentary terms) and the results shown in Model A1, a multilevel analysis is not necessary, and it may not produce more reliable results than the pooled logistic regression (Gelman and Hill 2007; Maas and Hox 2005; Paccagnella 2011; Snijder and Brosk 1999). Moreover, the pooled logistic regression serves our analytic purpose which focuses on controlling for the variables varying across the six particular terms, rather than drawing specific inferences regarding the effects of these variables in the population of terms.

 Next, we examine whether our findings from Table 2 in the article are only driven by an upward yearly trending effect. As Model A2 shows, the findings do not differ meaningfully from those presented in Table 2.

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