1 Mixed-Member Electoral Systems: A Definition and Typology

Matthew Soberg Shugart and Martin P. Wattenberg

It has long been conventional to divide electoral systems into two broad categories, majoritarian and proportional. Majoritarian systems usually employ exclusively single-seat districts with plurality rule (or sometimes a two-round majority formula) and tend to give greater representation to the two parties that receive the most votes. Proportional systems must employ multi-seat districts, usually with party lists, and typically produce parliamentary representation that largely mirrors the vote shares of multiple parties. Although the effect on party systems may be arrayed on a continuum ranging from fully proportional to highly disproportional (Taagepera and Shugart, 1989), designers of electoral systems have nonetheless tended to operate with either a "plurality principle" or a "proportional principle" in mind (Nohlen 1984a).

Recently, however, there has been a marked tendency around the world to mix these two principles of electoral system design. Many newly adopted electoral systems, including those in long established democracies such as Israel, Italy, Japan, New Zealand, and Venezuela, have entailed various hybrids of the competing majoritarian/plurality and proportional principles. In the prototype of a mixed-member system, half of the seats in a legislative chamber are elected in single-seat districts while the other half are elected from party lists allocated by proportional representation (PR). Yet, as we shall see, there are numerous variations within the general class of mixed-member systems. The universe of such systems has included the following examples: (1) a system with only one seat elected by the majoritarian principle (Israel); (2) one in which the share of seats elected by PR is only a quarter (Italy); (3) one in which the majoritarian tier is elected partly in multi-seat districts (Venezuela); and (4) one in which some significant share of seats is elected by lists, but not with a PR formula (Mexico, formerly). Establishing a generic definition of a mixed-member electoral system is therefore not as simple as it might at first seem.

Mixed-Member Systems as Variants of Multiple-Tier Electoral Systems

What most distinguishes mixed-member electoral systems is, as stated above, the mixing of principles in the same chamber. However, such a definition is far too broad. For example, many electoral systems have employed majoritarian formulas in some parts of the country while simultaneously using PR in other areas.[1] Massicotte and Blais (1999) review a broad range of what they call "mixed" systems, which entail some combination of PR and plurality or majority. Many other systems use formulas that are semi-proportional, and hence might be considered as mixing the two principles; examples include the single nontransferable vote and the limited vote. So, if defining a mixed-member system as an electoral system based on mixed principles of representation is too broad, and if a definition of such a system as half majoritarian and half proportional is too narrow, what is the appropriate definition?

In this book mixed-member electoral systems are defined as a subset of the broader category of *multiple-tier* electoral systems. An electoral system employs multiple tiers if seats are allocated in two (or more) overlapping sets of districts, such that every voter may cast one or more votes that are employed to allocate seats in more than one tier. Examples include the Belgian system of relatively small multi-seat districts, from which votes are transferred into upper tiers based on regions to ensure a closer approximation to PR. Denmark, Norway, Sweden, Austria, and Greece are among the PR systems that employ two or three tiers of allocation, which usually make the system more proportional than if only one tier were used.

Mixed-member systems are thus a variant of such multiple-tier systems, with the specific proviso that one tier must entail allocation of seats *nominally* whereas the other must entail allocation of seats by *lists*. The distinction between nominal and list voting is based on the nature of the vote cast by the voter and how it is employed to allocate seats. Under nominal voting, voters cast votes for candidates by name and seats are allocated to individual candidates on the basis of the votes they receive.[2] List votes, on the other hand, "pool" among multiple candidates nominated on a list submitted prior to the

[1] Some examples are documented in Schiemann's and Farrell's chapters (Chs. 11 and 23).

[2] Nominal votes must be kept distinct from the phenomenon of the "personal vote" (Cain et al. 1987). A personal vote is that part of a candidate's vote that is based on the candidate's record, character, or other attributes specific to the candidate, apart from the party under whose label the candidate runs. Thus, the presence of a personal vote depends on an electoral system that permits (or requires) nominal voting. However, the presence of a nominal vote does not guarantee personal voting: a voter may cast a nominal vote for a given candidate solely on the basis of the candidate's party.

election by a party, alliance, or other political organization. There are various hybrids possible, of course, but in general electoral formulas break down into nominal vs. list systems. In a mixed-member system there are (at least) two separate overlapping tiers, one of which employs allocation of seats nominally, while another employs allocation to party lists. Typically, each voter is provided with the option of casting separate votes in each tier, which in this volume we shall call the nominal vote and the list vote. However, there are cases in which the voter casts only a nominal vote. In such cases allocation of seats in the list tier is based on an aggregation of nominal votes on the basis of party.

