The Brookings Institution

Key Features for Governance Reform of the IMF

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Presentation at a seminar for the Executive Board of the International Monetary Fund

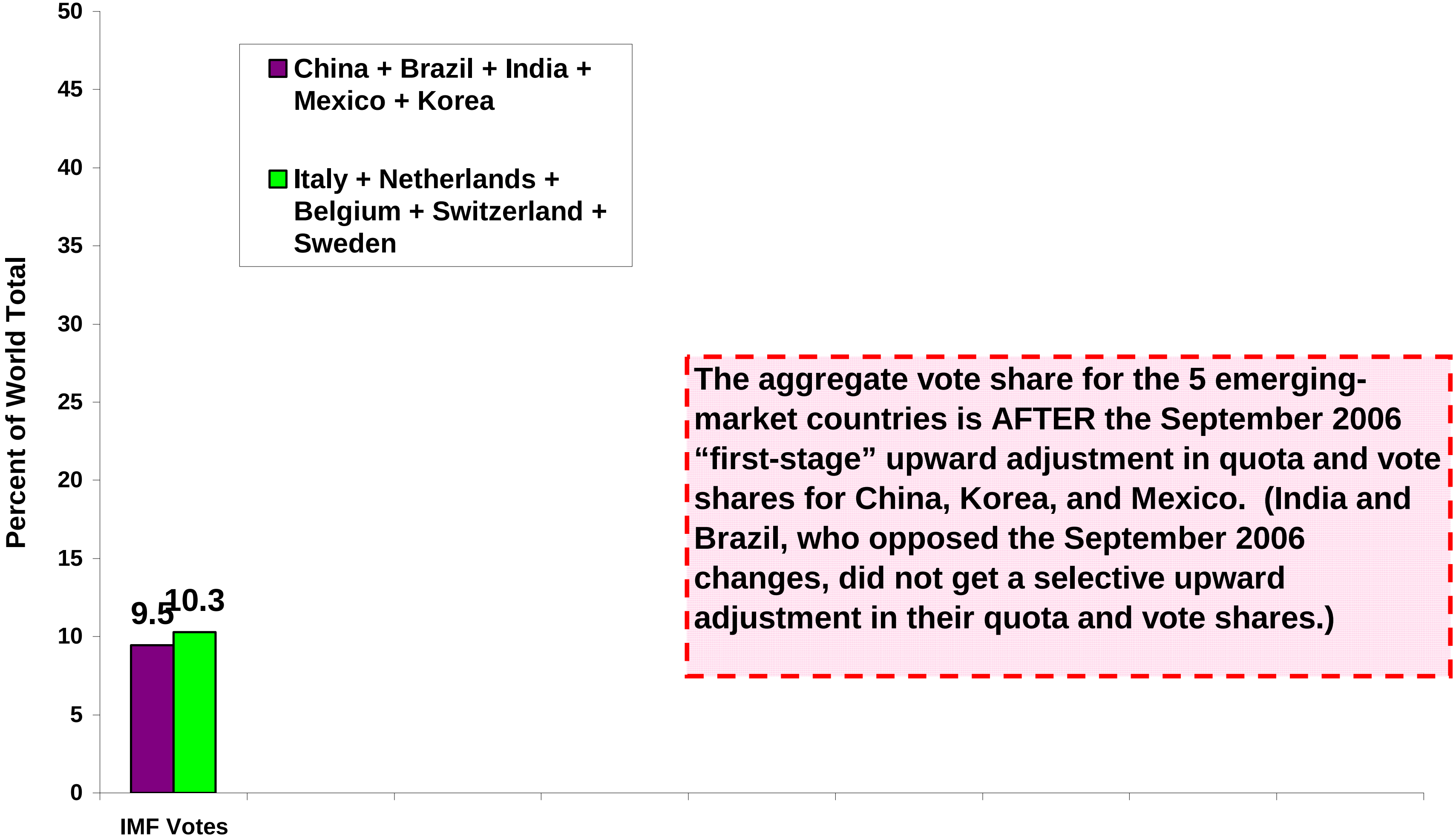
- **All participants in the ongoing discussions appear to agree that there are significant problems with existing governance arrangements – for the IMF, and also for the World Bank institutions.**

- **Perhaps the most problematic dimension of governance:**

  Voting shares and Executive Board constituencies are "unbalanced" – increasingly out of line with measures of relative status in the world economy.

- **A single example: 5 emerging-market economies (Brazil, China, India, Korea, Mexico) compared with 5 high-income European economies (Italy, Netherlands, Belgium, Sweden, and Switzerland).**

Five Emerging-Market Economies versus Five European Economies, Shares in World Total of Key Variables



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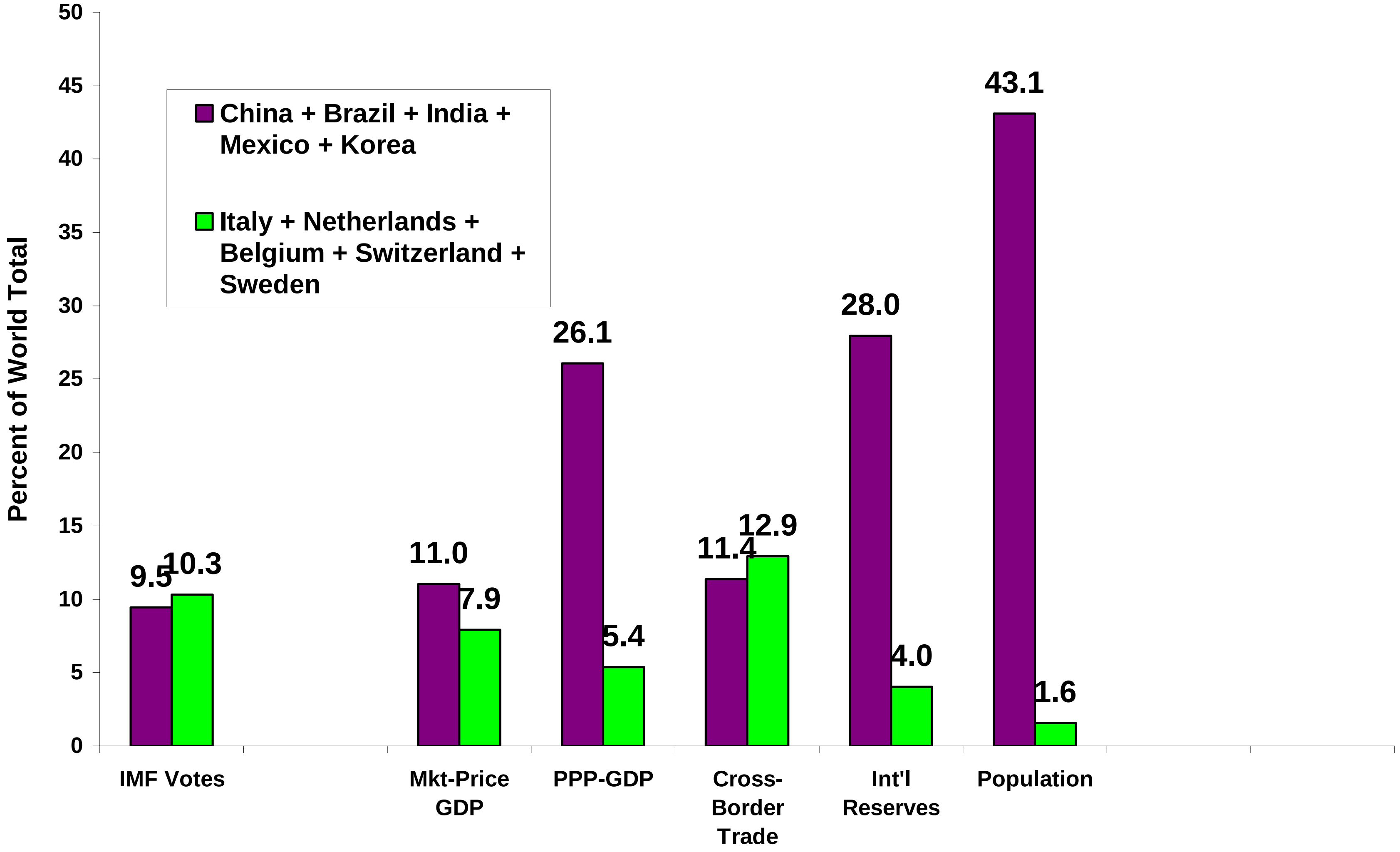


Three Basic Principles for Governance of International Institutions

- **Governance procedures should be adapted to the particular functions of an institution.**

- Governance procedures should foster stability of the institution through time, and inspire confidence in its operations.

- But governance procedures should also be flexible enough to adapt to important sustained changes in circumstances.

IMF Governance & World Bank Governance

- **The Articles of Agreement of the IMF and the IBRD provide for a parallel and, in most respects, virtually identical governance structure.**

  The IBRD's allocation of capital subscriptions, voting shares, and its other governance procedures differ in only minor details from those of the IMF.

  The governance provisions for IDA have some important differences from those of the IBRD. But even IDA governance reflects many features of the IBRD Articles.

- **However, if governance should logically depend upon function, why should governance structures for the IMF be parallel to governance structures for the World-Bank-institutions? And why shouldn't governance details differ considerably among the World Bank institutions themselves?**

The Original Concept of the IMF at Bretton Woods

The idea was to create an intergovernmental lending intermediary.

All member countries would “contribute” resources.

All members would be able to use the resources in times when payments imbalances needed to be financed.

Payments deficits and surpluses would oscillate over time, so each country would at times be in surplus at other times in deficit. Etc.

The lending-intermediary operations were perceived as the IMF’s primary function.

But much has changed!

What Are the Most Important Functions of the IMF Today and for the Future?

- **Surveillance and crisis prevention**:
  the IMF as an "adjustment referee" and a "cooperation catalyst," a role important for *all* IMF members.

- **Collective crisis management**.
- **Collective prudential overview of supervision and regulations of financial systems**.
- More generally, **oversight, monitoring, and implementation of the "working norms and rules" of the evolving international financial system.**

- **Intergovernmental lending-intermediary operations** that smooth the financing of balance-of-payments imbalances:
  an important function, but less important than before,
  and certainly not exclusively the dominant function.

- **The original Bretton Woods way of determining quotas and voting power emphasized the lending-intermediary roles of the IMF.**

- **All subsequent discussions of quotas and votes, and quota formulas, have had the same emphasis.**

- **But if the IMF's primary functions today and in the future are surveillance, crisis prevention, crisis management, and monitoring oversight,**

  the traditional emphasis on the IMF's borrowing and lending operations when determining quotas and voting power is increasingly anachronistic.

- Analysis should accordingly make a clear distinction between variables that have a bearing on **relative status in the world economy *broadly considered*** versus variables that pertain to countries' "contributions" and/or "needs" as participants in the IMF's and World Bank's role as intergovernmental lending intermediaries.

- **Governance reform should focus more on the first class of variables – measuring *relative status in the world economy broadly considered*.**

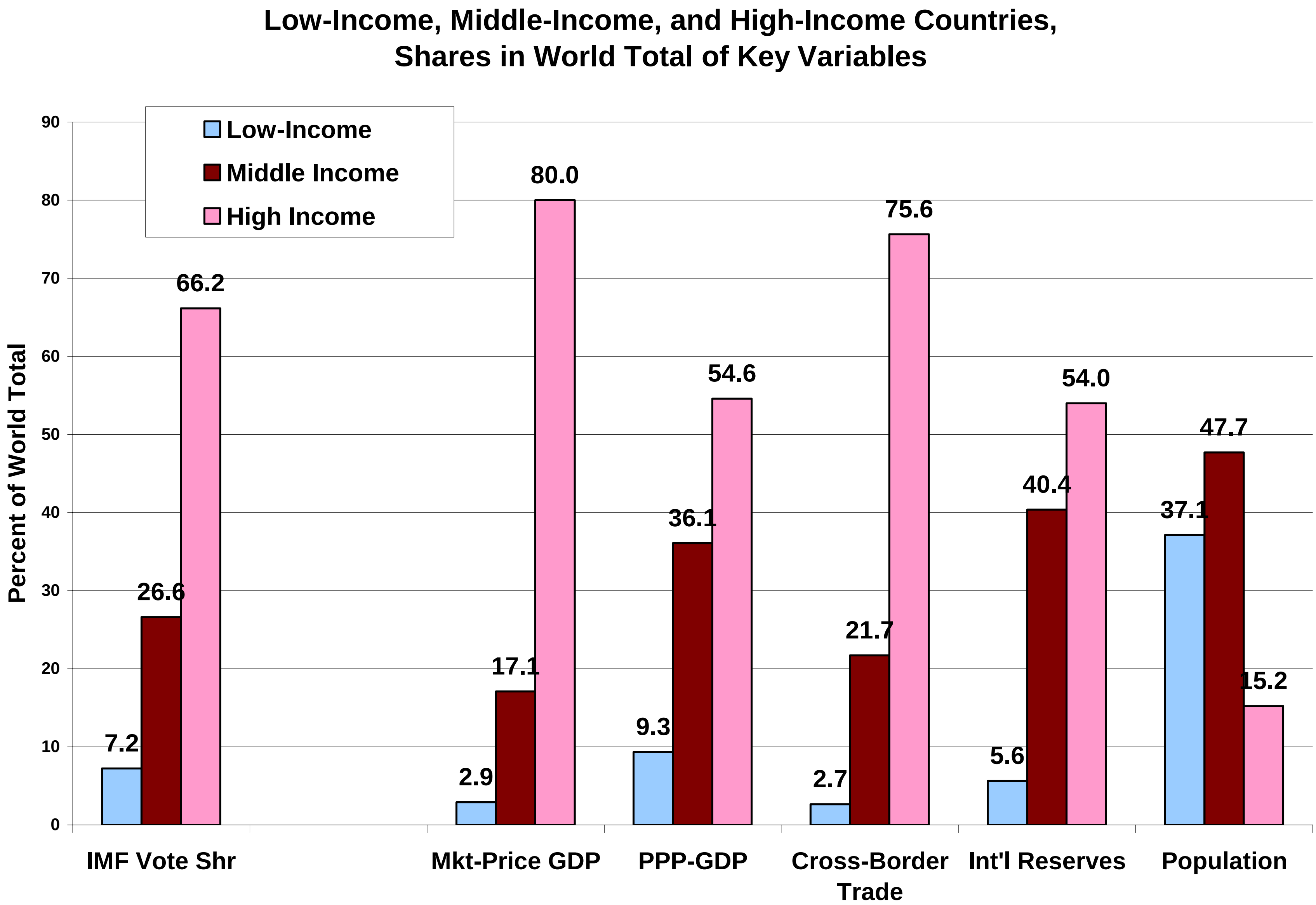
Alternative variables to measure “relative status”

- GDP measured at market prices and exchange rates
- Gross flows of cross-border trade.
- International reserves.

