Dynamic Formula
Report to Governors at Annual Meetings 2016

I. Introduction

1. The 2015 Shareholding Review Report to Governors\(^1\) (‘the Report’) included a Roadmap to Implementation of the Review (‘the Roadmap’) that was endorsed by Governors at the 2015 Annual Meetings in Lima. As part of the Roadmap, Executive Directors committed to work to develop a dynamic formula based on the formula guidance contained in the Report, aiming to conclude by the 2016 Annual Meetings. The Report noted that an agreed formula was one of the key elements needed to ensure that the next realignment of shareholding is strongly anchored in agreed principles and based on sound and shared analysis. The Roadmap also included work on the medium to long term future role of the WBG – known as the “Forward Look” - in 2016 and consideration of shareholding realignment and of a capital increase in IBRD and IFC in 2017.

2. The 2016 Annual Meetings are a key point in the Roadmap endorsed by the Governors. The discussions on a Selective Capital Increase (SCI), including its size and rules on allocation of shares, building on the dynamic formula, are what will determine the realignment of member countries’ voting power. Agreement on a formula is a critical step in the Roadmap that paves the way for these upcoming discussions. The agreement, which is based on extensive discussion of the options, required substantial compromise on all sides. As a result, the Roadmap endorsed by Governors is on track, with significant discussions to come in the next stage.

3. For much of its history, IBRD shareholding discussions took as their starting point the outcome of IMF quota reviews, though a clear break was made in 2010 reflecting the distinct mandate of the World Bank as a development institution. The 2010 voice reforms enhanced the voice and participation of Developing and Transition Countries (DTC) in the World Bank Group, notably through an increase in voting power. Other voice reforms, including the creation of an additional seat to strengthen the representation of Sub-Saharan Africa, gave added impetus to a distinct World Bank approach to shareholding and voice. As part of this approach, an agreed starting point for shareholding discussions, based on data-driven analysis, is needed. The role of the dynamic formula is to provide the necessary anchor for shareholding discussions reflecting the evolution of the global economy and countries’ contributions to the World Bank Group mission. It will be an important part of IBRD Governance, providing a basis for assessing the balance of shareholding at periodic shareholding reviews. The formula calculations contribute to, but do not represent the outcome of, such periodic reviews.

4. Executive Directors’ work on the dynamic formula has been grounded in the shareholding review principles in the Report that were endorsed at the Lima Annual Meetings:

   (a) Regular shareholding reviews will take place every 5 years based on agreed principles and a dynamic formula.

\(^1\) 2015 Shareholding Review Report to Governors, DC2015-0007
(b) The guiding principle for shareholding realignments is to achieve an equitable balance of voting power. This can be assessed by looking at the balance of voting power between country groups and/or under-representation country-by-country².

(c) As a global cooperative, all voices are important. Where possible decision making is by consensus. All members have basic votes, protected in the constituent documents of the respective WBG entities.

(d) The smallest poor member countries shall be protected from dilution of their voting power.

(e) Shareholding brings both rights and responsibilities, and all shareholders have an interest in the long term financial sustainability of the WBG, including IBRD and IFC’s AAA credit rating, contributing in line with their capacity to do so.

5. The formula work has also taken specific account of the formula guidance endorsed by Governors, specifically:

(a) The formula should reflect and be consistent with the roles and responsibilities of shareholders in the WBG.

(b) The formula should be simple and transparent, producing results that can be readily understood and that are broadly acceptable to the membership.

(c) It should be based on readily available, timely and high quality data, and should capture broad economic trends avoiding excessive volatility.

(d) It will be based primarily on economic weight and the WBG’s development mission, including measures of GDP and IDA contributions. Other variables that are consistent with this guidance may be considered.

(e) Shareholding Reviews will base their work on the output of the formula which will give clear guidance for adjustments in shareholding.

