Non-discriminatory rules and ethnic representation: the election of the Bosnian state presidency

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The electoral system for the state presidency of Bosnia and Herzegovina guarantees the representation of the three constituent people, Bosniaks, Serbs, and Croats, but it violates the political rights of other ethnic minorities and of citizens who do not identify themselves with any ethnic group. Following the 2009 judgement of the European Court of Human Rights, Bosnia is urged to reform its electoral law. This paper discusses alternative practices of ethnically based political representation, and their possible application for the Bosnian state presidency elections. Several innovative electoral models that satisfy fair political and legal criteria for desirable electoral dynamics in divided societies can be envisaged in the Bosnian context. Specifically, these are: the introduction of a single countrywide electoral district, the adoption of the single non-transferable vote, and the application of a geometrical mean rule. They guarantee the representation of the three constituent people, while strengthening inter-ethnic voting and giving chances to non-nationalist candidates to be elected.

Keywords: Bosnia; ethnic conflict; presidentialism; electoral system; SNTV.

1   Introduction[°]

Fifteen years after the peace agreement of Dayton, the political system of Bosnia and Herzegovina is criticised for a number of shortcomings. Political decision-making is in a deadlock (Trnka et al. 2009, p. 89); the pattern of initial elections, where hardline nationalists of each side have been elected into office, has largely survived (Pugh & Cobble 2001; Pickering 2009; Belloni 2007). Additionally, several state institutions appear as ethnically discriminatory (International Crisis Group 1999; Belloni 2007, pp. 87-88; Venice Commission 2001; Bose 2002, p. 238). Could constitutional changes help to eradicate the discriminatory practices, and at the same time provide for a better functioning political system, which fosters cross-ethnic political competition?

Institutional engineering is the art of providing for rules and institutions in order to pursue political goals – such as creating a functioning multiethnic democracy (Sartori 1968; Reilly 2001; Grofman & Stockwell 2003, etc.). Drawing on the idea that purposefully selected political institutions can affect political dynamics, this article discusses several alternative models for the election of the state presidency of Bosnia and Herzegovina. We argue that different reform modules would eliminate today's discriminatory character of the presidency elections, and that they might foster cross-ethnic political competition and help to elect ethnically moderate parties and politicians.

Bosnia and Herzegovina can undoubtedly be characterised as deeply ethnically divided, and this ethnic divide is also reflected in political representation. Apart from the three large constituent ethnic groups, the Bosniaks (Bosnians with a Muslim identity – including those who do not practice their religion, but identify ethnically as such – estimated 48% in 2000), the Croats (14%) and the Serbs (37%), Bosnia counts further small ethnic minorities. The most important ones are Roma (estimated between 0.2% and 10% of the population). Also, other parts of the population used not to identify ethnically (0.4%), have an ethnically mixed background, or defined themselves as Yugoslav in the last census of 1991 (5.5%),[i] - a category often chosen by citizens who do not identify with any of the other groups, or with a mixed identity. Since 1991 (and despite the changes in the ethnic structure through war, ethnic cleansing, and migration) no new census has been conducted. A new census would be politically sensitive, as it might legitimise the ethnic structure that resulted from the war.

The political institutions of Bosnia and Herzegovina, introduced with the 1995 Dayton peace agreement, heavily rely on the constituent ethnic groups. At all levels, and in all parts of the state, institutions respect the delicate ethnic balance ensured for Bosniaks, Croats and Serbs. This system, however, violates the rights of other ethnic groups and many individual citizens to achieve political representation in state institutions, among others in the three-member Bosnian state presidency. After the ruling of the European Court of Human Rights in 2009, Bosnia has to reform its electoral law in order to allow for the representation of 'others' – those citizens who do not identify with any of the three constituent people.[ii]

The state presidency is composed of a Croat and a Bosniak member elected from the territory of the Federation (FBiH – one of two territorial entities, where after the war mostly Bosniaks and Croats reside) and of Serbian member elected from the other entity, 'Republika Srpska' (RS). As it stands currently, it excludes all other minorities and citizens who do not identify with any ethnic groups, as well as Bosniaks and Croats from the 'Republika Srpska' and Serbs from the Federation from the eligibility criteria to run for the presidential office. The ethnic logic of the election of the state presidency fosters the election of polarising candidates, elected solely by their own ethnic kin.Many studies have pointed out and criticised the ethnic nature of elections in Bosnia and Herzegovina (for instance, Pugh & Cobble 2001; Caspersen 2004; Bieber 1999; Pickering 2009; International Crisis Group 1998, 1999). Manning (2004) provides a brilliant overview over electoral institutions and political parties. Some argue that the bad performance of democracy and ethnic tolerance under the current rules reveals limits of institutional engineering (Manning & Antić 2003, pp. 55-56). Others contend that institutional reforms might lead to better results, and propose the introduction of a preferential voting system (Caspersen 2004, p. 582) or of a quota system, where every voter casts a vote for candidates of different ethnic groups

(International Crisis Group 1999, pp. 8-12). Such a solution, as other models that flexibilise ethnic quotas, however, face the risk that the largest groups in the population would de facto control the mandate that so far belonged to one of the minor communal groups (see section 3).

This paper discusses three possible reforms of the election of the Bosnian state presidency: the introduction of a single countrywide electoral district, the adoption of the single non-transferable vote, and the application of a geometrical mean rule. Starting from the premise that any alternative that does not contain guarantees for the three constituent groups might be politically unfeasible, we discuss how a solution that respects the representation pledge for each group might still allow for competitive elections across ethnic boundaries, without discriminating 'others'.

2   Models of direct and indirect ethnic quotas

There are inherent problems with enforcing regulations that create an advantage for voters or candidates who belong to a certain ethnic group, or for minority parties or organisations. Any ethnically based rule requires an agency that checks whether voters or candidates belong to an ethnic minority, or that defines the ethnic identity of a political party. Four solutions for positive discrimination of ethnic minorities or of their representatives are the most typical ones (table 1).[iii] Ethnic identities of voters, parties, or candidates are often difficult to establish – needless to say , the distinction of persons by ethnicity might be controversial, as ethnic identities themselves are flexible and subject to interpretation.