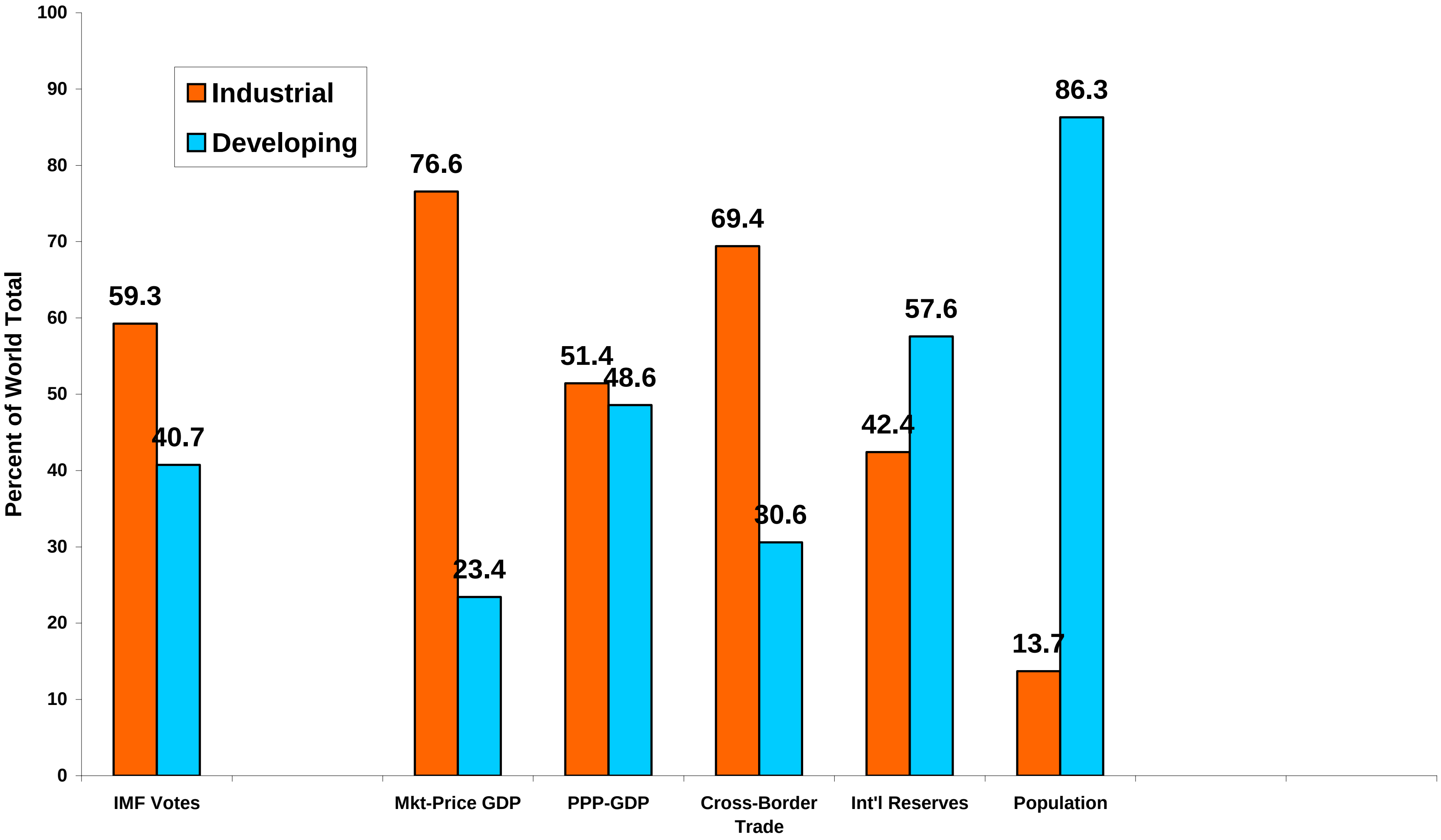
- GDP measured at purchasing power parity prices (PPP-GDP)

- Population

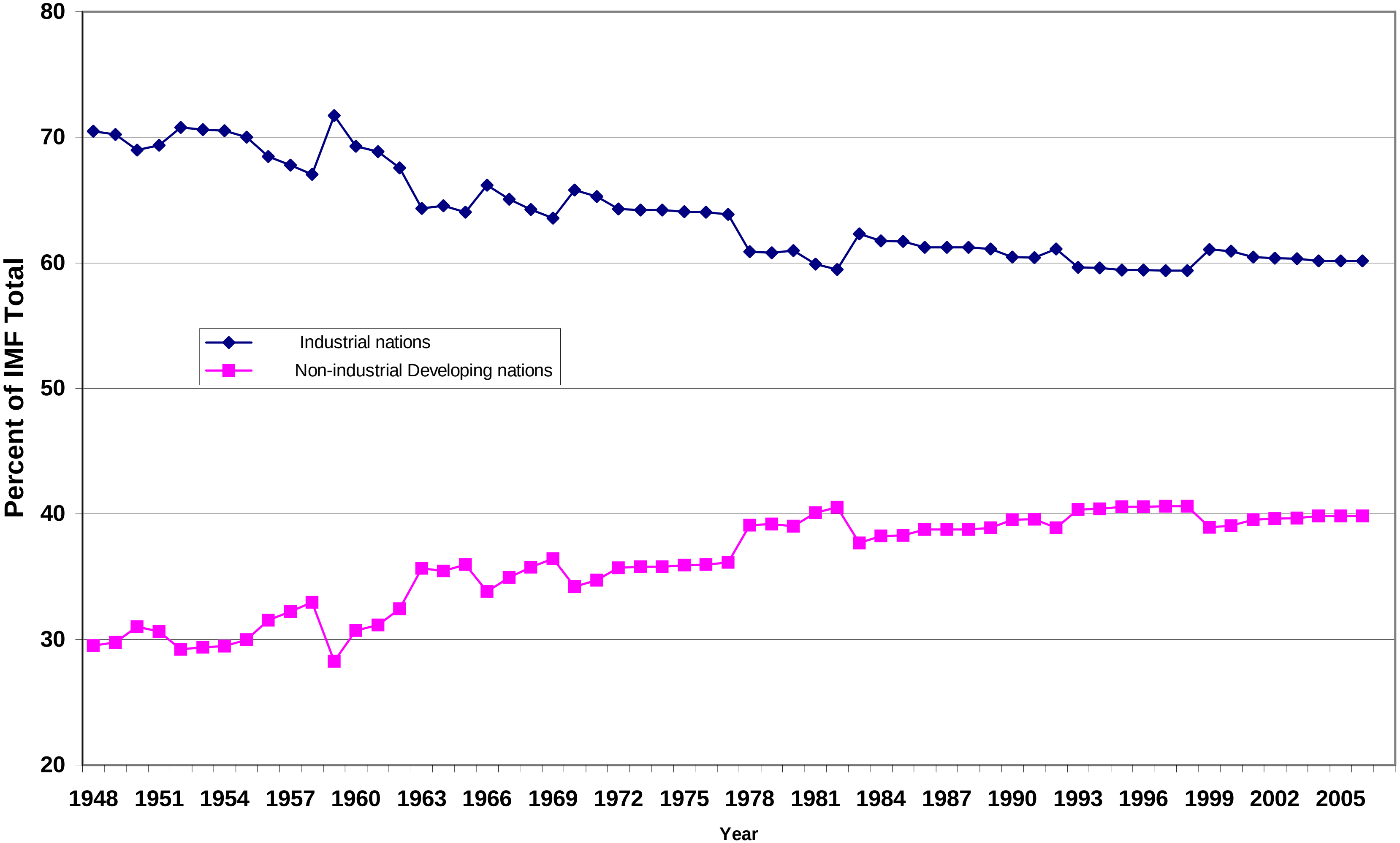
- Other broad measures, which in principle it would be appropriate to use but are difficult to compile:
- Size of national financial activity as a share of world financial activity.
- *Cross-border* financial activity (analogous to cross-border trade).


Low-Income, Middle-Income, and High-Income Countries,
Shares in World Total of Key Variables
Low-Income
Middle Income
High Income
Percent of World Total
0
10
20
30
40
50
60
70
80
90
7.2
26.6
66.2
2.9
17.1
80.0
9.3
36.1
54.6
2.7
21.7
75.6
5.6
40.4
54.0
37.1
47.7
15.2
IMF Vote Shr
Mkt-Price GDP
PPP-GDP
Cross-Border Trade
Int'l Reserves
Population

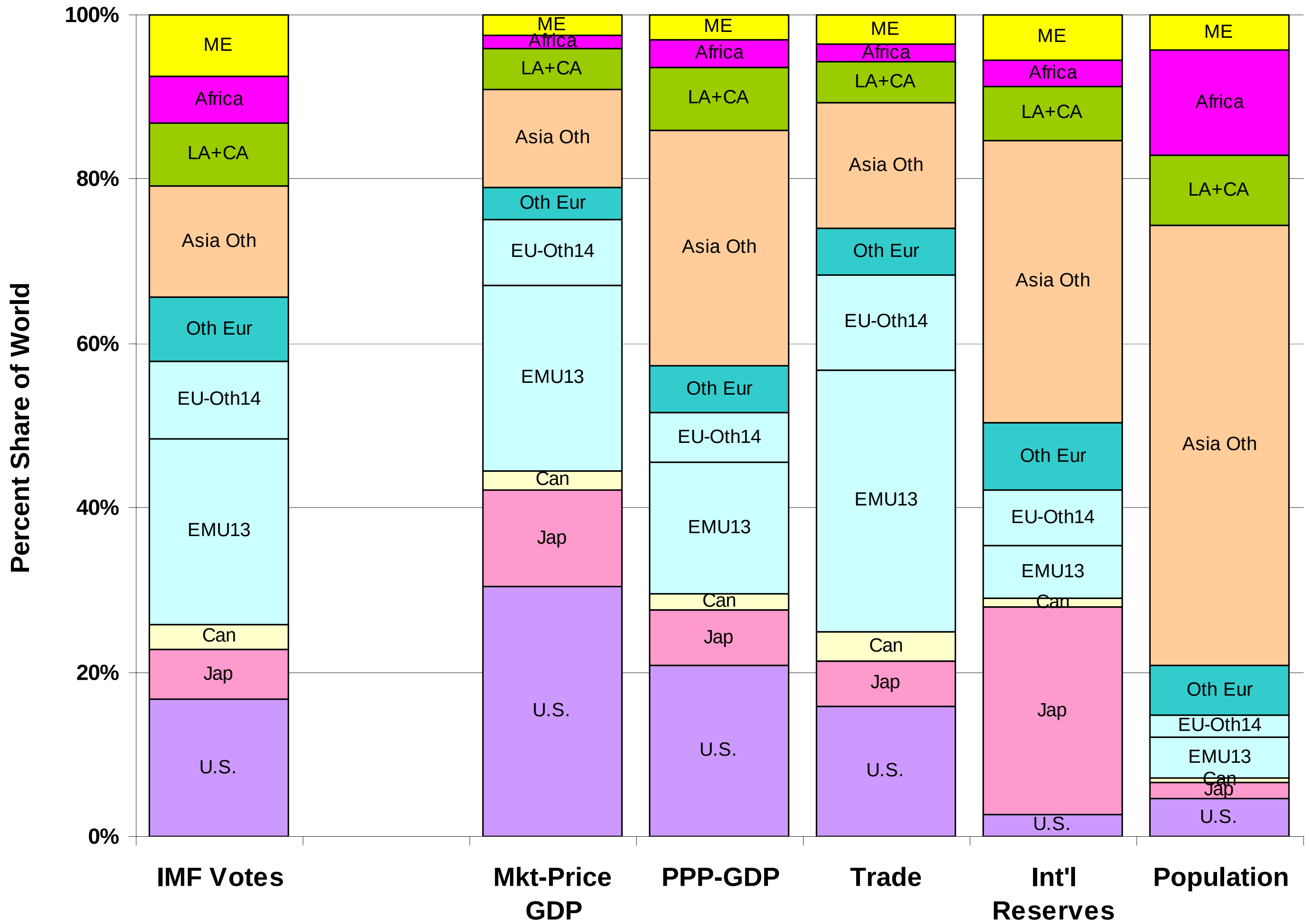
Industrial versus Developing Countries, Shares in World Total of Key Variables



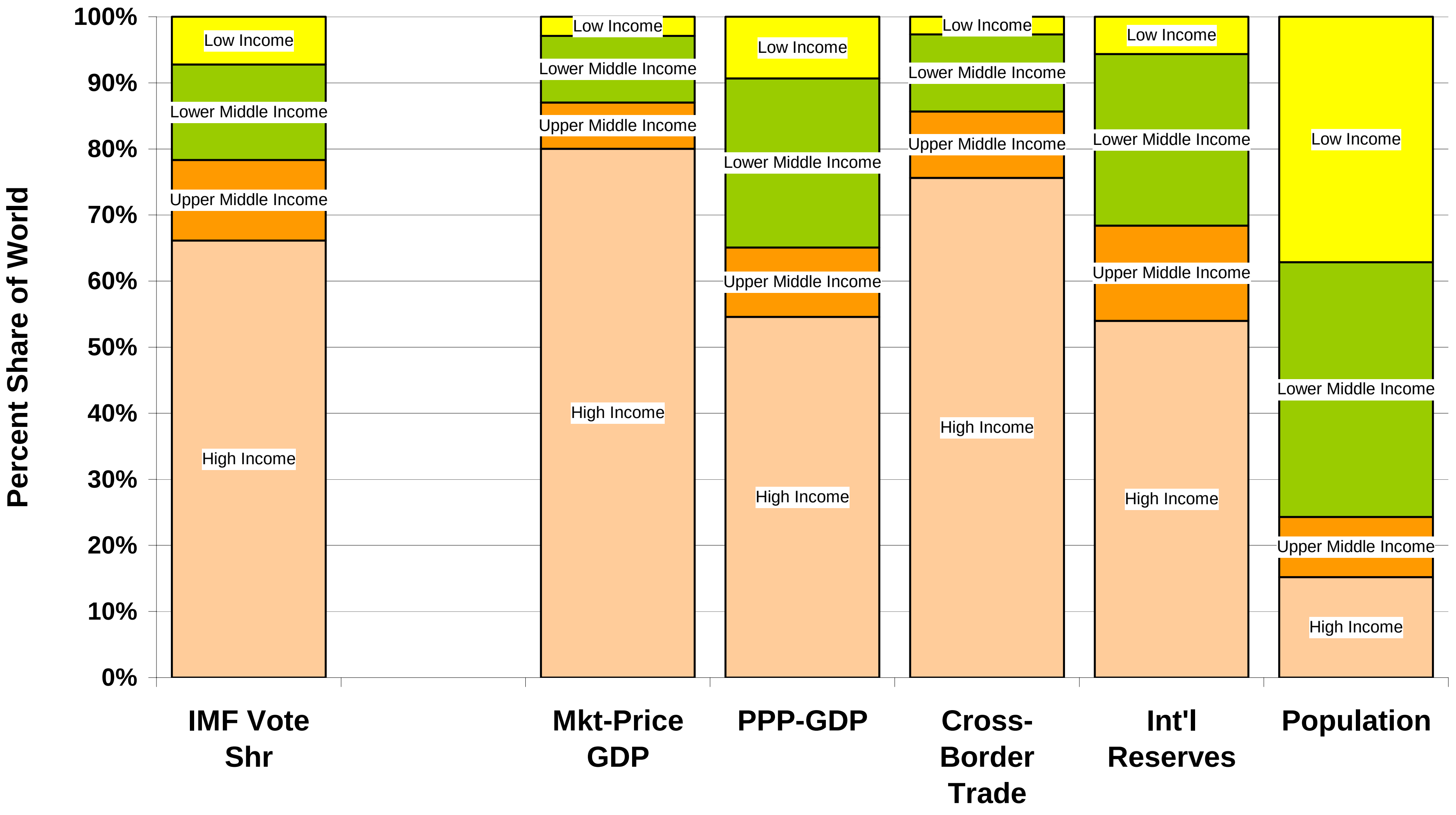
IMF Vote Shares of Industrial- and Developing-Nation Members, End-Year 1948-2006



Alternative Measures of Economic Size, By Region. Shares in World Total.