6. The program of work on the formula started shortly after the Lima Annual Meetings. It has included formal engagements in the Committee on Governance and Administrative Matters (COGAM), open to all Executive Directors on an equal basis, as well as informal meetings and technical briefings. A broad range of issues has been discussed, including both the components of the formula itself – the variables, choice of underlying data, the weights – and how the formula will be used in practice.

II. Working approach

7. To implement the formula work identified in the Roadmap, Executive Directors committed at the outset to an open, inclusive and transparent process with data and simulations of different options for the formula made available to all Directors. Discussions began with consideration of the options for each of the primary components of the formula (as in paragraph 5 (d) above) followed by discussions of the functional form of the formula and the weights to be attached to its components. Executive Directors also discussed options on how to implement Governors’ commitment to protect the smallest poor countries in a shareholding review, including through the

² The 2015 Shareholding Review Report to Governors noted that “there are different interpretations of equitable voting power, in particular whether to give priority to a fair balance of voting power country by country or between groups of countries” (DC 2015-0007 para 40).
use of Basic Votes and allocations of shares under an SCI. In parallel, the discussion also covered some wider issues around the use of the formula.

8. To support the consideration of options for a formula combining GDP and IDA measures, a formula simulation tool developed by the Corporate Secretariat was made available to all Executive Directors and their staff. The formula tool allows users to readily test the impact of changes to the weights and definition of the GDP and IDA variables on the calculated shareholding of both individual countries and constituencies. At all stages of the discussion, simulations of formula options were prepared by the Corporate Secretariat and brought out the implications of the choices for each of the variables.

III. The Dynamic formula

9. A dynamic formula combines data in a consistent way based on the variables that shareholders have agreed to include. Its output will be "calculated shareholdings" that provide the basis for a consistent assessment of under- or over-representation of members. It also constitutes a key input to and clear guidance for a transparent and principles-based approach to adjusting shareholding in a Selective Capital Increase (SCI). It is intended to be a durable construct that can serve this role for a period of time.

10. However, it should be noted at the outset that any formula is a compromise. For example, it is not possible for a formula to replicate current shareholding - which reflects the history of all past reviews and the negotiations that took place as part of them. The formula is intended as an important input for a realignment, not as the final outcome for such realignment. It is expected that many other factors will need to be taken into consideration during any shareholding review or SCI negotiations.

11. The Forward Look discussion, a parallel exercise that is also part of the 2015 Shareholding Review Roadmap, has identified the importance of the WBG serving its entire membership effectively. Reflecting this in shareholding suggests recognizing also that all members have an important voice. Discussions of voice may also take account of the need for a fair regional balance and a fair balance between countries with different weights in the global economy. The proper place to address these important concerns is in shareholding reviews and SCI negotiations, with careful guidance from shareholders, as they cannot be adequately captured nor addressed in a formula.

12. Based on our discussions over the last year, we recommend that the formula consist of two distinct variables: a measure of Economic Weight (EW) and a measure of contributions to IDA.

13. **Economic Weight** will be measured by GDP, using a blend of Market Exchange Rates (MER) and Purchasing Power Parity (PPP). Discussion of this variable focused on two issues in particular: the appropriate blend of MER/PPP GDP and the number of years over which to average GDP in order to smooth fluctuations. Other approaches to measure Economic Weight were also discussed, notably GNI, as well as the use of *per capita* measures, and the inclusion of a population variable. Bearing in mind the formula guidance and taking account of a number of technical issues, it has been decided to focus on the GDP blend variable only as the measure of Economic Weight. While a number of options were considered, including a 50/50 MER/PPP blend and averages over
3 and 7 years, the balance of opinion was towards the 60/40 MER/PPP blend averaged over 5 years.