The Nominal Tier

Usually the nominal tier consists of single-seat districts (SSDs). Within SSDs the allocation formula is usually plurality, though in some systems there is a runoff required in any district in which there is no first-round majority, as in Albania, Georgia, Hungary, and Lithuania. There have also been mixed-member systems with multi-seat nominal-tier districts, including South Korea in 1987 and some districts in Venezuela in 1998. The key point is that for a system to qualify as mixed-member, there must be a tier in which nominal votes are the sole means by which candidates win seats in this tier.[3]

Nominal formulas are usually majoritarian, but they need not be. For example, the single nontransferable vote (SNTV) is a purely nominal formula, but one that is aptly described in the literature as semiproportional because of its tendency to permit some seats to be won by relatively small parties (Lijphart 1999). Japan's upper house continues to use SNTV in some districts; because there is also an overlapping national list PR tier, this electoral system is a mixed-member system. Taiwan also has a mixed-member system with SNTV in the nominal tier. Although both of these systems belong in the broader family of mixed-member systems, the use of a semiproportional rather than majoritarian formula for the nominal tier places them in a distinctly different branch of the family from those that represent the current "wave" of electoral reform. Notwithstanding these cases, in this volume a mixed-member system will be understood to have a nominal tier of SSDs (and thus a majoritarian formula) unless otherwise noted.

[3] Nominal votes do not exclude the possibility of transferable votes. For example, the alternative vote, proposed by the Jenkins Commission for the nominal tier of a mixed-member system for Britain, retains the feature that members are elected solely on the basis of votes given to candidates by name. The difference is that votes given to candidates who lack the votes to be elected can be transferred to other candidates which the voters have placed as their second (or lower) ranked preferences. When used in multi-seat districts, this system is the single transferable vote (STV), which is therefore a nominal-voting form of PR.

The List Tier

A mixed-member electoral system must also contain a tier of members elected from party lists that overlays the nominal tier. Most list systems employ a PR formula, such as d'Hondt divisors or the simple quota and largest remainders.[4]However, there are less familiar list majoritarian systems. The US Electoral College is a prominent example, in which each US state serves as a multi-seat district. Each candidate has a slate of electors for each state, and when a candidate wins the plurality of the state's vote his entire slate is elected.[5]There have been several cases of mixed-member electoral systems with list tiers that are at least partially majoritarian. Examples include several former systems of Mexico (see Chapters 10 and 20) and South Korea, as well as the current systems of Cameroon and Chad (Massicotte and Blais 1999). However, throughout this volume, when we speak of mixed-member systems we will be speaking of systems that employ a PR list tier alongside a majoritarian nominal tier, unless otherwise stated. By far the most common form of list in a mixed-member system is the closed list, wherein candidates are ranked prior to the election by the parties themselves. Voters have no say in the order by which candidates are elected from a closed list. The major alternative to the closed list is the open list, wherein candidates receive preference votes from voters and the order of election from the list is determined by the number of preference votes received.

There is no reason why a mixed-member system could not employ open lists in the list tier; however, no mixed-member system used at the national level has done so.[6]There have been some alternatives to the closed list, however. Mixed-member systems lend themselves to lists ordered on the basis of which candidates prove to be the "best losers" in the nominal-tier districts in which they are nominated.[7]Variations on the best-loser provision have been used in Mexico (1964–76), as well as by the Italian senate since 1993 and Japan's lower house since 1996. From the point of view of voter choice, the best-loser list is no different from a closed list, at least if the nominal-tier districts are SSDs. As with closed lists, voters do not have the opportunity to select from among multiple candidates within their party's list. Nonetheless, best-loser lists do provide candidates with the incentive to be popular within

[4] For an excellent concise review of these formulas and an assessment of their relative degrees of proportionality, see Lijphart (1994).

[5] There have been some US states that have used open slates—wherein voters cast nominal votes for the electors—and Maine and Nebraska currently choose some of their electors in districts.

[6] There have been some examples at the state level in Germany.