Alternative Measures of Economic Size, by World Bank Income Classification, Shares in World Total.



-- One inference that seems inescapable:

there cannot be any <u>single</u> “correct” – or “optimal” – measure of relative importance in the world economy.

- Numerous measures have some claim to partial consideration.

- This inference would be even more compelling if measures of “relative status” were to be extended still further to, for example, relative sizes of financial activity.

-- So how should different variables be combined in a formula for determining quotas, quota shares, and voting shares?

Broad Objectives for a Revised Formula

- Given the significant under-representation and over-representation of various member nations and regions, achieve a better-balanced allocation [somehow defined!] of quotas, hence quota shares and vote shares.

- Devise a formula that, for the medium and longer runs, will adapt gradually to further changes in the circumstances and relative positions of members and regions.

- My suggestion for the revised formula retains the three most-often-mentioned variables:

  - GDP at market prices and exchange rates
  - cross-border trade
  - international reserves

- There exist arguments for and against including cross-border trade (sometimes misleadingly termed “openness”), and arguments for and against including international reserves.

- I include them in the revised formula not because I am convinced that they should be included. Rather, I am searching for a middle ground about the formula that might command wide support.

- **My suggested revised formula does *not* include "variability/volatility" variables.**

  - **The measurement of those variables -- as so far used in the existing formulas -- is conceptually flawed [see additional slides].**

- **It is inadequate to restrict the choice of variables to be used in a revised formula to the 3 variables**
    - **market-price GDP,**
    - **cross-border trade, and**
    - **international reserves.**

- **Minor tinkering with those variables alone cannot resolve the main "imbalances" across countries in quota shares and vote shares!**

- **In fact, minor revisions in the existing formulas typically work in the "wrong" direction – e.g., *increasing* rather than reducing the relative quota and voting shares of the wealthiest but slower growing industrial countries.**

What could move the discussions forward about a revised formula?

- Introduce GDP at purchasing-power-parity prices (PPP-GDP) as variable into the formula, as a complement to (not a substitute for) market-price GDP.

- Introduce Population as a variable into the revised formula.

- Inclusion of both PPP-GDP and Population would help to adjust imbalances in quota shares and voting shares in a direction that would advance the broad goals of governance reform.

- There is a strong case for adding both variables.

An important point:

- **It is NOT true that PPP-GDP and Population are so highly correlated that a revised formula can get similar results merely by excluding population and including only PPP-GDP (blended with market-price GDP).**

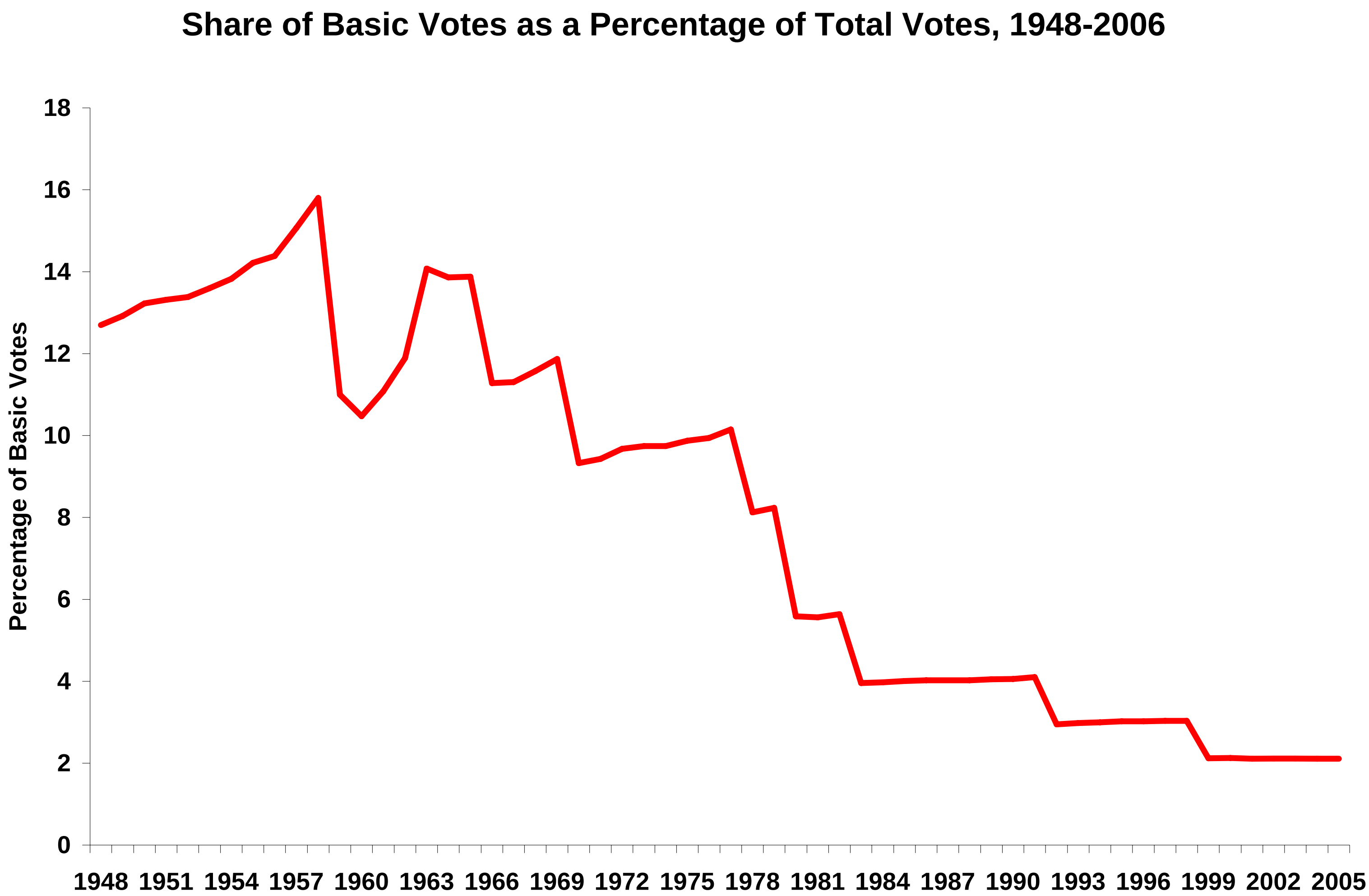
  [Example calculations are shown in additional slides.]

Suggested Approach to a Revised Formula

- **Construct a simpler, more transparent formula that uses variables defined in terms of *shares* (in the total for all members) rather than the levels of quotas.**

- **Determine the basic-vote component of voting power simultaneously and in an integrated way with the revised-formula for determining IMF quota shares (and hence the votes proportional to quotas).**

Past Evolution of Basic Votes:



Suggestions about the basic-votes component of total votes:

- By amendment of the Articles, the aggregate of basic votes for all member nations would be increased to the place where they are [**α**] percent of total voting power, and with an indexation that automatically maintains basic votes at that percentage of total voting power.

- The remainder of IMF votes, equivalent to [100 - **α**] percent of the total votes, would be determined in proportion to quotas.

- The fraction **α** might be 10 percent?
  If 10-11 percent was deemed appropriate at Bretton Woods, is there a convincing reason to believe that the fraction today and in the future should be lower than 10 percent?

An illustration of how a quota formula could be simply and transparently stated in terms of five share variables – for market-price GDP, purchasing-power-parity GDP (PPP-GDP), cross-border trade (XBT), international reserves (R), and population (POP):

$$\begin{aligned} QShr_i = {} & wy_i\left(GDPShr_i\right) + wyppp_i\left(PPPGDPShr_i\right) + \\ & wT_i\left(XBTShr_i\right) + wR_i\left(RESShr_i\right) + \\ & wpop_i\left(POPShr_i\right). \end{aligned}$$

$$where$$

$$\sum GDPShr_i \equiv \sum PPPGDPShr_i \equiv \sum XBTShr_i \equiv \sum RESShr_i \equiv \sum POPShr_i \equiv 1.000,$$

$$wy_i + wyppp_i + wT_i + wR_i + wpop_i \equiv 1.000\,,$$

$$and\ therefore\ also: \quad \sum QShr_i \equiv 1.000.$$

Given an aggregate value for total quotas, an individual member's quota is then given by

$$Quota_i = QShr_i\left(AggregateQuotas\right)$$

An example of results obtained from the suggested revised formula:

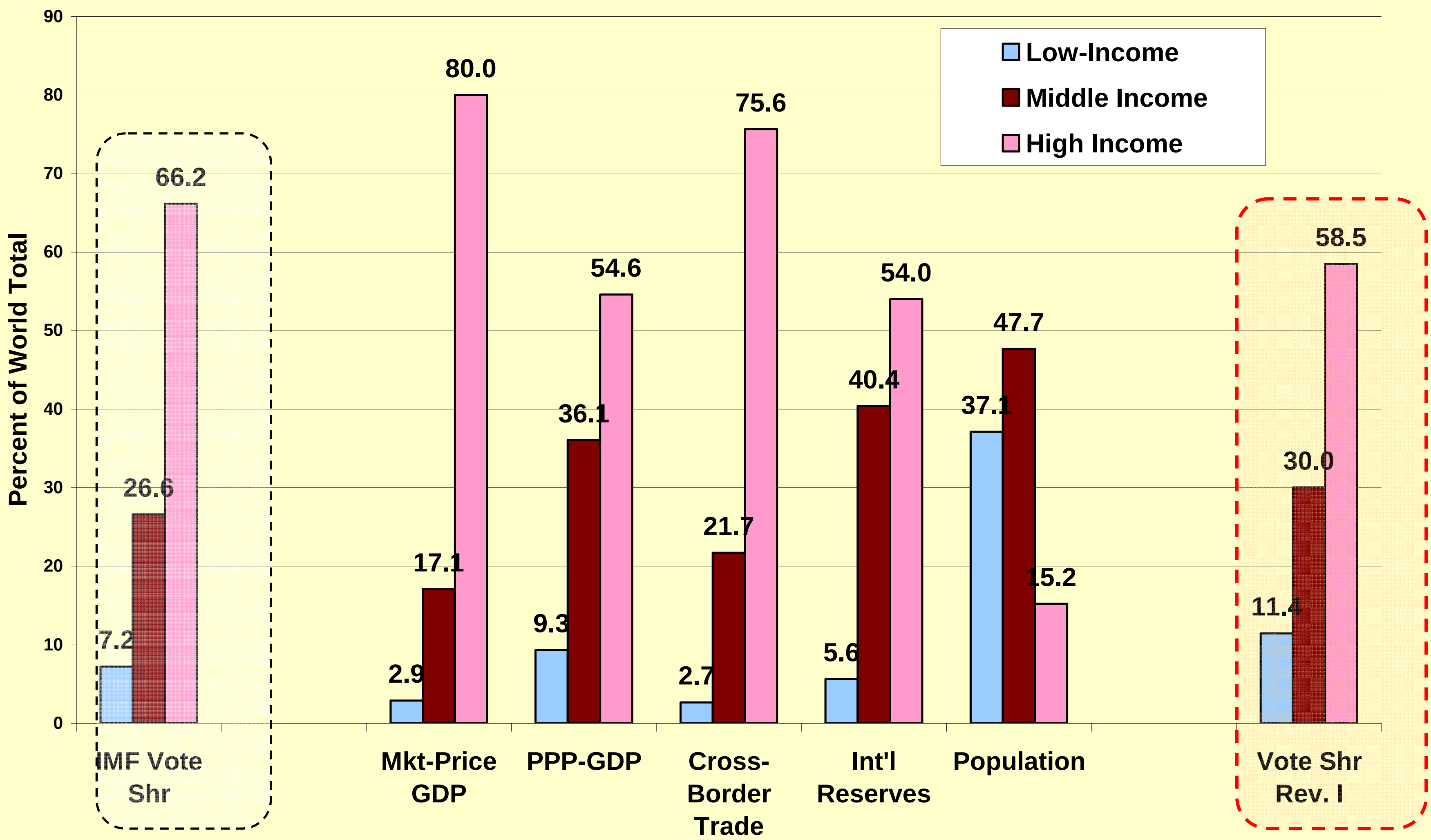
(Vote Shr Rev. I)