Therefore, any positive discrimination rule risks to be open to strategic behaviour – which might bring about abusive outcomes. In the absence of an agency that defines ethnic belonging, individuals can identify with a particular ethnic group, or switch between different identities, in order to get stronger political impact (e.g. Alionescu 2004). Hence, efforts to guarantee the representation of ethnic groups and special rules to secure the access of minorities to political office might have unintended consequences.

Type of positive discrimination	Problem
Indirect identification, based on the residential area of minorities	Only applicable to minorities that live compactly.
Voters are treated differently based on their ethnicity	Identification relies on single voters, so that strategic voting is possible. Not all voters might want to identify ethnically. Disadvantages for multi-ethnic parties, as they have voters both among the majority and the minority.
Parties are treated differently if they claim to represent minority interests	Creates competitive disadvantages for multi-ethnic parties, trying to appeal for minority votes.
Candidates are treated differently, based on their ethnicity	Requires identification of candidates based on their ethnic identity; might exclude 'other' groups or those candidates who do not declare an identity.

Table 1: How can ethnic minorities be identified and discriminated positively?

Party-based rules (rules that address electoral lists) guarantee seats for minority parties or minority organisations, giving them advantages over lists of the ethnic majority and over multi-ethnic electoral lists (e.g. guarantees for electoral lists of minorities, as in Kosovo or in Romania). The rules create institutional incentive for elections on a solely ethnic basis, instead of the promotion of multi-ethnic and conciliating parties, and they further require an identification of a party's ethnic identity, which can be difficult. The absence of an instance that inspects parties' ethnic identities makes the rules very open to abuse.

Candidate-based quotas count all representatives belonging to an ethnic group, no matter if they were elected from ethnically exclusive party lists or from the lists of multi-ethnic parties. Such quotas apply today for the election of the Bosnian state presidency (combined with territorial provisions), the upper house of the national parliament, and the entity parliaments. In the house of peoples (upper house), each of the three constituent people counts five members. And in the assemblies of the two entities, counting 98 or 83 members, each of the three constituent people gets a quota of at least four members.

Countries providing special electoral districts for minority voters need to make a distinction of voters according to their ethnic identity (e.g. special districts for ethnic minorities, as employed in Croatia and in Slovenia). This might put in a difficult situation those citizens with an unclear or mixed identity or belonging to a non-recognised minority, as they are forced to choose one of the officially recognised ethnic identities.

Finally, territorial boundaries might guarantee minority representation, such as in Montenegro, where Albanian minority regions form a separate electoral district in parliamentary elections. Without any explicit ethnical identification of voters, parties or candidates, the special district de facto guarantees a number of ethnic Albanian members of parliament. Yet, such solutions only work for groups that are mainly concentrated in small (almost ethnically exclusive) areas.

2.1 Application of ethnic quotas to Bosnia and Herzegovina
The application of indirect, territorial quotas would be problematic in the Bosnian case for several reasons.

First, Bosnia does not provide for the compact settlement structure of the ethnic groups that shall be protected by a quota. Certainly, the 'Republika Srpska' (RS) defines the territory, where today most of the ethnic Serbs live concentrated, so that an election of a member of presidency by the majority of voters of the 'Republika Srpska' de facto guarantees that this member is an ethnic Serb. Similarly, Croat politicians increasingly call for a separated regional electoral district. Although settlement areas of the ethnic Croats can be defined, mainly in three cantons in

Herzegovina, the formation of a mainly Croat electoral district is neither wishful, as it would lead to one more de facto territorial split of the country along ethnic lines, nor politically feasible.

Second, territorially based ethnic quotas represent a delicate issue, given that the current territorial division is a result of the 1992-5 war, ethnic cleansing, and genocide. But problems go beyond political symbolism: in (majoritarian) elections of members of the state presidency, only candidates belonging to the overwhelming ethnic majority in each region could realistically win. This means that local minorities are, in fact, excluded from representation, affecting voters who have remained a minority in a region, after their co-ethnics have escaped during or after the war. Hence, this de-facto discrimination would hurt a particularly vulnerable group of citizens: refugees, voting in the place of their origin, returnees, and those few who have resisted ethnic cleansing and remained in their home town.

As a consequence, any ethnic representation rule for the Bosnian state presidency can only be direct, and based on the candidate's party or on the candidate's declared identity. Party-based quotas would give special privileges to those parties that are ethnically defined – and punish multi-ethnic political parties and conciliating forces. In effect, multi-ethnic parties with overwhelming support from one ethnic group might become ethnic again.

Candidate-based quotas directly guarantee the representation of a candidate of the protected minorities, but candidates can decide strategically which identity is best for increasing their chances in elections. Under candidate- and party-based quotas, it is not guaranteed that elected candidates receive the majority of votes from the ethnic group they aim to represent. The topic is hotly debated in Bosnia, as repeatedly (in 2006 and in 2010), the Croat member of the state presidency, Željko Komšić (SDP), was supposedly elected mainly from Bosniak votes.[iv] Whether minority candidates elected almost exclusively by the majority can credibly represent the interests of the ethnic minorities is questionable.

Ethnic quotas require either an instance determining the ethnic identity of candidates or self-declaration. The experiences both in Bosnia and elsewhere with self-declaration are mixed. Ejup Ganic, elected in 1990 as member of the Yugoslavs to the state presidency, was elected later as the Bosniak member of the same institution. Many citizens might have unclear ethnic identities, a or change their self-perception over time, but the presumption of strategic identification remains, undermining the legitimacy of the electoral system.