[7] Sometimes the losing candidates are ranked for list-tier allocation simply on the basis of how many votes they received. In other cases a ratio between winning and losing candidates' votes is computed, such that candidates are rewarded for coming close to their successful nominal-tier opponents, rather than for the sheer number of votes obtained.

their districts—even in districts that are "hopeless" for their party to win in the nominal tier—because more popular candidates will be elected from the list tier ahead of less popular copartisans.

In a system that employs a best-loser provision on the list tier, there is in fact no list, per se.[8]Rather, parties simply nominate candidates in the nominal tier. Once nominal-tier winning candidates have been determined, any seats that a party may obtain from the list are taken from its pool of nominaltier candidates who did not win their races. Thus, under this system, the nominal-tier districts serve as de facto nominating districts for the list tier. As with the nominating districts used in some list PR systems (such as Slovenia), seats are allocated to parties across a multi-seat district, but are allocated to candidates within parties according to their success at garnering votes in the nominating districts.

Majoritarian or Proportional: Linkage Between Nominal and List Tiers

As noted, mixed-member systems combine the majoritarian and proportional principles in one electoral system. However, notwithstanding the mixture of principles, most mixed-member systems tend to "lean" towards either majoritarian or proportional in their overall effects. Thus, we identify two broad subtypes, which we call mixed-member majoritarian (MMM) and mixed-member proportional (MMP). In this section we show that the primary variable in mixed-member systems that separates MMM and MMP systems is the presence or absence of a linkage between tiers. If the tiers are not linked, then the typical majoritarian boost received by a large party in the nominal tier is not likely to be wiped away by proportional allocation from the list tier. Thus, the principle behind majoritarian systems—giving an advantage to a large party—remains in MMM systems. On the other hand, MMP systems prioritize the list-PR tier, such that large parties do not receive a boost in overall seat allocation, or receive a smaller one than they would in an otherwise similar MMM system.

Linkage refers to whether votes are transferred from the nominal tier to the list tier, or whether the number of list seats a party receives is based in some way on how many nominal-tier seats it has won. At one extreme, the two tiers are *parallel*; i.e., there is no linkage between tiers in the allocation of seats to

[8] Hybrids are conceivable. In the Japanese mixed-member system, parties (or alliances) have the option of submitting an entirely closed list, or a list on which some or all candidates are given the same pre-election rank, with the order of their election being sorted out after the election according to a best-loser provision.

parties.[9] Thus, parties' list votes and seats are not adjusted in any way on the basis of votes cast or seats won in the nominal tier.[10] A party in a parallel mixed-member system simply takes its seats in the nominal tier and adds to them whatever number of seats it wins in the list tier.[11]

If seats are linked, the number of seats a party takes from its list is determined partially by the number of seats it has won from the nominal tier. In these systems a formula is applied to the two tiers combined—either in the whole territory of a jurisdiction, or in regional subdivisions of it. The formula establishes a party's total seat allocation; then list seats are allocated to bring the party's representation up to that total. The form of seat linkage that will most concern us here is the *compensatory* type,[12] which produces a mixed-member proportional (MMP) system. For example, in Germany a party wins a percentage of seats nationally that is determined by applying a PR formula to the total number of parliamentary seats. Each party then fulfills its entitlement of seats by taking whatever SSDs it has won and augmenting them with the number of candidates off the list that it requires to reach its overall entitlement.[13] A similar system was first used in New Zealand in 1996.

Seat linkage occurs also in a type of system that might best be called *majority-assuring*. The electoral systems used in Mexico in 1988 and 1991 assured the party with the most nominal-tier seats a majority of all seats in the chamber. In other words, the largest party was automatically given whatever number of list seats was necessary to augment the SSDs it had won in order for it to have a legislative majority. These systems are rare and are likely to be found in countries of dubious democratic credentials. Thus, they will not concern us further here, though they are a principal feature of the chapters in this volume on Mexico, and examples have existed elsewhere.[14] The common

[9] Massicotte and Blais (1999) refer to these as systems of "superposition."

[10] There must, of course, be accounting for seats won by *candidates* of a party in the nominal tier: in the event that a candidate from the list is elected in the nominal tier, he or she is passed over on the list. The key point is that, if the system is parallel, seats won in the nominal tier have no effect on the allocation of seats to *parties* in the list tier.

