**Methods for Selecting the Chief Executive in 2017**

**and**

**for Forming the Legislative Council in 2016.**

**Consultation**

**Submission from the de Borda Institute**

[**www.deborda.org**](http://www.deborda.org)

**Abbreviations**

av = irv = pv = stv alternative vote

bc Borda count

fpp first-past-the-post

irv = av = pv = stv instant run-off voting

mbc modified bc

pr proportional representation

pv = av = irv = stv preferential voting

qbs quota Bords system

stv = av = irv = pv single transferable vote

**INTRODUCTION**

The hksar paper, entitled as above, raises many questions, but this paper seeks to comment only on some of the points raised:

(a) the need to comply with the ideal outlined in 1.16, of ‘forging consensus’;

(b) the fact that the decision-making methodologies mentioned throughout, in 4.19 for example, refer only to simple or weighted majority voting;

(c) the absence in paras 3.24 and 4.08 of any in-depth discussion of preferential systems apart from irv.

Accordingly, this paper is divided into the following sections. Firstly, by way of introduction:

I decision-making in general; and

II electoral systems.

Then, more specifically, it will refer to:

III Method for Forming the Legislative Council in 2016, (para 5.08);

IV Electing the ce in 2017, (para 5.06); and finally, a brief note on…

V Electing the LegCo in 2020.

**I DECISION-MAKING**

* When discussing questions which are obviously multi-optional – the Size and Composition of the Nominating Committee, for example, {para 3.11 (I)}, or Voting Arrangements for Electing the ce (para 3.23) – using a simple or weighted majority vote might be adequate for any final ratification – but formulating a proposal for such ratification should best be facilitated by a more inclusive form of decision-making, such as the Modified Borda Count, (mbc).

Even in a very simple debate where there are only three options on the agenda – options ***A, B*** and ***C*** – any use of a binary voting procedure may be inappropriate.

Consider, as an example, the following voters’ profile, where 100 voters cast their preferences on the said three options.

**Table I A Voters’ Profile**

|  |  |  |  |
| --- | --- | --- | --- |
| PREFERENCES | NUMBER OF VOTERS | | |
| 49 | 3 | 48 |
| 1st preference | ***A*** | ***B*** | ***C*** |
| 2nd preference | ***B*** | ***C*** | ***B*** |
| 3rd preference | ***C*** | ***A*** | ***A*** |

In this situation, any simple (let alone weighted) majority vote on ***A, B*** or ***C*** would presumably fail, each losing by 49-51, 3-97 and 48-52 respectively.

Perhaps, therefore, a more sophisticated methodology should be employed. Even a cursory glance at Table I would suggest that the social choice of this particular electorate is option ***B***, the 1st preference of very few but the 2nd of many and the 3rd of none. And yet:

…in a **plurality** vote, option ***A*** is the winner, with a score of 49;

…in a **two-round system**, (trs), a second ballot between ***A*** and ***C***, the two leading options from the first round plurality vote, means that option ***C*** comes out on top, by 51 to 49;

…with **instant run-off voting**, (irv), option ***B*** is the first to be eliminated, and option ***C*** again appears to be the most popular;

…in a **modified Borda count**, (mbc), with 3 points for a 1st preference, 2 for a 2nd and 1 for a 3rd, the scores are ***A*** 198, ***B*** 203 and ***C*** 199, so option ***B*** is seen to be the most liked;

… while in a **Condorcet** count, ***B*** is more popular than ***A***, 51:49, so ***B > A***; likewise ***B > C*** by 52:48; and ***C > A*** by 51:49, so ***B*** wins 2 pairings, ***C*** wins 1 and ***A*** wins none, so the social choice is again option ***B***.

This would suggest that the most accurate voting procedures are actually an mbc and a Condorcet count,[[1]](#footnote-1) and this is not least because they are the only two procedures which take all preferences cast by all into account. When choosing the electoral system for the ce, therefore, or when making any other multi-option decision, the consensus opinion of LegCo could be identified by mbc and, as outlined above, this could then be subject to a 2/3rds ratification.

**II ELECTORAL SYSTEMS**

Both articles 3.24 and 4.08 refer to different electoral systems: those mentioned include (a) plurality voting or first-past-the-post, (fpp); (b) trs; and (c) irv, but there is little or no discussion of systems which are far more likely to meet the “interests of different sectors of the society,” {para 2.07 (I)} and/or cater for “gradual and orderly progress” {para 2.07 (III)}.

To identify a methodology by which a full electorate may choose its ce, consider the following voters’ profile, where a hypothetical electorate of just ten voters is casting their preferences on four candidates, ***A, B, C*** and ***D***; and while some cast all of their preferences, some opt for only a partial vote. Yet again, the outcome is seen to depend more upon the methodology used rather than the actual preferences of the ten voters.