14. On IDA contributions, the discussion focused on how to balance recognition of historic contributions to IDA with an incentive for new and traditional donors to participate in future IDA replenishments, recognized as central to the organization’s capacity to achieve its twin goals. A range of views was expressed on the options for weighting recent and historical IDA contributions and the overall weight of IDA in the formula. Options to adjust the IDA variable to take into account burden sharing, for countries whose recent contributions to IDA exceed their calculated burden share\(^3\) were also considered. On balance, it was found that the burden sharing options added complexity to the formula without significantly enhancing the contribution of the IDA variable to the distribution of calculated shareholding. The recommended IDA variable gives 80 per cent weight to the most recent three IDA replenishments and 20 per cent weight to earlier replenishments, which was seen overall as a fair balance of encouraging continued support for IDA while also recognizing the generosity of past contributions.

15. Other potential formula variables have been considered, notably borrowers’ interest payments and donors’ contributions to trust funds. In light of the technical issues involved and the range of views on the case for and against including each of these in the formula, it was decided not to consider them further.

16. Discussions between Executive Directors focused in particular on the definition of the variables as well as on different options for the weights to be used for Economic Weight and IDA respectively, including 90/10, 85/15, 80/20, 75/25 and 70/30. A few Executive Directors expressed preferences for options outside this range. The broadest level of support was reached around the adoption of a simple formula that would give an 80 per cent weight to GDP, measured using a 60/40 blend of MER and PPP, averaged over 5 years, and a 20 per cent weight to an IDA variable that is an 80/20 blend of recent and historical IDA contributions. The three most recent replenishments will count as recent. The formula will use the most recent data available at the time, and pledges made in the context of IDA18 will be reflected as recent contributions in the IDA variable. Donors contributing to IDA for the first time will be provided with a booster to ensure that their contribution receives the full weight of the recent component of the IDA variable. A compression factor of 0.95 will be applied, as described in paragraph 18.

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C = (0.8 \cdot EW + 0.2 \cdot IDA)^{0.95}
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Where \(C = \text{Calculated Shareholding}\)

\(EW = \text{GDP blend, 60 per cent MER, 40 per cent PPP}\)

\(IDA = \text{share of IDA replenishments, 80 per cent last 3 replenishments, 20 per cent historic.}\)

17. Inclusion of IDA with a weight of 20 per cent and a large role for the three most recent replenishments reflects the importance of IDA in meeting the WBG twin goals and the expectation

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\(^3\) Equivalent to the notional burden share concept used by IDA to determine the economic capacity of a country to contribute to a replenishment.
that shareholders contribute to IDA in line with their capacity to do so, consistent with shareholders’ view of a World Bank for the whole membership. While past share allocations have taken account of IDA contributions, they have done so in an ad hoc manner reflecting the context of each negotiation, as for example in the one-off recognition of past IDA contributions in the 2010 shareholding review. This is, therefore, a significant step forward. With a very significant weight for GDP, the dynamic formula also provides the basis for moving towards an equitable balance of voting power over time as its output will continuously reflect the evolution of the world economy. With continued economic convergence between advanced and developing economies, it is expected to be compatible with Target 10.6 of the UN Sustainable Development Goals4.

We recommend the adoption of a simple formula, as outlined in paragraph 16 above.

IV. Use of the dynamic formula in shareholding reviews

18. Voice reform at the World Bank has so far been characterized by movement in significant but manageable steps, maintaining a steady direction of reform. Due to the broad range of Economic Weight among IBRD member countries, in combination with the IDA variable, the formula generates calculated shareholding values that are more dispersed than the current distribution of shareholding. With a formula being adopted for the first time, certain adjustments may be necessary in an SCI, to smooth the impact for individual shareholders, secure broad acceptance by the membership and protect the smallest poor. These include the role of Basic Votes, which are enshrined in the Articles of Agreement and which will be important in protecting small countries. However, even recognizing that the formula provides a key starting point for shareholding discussions, there may well be a case to align the formula’s calculations more closely to the distribution that shareholders have in the past been ready to agree. We therefore recommend applying a compression factor of 0.95 as part of the formula.

We recommend that the formula be used in a way that ensures a balanced and equitable outcome in line with our agreed shareholding principles and formula guidance. As such, we recommend applying a 0.95 compression factor. Overall, discussion in the next stage should build on (and not reverse) the steps towards equitable shareholding that have already been taken.