2.2   Proposals to reform the presidential elections in Bosnia

To resolve the current discrimination of members of 'other' ethnic groups, a number of proposals to reform the election of the Bosnian state presidency are being discussed. The website www.ustavnareforma.ba and Hodžić and Stojanović (2011) give an insight into the plethora of reform ideas. The easiest solution is simply to turn the presidency into a ceremonial function, so

that it becomes even less relevant. Several Bosniak or multiethnic parties (Stranka za Demokratsku Akciju (SDA), Social Democratic Party (SDP), Naša Stranka, etc.), would like to introduce a single president, possibly with vice presidents belonging to different ethnic groups, and with a rule that the presidency rotates between different groups.[v] The civic-oriented Građanska demokratska stranka (GDS) advocates a single president, and rules that hinder that (s)he, the prime minister and the presidents of the two parliamentary houses belong to the same ethnic group (similar: International Crisis Group 2002). It is questionable whether a solution, where not all three constituent people are represented with equal rank might be acceptable. Most of all, the question of how many members the presidency (including vice-presidents) consists, whether and how ethnic quotas are established, and how they are elected, remains. Several parliamentary parties discuss the possibility of indirect elections through the Bosnian parliament. However, also for indirect elections, electoral rules need to be defined. Changing the electoral body does not resolve the problems attached to the election. Consider that whatever electoral rules are applied in parliament, strategic coordination in a small assembly is much easier than among to the whole population. Therefore, strategic voting that undermines the substantial representation of minority groups become even more feasible (see next section). Indirect elections would further aggravate the problem of lacking representation of 'others' in the House of Peoples (Senate of Bosnia and Herzegovina), which has been criticised by the European Court for Human Rights in the same judgement as the presidential electoral rules. The Stranka za BiH (SBiH), a party which is mainly elected by Bosniaks, proposes a fourth member of the state presidency, elected by 'others'. Similarly, the Bosniak dominated Savez za bolju budućnost (SBB) advocates a presidency with three vice-presidents, but without specifying the election rules for these positions. Both the Venice Commission of the Council of Europe (2005) and the Assembly of 'Republika Srpska'[vi] propose some flexibilisation of the ethnic quotas, prescribing one member from RS and two from the Federation, but maximally one of the same ethnic group. All these solution would, however, allow the overwhelmingly ethnic Bosniak voters in the Federation to elect a Bosniak member and a member of 'others' who is loyal to the Bosniak interests. If there are two seats from the Federation, Bosniak voters could this way permanently exclude ethnic Croats from the state presidency. The possibility that a Bosniak, a Bosnian Croat or a member of 'others' with voting rights in 'Republika Srpska' might be elected to the state presidency would remain hypothetical. A earlier proposal (formally not conform with the judgement of the European Court which came later) conserves the three-member presidency, but proposes the election in a single nationwide constituency, giving each voter three votes (United States Institute of Peace 2000; similar: International Crisis Group 1999, pp. 8-12). This faces the risk that the larger groups elect their political allies on all three seats, de-facto majorising the state presidency.

3 Desirable criteria for the election of state presidency

Based on the discussion of the current problems of the Bosnian presidential electoral system, on the discussion about forms of ethnic quotas, and on our considerations about the political feasibility of reforms, we can formulate a number of criteria to which an ideal system for the election of the Bosnian state presidency should adhere.

1. *Representation guarantees for the three constituent people, and possibility for 'others' to be elected.* While the possibility to elect 'others' is a requirement of the European Court, a rule that would not maintain the representation guarantee of the three constituent people would risk to lead to permanent exclusion of some of the constituent people, and thus be politically unfeasible. This means that a state presidency with less than four members (the three constituent groups, plus the possibility for 'others' to get elected) is impossible to accomplish. However, it does not exclude the possibility of reforming the organisation of the state executive, with more executive power, or having a state president with strong vice-presidents.

2. *External minorities can be represented and elect their member in the presidency.*

3. *Hindering political dominance by one ethnic group.* No group should be able to hold a majority of seats in the state presidency (unless if other groups express this will in elections), and no group should be able to determine the election of a majority of the seats in the state presidency.

4. *Enhancement of cross-ethnic campaigning.* The rules should encourage candidates to take conciliating positions, and allow for inter-ethnic voting.

5. *Ruling out strategic voting.* The votes of each constituent people should have substantial influence on the election of its member of the presidency. The representatives of smaller ethnic groups should not be decided by the votes of one of the larger groups, to avoid a scenario in which Bosniaks elect their favourite candidate as the Croat member of the state presidency (Komšić case). This does not rule out cross-ethnic voting, as long as the member of the state presidency representing a minority is supported by this minority too.

The following sections discuss several reform proposals for the Bosnian state presidency electoral system, and assess whether they fulfil the outlined criteria.

4 Borrowing ideas from the integrationalist school of electoral systems

The question of which institutional system might be best to fulfil the needs of ethnically divided societies – and in line with this the choice of the electoral system – has preoccupied scholars of comparative politics over decades. In many aspects, the institutional system of Bosnia and Herzegovina has embraced the consociationalist advice (Lijphart 1977, 1994) – implementing an institutional order that includes all three communal groups recognised by the constitution into all aspects of political decision-making, providing them with far-reaching veto rights, and adopting a

federal system that could hardly be more decentralised (Bieber 2004). However, the Bosnian institutional system suffers from several illnesses which in some aspects resemble the critique of the consociationalist school that is put forward in the literature: it lacks of institutional incentives for politicians to enhance the political integration of the country, and propose policies that appeal to all ethnic groups, and not only to their ethnic pals. Further, the Bosnian system suffers from institutional blockades that emerge because politicians elected separately by each ethnic community do not manage to agree on compromises that can withstand the manifold veto powers (Rothchild & Roeder 2005; Belloni 2007; Chivvis & Đogo 2010,etc.).

Instead, the integrationalist school proposes that strong political power-holders are elected by electoral rules that empower those politicians with a conciliating program – which have best chances to be supported by different communal groups (Horowitz 1985, 2003; Reilly 2001). However, it turns out that majoritarian voting systems, and especially the Alternative Vote, which are promoted by integrationalist scholars, often do not hold their promises, as they can only function under very tight assumptions (Fraenkel & Grofman 2004, 2006; Bochsler 2009).

Majoritarian electoral systems might have a conciliating effect if the voter basis is evenly split into two groups – so that candidates who aim to be elected need to rely on the support of both ethnic groups in order to get a majority of votes. In countries where this is not the case, the proportion of communal groups cannot be changed – especially in the context of national presidential elections. This is why Bose (2002, pp. 234-238) argues that they are not practicable in Bosnia. However, there are innovative solutions to adapt the electoral system accordingly, so that no 1:1 split is needed.