Formula weight attached to

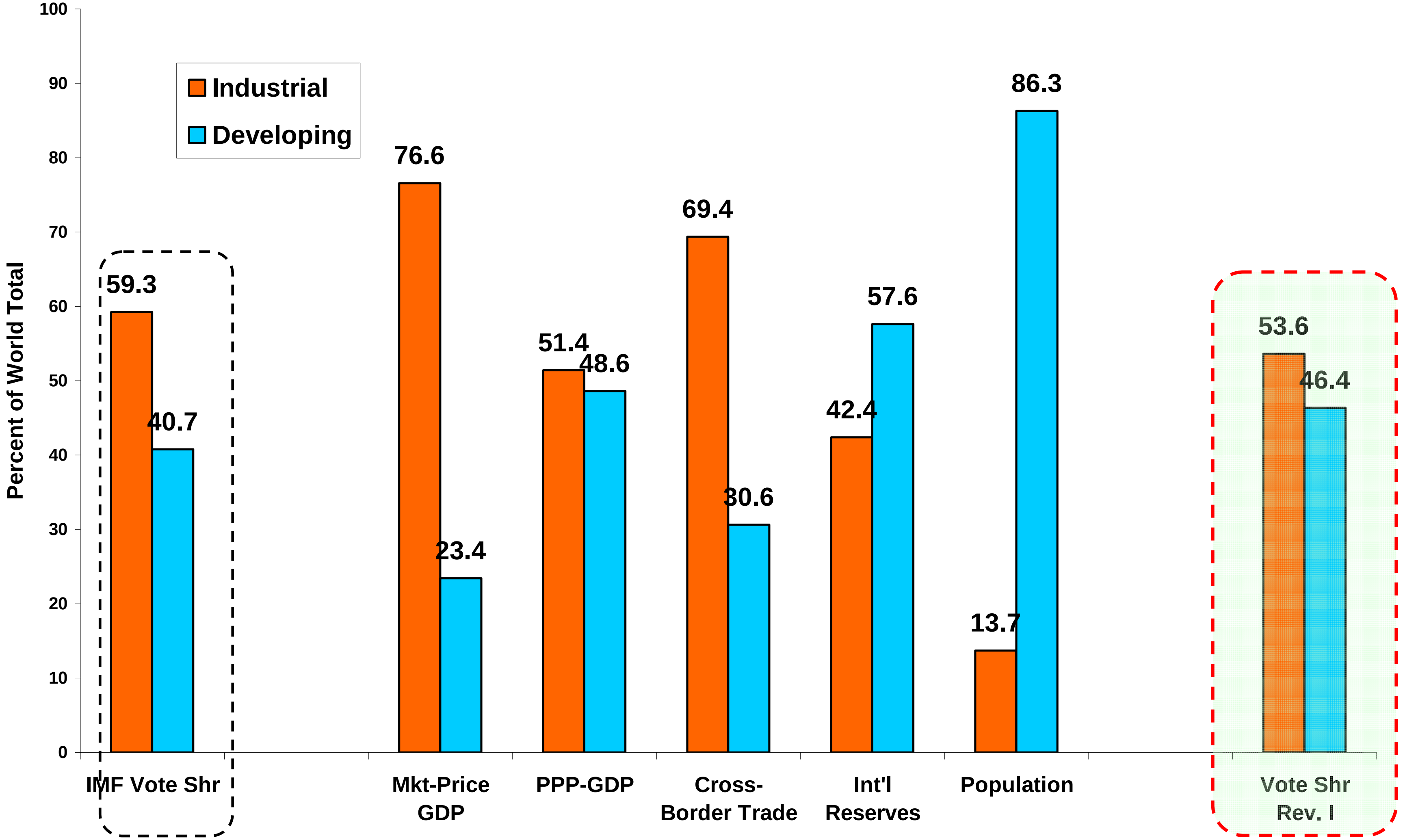
Market-price GDP (wy_i)	**35 %**
PPP-GDP ($wyppp_i$)	**15 %**
[“Blended GDP”	**50 %]**
Cross-border Trade (wT_i)	**25 %**
International Reserves (wR_i)	**10 %**
Population ($wpop_i$)	**15 %**
[Sum of the weights:	**100 %]**

Fraction of total votes comprising basic votes: 10 %.

Low-Income, Middle-Income, and High-Income Countries, Shares in World Total of Key Variables



Industrial versus Developing Countries, Shares in World Total of Key Variables



Further Examples: A Comparison of Three Alternative Sets of Weights

$\underline{\mathrm{Re}\,v.\ II}$

$wy_i = 0.450$

$wyppp_i = 0$

$wT_i = 0.400$

$wR_i = 0.150$

$wpop_i = 0$

$\Sigma = 1.000$

$BVfraction\ (\alpha) : 0.021$

$\underline{\mathrm{Re}\,v.\ I}$

$wy_i = 0.350$

$wyppp_i = 0.150$

$wT_i = 0.250$

$wR_i = 0.100$

$wpop_i = 0.150$

$\Sigma = 1.000$

$BVfraction\ (\alpha) = 0.100$

$\underline{\mathrm{Re}\,v.\ III}$

$wy_i = 0.300$

$wyppp_i = 0.150$

$wT_i = 0.150$

$wR_i = 0.100$

$wpop_i = 0.300$

$\Sigma = 1.000$

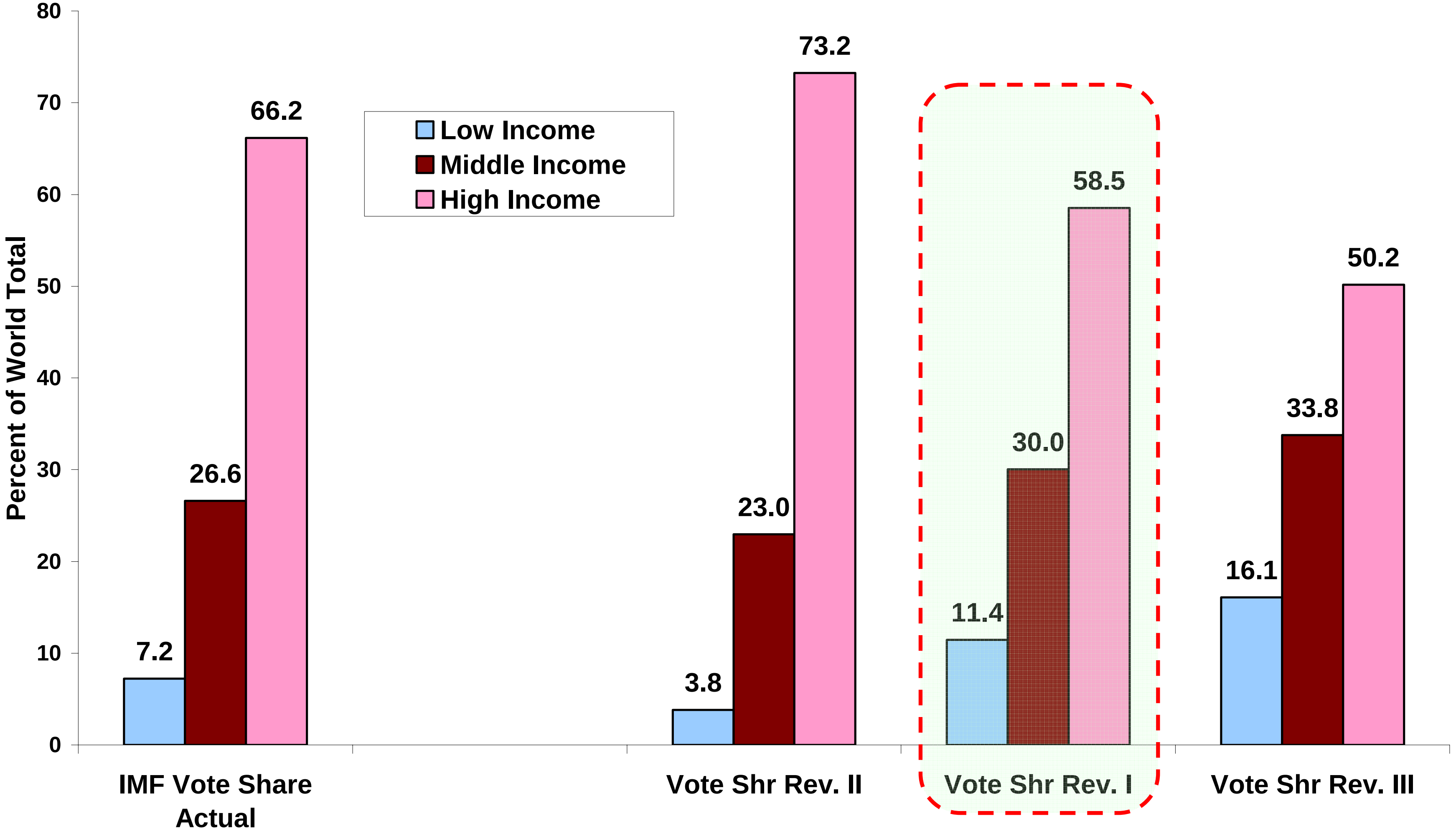
$BVfraction\ (\alpha) = 0.100$

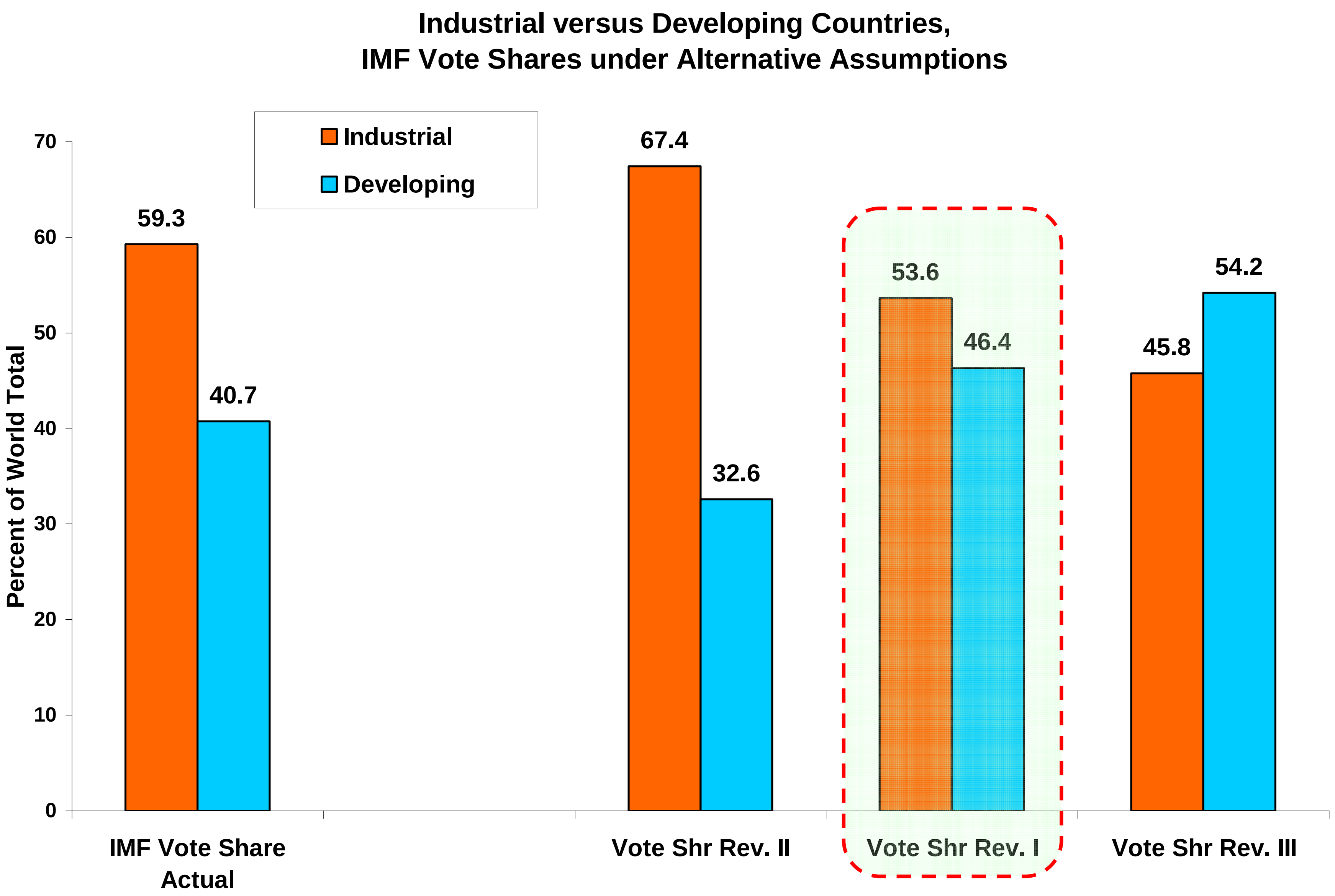
Two general inferences:

- Increasing the weights on market-price GDP shares or on cross-border trade shares by itself raises substantially the vote shares of industrial countries, a result that goes in the wrong direction for generating IMF-wide consensus.

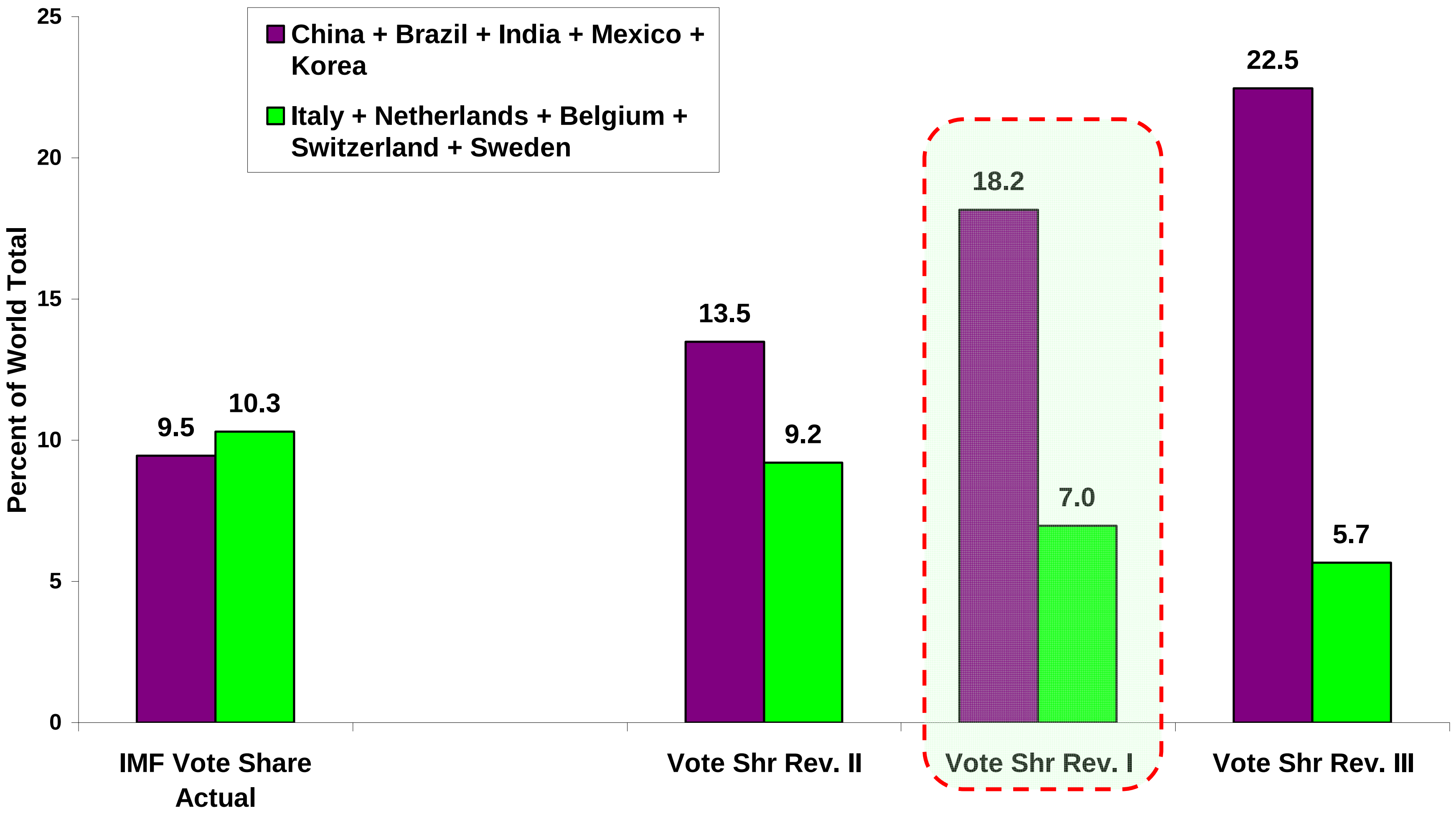
- Introducing non-zero weights for population shares, PPP-GDP shares, or both has the potential for generating outcomes more likely to command widespread support.

