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Mixed Member Proportional Electoral Systems – The Best of Both Worlds?

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Abstract: Mixed electoral systems are often associated with the hope of combining proportional election outcomes with a concentrated party system, and thus achieving the best of both worlds in electoral system design. It is especially the mixed member proportional (MMP) variant that has retained a good reputation in this regard. Via a comparative analysis, we seek to answer the question of whether the general praise for MMP systems is warranted or largely owed to the great success of the German MMP system. Considering exact technical specifications, the empirical analysis shows that MMP systems usually do not reach a superior balance. Exceptional performances in Germany and New Zealand are counterbalanced by problematic outcomes in new democracies, leading to an overall mixed evaluation.

Keywords: Electoral System – Mixed Member Proportional System – Proportionality – Party System Fragmentation

1 Introduction

Elections are central elements of representative democracies. Therefore, the electoral system, which frames and influences voting behavior, is a crucial institution in any democracy (Gallagher and Mitchell, 2005a: 3; Nohlen, 2009: 27). However, it is well-known that perfect electoral systems do not exist. Generally, Proportional Representation (PR) systems often fail to concentrate party systems sufficiently to create a direct voter-government link in allowing for single-party government. Plurality systems, on the other hand, are typically criticized because of high disproportionalities between parties' vote and seat shares and also limit the parliamentary representation of smaller parties. In light of these criticisms, Lijphart (1984: 207), among others, speculated that mixed electoral systems (MES) *could* 'provide the advantages of both' plurality and PR systems and thus introduced a new perspective on the study of electoral systems. Subsequently, several researchers highlighted that MESs actually can be able to combine the advantages of pure systems (especially Shugart and Wattenberg, 2001a; see also Kostadinova, 2002: 31; Birch 2003) while others feared that these systems would combine the deficits instead of the advantages of pure systems (Sartori, 1994; Monroe, 2003). Similar to these mixed expectations, case studies evaluate some MESs positively (e.g. Germany; see Saalfeld, 2005) while others are seen as dysfunctional (e.g. Russia; see Moser, 2001; or Italy; see Katz, 2006). Comparing electoral systems empirically in the new democracies of Central and Eastern Europe, Bochsler (2009) indeed finds large variation of mixed electoral systems' performance.

Among experts it is especially the Mixed Member Proportional (MMP) variant of MESs that is expected to best fulfill Lijphart's promising hypothesis (Bowler et al., 2005; Gallagher, 2005: 575; but see Bochsler, 2012). Especially its archetype, the German *personalisierte Verhältniswahl*, is widely perceived as coming close to the best of both worlds (e.g. Kaase, 1984; Scarrow, 2001; Nishikawa and Herron, 2004: 767; Saalfeld, 2005). Evaluations of electoral system effects often are contrasted with Germany's apparently efficient results (e.g. Larkin, 2011: 77). Furthermore, many MMP systems have been designed with explicit reference to the 'German model' (Farrell, 2011: 108; Lundberg, 2013: 611). Examples are the national electoral systems in New Zealand (RCES, 1986), Bolivia (Mayorga, 2001), Venezuela (Crisp and Rey, 2001) as well as systems on the sub-national level like Scotland and Wales (Bradbury and Mitchell, 2001; Johnston and Pattie, 2002; Lundberg, 2013).

However, a closer look at MMP systems reveals the fact that there is considerable variation with regard to their specific technical features. Although the successful German example in many cases served as a powerful argument for the introduction of MMP, the electoral systems

introduced with reference to it are not mere copies of the archetype. Quite to the contrary, MMP systems employ different mechanisms to achieve compensation between the plurality and the PR tier, they vary in the ratio of MPs elected directly to MPs elected by party lists, and they differ with regard to the use of thresholds and provisions for national minorities' representation. Additionally, we know that electoral systems work differently under varying contextual circumstances (cf. Amorim Neto and Cox, 1997; Clark and Golder, 2006; Geys, 2006). As a consequence one and the same electoral system might produce desirable results in one country but work badly in another. These considerations then lead to the question of whether the very positive general evaluation of MMP electoral systems can be corroborated empirically, or if it is rather the special design of the *personalisierte Verhältniswahl* that happens to perform very well in Germany (cf. Bowler and Farrell, 2006: 450). Furthermore – if the positive evaluation cannot be generalized – it is critical to investigate which factors are relevant for a positive performance of MMP systems. In this contribution, we give answers to these questions by comparing outcomes of all MMP systems worldwide. These are the cases of Albania, Bolivia, Germany, Lesotho, New Zealand, and Venezuela.[1] We also include the sub-national electoral systems of Scotland and Wales into our analysis.

The remainder of this paper is structured as follows. We first give a theoretical background on the evaluation of electoral systems and the best of both worlds hypothesis. Afterwards, we describe our objects of interest, the MMP electoral systems and carve out differences between the above mentioned cases. Finally, we show and discuss our results, and conclude by deriving the main implications for electoral system research.