Past voice reforms and the Board

19. Earlier phases of voice reform have included other significant steps aimed at improving the legitimacy and governance of the IBRD. Voice discussions have also encompassed measures to strengthen diversity in management and staff, deepen responsiveness to developing county views on development by expanding field presence and decentralization of Bank staff, increase access to information of Bank operations to shareholders and, establish a merit-based and transparent selection of the Bank’s President.

20. The Board size and constituency structure seek to balance representation and efficiency in decision making, with constituencies formed voluntarily by countries, within the upper and lower

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4 Target 10.6 of the SDGs: “Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions”.
limits on constituency voting power set in the election rules. Agreements within constituencies on rotation of roles affect the composition of the Board. The voluntary principle of constituency formation and the associated constituency agreements have served the Board well, with a mix of diverse constituencies and a fair regional balance.

In the interest of ensuring the smooth launch of a formula-based shareholding review process, Executive Directors recommend that the next stage of discussion focus on rebalancing shareholding and not discuss Board size, structure or regional composition.

Allocating shares in an SCI

21. As mentioned above, the formula provides an important starting point for shareholding discussions but its calculations do not represent the outcome of the review, which will reflect decisions by shareholders on how to implement a realignment and how to allocate shares. Consistent with the process used to develop the formula, Executive Directors are committed to ensuring a transparent and rules-based approach to such allocations. Initial discussions of share allocation methodologies have covered, among other things, options of allocating shares in line with the formula, means of addressing the most significant cases of under representation through share allocation, and mechanisms to limit dilution of individual members. There is a strong interest among Executive Directors in ensuring that, in addressing under-representation, individual countries are not diluted excessively. The size of the SCI and the allocation rules that are to be agreed (along with the new data on GDP and from partner contributions to IDA18 that will be available by 2017) will all play a part in determining the outcome of an SCI.

22. All countries have the right not to be diluted when new capital is issued under the Articles of Agreement. Executive Directors are clear that, in order to achieve the broad support of the membership that is necessary for an SCI to proceed, excessive reductions in shareholding at the level of individual countries should be avoided. Options such as limits on the dilution of the existing shareholding of members will therefore be considered in the SCI as part of a transparent and rules-based approach to the discussions. Rules-based limits have played a part in previous SCIs, including in 2010.

23. To finalize the implementation of the 2015 Shareholding Review, shareholders will need to discuss and agree on the rules for allocating shares to achieve the objectives reflected in shareholding review principles.

Executive Directors recommend that in rebalancing shareholdings, an objective should be to produce a balanced and broadly acceptable outcome that addresses under-representation and moves towards equitable shareholding over time and reflects the evolution of the global economy and countries' contributions to the World Bank Group’s mission. As a result, in the outcome of the review, the voting power of DTCs should not be reduced. In order to smooth the impact for individual shareholders as necessary, Executive Directors recommend agreeing on transparent share allocation rules and have agreed to discuss options to limit the dilution of individual countries.

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5 See for example DC2010-0006 para 13.
The role of forbearance

24. In some past SCIs, some under-represented shareholders have chosen not to take up some or all of the shares allocated (known as “forbearance”). For example, in 2010 China, Germany, Greece, Portugal, Spain and the United States all agreed not to take up part of their eligible shares. While these are voluntary decisions to be taken in the context of an SCI, it is recommended that Shareholders consider a principles-based approach to forbearance in order to smooth shifts in shareholding in the collective interest of achieving a broadly supported outcome in terms of voting power.

Basic Votes and protection of the smallest poor

25. There is a long standing commitment by Governors – reiterated in the principles agreed at Lima - to protecting the smallest poor countries from dilution in shareholding reviews. COGAM has reviewed the tools available to deliver this protection including issuing additional shares to smallest poor countries. Basic Votes are a key element of protection of voting power for the smallest countries, with the benefit that they are adjusted automatically as capital increases.