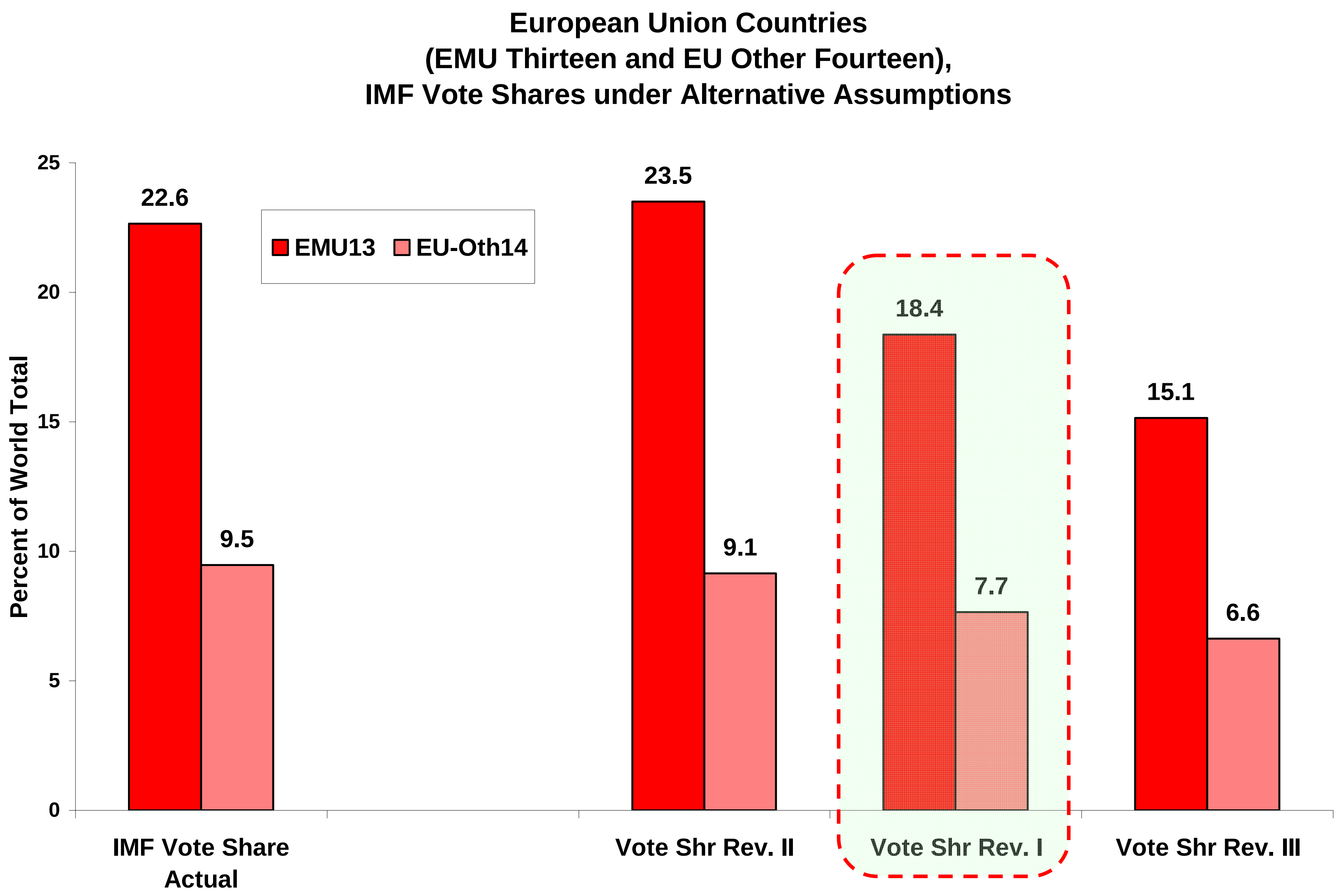
Low-Income, Middle-Income, and High-Income Countries, IMF Vote Shares under Alternative Assumptions




Industrial versus Developing Countries,
IMF Vote Shares under Alternative Assumptions
Industrial
Developing
Percent of World Total
0
10
20
30
40
50
60
70
59.3
40.7
67.4
32.6
53.6
46.4
45.8
54.2
IMF Vote Share Actual
Vote Shr Rev. II
Vote Shr Rev. I
Vote Shr Rev. III

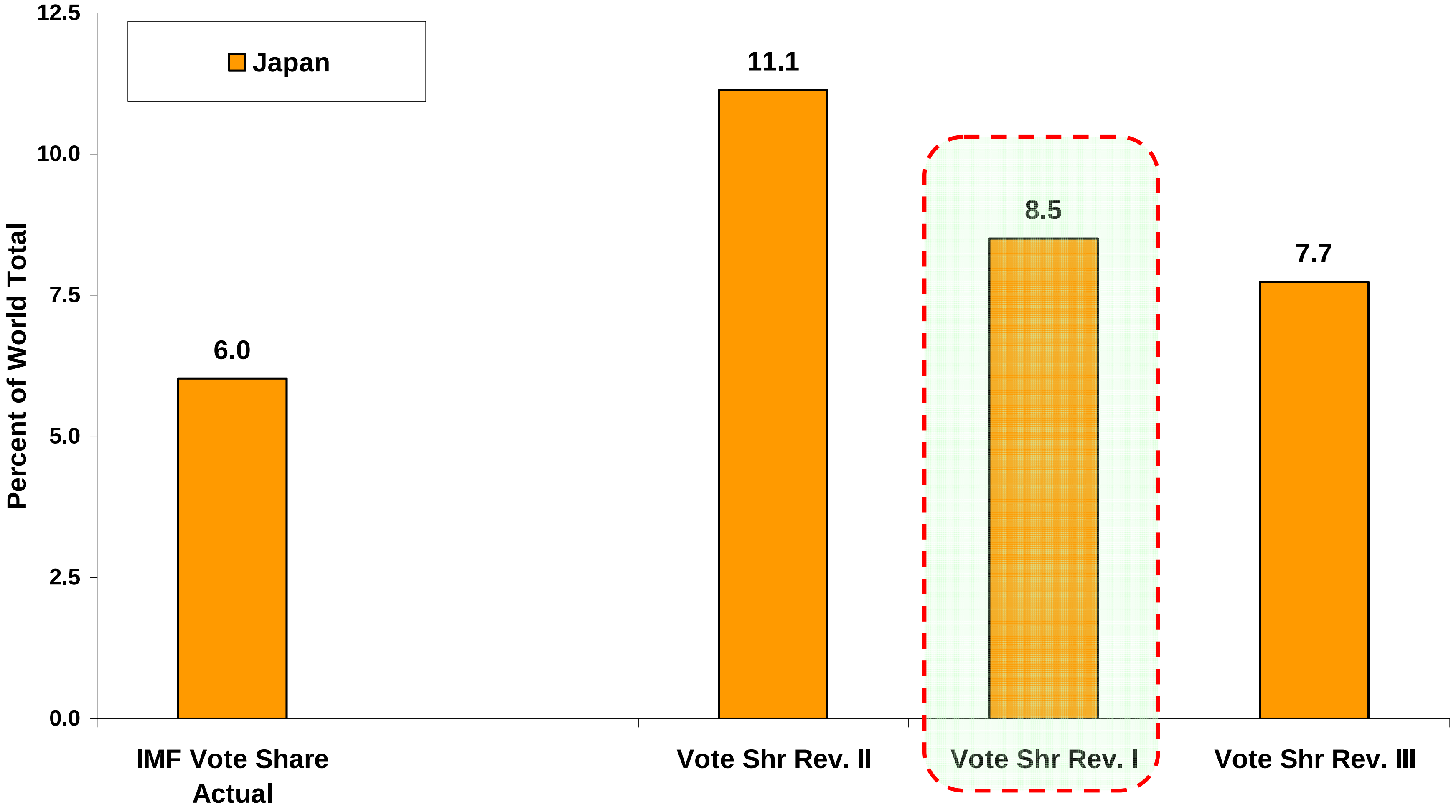
Five Emerging-Market Economies and Five European Economies, IMF Vote Shares under Alternative Assumptions



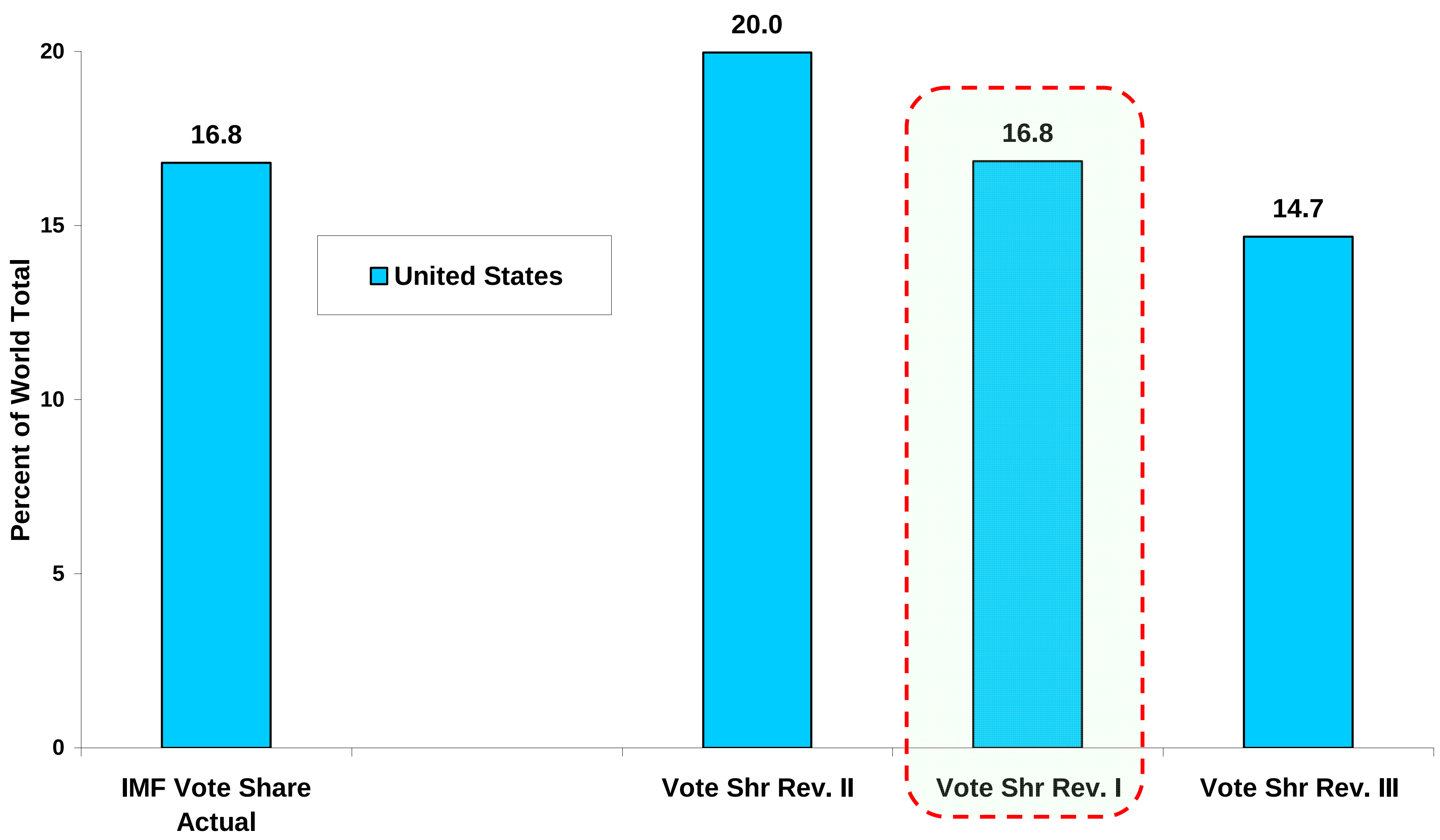


European Union Countries
(EMU Thirteen and EU Other Fourteen),
IMF Vote Shares under Alternative Assumptions
Percent of World Total
25
20
15
10
5
0
EMU13
EU-Oth14
22.6
9.5
23.5
9.1
18.4
7.7
15.1
6.6
IMF Vote Share Actual
Vote Shr Rev. II
Vote Shr Rev. I
Vote Shr Rev. III

Japan,
IMF Vote Shares under Alternative Assumptions



United States,
IMF Vote Shares under Alternative Assumptions



How a Revised Formula Should be Used

There would be little value in difficult negotiations to agree on a revised IMF quota formula if the new formula is going to have only little influence on actual quotas and voting rights.

- Unsatisfactory historical experience with quota increases!

- So future changes in IMF quotas, quota shares, and vote shares need to better reflect a revised formula.

Suggestion for improving use of a revised formula:

- **as part of a general package of governance reforms, the IMF Executive Board might adopt a by-law providing that a country's actual negotiated quota share at times of quinquennial quota reviews cannot differ from its formula-calculated share by more than [X] percent. This provision would ensure that incremental quota adjustments over time would follow at least roughly the revised formula's calculations!**

Expansion in Aggregate IMF Quotas?

- For some member countries -- who would otherwise in a compromise package have to accept a large absolute *reduction* in their actual quota (not to mention in their quota share) -- any rebalancing exercise might be forced just to leave the actual level of their quotas unchanged.

- This concern leads to the suggestion that the process of adjusting quota shares and quotas should be “lubricated” by securing agreement on an increase in aggregate quotas, thereby not asking some countries to accept large absolute declines in the level of their quotas.

Special Voting Majorities.

The “Veto” of Largest Member Countries.

- As part of the package of governance reforms, consider an amendment to the Articles of Agreement that changes the decisions requiring an 85% special majority of the votes to require a special majority of only 80%.

- If this change were made, no single country – not the United States, not the EMU Thirteen -- would have an unambiguous veto.

Selection Procedures for IMF Managing Director and World Bank President

- Amend the Articles of Agreement of the IMF and IBRD to specify the selection process for choosing the IMF Managing Director and Deputy Managing Directors, and the President of the World Bank.

  - Rough guidelines have already been drafted in the IMF and in the World Bank (2001). But have not been officially approved or implemented!

- The new provisions would mandate:

  - the goals that the selection process should be open and transparent;

  - the principles that (i) all members of the IMF should be able to recommend potential candidates and that (ii) potential candidates should be selected on the basis of *merit* (capacity for serving in the job) *regardless of nationality*.

  - The amended By-Laws and Rules and Regulations -- but not the Articles -- would specify further details of the selection processes.

- If the United States would take the lead in initiating improved selection procedures, this might be perceived as a concession by other member nations, including European members?

Constituencies and the Size of the Executive Board

“Chairs” in the governance structure of the IMF (organization of members into constituencies):

- the chair issues are no less complex than the issues about shares and a revised quota formula.
- chairs are perhaps even more politically delicate than shares.

- but meaningful governance reform must alter chairs as well as shares!