2 Do mixed electoral systems include the best of both worlds?

When it comes to the evaluation of electoral systems, the focus lies on the question of how they are able to fulfill the main principles of representation, i.e. concentration and proportionality. Although technical questions like that of monotony (cf. Riker, 1982) and normative questions like the acceptance of an electoral system among the electorate are not of minor importance, it is the antagonistic relationship between concentration and proportionality that renders the search for an optimal electoral system virtually impossible. While MESs provide district representation alongside the choice of party lists and thus at least

[1] Our analysis does not include 'positive vote transfer systems' as applied formerly in Italy or currently in Hungary and Romania. Those systems are similar to MMP systems (Bochsler, 2014: 113) but usually categorized as a mixture of MMP and Mixed Member Majoritarian (MMM) systems (Benoit, 2005: 235; Massicotte and Blais, 1999: 357).

technically provide voters with increased influence on candidate selection, the critical question in light of the concentration-proportionality trade-off is in how far the combination of different electoral formulas affects the overall appearance of the parliament (see Raabe and Linhart, 2012; Raabe, 2015).

On the one hand, the representation principle of proportionality requests that vote shares and seat shares of parties are as similar as possible. It is widely regarded as fair that groups of voters should be represented in parliaments according to their relative sizes. Furthermore, a proportional system facilitates the parliamentary representation of minority groups. On the other hand, it is an electoral system's task to aggregate interests in a way that government formation clearly reflects the voters' choice. Ideally, there is one party winning an election and the others losing it, leading to a direct voter-government link without parties bargaining over who will and who will not be part of the government. Such a situation – in which government formation ensues directly from election results – is only possible with a sufficiently concentrated party system.

With regard to this antagonistic relationship between the two principles it is well-known that PR systems fulfill the principle of proportionality well (but fail in concentrating the party system) whereas plurality and majority systems are able to concentrate the party system (but are criticized because of a lack of proportionality). Between these systems, concentration typically means a deviation from proportionality, while each fixation of proportionality usually prevents a concentration of the party system (see, e.g., Norris, 2004: 66-77; Pinto-Duschinsky, 1999). Based on the challenge posed by this trade-off, Lijphart (1984) introduced the question of whether electoral systems other than PR or plurality could combine the advantages of these two systems. Obviously, no electoral system will fully resolve the aforementioned trade-off by being as proportional as pure PR systems and at the same time concentrating a party system like plurality systems do. But an electoral system resembling the best of both worlds would have to be a 'perfect compromise between PR and plurality' (Lijphart, 1984: 213). It should enable proportional representation of diverse societal groups – especially minorities – and simultaneously foster stable governments which are accountable to the electorate because of a direct, undistorted voter-government link. The question regarding the best of both worlds thus crucially hinges on the successful balance of the opposing principles of representation (cf. Nohlen, 1984).

While Lijphart (1984) – looking for optimal performance with regard to both the concentration and proportionality dimension – initially disclaimed the existence of an electoral system able to deliver in terms of the best of both worlds, the search for such a

system has engaged the study of electoral systems and their effects ever since. Especially with the rise of scholarly attention to a fairly new phenomenon – the widespread application of mixed electoral systems (e.g., Massicotte and Blais, 1999) – has the question at hand been re-examined. At the same time, the strong, polar demands raised by Lijphart (1984) have been relaxed in that, to reach a 'sweet spot' in electoral system design, successful systems have to minimize the trade-off between proportionality and party system concentration (cf. Carey and Hix, 2011).

In this perspective, MESs are hoped to balance both principles of representation in a superior way: Through the application of PR mechanisms, MESs guarantee proportional representation at least for part of the legislature. Through the combination with plurality mechanisms and the incentives they produce (Duverger, 1954) MESs should at the same time encourage the building of ideological blocs and thus lead to a degree of party system concentration that is higher than in pure PR systems (Shugart, 2001: 26; Shugart and Wattenberg, 2001b: 583-84; Gallagher, 2005: 548-49). The combination of these mechanisms at work in MESs would then imply that the latter provide for the best of both worlds in how they affect election outcomes – that is by pairing proportional outcomes with highly concentrated party systems. Theoretically, however, the opposite is possible, too, and MESs might produce outcomes that are even less desirable than results of pure electoral systems (Bawn and Thies, 2003; Sartori, 1994; Monroe, 2003; Bochsler, 2012). Bawn and Thies (2003: 18), for example, fear that MESs can lead to outcomes 'worse than the worst of the two worlds'.

Empirically, there is lack of broad comparative studies corroborating one of the two argumentations. Case studies, however, seem to approve Monroe's (2003: 443) proposition that the question of MES types' performance can hardly be answered generally but 'the devil is in the institutional and contextual details'. Comparing electoral systems in Central and Eastern Europe, Bochsler (2009: 755) finds that, compared to pure PR systems, disproportionality in mixed systems is higher, while the concentration of the party system varies strongly. Some MESs such as the Russian system employed for elections in the 1990s produced highly disproportional and fragmented outcomes (cf. Moser, 2001: 37) and thus could be used as a negative example for the 'worst of both worlds'. The German *personalisierte Verhältniswahl* and MMP systems in general, on the other hand, are evaluated very positively (Bowler et al., 2005; Bowler and Farrell, 2006). If MMP systems really performed as well as electoral systems possibly can, finding empirical corroboration for this positive view on MMP would bring electoral system research a large step forward. The problem, however, is that the MMP system's positive evaluation is largely based on the single

case of the *personalisierte Verhältniswahl* in Germany.[2] Here, the MMP system employs a balanced relation between plurality and PR seats, is combined with a 5 per cent legal threshold, a nation-wide PR tier and some more specific regulations to be detailed later. Thus, the question remains if the positive evaluation of MMP systems can be generalized or if it is only the special design of the *personalisierte Verhältniswahl* that harmonizes well with the social structure in Germany.