[11] That number may even be zero, for example if the party does not present a list, or fails to pass a threshold needed to win a list seat. The point is that the total number of seats won in a parallel system is a simple additive function of the numbers won in each tier independently.

[12] "Correctional" in the Massicotte–Blais (1999) typology.

[13] If the number of SSDs won exceeds its PR entitlement, extra seats (*überhangmandate,* or overhang seats) are actually added to the parliament, as discussed in more detail below.

[14] South Korea has also used a form of linkage between tiers that ensured a majoritarian outcome. In the rules in use in 1988, the party that won the most seats in the nominal tier took half the list seats, thereby assuring it a majority; the rest of the list seats were allocated proportionally, but on the basis of the party's shares of nominal-tier seats (not votes) won (Morriss 1996). Similarly, both Cameroon and Chad currently use mixed-member systems in which list seats are allocated in their entirety to the leading party if that party has a majority of nominal-tier seats; otherwise, half the list seats go to the leading party and the rest are distributed proportionally to the remaining parties (Massicotte and Blais 1999).

theme in both the compensatory-PR and majority-assuring systems is that seat allocation from the list tier is determined in part by seat allocation in the nominal tier.

Returning to systems that use PR for the list tier, if votes are linked, then the votes that are used to allocate list-tier seats are not solely the votes that are cast for party lists,[15]because those votes are adjusted by the transfer of votes from the nominal tier. Linkage may take the form of either positive or negative transfers of votes. For example, in Hungary votes cast for candidates who do not win their own SSD races are added to their parties' list votes. Conversely, in Italy parties' list votes are reduced to account for their candidates who are successful in the nominal tier.[16]

By combining the two variables of vote and seat linkage, we can arrive at a typology, shown in Table 1.1. Parallel systems occur only in the upper-left

Table 1.1. Linkage Between Tiers: A Typology of Mixed-Member Systems With Pr List Tiers[a]

Seat linkage?	Vote linkage?	
	No	Yes
No (parallel)	MMM	MMM with partial compensation
	Armenia	Hungary
	Georgia	Italy
	Japan	
	Lithuania	
	Macedonia	
	Mexico[b]	
	Russian Federation	
	Thailand	
	Ukraine	
Yes (compensatory)	MMP	
	Bolivia	
	Germany	
	New Zealand	
	Venezuela	

[a] System currently in use as of late 1999; both houses in Italy, lower house only in other cases.

[b] Mexico imposes a cap on over-representation (8 percentage points over a party's vote share). *Sources*: see sources for Table 1.3.

[15] If voters are not given two votes, then "list votes" here refers to the aggregation of nominal-tier votes based on the party affiliation of the candidates.

[16] As Katz discusses in more detail, the subtraction mechanism is different in each house. In the senate, the votes of SSD winners are subtracted from their party's total before votes are transferred to the list tier. In the lower house, list-tier votes for parties that win SSDs are adjusted by the subtraction of a number of votes equivalent to that obtained by the SSD runner-up. Yet another complication is that in the Italian senate all list-tier votes come from the nominal tier, as votes cast there are aggregated and then adjusted by subtracting SSD winners' votes.

cell, having linkage of neither votes nor seats. These are MMM systems, in that they conform to the majoritarian principle that large parties should receive a seat bonus. The seat bonus is not, of course guaranteed (even in purely majoritarian systems), but is likely to result from the parallel combination of over-representation of large parties in the nominal tier and large parties' full proportional share of the list-tier seats. Among cases placed in the upper-left cell of Table 1.1, Mexico deserves special mention because it provides a cap on the degree of over-representation a party may receive.[17]The Mexican provision is that no party may obtain a seat share more than eight percentage points greater than its vote share. Up to this limit seats are allocated in parallel, and the fact that a party with as little as 42% of the votes is likely to win a majority of seats[18]means Mexico's system must be considered MMM, albeit in a limited form.

In the upper-right cell, we find systems that have parallel seat allocations but incorporate a mechanism of vote linkage. We consider these cases to remain in the broad category of MMM, because once again, even if a party is over-represented in the nominal tier relative to its vote share, it is still likely to receive a significant share of the list-tier seats. Nonetheless, the vote linkage provides partial compensation for smaller parties by reducing the number of list seats that such an over-represented party will win compared with a fully parallel system.