Electoral engineering with majoritarian systems difficultly works if a candidate or a party can easily win a mandate with the support of one group only. However, electoral engineering provides for very strong incentives for inter-ethnic campaigning and vote pooling if there is a remainder seat allocated to the party that has the largest number of remaining votes. Like this, it creates incentives to win additional votes across ethnic boundaries (Cox 1997, pp. 108-109). Parties and candidates with an inter-ethnic campaign are most likely to win such remaining seats. This idea can be expressed in mathematical terms. For elections with one seat by majority rule (absolute majority of votes required), at a population ratio of 1:1, no candidate can win without inter-ethnic votes. Hence, this situation promotes candidates with conciliating programs and inter-ethnic campaigns. The strategic situation is created if 3 seats are elected by the single non-transferable vote (each voter has one vote, threshold applies, see section 6 below), where 25% of the voters narrowly fail winning a mandate. In this situation, with population ratios of 1:3 or 2:2, one of the three seats is inter-ethnically competitive. 5-seat elections (with single non-transferable vote) require a population ratio of 1:5, 2:4 or 3:3. By this logic, to make presidential elections in Bosnia

competitive between the different ethnic groups, it is necessary that their representatives compete for the same seats, under a limited voting system, and adjust the number of seats to be filled strategically, so that the ethnic structure of the Bosnian population is reflected in inter-ethnically competitive elections. Based on this short mathematically-driven introduction of the idea of integrationalist voting systems, we show that they are compatible with a number of further criteria that should apply for presidential elections in Bosnia.

5 Moving to a single national electoral district?

Moving to a single countrywide electoral district might lead to more inclusive elections to the Bosnian state presidency. All candidates would be elected countrywide. This is the sole way to include those citizens who could not, so far, be elected to the highest office, and this offers more opportunities for cross-ethnic voting.

A single electoral district would allow also Bosniaks and ethnic Croats with voting rights in the 'Republika Srpska' and ethnic Serbs who vote in the Federation to elect the candidates of their ethnic group, or to run for presidency. With the current rules, these citizens have a right to vote, but can only vote for those candidates of the ethnic group(s) that are politically dominant in their respective entity.[vii] Dispersed minorities would benefit from being unified in one district, as they could commonly vote for their preferred candidate. In district-based electoral systems, groups that live concentrated in one district have a considerable advantage over dispersed groups, as all their votes count in the same district, while the votes of dispersed groups are divided between the districts (Bochsler 2011). A single nationwide electoral district could also help moderate candidates to win more votes across ethnic boundaries. Today's division of the elections in two districts prevents any potential cross-ethnic votes, as Bosniak and Croat candidates are not eligible for receiving votes from most ethnic Serbs (living in RS), while Serbian candidates are not eligible for being elected by most Bosniaks and Croat voters (living in the Federation).

A single nationwide electoral district in Bosnia would be combined with ethnic quotas. Such a combination could, nevertheless, open the door for strategic voting for candidates of other ethnic groups. Yet, strategic cross-ethnic voting in the Bosnian presidency has been a consequence of ethnic quotas. Notably, the introduction of a (quasi-)proportional electoral system instead of – or besides – ethnic quotas would reduce the potential impact of strategic voting, as each group could then autonomously select at least one member of presidency, even if some voters still vote strategically (see next section). The move would allow Bosnian politicians to get a national mandate, and to be accountable to the electorate in the whole country. In the long run, it encourages politicians to promote programs that are popular with voters of all parts of the country.

6 Single (non-)transferable vote instead of majority rule?

Under the current electoral rule, only three candidates – one for each constituent people – are elected to the state presidency. To allow other citizens to run for the highest position, the

elimination of the quota for the three constituent people does not appear as a viable solution. For due political reasons, only the addition of a further member (or several) to the presidency might give other ethnic groups access to it. However, the electoral rules should hinder large ethnic groups to elect their allies on guaranteed minority seats to the state presidency.

Instead, in this paper we discuss the addition of non-ethnically defined seats to the state presidency, in order to open the electoral competition to all ethnic groups. A five-seat presidency, elected by the single non-transferable vote (SNTV) in a single national electoral district, might serve this goal. It could be combined with a seat guarantee for each of the three constituent peoples. Under the SNTV, there are several seats to be filled in the same district, but each voter has only one vote for one candidate. Those elected are the candidates with the highest number of votes (on top, ethnic quotas might apply, if there is political demand for such). The SNTV protects the representation of political minorities, and has, thus, (quasi-)proportional features (Cox & Rosenbluth 1994; Grofman 1999; Cox 1997, p. 109): the political majority needs to split its votes on all its candidates. If the political minority concentrates on one or few candidates, the political majority does not have sufficient votes to occupy all seats that are allocated. Therefore, either the majority voluntarily leaves a part of the seats to the minority, or otherwise – if the minority is sizeable enough and coordinates on one or few candidates – the minority will defeat some of the candidates of the majority. This logic can also be transferred to a multi-ethnic context: either the parties of the largest ethnic group only present candidates for some of the mandates (approximately as many as their group weights proportionally), or otherwise candidates of smaller ethnic groups can easily win mandates, if voters of the minority vote in a unified matter for one or few candidates.[viii]

In Bosnia, SNTV with five seats in a national district with ethnic quotas would leave the fourth and the fifth seat open to inter-ethnic electoral competition. Our exemplary calculation shows possible and plausible scenarios (table 2). We have used the most recent available results of parliamentary elections, of 2006, in order to discuss possible scenarios of presidential elections.[ix]

Political party or coalition	vote % in 2010	number of seats in 5-seat district
Bosniak & multi-ethnic parties (overall)	52 – 55%	
SDP + small allies	18-20%	1 secure seat
SDA + SBiH	18-19%	1 secure seat
SBB + small Bosniak and multi-ethnic parties	15-17%	chances to win 5th seat
Coalition of Croat parties	10 – 12%	1 guaranteed seat
Serb parties (overall)	33 – 35%	
SNSD	17-18%	1 secure seat

coalition of other Serb parties	16-17%	chances to win 5th seat

Table 2: Tentative scenario for Bosnian presidential elections in a single nationwide 5-seat district, according to the single non-transferable vote rule. Based on the results of the 2006 parliamentary elections. Results obtained from Electoral Commission (www.izbori.ba, accessed on 20 October 2010), own calculation.