3 Mixed Member Proportional Systems in Theory and in Practice

In order to accurately assess the general performance of MMP electoral systems, we need to focus on the exact design of different MMP systems applied around the world. As regards the general concept of MMP electoral systems, we rely on the classification work of Massicotte and Blais (1999), Shugart and Wattenberg (2001a), and Reynolds et al. (2005) that employ definitions of MMP ('dependent combinations' in the terms of Massicotte and Blais, 1999: 347) that vary in nuances only. They all share the basic provision that electoral systems classified as MMP make use of two opposed electoral formulas (usually plurality or majority in single member districts and some form of PR) to elect legislators to one legislative body, whereby the precise application of one formula is dependent on the outcome produced by the other formula (Massicotte and Blais, 1999: 353; Shugart and Wattenberg, 2001c: 13; Reynolds et al., 2005: 91). Generally, in MMP systems the total number of seats a party gets is determined by its PR vote share[3] but, notwithstanding this distribution, all winners of single member districts (SMDs) receive a seat in the parliament. This rule can lead to surplus seats – arising where parties gain more seats in SMDs than they are entitled to by their PR vote. The application of the formulas is linked in order to (partly) compensate or correct for the distortions produced by each formula in isolation. With the exception of Lesotho in 2012 (and some electoral systems on the regional level, e.g., in Germany, not to be discussed here) where voters had only one vote, voters had two separate votes in all currently *de facto* existing cases – one vote for the district candidate(s), one for the party list in the PR tier.

The Scottish and the Welsh system slightly deviate from this procedure. Their electoral systems resemble parallel systems on the first view as the number of seats to distribute according to a PR mechanism does not equal the total number of seats but the parliament size

[2] And even for the German case recent evidence on the state level casts doubt on the notion that the MMP system reaches a superior balance compared to PR (Raabe et al., 2014).

[3] For this reason, positive vote transfer systems, in which this is not the case, are not MMP systems in a narrower sense (cf. footnote 1).

minus the number of district winners. However, the PR quota applied to allocate the PR seats includes a malus for district winners so that both tiers are connected here as well: the PR tier compensates disproportionalities of the plurality tier by taking seats already won in the plurality tier into account.[4]

When we look at factually existing MMP systems we detect much further variation within the common MMP framework (see Table 1).[5] Firstly, not surprisingly, the parliament sizes vary. In cases of nation-wide PR tiers, one consequence is that effective thresholds (see Lijphart, 1994) resulting from the parliament size vary, too. Without any other restrictions for parties to gain seats in the parliament, this effective threshold would be 1.7 per cent in Wales but 0.2 per cent in Germany (1994 and 1998) only. As in most of the cases there are stricter limitations, this point is of minor importance and we show the variation only to draw a complete picture. More important is the nature of the linkage between the tiers. It is precisely this element that – leaving context aside – we expect to make the crucial difference with respect to how these systems shape the party system.

We thus, secondly, discuss the number of seats allocated in SMDs by plurality rule.[6] The higher this number in relation to the parliament size, the smaller the share of seats that can compensate disproportionalities of the plurality tier. In the same vein, party system concentration is expected to be higher, the larger the share of SMD seats is. From Table 1 we get that the SMD ratio varies from 47 per cent in Venezuela 1998 to 71 per cent for the Albanian cases which – barring other technical specifications – leads us to expect that these systems operate rather differently. Whereas, generally, this SMD ratio seems important for the question of how compensatory an MMP system is by being more or less likely to produce

[4] Precisely, the number of list votes a party has gained within each PR district is divided by the number of SMDs already won by that party within this district and thus all seats – SMD and PR seats – are considered for the allocation of the PR seats. The quotient used for the allocation of every PR seat thus is calculated by dividing the list votes gained by party *i* through the number of seats already won by party *i* – plus one. For example, if party A gained 120,000 list votes and swept four district seats, the first divisor in the allocation of the PR seats for that party would be 5 (4+1), leading to a quotient of 24,000. If party B gained more than 24,000 list votes without having won a district seat, the first PR seat to be allocated would go to party B.

[5] For Germany, we chose to focus on those elections occurring in the same time-period as the other elections under MMP rules.

[6] Venezuela is a special case as not all representatives in the plurality tier are elected in SMDs. In 1997, for example, 71 of 102 plurality tier representatives are elected in SMDs, 18 in two-member-districts, nine in three-member-districts and four in a four-member-district. As the large majority of representatives in the plurality tier are still elected in SMDs, the other district magnitudes are very small, and plurality is still the applied election rule, this point seems negligible.

disproportional surplus seats, special arrangements in two countries superpose this mechanism. In Germany 2013, all surplus seats are compensated by additional 'leveling seats' until strict proportionality is reached. This means that the amount of surplus seats does not affect proportionality or concentration directly. In Venezuela, surplus seats are compensated, too, but this compensation is restricted to five leveling seats per party (see Mayorga, 2001: 176).[7]

Thirdly, proportionality and concentration of an electoral system can be influenced by restrictions within the PR tier. Legal thresholds like in Albania, Bolivia, Germany, Lesotho and New Zealand[8] limit proportionality and support party system concentration. Similarly, small district magnitudes function as effective thresholds (Lijphart, 1994). As a consequence, we expect that systems like those in Albania, Germany, Lesotho and New Zealand with nation-wide PR tiers lead to very different outcomes compared to those in Bolivia, Scotland, Venezuela and Wales, where median district magnitudes range from 5.3 to 16.5 producing rather high effective thresholds.