In the bottom row of Table 1.1, we find systems that entail the opposite principle from the MMM systems. Whereas MMM systems add seats from the list tier in parallel, even for parties that are already over-represented in the nominal tier, systems with compensatory seat linkage provide list seats to compensate parties that are under-represented in nominal-tier allocation. These MMP systems ensure that the total number of seats in an allocation district—the whole nation in Germany and New Zealand, states in Venezuela—are allocated proportionally.

The remaining cell of Table 1.1 is empty because no system employs vote linkage along with seat linkage. Such a system is plausible, however, and might work as follows. Parties that outperformed their list vote in a nominaltier district would have the difference added to their list votes, thereby boosting large parties' overall seat share while maintaining a fundamentally compensatory allocation of list-tier seats. Thus, just as vote linkage is employed to counter the principle of majoritarianism in MMM systems such as in Hungary and Italy—adjusting list votes to favor smaller parties—so could vote linkage be employed in MMP to counter the principle of proportionality—adjusting list votes to favor large parties. No country has yet adopted such a system, but it would be both logical and feasible as a means of rewarding parties that present popular candidates in the nominal tier while retaining considerable proportionality.

[17] In Ch. 10, Molinar Horcasitas and Weldon refer to this provision as "conditional" seat linkage.

[18] A party that wins 42% of the vote is not *guaranteed* a majority, for it must have won a sufficient number of SSDs such that, upon the parallel addition of its list-tier allocation, the total amounts to a majority.

How MMM and MMP Systems Work: Simple Systems and Additional Variables

Here we demonstrate how simple MMM and MMP systems operate on a hypothetical distribution of votes. We then introduce additional variables that affect the degree to which either principle (majoritarianism or proportionality) dominates. In the example given in Table 1.2, there is a chamber of 200 seats, half of which are elected in a nominal tier of 100 SSDs, and the other half of which are elected in a single nationwide PR district. The example takes as its starting point (panel A) a hypothetical distribution of national votes among five parties, and a hypothetical distribution of 100 SSDs to these parties.

Table 1.2. Example of Seat Allocation in Simple MMM and MMP Systems

	Party				
	A	B	C	D	E
(A) Hypothetical partisan distribution of votes and single-seat districts won					
v (% votes)	45.0	38.0	9.0	5.0	3.0
n (nominal-tier SSDs won, out of 100)	57	42	0	0	1
(B) Parallel majoritarian allocation (MMM)					
l (list seats won by party, out of 100)	45	38	9	5	3
s (total seats = *n* + *l*)	102	80	9	5	4
% seats (*s*/200)	51.0	40.0	4.5	2.5	2.0
(C) Compensatory-proportional allocation (MMP)					
s′ (seat entitlement out of 200)	90	76	18	10	6
l′ (list allocation *s′* − *n*)	33	34	18	10	5
% seats (*s′*/200)	45.0	38.0	9.0	5.0	3.0

Panel B shows how a MMM system would allocate the 100 list seats. Because this is a system of parallel allocation, the 100 list seats are allocated without regard to the number of seats won by each party in the nominal tier. The number of list seats per party (*l*) is here taken to be in exact proportion to national votes. The total seats (*s*′) won by a party is thus just the sum of its nominal and list-tier seats won.

Panel C shows how a MMP system would allocate the 100 list seats. It first requires a determination of the total seat entitlement to each party (*s*′), based

on the allocation by PR in an allocation district of 200 seats. Seats allocated off the list (l'') are then determined as $s' - n$, where n is the number of nominal-tier seats won. These list seats are used to "top up" each party's nominal-tier allocation in order to arrive at its total proportional entitlement. Below we shall discuss mechanisms used in MMP systems to cope with the possibility that some parties' nominal-tier allocation may already have exceeded its proportional entitlement.

In the examples given in Table 1.2, the largest party—with 45% of the votes—has won a majority of the seats available in the nominal tier. MMM does not assure the largest party a majority, but it makes this more likely than does MMP, provided that it has benefited from the typical bonus that SSD allocation provides to large parties. The MMM system here has reduced the largest party's seat bonus over what it would have been in a pure SSD system, but the outcome is still unmistakably majoritarian, owing to the parallel allocation. The MMP example, on the other hand, shows a proportional allocation of the total number of seats in the chamber, compensating smaller parties for their typically poor performance in the SSDs.