For our scenario, we use the results of the 2010 parliamentary elections (votes added up for the whole territory of Bosnia and Herzegovina), and we further arrange them into coalitions of co-ethnic parties (based on the incentives to build coalitions of about 18% of votes, on the parties' coalition behaviour in the presidential elections, and on coalition statements in the media).

In a five-seat district by SNTV, each candidate winning 17%-18% of the votes obtains a secure seat.[x] This implies that the Serbs can count on one secure seat, which in 2010 would have gone to the SNSD. Further, the Bosniak votes guarantee two secure seats – one of which goes to the candidates of the multi-ethnic SDP. The second seat is secure, if the two natural allies SDA and SBiH agree on a common candidate – as only a common candidate can secure their seat in the presidency. The Croat parties are guaranteed a mandate by law.

The fifth mandate remains inter-ethnically competitive. It enhances the chances of candidates belonging to 'other' groups to be elected. Our scenario identifies two coalitions with chances to win the mandate.

Either, the Bosniak and multi-ethnic parties might win a third mandate. Our scenario plays with an anti-establishment coalition around the third-largest party in this field, business man Fahrudin Radončić's SBB, and further small Bosniak and multi-ethnic parties, which have kept their oppositional image, as they do not represent a major player in governments in Bosnia. They might jointly win some 15%-17% of the votes. The full mobilisation of this potential and some additional votes would enable them to win a seat. If these votes should come from SDP or from SDA-SBiH, this would correspond to a re-shuffling within this bloc, and the SBB-lead coalition might win a seat *instead* of SDP or SDA-SBiH. The SBB-lead alliance might, however, also try to win additional votes from Serb, Croat and 'other' voters. Hence, the bloc of Bosniak and multi-ethnic parties might only win three mandates (the majority of the seats) if it gets substantial support from the other constituent groups and from 'other' ethnic minorities.[xi]

Or, a coalition of Serb political parties, which have jointly supported the opposition candidate Mladen Ivanić in the 2010 presidential elections, might try to win the mandate and secure a second Serb seat in the state presidency. As these parties only hold 16-17% of the national vote, they would need additional votes to secure the fifth mandate. Either they win them from SNSD, which might however cost SNSD its seat, or they present themselves as politically moderates in order to attract a significant number of inter-ethnic votes.

Both the Serb parties and the Bosniak and multi-ethnic parties have thus strong incentives to appeal to voters beyond their own constituencies – and the arithmetic properties of the electoral system and the population structure put inter-ethnic coalitions to a pole position in the race for the fifth seat. Inter-ethnically popular candidates with a non-ethnically exclusive program might have best chances to do so. If ethnic belonging determines political affiliation, candidates which are not clearly related to any constituent people, i.e. those from mixed-ethnic families, with no ethnically defined identity or belonging to an 'other' minority, might be particularly promising.

Lacking up-to-date information about the number of 'others', their political behaviour and lacking real-world empirical results about the attractiveness of 'other' candidates to voters, we can only speculate about the chances of 'others' to win a seat in the presidency. It is most plausible that voters belonging to 'other' minorities will not favour ethnic nationalist Bosniak, Serb, or Croat candidate, but rather vote for moderates or multi-ethnic candidates, and therefore belong to the potential electorate for the inter-ethnically competitive mandate. Their chances of holding the pivotal vote for this seat are considerable. Possibly, this would even give enough incentives, either to the multi-ethnic parties, or to the Serb coalition, to run with a candidate belonging to 'others', in order to appeal beyond ethnic boundaries and to win the fifth mandate. We might expect 'others' to attract cross-ethnic votes. Certainly, this is far from guaranteeing that an 'other' candidate will ever be elected, but given the small share of the population it represents, the competitive fifth mandate gives them a fair chance to participate actively in elections. Note that the goal of a reform of the electoral system is not necessarily to secure a seat for 'others', but rather to give them the right to compete and the real possibility to win a seat, if a strong candidate should emerge from their group.

We expect that the discussed electoral system might bring advantages to all ethnic groups in some aspects, while not favouring any of them. All members of the presidency are elected on equal grounds, and the number of votes decides on the election, whereas the seat guarantee works as a backup to assure at least one seat for each constituent people. They would also gain it according to their vote share. The electoral formula does not allow a dominance of the largest constituent people, as a majority of nominally Bosniak members of the state presidency only occurs if one of the three candidates is elected with a multi-ethnic program, and a considerable number of voters of other ethnic groups vote for it. The Croats – the only group who is rather unlikely to increase its representation in a five-seat presidency beyond one seat – profit, as the Komšić scenario (voters belonging to a large ethnic group decide who will represent the smaller group) would not be possible any more. Still, voters belonging to one of the larger ethnic groups might still vote for candidates of smaller ethnic groups, but in the SNTV model, the smaller groups (especially the Croats) are protected through the quasi-proportional nature of the electoral

system. Thus, the Croat voters might elect an own candidate with their voting power, even if other voters should vote for a different Croat candidate.[xii]

The size of five seats is not only given due to arithmetic reasons to revitalise the competition, but also because odd numbers allow majoritarian decision-making in small committees.[xiii] In a five-seat presidency, however, new rules would need to be formulated for the ethnic veto. One option is a collective veto right for each of the three constituent groups: those constituent people that are represented by several members exercise their veto right through a unanimous vote of all their representatives. Alternatively, one might restrict the veto right for each constituent people to the member of presidency elected with the highest number of votes. Finally, the veto right might be formulated in general terms, rather than ethnically based: any two members of the state presidency can veto a decision. This still provides a protection against ethnic dominance. All three options allow for the conservation of veto rights in a five-seat presidency, without increasing the difficulty of decision-making. A five-seat presidency might be more acceptable if its range of competences expands. It might get a stronger role within the country's executive, for instance if it gets (some of) the competences of the government, that works in parallel to the presidency.

7 Electing by the geometric mean?

The reform options discussed so far closely orient upon the current, ethnically segmented logic of elections in Bosnia and Herzegovina, with some inter-ethnic elements. A stronger move towards multi-ethnic elections might be offered by the *geometric mean* rule.