Finally, in three countries (Bolivia 2009, all elections in New Zealand, and Venezuela since 2000) a fixed number of districts are reserved for indigenous minorities. This provision helps parties representing minorities to gain parliamentary seats which they probably would not gain without this exception. As a consequence, holding any other factors constant, we assume that such rules reduce concentration since further parties enter the parliament, but raises proportionality because votes for these parties are not wasted anymore.

[7] In Bolivia, the overall number of seats is constant. However, if a party wins more SMD seats in a region than it gets according to the PR mechanism, all district winners are elected anyway and the number of additional list seats available for PR allocation is reduced.

[8] In New Zealand, the legal threshold is not applied to parties with at least one successful district winner. In Germany, the same rule exists, but three district winners are necessary to bypass the legal threshold.

Table 1: *Electoral provisions of MMP systems*

Country	Election	Parliament size	SMD seats	Median PR district magnitude[a]	PR threshold (%)	Number of ballots	Minority districts
Albania	2001, 2005	140	100	140	2.5	2	0
Bolivia	1997, 2002	130	68	11	3	2	0
Bolivia	2005	130	70	11	3	2	0
Bolivia	2009	130	77	11	3	2	7
Germany	1994, 1998	656	328	656	5	2	0
Germany	2002, 2005, 2009, 2013	598	299	598	5	2	0
Lesotho	2002, 2007	120	80	120	0	2	0
Lesotho	2012	120	80	120	0	1	0
New Zealand	1996	120	65	120	5	2	5
New Zealand	1999	120	67	120	5	2	6
New Zealand	2002, 2005	120	69	120	5	2	7
New Zealand	2008, 2011	120	70	120	5	2	7
Scotland	1999	129	73	16.5	0	2	0
Scotland	2003, 2007, 2011	129	73	16	0	2	0
Venezuela	1993	189	102	5.4[b]	0	2	0
Venezuela	1998	189	88	5.3[b]	0	2	0
Venezuela	2000	165	100	6	0	2	3
Venezuela	2005	167	102	6	0	2	3
Wales	1999, 2003, 2007, 2011	60	40	12	0	2	0

Notes:
[a] It is debatable how to report PR district magnitudes in MMP systems. For Germany 2002, e.g., one could argue that 598 total seats minus 299 SMD seats leads to 299 PR seats and thus to a PR district magnitude of 299. The PR quota, however, is applied to all 598 seats. As we show the median PR district magnitude mainly for the reason to give an impression about the effective threshold, we refer to the larger number which is crucial in that regard. For the Scottish and Welsh cases we use total district magnitudes (based on SMDs and PR seats within a region), too, because all seats within the regional district are used for the seat allocation via the calculation of the divisor for the allocation of the PR seats (see footnote 4). If only PR seats were counted, the median district magnitude would be 4 for Wales and 7 for Scotland which would lead to a stark underestimation of the chances of small parties.
[b] Official election results for Venezuela 1993 and 1998 already included overhang and levelling seats (14 additional seats in 1993, 18 in 1998). In order to come up with the initial district magnitude of the PR districts, we subtracted the average amount of additional seats per district from the seats eventually allocated in each district. In light of the insufficient information given by the data, this procedure leads to a more accurate, if not exact, estimation of the number of seats available for PR allocation in each district.

4 Empirical analysis

4.1 Overview

In order to measure an electoral system's (dis)proportionality and the concentration of the resulting party system, we use the respective standard indicators. All (dis)proportionality indices base on differences between a party p's vote share v_p and its seat share s_p. These differences are summed over all parties and normalized. We apply Gallagher's (1991) least squares index (LSI) in which the differences are squared and which has become one of the most established measures of disproportionality in comparative politics.[9] Formally, LSI = $\sqrt{\sum_p (s_p - v_p)^2/2}$. Based on the vote distribution in the PR tier, Table 2 shows summary statistics for the disproportionality in countries employing an MMP system. We here use data from all elections to national or – in case of Scotland and Wales – regional parliaments since 1991. We chose the starting point of 1991 for mainly three reasons. First, Germany as kind of an archetype and reference point for MMP systems had a significant historical break with its reunification in 1990. Second, with the exception of Germany, none of the MMP systems under research has been installed before the early 1990s. And finally, we wish to conduct a balanced comparison where the number of cases within different countries is fairly similar and where overall results are not dominated by a single country case. Therefore, in order to focus on a common timeframe and MMP systems only, we consider Germany's more recent elections only.[10] As benchmarks we also provide summary statistics for OECD countries

[9] Applications of other indices like the Loosemore-Hanby index (see Loosemore and Hanby, 1971) confirm the stability of our results.

[10] We will still provide full results for German elections in the Appendix.