Variations in Mixed-Member Systems Around the World

The variations in mixed-member systems in current use are shown in Table 1.3. Every country that we are aware of that has a mixed-member system and can be reasonably considered a democracy is included in the table. An initial distinction is whether there are *separate votes* in each tier. As can be seen in this table, nearly all MM systems provide the voter with two votes. However, a few systems provide only a single vote. In such cases, list votes are simply an aggregation of the votes each party's nominal-tier candidates receive.

Probably the most important choice that designers of a mixed-member system must make is how proportional they would like their system to be. In making that choice, it is the variable of *linkage between tiers* that is most crucial, as we discussed above. Seat linkage largely determines whether the resulting system is MMP or MMM. As Table 1.3 makes clear, most mixed-member systems in use in the world today have been adopted where a predominantly majoritarian system was preferred. There are currently only four mixed-member proportional systems in existence (Bolivia, Germany, New Zealand, and Venezuela). Within the more common category of MMM, only Hungary and Italy employ vote linkage to temper the majoritarianism of the system.

Turning to other variables in mixed-member systems, one very important one is the *percentage of seats set aside in the list tier*. In the case of MMP systems, the seats set aside for compensatory allocation must be a sufficient percentage of the total for a high degree of proportionality to be achieved. Taagepera and Shugart (1989: 131) note that full compensation is achieved if

the percentage of seats set aside for this purpose is at least the same percentage as the deviation from proportionality resulting from the lower-tier allocation. Given that deviation from proportionality in systems that employ exclusively SSDs only rarely exceeds 25%, the 50% in Germany or the 46% in New Zealand are more than sufficient. Albania's 1992 system (not shown in Table 1.3), however, which used majority runoff instead of plurality in SSDs[19]and set aside only 29% of seats for compensation, would not necessarily correct for the disproportionality of the nominal tier. This observation leads us to a general rule for MMP: the more disproportional the nominal-tier allocation is likely to be, the greater the share of list-tier seats that needs to be set aside if full compensation is desired.

Under the MMM format, the percentage of seats allocated from the list tier is an even more important variable than under MMP, given the noncompensatory nature of the PR allocation. Most MMM systems have a nearly even split between tiers, such that around half of the seats are allocated proportionally. However, a few have far less than half the seats allocated in the list tier. For example, the share of list seats is 15% in South Korea, 29% in Macedonia, and around 25% in the partially compensatory MMM systems used in each house in Italy. On the other end of the scale, Georgia, with over 60% of seats in the list tier, is likely to be less disproportional than the other parallel systems.

Another variable of great importance is the *magnitude of the list tier*. In MMP systems the compensatory seat linkage applies the proportional formula to all seats within an allocation district. In New Zealand, where list seats are allocated in a single nationwide district, the magnitude of the district in which allocation takes place is actually the same as the size of the entire assembly, as in the example in Table 1.2. There are 120 seats in the New Zealand House of Representatives, so the magnitude of allocation in the New Zealand MMP system is 120. In Germany, list allocation is carried out in 16 *Land* (state) districts averaging a magnitude of 41 (when both SSD and list seats are counted—as they must be, given the linkage mechanism). Such an average magnitude of allocation makes for a very proportional system. Nonetheless, each party's *Land* lists are themselves linked such that the magnitude of allocation is actually equivalent to the size of the entire assembly, 626.[20]In Venezuela's MMP system, a similar compensation takes place on a

[19] The two-round system tends to be more disproportional than plurality at least if the calculation of disproportionately is based on first-round votes. If the votes of the round in which a given district is decided are used instead, the result may be more proportional than if plurality were used.

[20] This "allocation magnitude" is different from the "effective magnitude" (Taagepera and Shugart 1999), which is an adjustment that takes into account the limiting effect of a threshold on representation of small parties. We discuss thresholds, which have their own column in Table 1.3, separately below.