**Table II A Second Voters’ Profile**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Preferences | Voters and their preferences | | | | | | | | | |
| Ms *i* | Mr *j* | Ms *k* | Mr *l* | Ms *m* | Mr *n* | Ms *o* | Mr *p* | Ms *q* | Mr r |
| 1st | ***A*** | ***A*** | ***A*** | ***A*** | ***B*** | ***C*** | ***C*** | ***D*** | ***D*** | ***D*** |
| 2nd | ***B*** | ***B*** | ***B*** | ***C*** | ***D*** |  | ***B*** | ***B*** |  | ***B*** |
| 3rd | ***C*** | ***C*** | ***C*** |  | ***C*** |  | ***D*** | ***C*** |  | ***C*** |
| 4th | ***D*** | ***D*** |  |  |  |  | ***A*** | ***A*** |  | ***A*** |

In this instance…

…in **plurality** voting or **fpp**, the scores are ***A*** 4, ***B*** 1, ***C*** 2 and ***D*** 3, so candidate ***A*** is the winner;

…in **trs**, the second round is between ***A*** and ***D***, which ***D*** wins by 5:4;

…with **irv**, the stage (i) scores are ***A*** 4, ***B*** 1, ***C*** 2 and ***D*** 3, so candidate ***B*** is first eliminated, and Ms *m*’s vote is therefore transferred to ***D***. With stage (ii) scores of ***A*** 4, ***C*** 2 and ***D*** 4, the next elimination is ***C***: Mr *n*’s vote is non-transferable, but Ms *o* gives her (2nd preference to ***B*** which has been eliminated and her) 3rd preference to ***D***. So with the stage (iii) score at ***A*** 4 and ***D*** 5, ***D*** wins again.[[2]](#footnote-2)

…in a **bc**, points are awarded to (1st, 2nd … last) preferences according to the rule (4, 3 … 1),[[3]](#footnote-3) regardless of how many preferences have been cast;[[4]](#footnote-4) so the scores are ***A*** 19, ***B*** 22, ***C*** 23 and ***D*** 19, which means the winner is ***C***;

…in an **mbc** of *n* candidates, if a voter casts only *m* preferences, where *n > m > 1*, points are awarded to (1st, 2nd … last) preferences according to the rule (*m, m-1 … 1*), so the scores are ***A*** 16, ***B*** 20, ***C*** 16 and ***D*** 15; the winner is therefore ***B;***

…in a **Condorcet** count, ***A*** draws one pairing for a score of 0.5; ***B*** wins 2.5; ***C*** wins 2 and ***D*** wins 1; so yet again, the Condorcet social choice coincides with that of the mbc, and it is ***B***.

Collating all of these outcomes together gives Table III and, as can be seen from the 1st row, the social choice can be either candidate ***A***, or ***B***, or ***C*** or ***D*** – i.e., it can be anything at all – depending on the voting procedure used.

**Table III A Comparison of Social Rankings**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SOCIAL RANKING | VOTING METHODOLOGY | | | | | |
| Plurality | trs | av | bc | mbc | Condorcet |
| 1st | ***A*** | ***D*** | ***D*** | ***C*** | ***B*** | ***B*** |
| 2nd | ***D*** | ***A*** | ***A*** | ***B*** | ***C/A*** | ***C*** |
| 3rd | ***C*** | ***-*** | ***-*** | ***A/D*** | ***-*** | ***D*** |
| 4th | ***B*** | ***-*** | ***-*** |  | ***D*** | ***A*** |

The choice of electoral system, therefore, is crucial. If the wrong methodology is used, whether by the nominating committee or by the electorate as a whole, then maybe the outcome will not represent the ‘will of [those] people’.

For reasons similar to those involved in decision-making, this paper recommends the mbc. It is inclusive; indeed, of the voting procedures discussed, it is the only one which is not majoritarian.[[5]](#footnote-5)

**III METHOD FOR FORMING THE LEGISLATIVE COUNCIL IN 2016**

Most of the “issues to be considered” (para 4.09) relate to multi-option questions. As stated, the number of LegCo seats, for example, (para 4.12) could remain at 70, or it could be increased or decreased. It is submitted that, as outlined above, the resolution of all such multi-option scenarios can best be resolved by initially conducting an mbc on the various options raised, 60, 70, 80 and so on, to identify the social choice; and only then by using a majority vote to ratify that outcome.

Furthermore, in such a debate, any individual member of LegCo will almost certainly have single-peaked preferences,[[6]](#footnote-6) in which case, the collective opinion will also be single peaked. Such a methodology would almost guarantee that those concerned were able to “forge [a] consensus” (para 1.06).