(Döring and Manow, 2012) as well as for a large, self-compiled dataset of countries all over the world.[11]

At first glance, we see that the conjecture that all MMP systems would lead to similarly desirable results is wrong. While we find low average levels of disproportionality in New Zealand as well as Germany and, with some reservations, in Bolivia, we see distinctly higher levels in Venezuela, Scotland and Wales. Strikingly, the mean values for Lesotho and Albania even lie far above typical LSI values of plurality systems as employed in the UK where the average LSI is 15.93 in the respective time period. Furthermore, Table 2 shows huge variation as regards the stability of proportionality – the standard deviation for MMP systems is much larger than the total standard deviation for all countries.[12] Whereas in established democracies like Germany, New Zealand, Scotland and Wales the variation of the LSI is low, it explodes for Venezuela, Albania and Lesotho. Furthermore, as shown by Bochsler (2012; also see Elklit, 2008) these latter set of countries all experienced elections where parties strategically circumvented the compensation mechanism of the MMP system by urging voters to split their votes. In the most extreme version, for example, party A would compete for SMD seats only and found a dummy party A' which would be electable exclusively in the PR tier. In this case, no compensation between the two tiers would take place as, formally, A and A' are different parties. In this way, an overwhelming amount of surplus seats for party A can be created, leading to highly disproportional outcomes.[13] We will later revisit the consequences of this behavior for the performance of the MMP system.

[11] The dataset consists of 590 elections in 56 countries after 1945. It includes all mixed-member electoral systems and the vast majority of countries with a PR electoral system employing multimember districts. Pure PR systems as well as plurality/majority systems are added in the form of benchmark cases.

[12] This is a noteworthy pattern as we would typically expect the variation between countries employing the same electoral system type to be fairly low compared to variation across countries generally.

[13] In such cases it might be questionable to base the calculation of the disproportionality on the PR tier vote distribution. Yet there are good reasons for doing so. First, this approach is in accordance with the general logic of MMP systems to provide proportional representation. And second, due to this coherence, using the PR vote distribution as a basis helps to detect cases where election outcomes deviate strangely from what we would normally expect from this type of electoral system.

Table 2: *Summary statistics (post 1990 elections)*

	Disproportionality (LSI)		Effective Number of Parliamentary Parties (ENP_s)		
Country	*Mean*	*Standard deviation (Min; Max)*	*Mean*	*Standard deviation (Min; Max)*	*N*
Albania	19.15	15.35 (8.29; 30.00)	3.20	.85 (2.60; 3.81)	2
Bolivia	5.46	2.22 (3.16; 8.48)	3.65	1.85 (1.85; 5.50)	4
Germany[a)]	3.99	2.28 (2.20; 8.39)	3.14	.47 (2.80; 3.97)	6
Lesotho	18.79	24.37 (1.14; 46.60)	2.96	.77 (2.13; 3.67)	3
New Zealand	2.88	1.15 (1.13; 4.37)	3.28	.43 (2.78; 3.76)	6
Scotland	7.30	.35 (6.79; 7.55)	3.40	.67 (2.61; 4.23)	4
Venezuela	15.72	15.56 (5.55; 38.91)	3.85	1.63 (2.20; 5.67)	4
Wales	10.22	1.17 (8.61; 11.42)	3.06	.19 (2.90; 3.33)	4
All MMP countries	8.81	10.18 (1.13; 46.60)	3.32	.91 (1.85; 5.67)	33
OECD countries[b)]	5.90	4.73 (0.36; 24.30)	3.99	1.51 (1.99; 10.85)	201
All countries	7.00	5.82 (0.36; 46.60)	3.84	1.84 (1; 19.23)	324

Notes:
[a)] Including all German federal elections from 1949 on leads to both lower mean LSI (3.14) and ENP_s (2.79) values for Germany.
[b)] Dataset from Döring and Manow (2012).

Turning to the measurement of party system concentration (right part of Table 2), we use the effective number of parties $ENP_s = 1/(\sum_p s_p^2)$ (Laakso and Taagepera, 1979) as it is the predominant measure in the literature (Lijphart, 1994: 70; Taagepera, 2007). Its ability to display the properties of party systems through considering parties' relative sizes as well as its intuitive interpretation as the number of hypothetical, equal-sized parties (Gallagher and Mitchell, 2005b: 599) render this index highly appropriate to measure party system concentration.

While, similarly to the proportionality dimension, the variation within the established democracies is smaller than for the other cases, the differences between established and less established democracies are less extreme. This is partly due to the fact that the aforementioned circumventions of the MMP system's compensation mechanism in these countries strongly increase disproportionality but have a less clear-cut effect on the concentration dimension. As vote splitting both aids a large party winning surplus seats and a smaller partner gaining PR seats, the effective number of parties might even rise overall. Further analysis will also cast light upon the interplay of the manipulation strategy and the exact design of an MMP system.