Significant changes about “Chairs” to consider as part of a compromise package of governance reforms:

- Eliminate the existing provision in the Articles of Agreement that each of the 5 members with the largest quotas appoints their own ED.

- Add a revised provision to the Articles specifying that any individual member with more than [**Y**]% of the total voting power shall be able, if they choose, to designate their own ED. All other EDs would be elected and grouped into multi-member constituencies. The percentage **Y** might be specified as 7%?

- However, also add a provision that countries with vote shares larger than [**Y**]% of the total voting power will not be *required* to appoint their own ED, but may instead, if they choose, form a constituency with an elected ED that includes other member nations.

Significant changes about "Chairs" (continued)

- Reduce the number of EDs on the Executive Board to only [20]. Redraw the constituencies to reflect new quota/voting shares. (The number of EDs specified in the Articles is in fact only 20. A special vote is required every 2 years to increase the number, for example to the current 24.)

- Eliminate the provision in the Articles of Agreement that requires an ED to vote the same way on an issue for all members in his constituency. The amended provision would instead permit "vote splitting" within a constituency.

Illustrative Re-drawing of Constituency Groupings

- The existing 24 IMF constituencies are shown on the left-hand side of the pages.

- On the right-hand side of the pages, 20 illustrative new constituencies consistent with the benchmark (“Rev. I”) illustrative recalculation of quota shares and vote shares.

Existing Constituencies and Illustrative New Constituencies

24 Existing

		Number of Members	Vote Share (Percent
1	**United States**	1	16.83
2	**Japan**	1	6.04
3	**China**	1	3.67
4	**Germany**	1	5.90
5	**France**	1	4.87
6	**United Kingdom**	1	4.87
7	**Elected I (Belgium etc.)**	10	5.16
	Austria		
	Belarus		
	Belgium		
	Czech Republic		
	Hungary		
	Kazakhstan		
	Luxembourg		
	Slovak Republic		
	Slovenia		
	Turkey		
8	**Elected II (Netherlands etc.)**	12	4.77
	Armenia		
	Bosnia & Herzegovina		
	Bulgaria		
	Croatia		
	Cyprus		
	Georgia		
	Israel		
	Macedonia, fmr. Yug. Rep.		
	Moldova		
	Netherlands		
	Romania		
	Ukraine		
9	**Elected III (Sweden, Denmark etc.)**	8	3.45
	Denmark		
	Estonia		
	Finland		
	Iceland		
	Latvia		
	Lithuania		
	Norway		
	Sweden		

20 Illustrative New

		Number of Members	Vote Share (Percent of Total)
1	**United States**	1	16.84
2	**Japan**	1	8.51
3	**China**	1	8.71
4	**EMU Thirteen**	13	18.37
	Germany		
	France		
	Italy		
	Netherlands		
	Belgium		
	Luxembourg		
	Austria		
	Greece		
	Finland		
	Ireland		
	Portugal		
	Spain		
	Slovenia		
5	**European Union Other (27 - 13)**	14	7.65
	United Kingdom		
	Sweden		
	Denmark		
	Poland		
	Hungary		
	Czech Republic		
	Slovakia		
	Lithuania		
	Latvia		
	Estonia		
	Cyprus		
	Malta		
	Romania		
	Bulgaria		
6	**Switz., Turkey, Candidate EU, Etc.**	12	2.96
	Switzerland		
	Turkey		
	Israel		
	San Marino		
	Albania		
	Armenia		
	Bosnia & Herzegovina		
	Croatia		
	Republic of Serbia		
	Macedonia,fmr.Yug.Rep.		
	Moldova		
	Azerbaijan		

10	**Elected IV (Italy etc.)**	**7**	**4.12**
	Albania		
	Greece		
	Italy		
	Malta		
	Portugal		
	San Marino		
	Timor-Leste		
11	**Elected V (Switzerland etc.)**	**8**	**2.80**
	Azerbaijan		
	Kyrgyz Republic		
	Poland		
	Republic of Serbia		
	Switzerland		
	Tajikistan		
	Turkmenistan		
	Uzbekistan		
12	**Russian Federation**	**1**	**2.70**
13	**Elected VI (Canada etc.)**	**12**	**3.65**
	Antigua & Barbuda		
	Bahamas		
	Barbados		
	Belize		
	Canada		
	Dominica		
	Grenada		
	Ireland		
	Jamaica		
	St. Kitts & Nevis		
	St. Lucia		
	St. Vincent & the Grenadines		
14	**Elected VII (India etc.)**	**4**	**2.36**
	Bangladesh		
	Bhutan		
	India		
	Sri Lanka		

7	**Russia, Central Asia**	**9**	**2.79**
	Russian Federation		
	Belarus		
	Kazakhstan		
	Georgia		
	Ukraine		
	Kyrgyz Republic		
	Tajikistan		
	Turkmenistan		
	Uzbekistan		
8	**Canada + Nordic + Caribbean**	**12**	**3.25**
	Canada		
	Norway		
	Iceland		
	Antigua and Barbuda		
	Bahamas		
	Barbados		
	Dominica		
	Grenada		
	Jamaica		
	St. Kitts and Nevis		
	St. Lucia		
	St. Vincent & Grenadines		
9	**South Asia**	**5**	**4.54**
	India		
	Sri Lanka		
	Seychelles		
	Maldives		
	Bhutan		
10	**East Asia excl. China & Japan**	**4**	**2.87**
	Korea		
	Vietnam		
	Mongolia		
	Bangladesh		
11	**Other Asia and SE Asia**	**9**	**3.98**
	Indonesia		
	Malaysia		
	Thailand		
	Singapore		
	Brunei Darussalam		
	Cambodia		
	Lao P.D.R.		
	Myanmar		
	Nepal		

15	**Elected VIII (Indonesia etc.)**	12	3.13
	Brunei Darussalam		
	Cambodia		
	Fiji		
	Indonesia		
	Lao P.D.R.		
	Malaysia		
	Myanmar		
	Nepal		
	Singapore		
	Thailand		
	Tonga		
	Vietnam		
16	**Elected IX (Australia, Korea etc.)**	14	3.87
	Australia		
	Kiribati		
	Korea		
	Marshall Islands		
	Micronesia, Fed. States		
	Mongolia		
	New Zealand		
	Palau		
	Papua New Guinea		
	Philippines		
	Samoa		
	Seychelles		
	Solomon Islands		
	Vanuatu		
17	**Elected X (Mexico, Spain etc.)**	8	4.21
	Costa Rica		
	El Salvador		
	Guatemala		
	Honduras		
	Mexico		
	Nicaragua		
	Spain		
	Venezuela		
18	**Elected XI (Brazil etc.)**	9	2.43
	Brazil		
	Colombia		
	Dominican Republic		
	Ecuador		
	Guyana		
	Haiti		
	Panama		
	Suriname		
	Trinidad & Tobago		

12	**Pacific**	14	2.46
	Australia		
	New Zealand		
	Philippines		
	Timor-Leste		
	Kiribati		
	Marshall Islands		
	Micronesia, Fed. States		
	Palau		
	Papua New Guinea		
	Samoa		
	Solomon Islands		
	Vanuatu		
	Fiji		
	Tonga		
13	**Mexico, Other Lat Am, Central Am**	9	2.76
	Mexico		
	Venezuela		
	Costa Rica		
	El Salvador		
	Guatemala		
	Honduras		
	Nicaragua		
	Belize		
	Panama		
14	**Brazil, South America I**	6	2.02
	Brazil		
	Dominican Republic		
	Guyana		
	Haiti		
	Suriname		
	Trinidad & Tobago		
15	**Argentina, South America II**	8	1.86
	Argentina		
	Colombia		
	Bolivia		
	Chile		
	Ecuador		
	Paraguay		
	Peru		
	Uruguay		
16	**Saudi Arabia, Middle East**	12	2.71
	Saudi Arabia		
	Egypt		
	Bahrain		
	Kuwait		
	Iraq		

	Guyana		
	Haiti		
	Panama		
	Suriname		
	Trinidad & Tobago		
19	**Elected XII (Argentina etc.)**	**6**	**1.96**
	Argentina		
	Bolivia		
	Chile		
	Paraguay		
	Peru		
	Uruguay		
20	**Saudi Arabia**	**1**	**3.17**
21	**Elected XIII (Egypt, Kuwait etc.)**	**13**	**3.21**
	Bahrain		
	Egypt		
	Iraq		
	Jordan		
	Kuwait		
	Lebanon		
	Libya		
	Maldives		
	Oman		
	Qatar		
	Syrian Arab Republic		
	United Arab Emirates		
	Yemen, Republic of		
22	**Elected XIV (Iran etc.)**	**7**	**2.43**
	Afghanistan		
	Algeria		
	Ghana		
	Iran, Islamic Republic		
	Morocco		
	Pakistan		
	Tunisia		
23	**Elected XV (Africa 1)**	**19**	**2.95**
	Angola		
	Botswana		
	Burundi		
	Eritrea		
	Ethiopia		
	Gambia		
	Kenya		
	Lesotho		

16	**Saudi Arabia, Middle East**	**12**	**2.71**
	Saudi Arabia		
	Egypt		
	Bahrain		
	Kuwait		
	Iraq		
	Jordan		
	Lebanon		
	Oman		
	Qatar		
	Syrian Arab Republic		
	United Arab Emirates		
	Yemen, Republic of		
17	**Other Muslim, N. Africa**	**7**	**2.36**
	Algeria		
	Morocco		
	Tunisia		
	Libya		
	Iran, Islamic Republic		
	Pakistan		
	Afghanistan		
18	**Africa I (esp. Southern)**	**14**	**1.78**
	South Africa		
	Angola		
	Botswana		
	Lesotho		
	Malawi		
	Mozambique		
	Namibia		
	Swaziland		
	Tanzania		
	Zambia		
	Comoros		
	Madagascar		
	Mauritius		
	Zimbabwe		
19	**Africa II (esp. Western)**	**19**	**2.06**
	Nigeria		
	Gambia		
	Sierra Leone		
	Ghana		
	Benin		
	Cape Verde		
	Central African Republic		
	Congo, Democrat Republic of		
	Congo, Republic of		

23	**Elected XV (Africa 1)**	**19**	**2.95**
	Angola		
	Botswana		
	Burundi		
	Eritrea		
	Ethiopia		
	Gambia		
	Kenya		
	Lesotho		
	Malawi		
	Mozambique		
	Namibia		
	Nigeria		
	Sierra Leone		
	South Africa		
	Sudan		
	Swaziland		
	Tanzania		
	Uganda		
	Zambia		
24	**Elected XVI (Africa 2)**	**24**	**1.39**
	Benin		
	Burkina Faso		
	Cameroon		
	Cape Verde		
	Central African Republic		
	Chad		
	Comoros		
	Congo, Democratic Republic of		
	Congo, Republic of		
	Cote d'Ivoire		
	Djibouti		
	Equatorial Guinea		
	Gabon		
	Guinea		
	Guinea-Bissau		
	Madagascar		
	Mali		
	Mauritania		
	Mauritius		
	Niger		
	Rwanda		
	Sao Tome & Principe		
	Senegal		
	Togo		
	Not now voting in a constituency:	**3**	
	Somalia		
	Liberia		
	Zimbabwe		

19	**Africa II (esp. Western)**	**19**	**2.06**
	Nigeria		
	Gambia		
	Sierra Leone		
	Ghana		
	Benin		
	Cape Verde		
	Central African Republic		
	Congo, Democrat Republic of		
	Congo, Republic of		
	Cote d'Ivoire		
	Equatorial Guinea		
	Gabon		
	Guinea		
	Guinea-Bissau		
	Sao Tome & Principe		
	Senegal		
	Togo		
	Liberia		
	Cameroon		
20	**Africa III**	**14**	**1.50**
	Eritrea		
	Ethiopia		
	Sudan		
	Kenya		
	Uganda		
	Burundi		
	Rwanda		
	Somalia		
	Djibouti		
	Chad		
	Niger		
	Burkina Faso		
	Mali		
	Mauritania		

Making Governance Changes Gradually?

- **It would be helpful to "phase-in" suggested governance changes gradually.**

- For example, the basic-votes fraction of total votes could move up from the present low fraction in a series of steps rather than all at once.

- Similarly, actual IMF quota shares could be altered toward calculated quota shares in several steps rather than being adjusted abruptly.

- **If a comprehensive compromise package could be negotiated, probably the phasing-in aspects would be not so difficult?**

Is an Ambitious Comprehensive Package Feasible?

In principle, yes – but only if every member nation can rise above the purely zero-sum-game dimensions of the negotiations.

An ambitious effort – one that includes concessions by all members and elevates to prominence features that advance the collective global interest – might at least have a lower probability of failing than an effort narrowly conceived?

Europe?

-- The most difficult obstacles to an agreement about IMF governance reform probably reside in Europe?

-- It is difficult to envisage EU countries in the next 2-3 years making very difficult decisions about “external governance” – Europe’s role in international institutions.

- Why? Because external governance – shares and chairs in the IMF and World Bank – may not be politically separable from issues of “internal governance” within the European Union.

- EU internal governance decisions appear to be stalled.

United States?

- There seems no chance that the European Union countries will agree to major changes unless the United States is perceived as genuinely stretching to advance the common global interest rather than advancing only its national interests narrowly defined.

Middle-Income and Lower-Income Developing Countries?

Far-sighted leadership from middle-income and lower-income countries, likewise advancing the common global interest rather than focusing only on national interests narrowly defined, is also a necessary condition for success.

Middle-income and lower-income countries are especially well placed to integrate discussions of governance reform for the IMF with governance reform for the World Bank group of institutions.