26. Consideration will need to be given to the definition of the list of Smallest Poor countries to protect. The 2010 definition of the Smallest Poor used a threshold of shareholding as its measure of size, and whether to maintain this definition will need to be decided in the next stage of discussions.

27. Basic Votes at their current level may not be sufficient to protect the voting power of all members of the smallest poor group of countries (based on the 2010 definition) in the absence of additional measures which also need to be discussed and agreed, for example, additional allocations of shares to the smallest poor countries. As the formula itself is intended to be a durable component of shareholding reviews, an increase in Basic Votes to strengthen protection of the smallest and poorest could serve as a complement to the formula.

28. An increase in Basic Votes would require an Amendment of the IBRD Articles of Agreement and further careful consideration of the size of the increase. Executive Directors recommend exploring a full range of options for protecting the smallest poor countries, including an increase in Basic Votes, as part of the upcoming SCI discussions.

Conclusion

29. To conclude the first stage of work identified in the 2015 Shareholding Review Roadmap, Executive Directors recommend the adoption of the dynamic formula proposed in this report. It reflects the formula guidance endorsed by Governors in October 2015 and balances a range of views on the variable definitions and weights. As such, it represents a significant set of compromises across the membership. The expectation is that the dynamic formula, which will

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6WBG Voice Reform: Enhancing Voice and Participation of Developing and Transition Countries in 2010 and Beyond (DC2010-0006)
capture the evolution of the global economy and countries’ contributions to the World Bank mission, will serve as the basis of regular shareholding reviews that will lead to an equitable balance of shareholding over time and reflect shareholders’ rights and responsibilities to the institution.

30. In recommending the form, variables and weights for the dynamic formula, Executive Directors have completed the first step of the process set out in the Roadmap to Implementation of the 2015 Shareholding Review. Looking ahead to the next stage of discussion when the focus will turn to a rebalancing of shareholding and potential capital increases, Executive Directors propose that Governors endorse the following package of commitments:

(i) A continued commitment to sustain the steps taken so far in voice reform and to the agreed shareholding review principles endorsed by Governors in Lima, aiming to build on (and not to reverse) the steps towards equitable shareholding over time.

(ii) A commitment to use the dynamic formula, as described in this paper, to deliver voice reform in manageable steps with broad support from the membership. In order to balance the distribution of calculated shareholding between the smallest and largest economies we recommend using a 0.95 compression factor.

(iii) A commitment to focus on rebalancing shareholding in the next phase of the Roadmap and not to discuss changes to the Board size, structure or regional composition;

(iv) A commitment to the objective of producing a balanced outcome in the upcoming SCI that addresses under-representation of individual countries while avoiding excessive dilution. The formula will be used along with transparent share allocation rules which will be explored, including limits on dilution.

(v) A commitment to discuss the options in the next stage for a principles-based approach to forbearance in order to smooth shifts in shareholding in the collective interest of achieving a broadly supported outcome in terms of voting power;

(vi) A commitment to explore a range of options including an increase in Basic Votes and additional share allocations to the smallest poor members as part of the upcoming SCI to ensure meaningful representation for all shareholders.
Annex: Roadmap to implementation of the 2015 review

**2015 AMs**
- 2015 Review Completed
- Governors endorse roadmap to implementation of 2015 review
- Launch Work on Dynamic Formula
- WBG Forward Look exercise launch

**Spring 2016**
- Dynamic formula interim report
- WBG Forward Look interim report

**2016 AMs**
- Dynamic Formula complete
- WBG Forward Look report

**Fall 2017**
- IBRD SCI/GCI
- IFC SCI/GCI

**2018 AMs**
- Review of Representation & Responsiveness

**IDA Track**

- **November 2015**
  - IDA Mid-Term Review

- **December 2016**
  - IDA18 Replenishment Negotiations end

- **November 2018**
  - IDA18 Mid-Term Review

- **December 2019**
  - IDA19 Replenishment Negotiations end