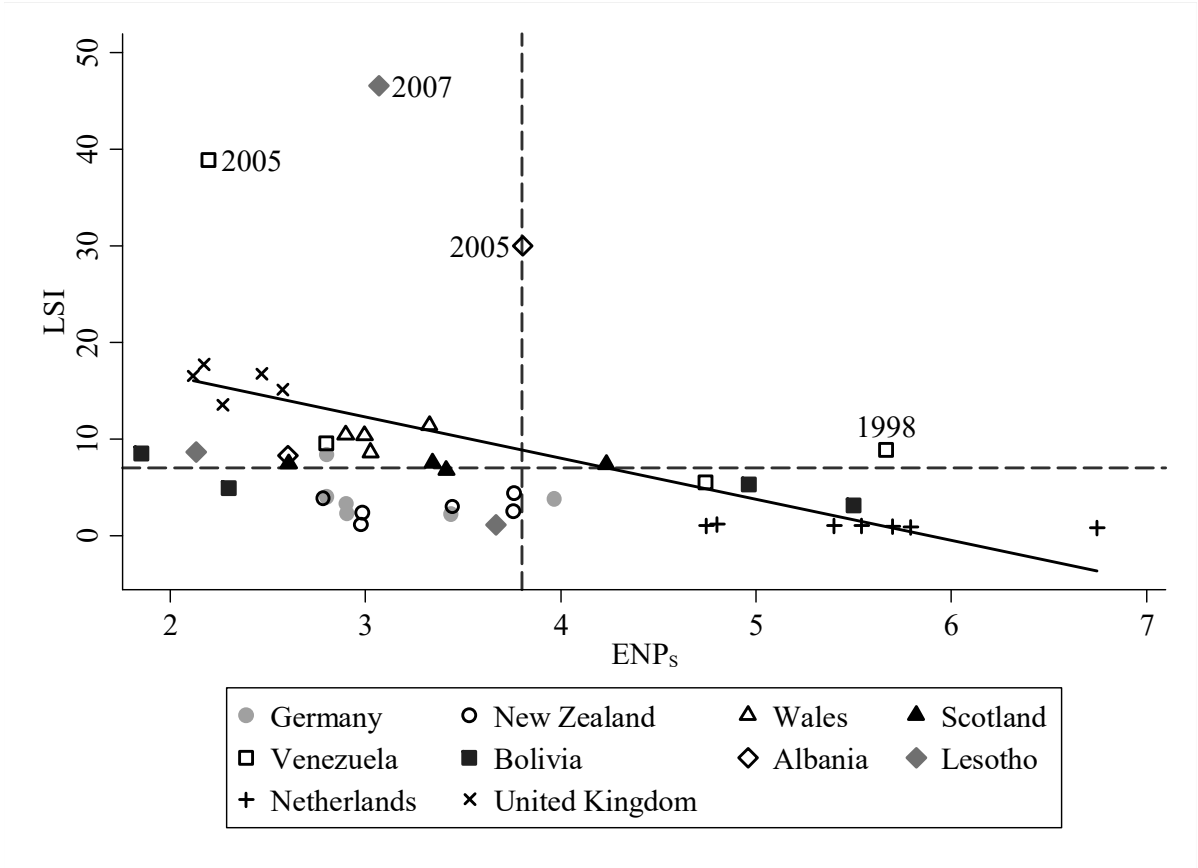
Comparing the countries' mean values, two points are of interest. Firstly, the variation between countries is much smaller than regarding disproportionality. All mean values roughly spread around the value of 3. The mean ENP_s-value in a large sample of countries employing all sorts of electoral systems (last row of Table 2) in the same time period is 3.8 with a standard deviation of 1.8. This means that, on average, countries employing an MMP system have more concentrated party systems than the average country. Unlike for disproportionality, the variation with respect to the ENP_s among MMP countries is fairly low compared to broader samples including all types of electoral systems. Secondly, having in mind the typical trade-off between concentration and proportionality, one could expect that those countries which perform relatively weakly with regard to proportionality are those which succeed on the concentration dimension, and vice versa. However, this is only partially the case. Indeed, we find cases like Albania, Wales and maybe Lesotho, whose party systems are fairly concentrated but parliamentary representation is highly disproportional, and others like Bolivia, where rather the opposite is true. But we also find evidence for the best and the worst of both worlds when looking at Germany which typically performs well on both dimensions and Venezuela that, on average, reaches comparably high levels of both disproportionality and fragmentation. Furthermore, the substantial variation around the respective means suggests that especially less established democracies experience vastly different levels of proportionality and concentration in different elections – potentially moving from the best to the worst of both worlds or vice versa (see also Madrid, 2005, for general problems arising from high electoral volatility in Latin America).

4.2 Elections under MMP – between proportionality and concentration

Figure 1 provides a detailed depiction of the party systems emerging under MMP electoral rules in order to further explore between as well as within country variation. Here, the proportionality and concentration dimensions are directly contrasted in order to allow for a full exploration of patterns indicated by the table above. In order to provide a first reference point, the figure further includes the polar cases of the Netherlands (pure PR) and the United Kingdom (pure plurality rule) as well as a regression line drawn through these data points stemming from pure electoral systems. It is not surprising that the UK is located in the graph's upper left area with concentrated party systems but high levels of disproportionality whereas the Dutch cases can be found in the bottom-right with proportional outcomes and highly fragmented party systems. Furthermore, the crosshairs drawn into the graph depicts the mean values of the LSI (7.0) and the ENP_s (3.8) based on 324 elections in democracies employing

various electoral systems since 1991. These grand means and polar cases can be used as benchmarks for further assessing MMP electoral systems.

Figure 1: *Proportionality and concentration in MMP electoral systems*



Taking the regression line as benchmark for the evaluation of MMP systems, despite some exceptions the results are promising. If we take the line as describing the trade-off between concentration and proportionality and since most of the elections in MMP systems can be found under this line, Figure 1 could be interpreted as indicating an above-average performance of MMP systems. This would imply that a loss in concentration would be overcompensated by a gain in proportionality or vice versa. While some cases could be seen as critical by touching or slightly striding the line (Wales 2007, Scotland 2003, Venezuela 1993, Bolivia 1997 and 2002), in four cases MMP systems definitely performed badly. Here, the strategy of urging voters to collectively split their votes in order to cause many surplus seats certainly contributes to the extreme disproportionality for the 2005 Albanian and 2005 Venezuelan elections (see Bochsler, 2012) as well as for Lesotho's 2007 election (see Elklit, 2008).