The election of candidates in divided countries can rely on different logics: who is a candidate responsible to, and who is the sovereign that elects a candidate. Particularly, ethnic quotas can be applied differently. In the current system, candidates are (should be) elected from voters of their own ethnic group to which the seat is guaranteed (cross-ethnic voting might occur). This reinforces sectarianism at the extent of nationally elected presidency and inter-ethnic voting. The opposite logic, electing candidates in a simple majoritarian voting system would also be problematic: the majority of the voters would determine who represents the minority, and they might elect a president who nominally (according to the quota rule) belongs to the minority, but serves the majority's political preferences. Ideally, the successful candidate should rely on the confidence of the ethnic minority *and* the majority, so that there is no dilemma of who the sovereign is. In deeply divided societies, however, elections rarely provide naturally for candidates to obtain most of the votes of the majority *and* of the minority at the same time. Therefore, political institutions should ideally allow the election of a candidate that is acceptable to the majority and to the minority, even if no candidate gains most votes in *both* sovereigns.

The geometric mean allows the election of candidates who are supported by two different sovereigns, and it can be an optimal solution for elections with a protection of (territorially

concentrated) minorities.[xiv] A graphical example with two candidates might best illustrate the rationale of the formula (figure 1). Among voters of the majority, candidate A is slightly stronger than candidate B, while candidate B is by far stronger among the minority, where candidate A hardly wins any votes. In this case, candidate A wins the largest number of votes countrywide, and is elected if majoritarian voting rules apply. However, candidate B would undoubtedly be the better choice representing both sovereigns: she is the clear favourite of the minority and fairly popular among the majority, which makes her the ideal compromise candidate.[xv]
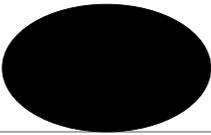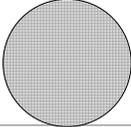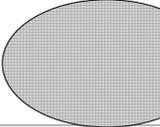
	minority	majority
candidate A		
candidate B		

Figure 1: Candidates with unequally distributed votes from majority and minority voters.

What makes possible the election of candidates that are popular among both the minority *and* the majority is the geometric mean rule. It ensures that the candidate with the highest geometric mean (GM) of the votes of the majority (v_{MAJ}) and the votes of the minority (v_{MIN}) gets elected.

$$GM = \sqrt{(v_{MAJ} \cdot v_{MIN})}$$

When comparable degrees of support occur, the formula gives advantage to those candidates with a similar vote share both among the majority and the minority, over candidates who are primarily preffered by one group only.

Geometric mean in Bosnia

In Bosnia and Herzegovina, the geometric mean might rely on the territorial division of the country. Table 3 illustrates different ideas regarding the election of candidates in ethnically divided countries, and the effect of the geometric mean, using fictitious numbers. Candidate A is strong in RS, candidate C is strong in the Federation, while B scores well in both entities. Elections in two distinct electoral units (similar to the current electoral system) would allow each community to elect its candidate, in this case A and C. Candidate B loses, despite being the most popular across the country, even if she wins absolutely the largest number of votes across the country. Hence, under the status quo, the candidate with most votes would get defeated if his or her potential electorate is split between the Federation and RS. Since the electoral system disincentivises such candidates (and since they can only run in one out of two entities), they do

not even emerge. In elections in a single nationwide constituency, where the sum of all votes is relevant for the candidate to win, candidate C wins the elections, because she is the strongest candidate in the Federation, the larger of the two entities. Consider, however, that C is the most polarising candidate, as she wins her votes almost only in the Federation, while A and especially B get support from both parts of the country. C wins even if she is only by a very small margin ahead of the two candidates that are more popular in *whole* Bosnia, as only the absolute number of votes counts, no matter how unbalanced they are.[xvi] Under a *geometric mean rule*, candidate B wins the election, as she is supported in *both* entities, followed by candidate A (second-most balanced vote distribution), and candidate C (with the most imbalanced vote distribution). Certainly, the absolute number of votes undoubtedly plays a role for the overall result (i.e. if a candidate's votes in each of both entities increase by 1%, then the geometric mean increases to the same extent). However, the absolute number of votes is not the solely criterion for election. In the present case, with three candidates with a similar sum of votes, the most balanced distribution of votes wins the mandate. Hence, candidates with *national* support – from both entities – have best chances to get elected. Given the unequal size of both entities in Bosnia, a weighted geometric mean might be the most appropriate solution (see appendix).

	candidate A	candidate B	candidate C
votes FBiH	150.000	250.000	500.000
votes RS	350.000	250.000	20.000
electoral result, according to different rules			
election in two electoral units	elected in RS	not elected	elected in FBiH
sum of votes FBiH + RS	500.000 (2.)	500.000 (2.)	520.000 (1.)
Geom. mean √ FBiH · RS	229.129 (2.)	250.000 (1.)	100.000 (3.)
Modified geom. mean $\sqrt[3]{FBiH^2 \cdot RS}$	198.953 (2.)	250.000 (1.)	170.998 (3.)

Table 3: Different majority rules, applied on a fictitious example of three candidates A, B, and C, winning votes in two entities FBiH and RS.

The geometric mean might be applied for the election of a single president (instead of three members), who would need gain votes from both entities: the candidate with the highest geometric mean of the votes from the Federation and from RS wins the election. Such a solution would, however, reduce the state presidency nominally to the member of one ethnic group, and lower the chances of ethnic Croats to get elected: they count fewer voters in the Federation than

the Bosniaks, and are not protected by a territorial rule. Therefore, a presidency of several members might be more acceptable. The geometric mean might be applied for the election of a state presidency of three members with two votes per voter, or of a five member-presidency, with a seat guarantee for the three constituent people, and with two or three votes per voter. Since electors have several votes, political parties are offered the opportunity to join in lists of candidates across entity borders. Giving them fewer votes than the number of candidates to be elected introduces a semi-proportional element to protect political minorities (especially the Bosnian Croats).[xvii]

Intended consequences of a geometrical mean rule in the Bosnian case

The application of the geometric mean would stimulate candidates to campaign nationally, as they can only be elected with support from both entities. We expect that this might have three important implications.

First, candidates from genuinely multi-ethnic parties, scoring well in both parts of the country, would be in advantage over those belonging to parties that are related only to one entity. This would incite parties to lead national instead of sectarian campaigns, appealing to more than one of the ethnic groups.