Additional Slides:

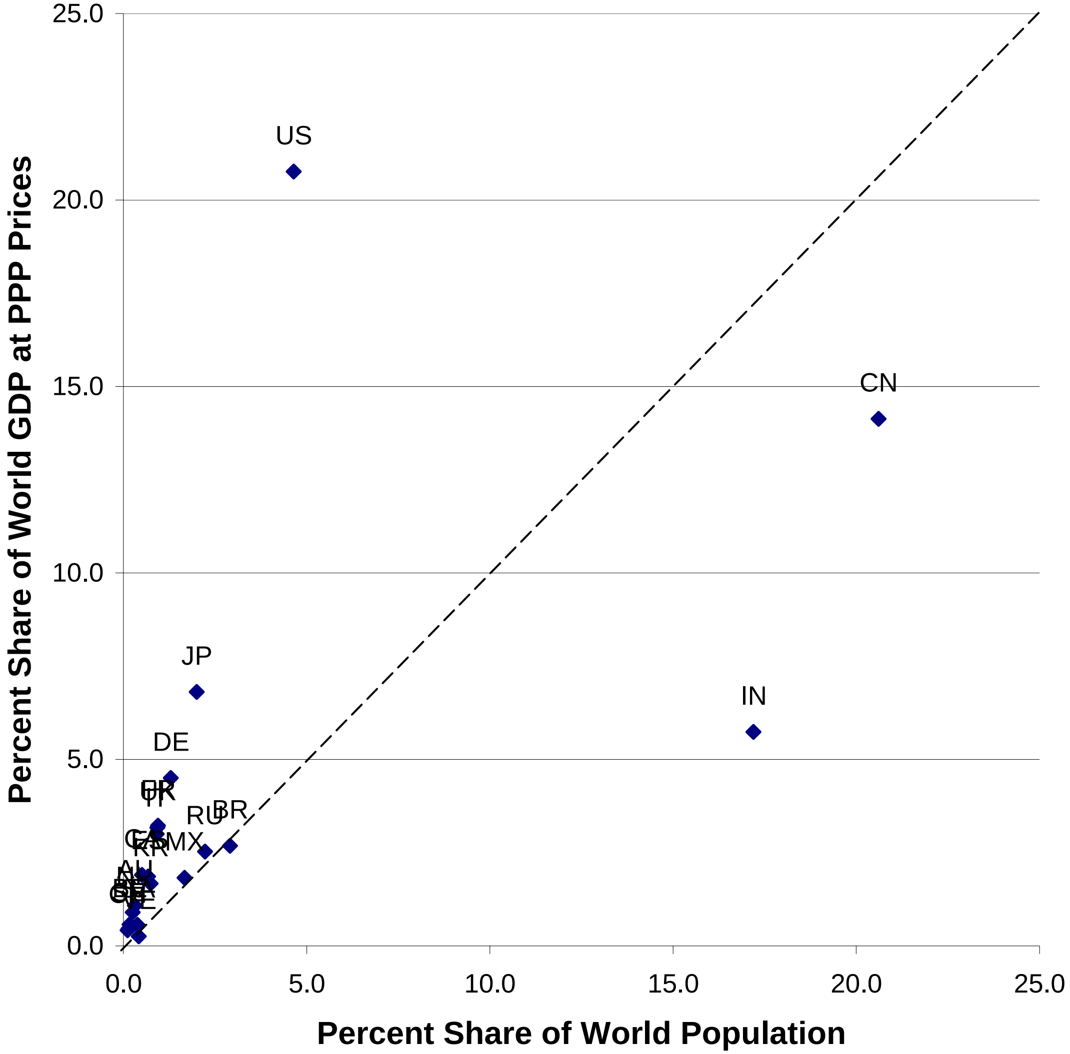
- Lack of Very High Correlation between PPP-GDP Shares and Population Shares.
- Contrast between an Example of Vote Shares including both PPP-GDP and Population in the Revised Formula versus an Otherwise-similar Example of Vote Shares which Excludes Population.
- Using Population as a Variable in a Revised Formula.
- Measuring the “Variability” or “Volatility” of International Transactions.

High Correlation between PPP-GDP and Population?

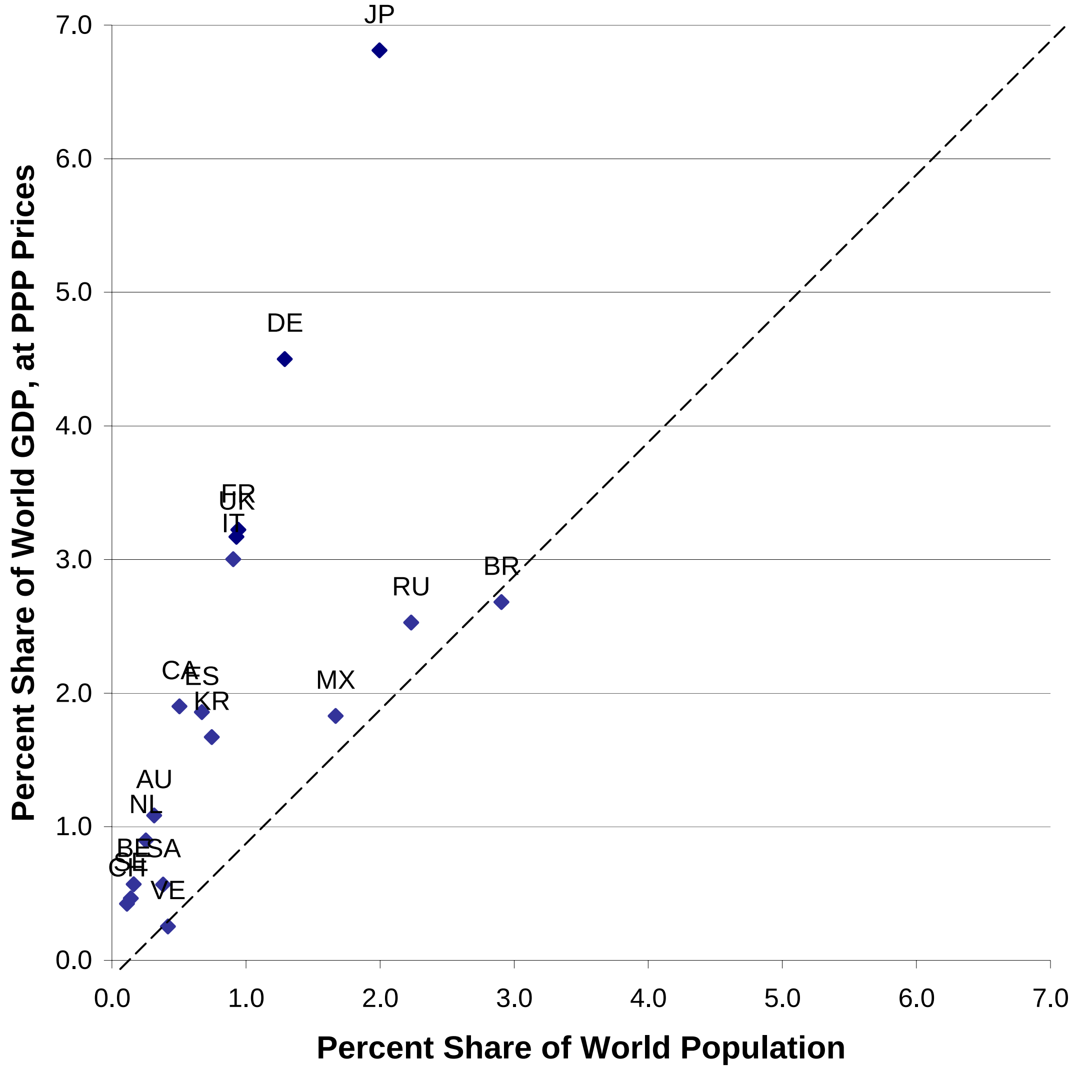
It is NOT true that PPP-GDP and Population are so highly correlated that a revised formula can get similar results merely by excluding population and including only PPP-GDP (blended with market-price GDP).

The following scatter diagrams show member countries' shares in world PPP-GDP on the vertical axis and their shares in world population on the horizontal axis. (If the two shares for a country were identical, the point for that country would lie exactly on the 45-degree diagonal line.)

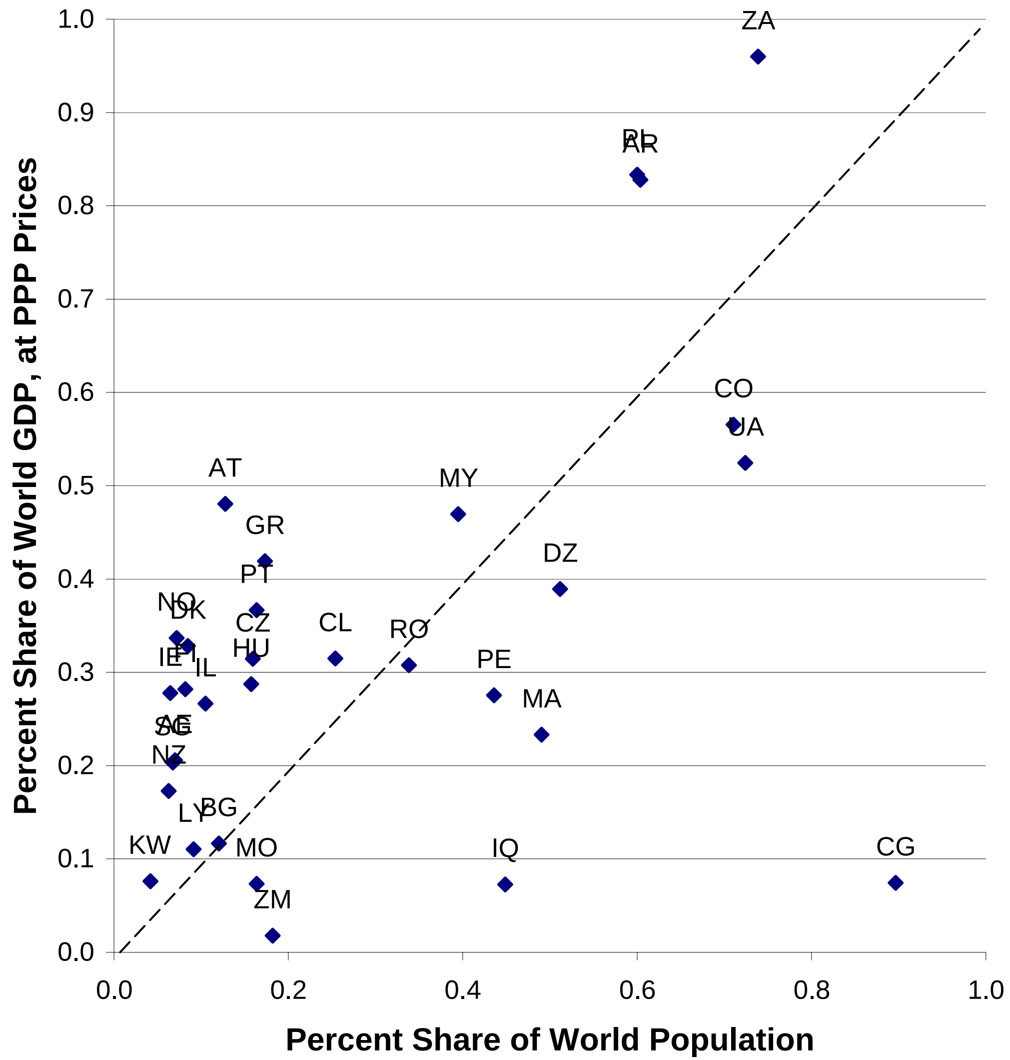
Shares of World GDP (PPP Prices) versus Shares of World Population, Economies with More than 1% of IMF Voting Rights



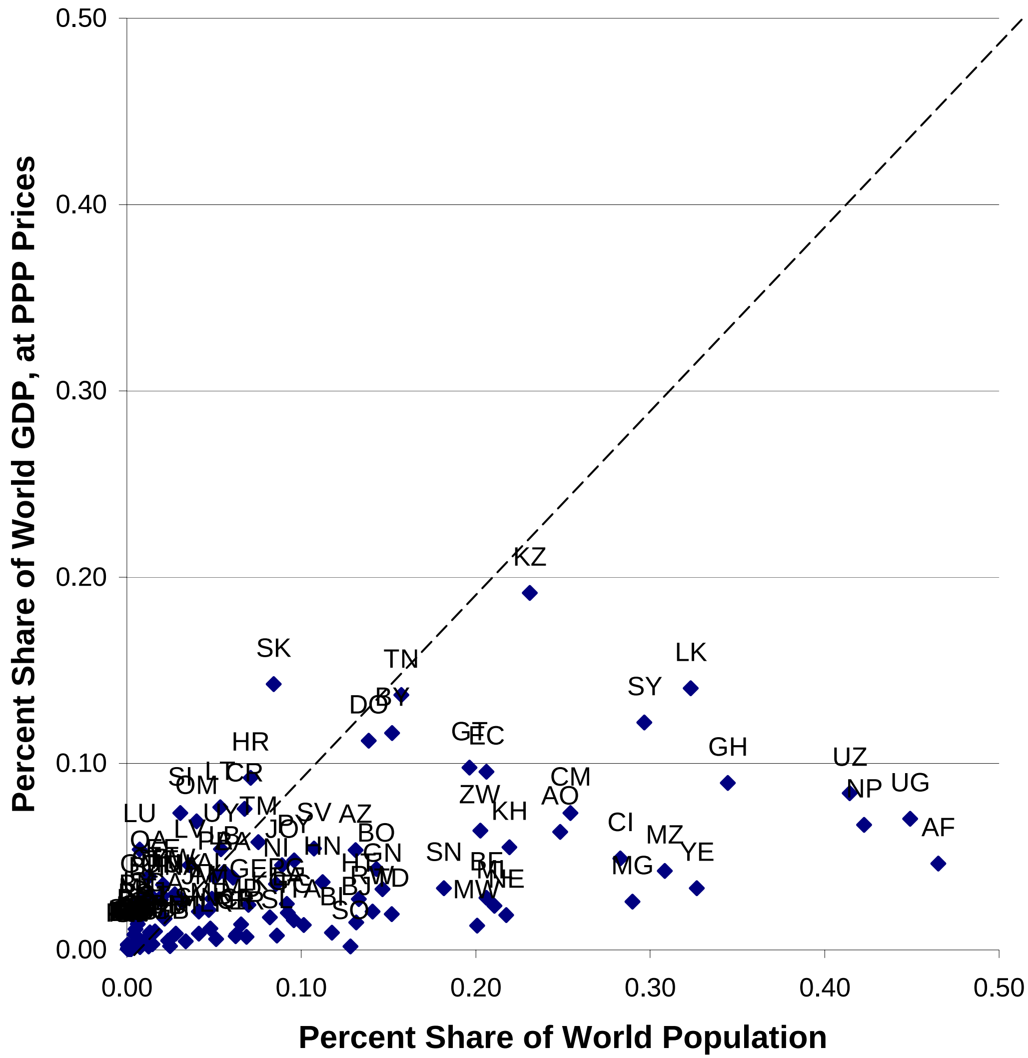
Shares of World GDP (PPP Prices) versus Shares of World Population, Economies with > 1% of IMF Voting Rights, Excluding US,China, India



Shares of World GDP (PPP Prices) versus Shares of World Population, Economies with Less than 1% and More than 0.2% of IMF Voting Rights



Shares of World GDP (PPP Prices) versus Shares of World Population, Economies with Less than 0.2% of IMF Voting Rights



Voting Shares:
Benchmark Example with Positive weights on Both PPP-GDP and Population contrasted with Example Placing a Zero Weight on Population