Assuming a linear trade-off between proportionality and concentration, however, might lead to a too optimistic interpretation, in particular as the indices LSI and ENP are themselves non-linear. A harder test is a positive answer to the question of whether a result is above-average proportional and concentrated at the same time. We find all these cases in the bottom-left quadrant of Figure 1. The picture is more ambivalent when applying this harder criterion. Still, 13 of 33 MMP cases can be found in this area. However, with three exceptions all these elections have taken place in Germany or New Zealand which can be seen as another hint that MMP systems do not generally include the best of both worlds but context and technical details indeed do play a role. While three cases (Albania 2005, Scotland 2003, Venezuela 1998) even support the worst of both worlds hypothesis by lying in the upper-right sector, the majority of the MMP cases – like elections under plurality or pure PR – can be found bottom-right or upper-left where one demand is fulfilled above but the other one below average. Although not lying in the upper-right quadrant, two further cases (Lesotho 2007 and Venezuela 2005) can clearly be categorized as worst of both worlds as a comparison with the UK cases shows. The simple plurality rule is connected with a similarly or even more concentrated party system that is much less disproportional. The case of the 1998 Venezuelan election also highlights how an election may lead to a party system that is as fragmented as one under a pure PR system in a heterogeneous society such as that in the Netherlands.

4.3 Explaining the large variation in MMP performance

If, however, MMP cases can be found in all four quadrants of Figure 1, the next question at hand is obvious: Can we explain why there is such large variation in the performance of electoral systems all belonging to what is commonly identified as one specific type of system? Do the technical details of MMP systems have such a pronounced effect or is it rather the impact of contextual factors that explains why MMP systems lead to large differences in party systems? In light of the small size and vast heterogeneity of our MMP dataset, we choose not to engage in unavoidably shaky statistical testing but to discuss three explanations of performance differences along the proportionality-concentration trade-off by closely inspecting the patterns in Figure 1 based on differences between countries and electoral systems. First, we focus on how the manipulation strategy discussed earlier is responsible for especially large deviations from an average MMP performance. Second, we consider the role played by sociopolitical (country) differences. In a final step, having dealt with explanations

only indirectly related to the electoral system as such and having identified context-related differences between country clusters, we turn to the role played by the variations in technical details – mainly the relation of the seats distributed in different tiers, district magnitude, and legal threshold – as outlined in Table 1.

Turning first to the impact of strategic exploitation as identified by Bochsler (2012; also see Elklit, 2008) we see that the three elections (Albania 2005, Lesotho 2007, and Venezuela 2005; upper left part of Figure 1) affected by this strategy all lie far away from any other outcome under MMP rules. Since the manipulation strategy is based on the compensation mechanism in MMP systems, they are generally vulnerable to this strategy. However, Lesotho's arrangement (reform of the electoral system in 2012) where voters only have one fused vote for both tiers renders the manipulation strategy infeasible. The strategy would also be fruitless in the 2013 German MMP system due to the automatic allocation of levelling seats. For the three cases mentioned above, however, it is already quite clear that minor variations in technical details such as district magnitude or legal threshold will not prevent extreme outcomes – the electoral systems where strategic exploitation occurred vary considerably (see Table 1) – but that the distinct cluster of cases in the upper-left part of Figure 1 is due to the strategic manipulation strategy. Although not lying in the upper-right quadrant, we evaluate the results produced by these cases negatively, since a similar or better party system concentration with distinctly lower disproportionality can be reached by pure plurality systems as the UK reference cases demonstrate.

Second, there is a general difference between new (transition) and established democracies as highlighted by Table 2 and Figure 1. In new democracies, the commitment to the rules of the game is seemingly still shaky and at the same time the party system is still very much in flux as parties and voters still learn about their respective chances and coordination is a difficult challenge early on (Moser and Scheiner, 2012; Rashkova, 2014). Together these factors explain why there is widespread variation in election outcomes in new, yet unstable democracies despite the stability of the electoral system. In Bolivia, for example, regionally differing party systems lead to a highly fragmented parliament after the 1997 elections. We observe continuous party system concentration thereafter. Similarly, the earlier Venezuelan elections (1993 and 1998) lead to ENP_s values above average, while the later (2000 and 2005) are connected with below average fragmented party systems. The increased concentration of the party systems in Bolivia and Venezuela, however, is also very likely to be related to a return to authoritarian structures under Morales and Chavez respectively (Alpert et al., 2010; Hidalgo, 2011) in which party competition is not completely free but constricted by the

political leadership. It is further worth mentioning that we observe the cases of strategic exploitation (see above) in transition countries only. The outcomes in established democracies, on the other hand, almost all broadly cluster in the (lower) left part of Figure 1 (Scotland 2003 being the lone exception) and show few within-country variation only. Hence, identifying cases of strategic exploitation as well as differentiating between new and established democracies go a long way towards explaining why MMP electoral systems lead to very different outcomes in different countries and also within countries over time. Yet, now that we have outlined these contextual explanations, it is useful to thirdly explore whether technical details of MMP systems still are able to explain variation at least within the groups of new and established democracies. Looking at new democracies, there is little to be explained by the technical details of the MMP systems. Bolivia experiencing lower levels of disproportionality than Venezuela is probably explained by the pronounced difference in district magnitude (Bolivia's median PR district magnitude is eleven while Venezuela's varies between five and six) – the development of party system concentration is similar in both countries despite technical differences and also varies strongly over time without significant changes to the electoral system. There is not much to learn from the Albanian case as only two elections were held under MMP rules and as one of those saw large-scale strategic manipulation. While Lesotho's reform of the MMP system towards a fused ballot MMP system explains that the strategic exploitation problem disappeared for the 2012 elections, there were no other significant changes to the MMP system that would explain the differences between the 2002 and 2012 elections. Overall, elections under MMP rules in new democracies see such widespread variation without any significant changes to the respective MMP systems leading us to conclude that, for these cases, aside from the number of votes, technical details have at best a very limited impact on the overall patterns of the eventual results.