Second, for ethnically oriented candidates counting mainly on the votes of one ethnic group, it would become largely important to secure votes from both entities, by campaigning for the electors of their ethnic group in both entities. This would make ethnically Bosniak and Croat voters in the RS and Serbian voters in the Federation - those who are marginalised in the present system - a particularly precious electorate.

Third, the need for support in both entities would also motivate parties and candidates to cooperate across entity borders. Therefore, parties with their stronghold in different entities would be strongly incited to present a common list of candidates, in order to secure that their candidates would gain substantial support from across the country. Such cooperation can be widely strategic (e.g. Fraenkel & Grofman 2006, pp. 639-643). Nevertheless, any cross-entity cooperation is widely facilitated by (even a minimal) common program. This incentivises ethnically based parties to enter political cooperation across entity boundaries, and helps to establish a functional government.

8 Outlook

The current institutions of Bosnia and Herzegovina make it difficult to pass any legislation in the ordinary way. Moreover, to date, processes of institutional reform are blocked – especially when they regard the sensitive balance between the ethnic groups. Against this background, the

European Court of Human Rights' judgement in the Sejdić-Finci case comes like a godsend: in a nutshell, the court's sentence judges the election rules of the state presidency as illegal, as only members of the three constituent people – Bosniaks, Croats, and Serbs – can be elected, while other ethnic groups (Roma, Jews, others) are excluded. However, the significance of this court ruling goes far beyond the question of allowing Roma, Jews, or 'others' to stand as candidates for the Bosnian state presidency. If Bosnian politics were to respect the court's judgement (which, at the time of writing, is not evident), an electoral reform would be needed, which might make the so-far ethnically structured state presidency more inclusive.

While observers often advocate reforms to eliminate the ethnically based political institutions in Bosnia, such solutions can be considered dangerous, as they might leave the smaller constituent people with no substantial power. Most of all, reforms that abolish ethnic representation pledges appear politically unattainable. In this paper, we discussed potential reforms of the election rules for the state presidency with a view to the guaranteed representation of the three constituent people, but opening the competition for non ethnically organised interests, fostering cross-ethnic alliances and voting, which cannot be foreseen in the philosophy of today's institutional framework.

- A single nationwide constituency might allow inter-ethnic voting and incite candidates to propose a cross-ethnically acceptable program, eliminate the discriminatory nature of the presidential election for Croats and Bosniaks in the 'Republika Srpska' and Serbs in the Federation, while guaranteeing the representation of all constituent people.

- A five-member state presidency (instead of today's three members) allows the inclusion of members who are not elected exclusively on ethnic grounds. It allows candidates belonging to not constituent ethnic groups or 'others' to run for office. Combined with the single non-transferable vote, it might make elections more dynamic, creating strounger incentives for parties to address voters across ethnic lines. The increase in the size of the presidency would allow to newly define the veto rules of each constituent people, and to change the institutional structure of the executive.

- The *geometric mean rule* for the election of the state presidency might potentially change the political landscape in Bosnia. It would empower candidates who get support from all parts of the country, encourage cross-ethnic alliances, and genuinely national elections.

While the propositions are developed specifically for the election of a small committee such as the state presidency, analogous solutions might be feasible also for other levels of elections in Bosnia.

Electoral rules are, however, not only valued on their hypothetical results (which given the innovative character of several of the proposals would first need to be tested) – but also on their procedural legitimacy: the way of adaptation through the domestic political players. Any

sustainable solution can only be adopted if it appears as legitimate to the domestic actors. In this context, the prospects of electoral reforms can all too often be characterised as a catch-22 dilemma: even if large parts of the sovereign might possibly favour a move towards not solely ethnically defined politics, the representatives elected in the current system are the ones to decide which rules might get adopted, and they are unlikely to dimiss the institution that holds them in power.

However, after the 2006 and 2010 elections, the representation of all dominant parties of all the three constituent groups is at stake: repeatedly, the race for the Croat member of the state presidency was decided by Bosniak voters, and in 2010, Bosniak voters in the 'Republika Srpska' only narrowly failed to have a pivotal role in the election to the Serbian member of the presidency. Finally, the race for the Bosniak member of the presidency gets close, and none of the Bosniak parties can rely on a secure mandate, while a second Bosniak member of the state presidency would give them more security. Hence, several of the ruling parties might have reasons to switch to a different electoral system. The rule of the European Court for Human Rights might offer an important drive to start the reform process.

Appendix: Weighted Geometric Mean Formula

For countries with unequally sized entities, we advise the use of a weighted geometrical mean formula. For Bosnia and Herzegovina, given the population structure and political requirements, the most appropriate form of the geometric mean is a modified formula, based on the cube root. Without this modification, each entity would have the same impact on the result, so that votes from the smaller entity (RS) would count relatively more than those from the Federation.

For instance, if a candidate wins 2000 votes in the Federation and 1000 votes in 'Republika Srpska', a 10% increase of the votes in the Federation (from 2000 to 2200) would have the same impact as a 10% increase in the 'Republika Srpska' (from 1000 to 1100). This would be a good solution only if one wants to overweight the votes from 'Republika Srpska'.

In the Bosnian context, the principle of 'one person – one vote' should apply, and the formula should consider that the number of voters is roughly twice as large in the Federation, compared to 'Republika Srpska', and the 2:1 ratio determines the seat allocation in public institutions. Hence, doubling the votes of a candidate in the Federation should have an effect two times greater than doubling the votes in the twice smaller 'Republika Srpska'. This is respected if the formula is adapted to $GM_w = \sqrt[3]{(v_{FED}^2 \cdot v_{RS})}$. Generally, for countries with two unequally sized entities with a population share a and b ($a+b= 100\%$), with votes v_a and v_b, the applying weighted geometric mean formula is $GM_w = v_a^a \cdot v_b^b$.

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[i] Source: CIA World Factbook for 2000 estimates. 1991 census data for not ethnically identified groups and Yugoslavs. The number of these groups has diminished by 2000, so that only 0.6% 'others' are registered in the CIA World Factbook. Roma population according to the 1991 census and http://www.ethnologue.com, last accessed on 17 May 2010. The share of ethnic Croats might have diminished, due to out-migration.