**IV ELECTING THE CE IN 2017**

It is again submitted that an mbc would be a suitable electoral system for the election of the ce. It would indeed “be practical and practicable, simple and easy to understand, convenient to voters in exercising their voting rights, and conducive to maintaining an open, fair and honest electoral system,” {para 2.23 (iii)}.

If there are six or fewer than six candidates, voters could be asked to cast (a maximum of) six preferences. If there are more than six, and definitely if there are more than ten, then the voters could be asked to cast, in like manner, (a maximum of) six preferences.

In the first scenario where there are few candidates, the mbc actually encourages the voter to cast all of his/her preferences. No one votes ‘against’ anybody or anything; instead, albeit with varying degrees of enthusiasm, voters vote only ‘for’. Thus, on those occasions where all the voters submit a full ballot, everyone in effect recognises the validity of the said candidates’ candidatures. The mbc is indeed inclusive.

Many electoral systems, not least first-past-the-post (fpp), are adversarial, and the use of such systems has sometimes provoked violence. In the 2007 elections in Kenya, for example, the use of fpp turned the election into little more than a tribal headcount. Similarly, the Ivory Coast’s use of trs in 2010 also acted as an exacerbating factor.

Rather than a divisive, majoritarian methodology, therefore, an inclusive methodology like the mbc would better help to ensure the maintenance of “communications and dialogues with various sectors of the community,” (para 1.16).

**V ELECTING THE LEGCO IN 2020**

Eventually, in the next electoral contest after 2016, it is to be hoped that consideration will be given to the quota Borda system, qbs, an electoral system which is based on an mbc and which, therefore, encourages the voters to cross any divides that may be in society, gender and party divides as well as any ethnic ones. Unlike the mbc by itself, however, qbs is proportional and suitable for use in, say, 4-seater constituencies.[[7]](#footnote-7)

**VI CONCLUSION**

If, as suggested in para 2.09, decisions are to be “conducive to the balanced participation of all sectors and groups of society”, and if electoral systems could be such so that “the evolutionary process could not be taken forward too rapidly, but [could] proceed in a gradual and orderly manner”, (para 2.12), then it is submitted that:

(i) multi-option decisions in LegCo should be facilitated by using an mbc to identify the consensus of those voting, prior to a (simple or weighted, as required) majority vote ratification;

(ii) elections for the ce could be conducted by mbc, with voters asked to cast a maximum of six preferences; and

(iii) consideration should be given to using qbs in four-seater constituencies for the 2020 LegCo elections.

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1. The two methodologies can be compared to the rules of a sports competition. A knock-out tournament (majority voting) can be a bit capricious, and this is definitely true if there are no seeding arrangements. A league system (Condorcet), which counts the number of matches (pairings) won, is more reliable, as too is a tally of goal difference (a sort of Borda count). In most seasons, the winner of the league also has the best goal difference… but not always, and it is certainly not guaranteed. Similarly, in voting, an mbc social choice is often the same as a Condorcet outcome and, if such is the case, this result can be considered to be very accurate indeed! [↑](#footnote-ref-1)
2. Interestingly, Papua New Guinea uses irv, with the added proviso that voters must cast at least three preferences, so to guarantee, as it were, that people cross the tribal divide. [↑](#footnote-ref-2)
3. Some users prefer to use the rule (3, 2 … 0). [↑](#footnote-ref-3)
4. Another rule for counting partial votes suggest options for which the voter has not cast any preference should all get an average score of the points not used.

   Both of these rules incentivise the voter to cast only a single preference, in which case, of course, the ballot can deteriorate into a plurality vote. [↑](#footnote-ref-4)
5. The mbc is not proportional. It may be used in decision-making, or in the election of only one person. It should not be used, however, when electing a number of representatives, as in LegCo. [↑](#footnote-ref-5)
6. If the debate related to a choice between 50, 60, 70, 80 and 90, then anyone opting for the 80-seat option as his 1st preference, would undoubtedly have 90 or 70 as his 2nd preference, with 60 and 50 descending from there. His colleague might have a 1st preference of 50, in which case her subsequent preferences will almost certainly be increasing in size, 60, 70, 80 and, as her last preference, 90. Anyone casting (1st, 2nd … 5th) preferences for 70, 50, 90, 60 80 – a vote with three ‘peaks’, would find it difficult to explain himself. [↑](#footnote-ref-6)
7. Whatever figure is chosen – and somewhere between 4 and 6 is recommended – all constituencies should contain roughly the same size of electorate, and all should elect the same fixed number of representatives. [↑](#footnote-ref-7)