Table 1.3. Mixed-Member Systems in Use, 1999

	Separate votes	Form of linkage between tiers	Percent of seats by PR	List-tier avg. allocation magnitude	Threshold for PR allocation	Nominal tier (SSDs unless otherwise noted)		
Country						Seats	Formula	Type of system
Armenia	Yes	None	43	56	5%	75	Plurality	MMM
Bolivia	Yes	Seats: compensatory	48	14.4	3%	68	Plurality	MMP
Georgia	Yes	None	64	150	7%	84	Majority	MMM
Germany	Yes	Seats: compensatory[a]	50	656	5% or 3 SSDs	328	Plurality	MMP
Hungary	Yes	Votes: positive	54	7.6	$2/3(M + 1)$	176	Majority–-plurality	MMM/ partial compensation
		transfers to third tier	—	58[b]	5%	—		
		if not yet used to win						
		seats where cast						
Israel	Yes	None	99	119	1.5%	1	Majority	Direct PM
Italy lower	Yes	Votes: negative	25	155	4%	475	Plurality	MMM/ partial compensation
		transfers for parties						
		winning SSDs						
Italy upper	No	Votes: negative	26	4.6	None	232	Plurality	MMM/ partial compensation
		transfers for parties						
		winning SSDs						
Japan	Yes	None	40	18	None	300	Plurality	MMM
Lithuania	Yes	None	50	70	5%	71	Majority	MMM
Macedonia	Yes	None	29	35	5%	85	Majority	MMM
Mexico	No	Seats: conditional;	40	200	2%	300	Plurality	Limited MMM

		over-representation						
		capped at 8%						
New Zealand	Yes	Seats: compensatory[a]	44	120	5% or 1 SSD	67	Plurality	MMP
Philippines	Yes	None	20	—[c]	2%	200	Plurality	MMM
Russian Federation	Yes	None	50	225	5%	225	Plurality	MMM
South Korea	No	None	15	46	3%	253	Plurality	MMM
Thailand	Yes	None	20	100	5%	500	Plurality	MMM
Ukraine	Yes	None	50	225	4%	225	Plurality	MMM
Venezuela	Yes	Seats: compensatory	53	8.3	None	90	Plurality *(M*: 1 to 7, average 1.2)[d]	MMP

[a] Provision for overhang seats.

[b] This number is the minimum number of seats allocated at the uppermost tier. Seats remaining unfilled at the regional tier of list allocation are transferred to the uppermost tier for allocation there.

[c] No party may obtain more than 3 list seats.

[d] *M* refers to district magnitude.

Sources: chapters in this volume; Massicotte and Blais (1999); Shvetsova (1999), except as follows: Armenia: www.elections.am; Macedonia: www.izbori987.gov/mk; Taiwan: Cheng and Haggard (2000); Philippines and Thailand: personal communication with Allen Hicken; Venezuela: personal communication with Juan Carlos Rey.

state-by-state basis, except that unlike in Germany there is no opportunity for parties to link their lists across states. Thus, the magnitude of allocation in Venezuela is equivalent to the number of seats in each state, which ranged from 3 to 25 in 1998, with an average of around 8. Venezuela's MMP system therefore is not as proportional as Germany's or New Zealand's.[21]

Although there are currently no MMP systems in which the share of PR seats is less than around 40% or the average allocation magnitude is less than eight, there is one such prominent proposal. As discussed in Farrell's chapter (Chapter 23), the Jenkins Commission in 1998 proposed that Britain adopt a mixed-member system in which from 15%–20% of the seats would be set aside for compensatory PR allocation from lists. Moreover, the Commission proposed that these seats be allocated in several self-contained compensatory districts of only one or two seats each. Although the Jenkins proposal would not be highly proportional, it must be classified as MMP because of the "top-up" allocation procedure proposed for compensating under-represented parties. It is simply a variant of MMP in which the average magnitude of allocation would be quite small.

Among the MMM systems, the magnitude of allocation in the list tier is typically quite large, as the list tier consists of a single nationwide district. The Russian Federation has the highest list-tier magnitude of any of the parallel systems, at 225 seats; but even the 15% list seats in South Korea provides for a high-magnitude district, given that it is a single district of 46 seats. There are, however, some MMM systems that employ regional allocation. For instance, Japan's MMM system provides for parallel PR allocation of twofifths of the entire number of representatives in 11 regional districts, which range in magnitude from 7 to 33. Thus, other things being equal, the majoritarian bias in favor of large parties is much more corrected for in Russia than in Japan. But even Russia's large PR district can only begin to correct the disproportionality of the nominal tier, given the absence of linkage between tiers.[22]

A final variable of the list tier in Table 1.3 is the threshold that a party must reach in order to participate in PR allocation. Typically a threshold is employed in those systems that allocate their list-tier seats in a single nationwide

[21] Venezuela's system has a further wrinkle in the form of a national partial compensation mechanism. However, this procedure does not entirely eliminate the seat bonus that the largest party can obtain as a result of the relatively low allocation magnitude of several of the states.