[ii] International Crisis Group (1999); European Court of Human Rights, Grand Chamber, Sejdić and Finci v. Bosnia and Herzegovina, judgment of 22 December 2009. Similar problems apply for the election of the second chamber of the parliament (Venice Commission 2001).

[iii] See also Bochsler (2010) for a more extensive discussion.

[iv] Similarly, candidate-based quotas were introduced for the election of members of small minorities in the local elections of 2008, but the elected candidates for small minorities in some cases belong to political parties which are known as the representatives of one of the constitutional nations – rather than of a small minority (Crnjanski-Vlajčić & Fetahagić 2009).

[v] The website www.ustavnareforma.ba [last accessed on 17 December 2010] collects propositions by political parties and other actors for the reform of the Bosnian state presidency. Among others, the propositions by SDA and GDS BiH (not dated), HDZ (14 July 2010), HDZ-1990 (1 July 2010), SBiH (27 January 2010), SBB (juin 2010), Naša Stranka (31 August 2009). Further, "Političke i ustavno-pravna platforma Stranke za BiH" (1 August 2006).

[vi] Narodna Skupština, Deklaracija o osnovama za razgovore o eventualnim promjenama ustava Bosne i Hercegovine i o zaštiti interesa Republike Srpske, 25. mart 2009.
http://www.narodnaskupstinars.net/lat/zipovi/ostalaakta/Deklaracija_o_osnovama_za_razgovore_o_eventualnim _promjenama_Ustava_BiH_i_o_zastiti_interesa_RS.pdf [accessed on 17 December 2010]

[vii] Slight changes in the rules, which are discussed as a reaction to the court rule, – for instance if the member of presidency elected from 'Republika Srpska' would no longer need to be a Serb – are, however, little convincing. They would only virtually return the right to be candidate to Bosniaks, ethnic Croats, and 'others' living in 'Republika Srpska': de facto, the elections remain ethnically based, as a consequence of the new ethnic Serb dominance in this entity.

[viii] As parties need to behave strategically when determining how many candidates they present, and votes need to be divided evenly among these candidates, the SNTV implies a difficult coordination. Coordination is, however, more difficult for large ethnic groups than for smaller ones.

[ix] Parliamentary elections are held by PR in large districts (14 and 28 mandates), with the Sainte-Laguë formula and no legal electoral threshold, so that the psychological effect of the electoral system is negligible, and results correspond widely to the real voting potential. Electoral thresholds apply for the regional seat allocation, but not so for the seat allocation in the two relevant electoral districts.
We do not rely on results of presidential elections, as the field of candidates and the vote distribution is affected by the majoritarian electoral rules. Particularly, strategic voting would lead to an overestimation of the potential of ethnic Croat SDP voters.

[x] If votes are distributed almost equally on six candidates, 16.7% of the votes might be necessary for a seat. With more candidates running, the maximal threshold of exclusion might drop. Seat guarantees matter, if guaranteed seats are allocated to candidates scoring substantially less votes than 16.7%. This might occur if a Croat candidate would be elected on a guaranteed seat with a lower vote share. This would occur, a) if there is no unique Croat candidate, so that Croat votes are split on several candidates. However, in this situation, the assumption of almost equally distributed votes does not hold, so that the threshold of exclusion does not rise; b) if a massively lower turnout among Croat voters occurs, it results in a drop in the the votes for Croat candidates . This would positively affect the threshold of exclusion *and* the vote shares of Bosniak, Serb, and multi-ethnic parties, to an equal degree, so that the calculations on which our scenario is based are not affected; c) Most ethnic Croats vote for non ethnic Croat candidates. This would lead to higher vote shares for non-Croat candidates, but also increase the threshold of exclusion for them.
17-18% might usually be a correct approximation of the threshold of exclusion. If a Croat wins a guaranteed seat with 12% of the votes (and no other Croat candidates win votes), the threshold of exclusion rises to 17.6%.

[xi] The Single Transferable Vote (STV) – a preferential voting system – shares many features with the SNTV, and many of the arguments made for the SNTV might equally be valid for the STV also. In this paper, we focus on the SNTV, as it imposes higher coordination costs for the political majority (here: the Bosniaks), and therefore, can help the minority to win substantial representation. STV would have the advantage over the SNTV to allow for intra-group competition also within small minorities (here: the Croats – which however in the discussed model is secured by the seat guarantee – ensuring a mandate in the state presidency for the Croats, even if their votes are divided over several candidates).

[xii] De facto, ethnic Croats with their voting power almost have the necessary number of votes to elect their own member of presidency. If Bosniak voters should decide to vote for a Croat candidate, who is supported solely by Bosniaks, they might elect him or her (on the side of the candidate elected by the Croats themselves), but their incentives are very low – as the same number of votes would also most likely allow them to elect a Bosniak member, so that strategic voting does pay out. Strategic voting might only be successful if it occurs in very large numbers *and* the Croat votes are heavily split on different candidates – simulations might establish the threshold beyond which such a scenario is likely. We expect that to be difficult to reach.

[xiii] Certainly, if the number of members is even, the chairperson might decide, but this entails the risk of strategic games over the agenda, so that key decisions are scheduled for those meetings or periods when the right chairperson is in office, and can give the decisive vote.

[xiv] A similar proposition has been discussed by Bogaards (2003). As it is based on artificial thresholds, it is less flexible and enables deadlocks where no candidate can be elected, leaving space for paradoxes.

[xv] For such a real-world situation, see Barben (2010)

[xvi] Note that in a multimember election in a single nationwide constituency by the single non-transferable vote, C would get elected, but also candidates with strong support from the other entity, or candidates with overall equally strong support, but coming from both entities.

[xvii] The logic of the limited vote, which works similar as the SNTV (see Grofman 1999; Lijphart 1984 for a discussion). This semi-proportional element makes strategic voting of Bosniak voters for nominally Croat candidates, which do represent the Bosniaks' interests, ineffective. In a semi-proportional system, if Bosniaks try to elect a candidate of their preference on the guaranteed seat for Croats – as in such situation, the Croats might have sufficient voting potential to elect a candidate of their preference (on a ballot of a party that is strong in RS).