For the MMP elections in established democracies, on the contrary, the technical details help to explain variation within this group. While Scotland and Wales employ MMP systems with fairly low district magnitudes leading to high effective thresholds, Germany and New Zealand use a nationwide PR district and employ a comparatively low legal threshold of 5 per cent, thus hardly restraining proportionality. In Scotland and Wales an improvement in one dimension is typically met by a detrimental effect on the other dimension. More precisely, considerable limitations of proportionality lead to passably concentrated party systems but not very proportional elections here (for Scotland, see Johns et al., 2011). Beyond the small PR district magnitudes, comparably high shares of SMD seats prevent higher levels of

proportionality and likewise avoid party system fragmentation. Germany and New Zealand appear to frequently reach the best of both worlds not in spite but because of an MMP design that strongly fosters the proportionality of election outcomes (large district magnitude, relatively low shares of SMD seats). We assume that in these cases, there is a coordinating effect stemming from the general two-tier nature of MMP systems leading to rather concentrated party systems already on the electoral level. Further mechanical concentration based on higher effective thresholds or low SMD seat shares thus do not appear necessary in order to reach concentrated party systems.. It is, however, important to add that this kind of design certainly cannot guarantee best-of-both-worlds results. We find German cases, too, with proportional outcomes but above-average fragmented party systems (in 2009) or concentrated party systems but disproportional outcomes (in 2013).[14] In sum, technical details of MMP systems seem to play a more pronounced role among established democracies. However, there is still substantial variation in outcomes that cannot be linked directly to technical differences.

5 Conclusion

Summarized, our results show that the general conjecture of MMP electoral systems providing the best of both worlds cannot be corroborated empirically. In contrast, the performance of MMP systems is heavily influenced by technical details as well as country-specific context, and elections conducted under MMP cover almost the whole range of possible proportionality-concentration combinations.

It may not be concealed that MMP systems run the risk of being exploited strategically and then include the worst of both worlds. The strategic circumvention of the compensation mechanism also means that an independent choice of a district representative (another generally desirable feature of MMP systems) does not exist as per the imperatives of the parties' exploitation strategy. This type of strategic manipulation is not a mere theoretical problem as Bochsler (2012) and Elklit (2008) have shown and as our results confirm.

[14] As an aside, this case demonstrates why the question of full compensation is overrated in the German discussion compared to the role of the legal threshold. Remember that 2013 is the first German federal election where surplus seats are completely compensated by additional 'leveling seats'. Obviously, this does not guarantee proportional outcomes. The threshold's effect – in 2013, two parties closely failed to take the 5-percent-hurdle so that a comparably high share of votes was without parliamentary representation – strongly superposes the electoral system reform.

Especially transitioning countries experiencing strategic manipulation tactics may suffer critical setbacks to democratic legitimacy as a consequence (see Kuntz and Thompson, 2009).
The good news, on the other hand, is that we do indeed also find cases where MMP rules seem to allow for the best of the both worlds. The nearly identical electoral systems in New Zealand and Germany (until 2009) lead to above average proportional results and rather concentrated party systems at the same time. Both systems are characterized by comparably low effective thresholds – resulting from a moderate legal threshold combined with a nation-wide PR tier – and a moderate-to-low share of SMD seats. Despite a lack of strictly concentrating elements, both countries are connected with low ENP_s-values. One potential explanation still linked to the MMP system would be that in these cases the plurality tier does in fact exert what is largely a psychological effect in coordinating blocs or coalitions of parties competing in the election (see Shugart, 2001).
If, however, as in Scotland and Wales, MMP systems include stronger concentrating elements like comparably high shares of SMD seats and/or moderately small PR district magnitudes, the electoral systems are hardly able to reach the best of both worlds. Indeed, these systems produce above-average concentrated party systems but produce below-average proportional results. An evaluation of these systems is ambiguous. While they successfully balance out the principles of proportionality and concentration, they largely fail in fulfilling both demands above-average at the same time.
In terms of general implications of the results, shifting the character of the MMP system away from the majoritarian pole – as is the case for the original German MMP model – seems advisable as this will at least provide for a successful fulfillment of the proportionality principle and still provide for incentives to form alliances as well as district representation via the plurality tier – at least in established democracies. We are, however, very careful with such advice, since, although our study includes all MMP systems, it is still a small-*N* study in which we cannot systematically control for effects of the respective social contexts. If it is not the above mentioned psychological coordination effect but the social structure in Germany and New Zealand which lead to rather concentrated party systems, there is no additional value of MMP systems at all in aiming for the combination of proportionality and concentration. Generally, the principles of concentration and proportionality can also be balanced out with help of legal thresholds or moderate district magnitudes in PR systems (also see Raabe, 2015: 586-589) which are much easier to understand for voters.

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Appendix

Figure A1: *Replication of Figure 1 including all German federal elections since 1949*