[22] Moser notes a surprising fact in his chapter on the consequences of MMM in the Russian Federation (Ch. 22): smaller parties tend to perform better in the SSDs than in the PR tier. This outcome is a consequence of the great regional variations in the partisan distribution of the nominal-tier votes and the high fragmentation that permitted many SSDs to be won with less than 20% of the votes. It also resulted from poor coordination among parties, such that in 1995 about half the electorate voted for parties that failed to surpass the threshold for PR allocation.

district. The most common threshold is 5% of the national list vote. Two MMP systems offer a "loophole" in the threshold: a party that wins three SSDs in Germany or just one SSD in New Zealand may take part in list allocation even if it has failed to clear the otherwise necessary threshold of list votes.

Next we consider the *nominal-tier number of seats and formula.* All the systems shown in Table 1.3 have a nominal tier of exclusively SSDs except Venezuela, which had some multi-seat plurality districts in 1998. The plurality (first-past-the-post) formula is by far the most common, though several systems require a runoff in the event that no candidate obtains a majority of votes in the first round.[23]The overall degree of proportionality is more likely to be affected by nominal-tier variables in MMM systems than in MMP ones. Thus, the use of the two-round majority formula in MMM systems such as in Georgia and Lithuania implies a greater disproportionality than does the use of plurality for the nominal tier in Japan. Among MMP systems, only Albania in 1992 has used a two-round system rather than plurality. The Jenkins Commission in Britain proposed the use of alternative vote (AV) in the nominal tier. Because AV could give a party a very large seat bonus (compared with its first-preference votes), the degree of proportionality of this system would be quite modest in light of the very small magnitude of allocation in the proposed list tier.

A final feature, which is relevant only to MMP systems, is how they cope with the possibility that a party or parties might win a number of seats from the nominal tier that exceeds its total proportional entitlement. In such a case it obviously would not need its total topped up, but some procedure must be established for dealing with the lesser proportionality introduced by a party's excessive nominal-tier seat bonus. All MMP systems allow the party so advantaged to keep its bonus; no party is forced to surrender a seat that one of its candidates has won on the basis of nominal votes. There are two possible procedures.

One procedure is to provide for what we shall call *overhang seats,* from the German term *überhangmandate.* Overhang seats actually increase the total number of seats in the chamber in order to allow all other parties to receive their full complement of list-tier seats despite the bonus obtained by some large party. In addition to Germany, this procedure is found in New Zealand and was used in the Venezuelan election of 1993. The other option is to retain the fixed number of seats in the legislature but to reduce the number of listtier seats available for compensation by one for each bonus seat obtained by some party in the nominal tier. This procedure is used in Bolivia and was

[23] Here we distinguish between the "majority" formula, in which the runoff is restricted to the top two candidates from the first round, and the "majority–plurality" formula, in which three or more candidates may stand in the runoff, with the plurality of second-round votes sufficing.

employed in Venezuela in 1998. The effect is thus effectively to shift a seat from a small party to a large one.

The overhang-seat procedure maintains a higher level of proportionality, and thus is more consistent with the proportional principle. However, in systems in which proportionality is calculated at the level of regional rather than nationwide multi-seat districts, it has the disadvantage of increasing a region's share of legislative seats beyond its fixed quota. Thus, it is not surprising that two systems which determine proportionality on a regional basis, Bolivia and Venezuela, settled on the procedure of maintaining the fixed number of seats even at the expense of denying a small party a seat. In contrast, the systems with nationwide compensation, Germany and New Zealand, employ overhang seats.

Summary

In sum, there is a wide range of options from which to choose when designing a mixed electoral system. If such systems are thought to provide the "best of both worlds", then electoral system designers can certainly choose how much of each world they want. Mixed-member systems lend themselves to myriad variations in their details, but as a class they all offer the combination of both majoritarian and proportional principles and both nominal and party-list voting in one electoral system. Presumably this combination of principles will continue to make mixed-member systems of one form or another likely outcomes of future electoral reform processes.