Benchmark

$\mathrm{Rev}.\ I$

$wy_i = 0.350$

$wyppp_i = 0.150$

$wT_i = 0.250$

$wR_i = 0.100$

$wpop_i = 0.150$

$\Sigma = 1.000$

$BVfraction\ (\alpha) = 0.100$

Population Excluded

$\mathrm{Rev}.\ IV$

$wy_i = 0.350$

$wyppp_i = 0.300$

$wT_i = 0.250$

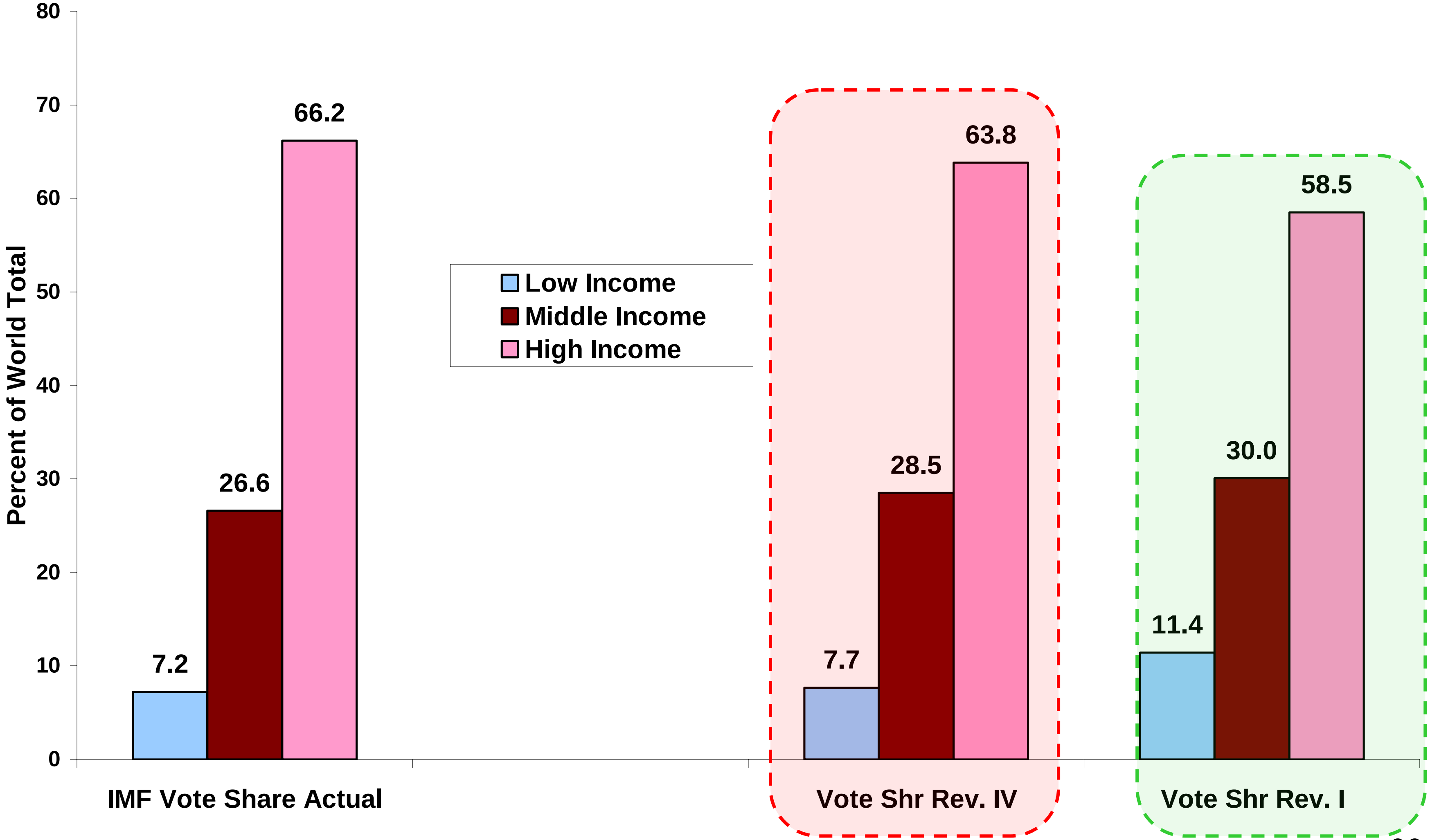
$wR_i = 0.100$

$wpop_i = 0.000$

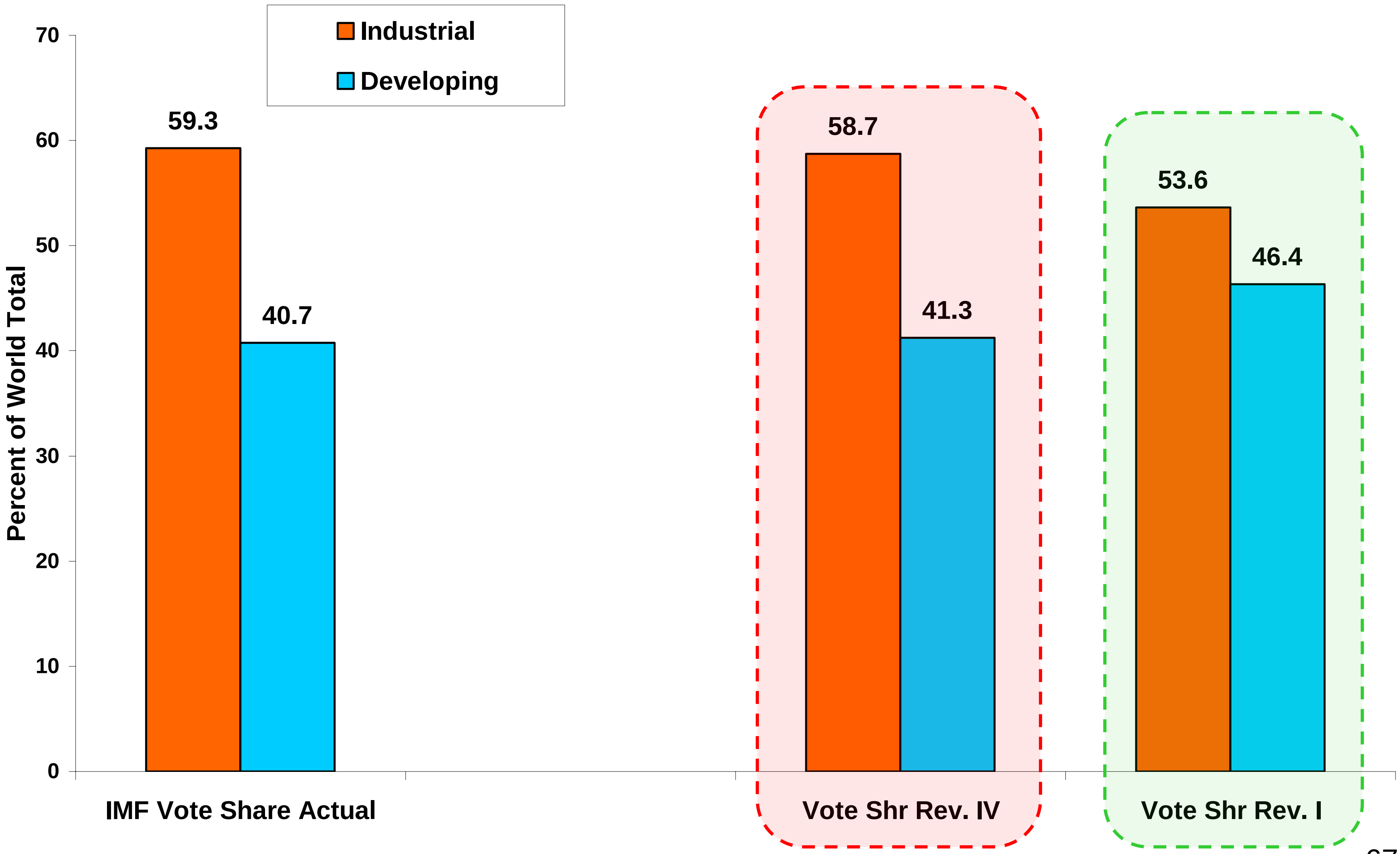
$\Sigma = 1.000$

$BVfraction\ (\alpha) = 0.100$

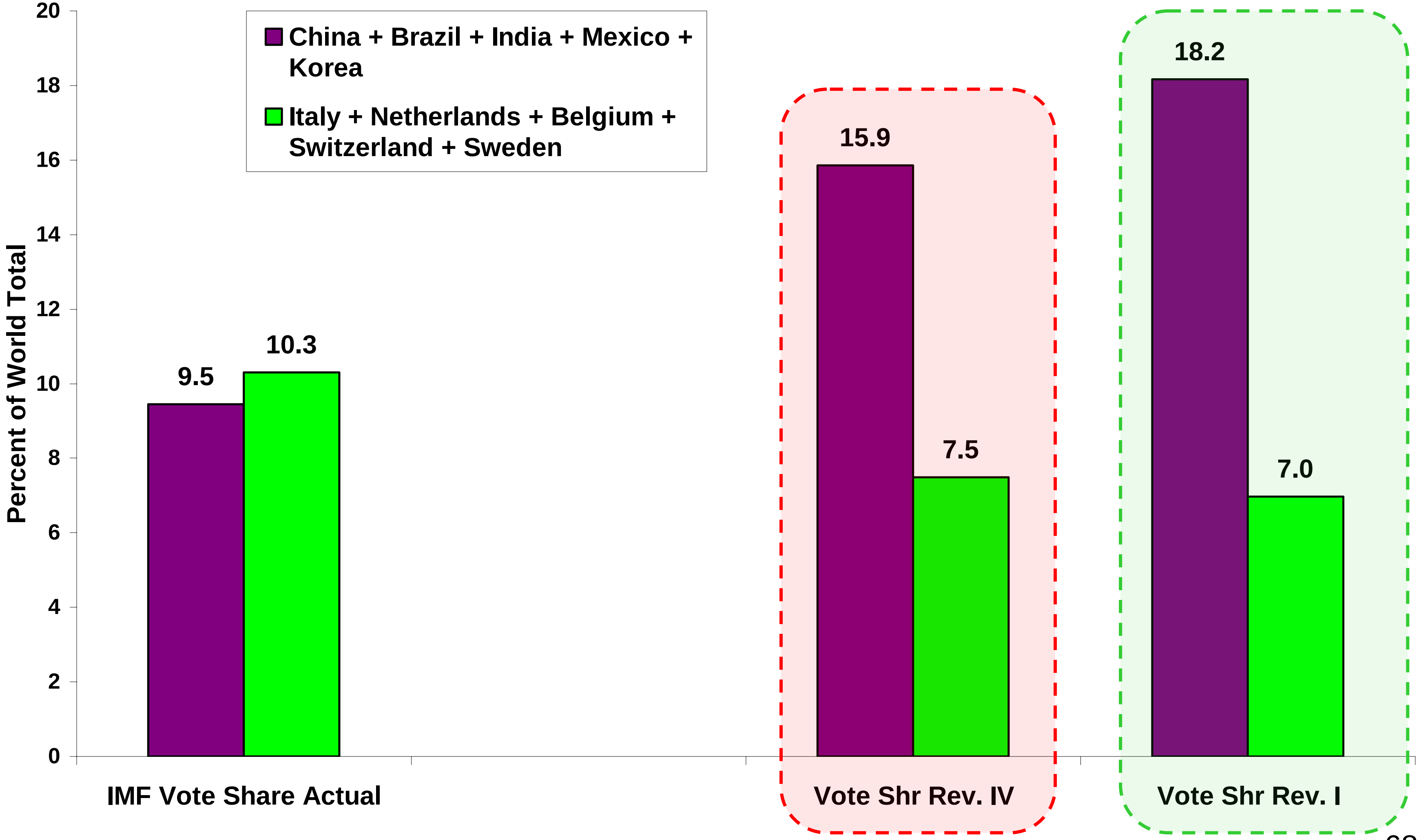
Low-Income, Middle-Income, and High-Income Countries, IMF Vote Shares under Alternative Assumptions



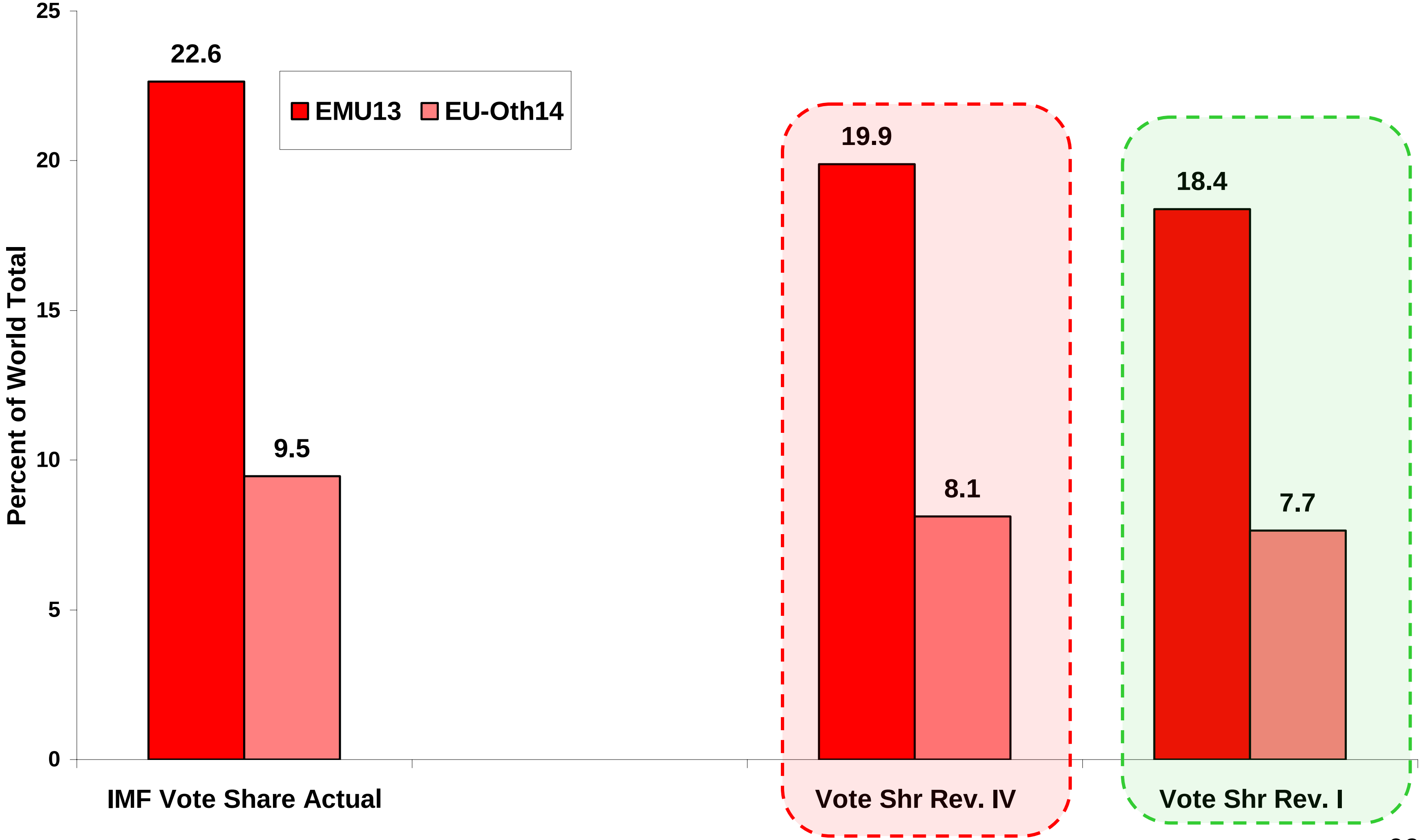
Industrial versus Developing Countries, IMF Vote Shares under Alternative Assumptions

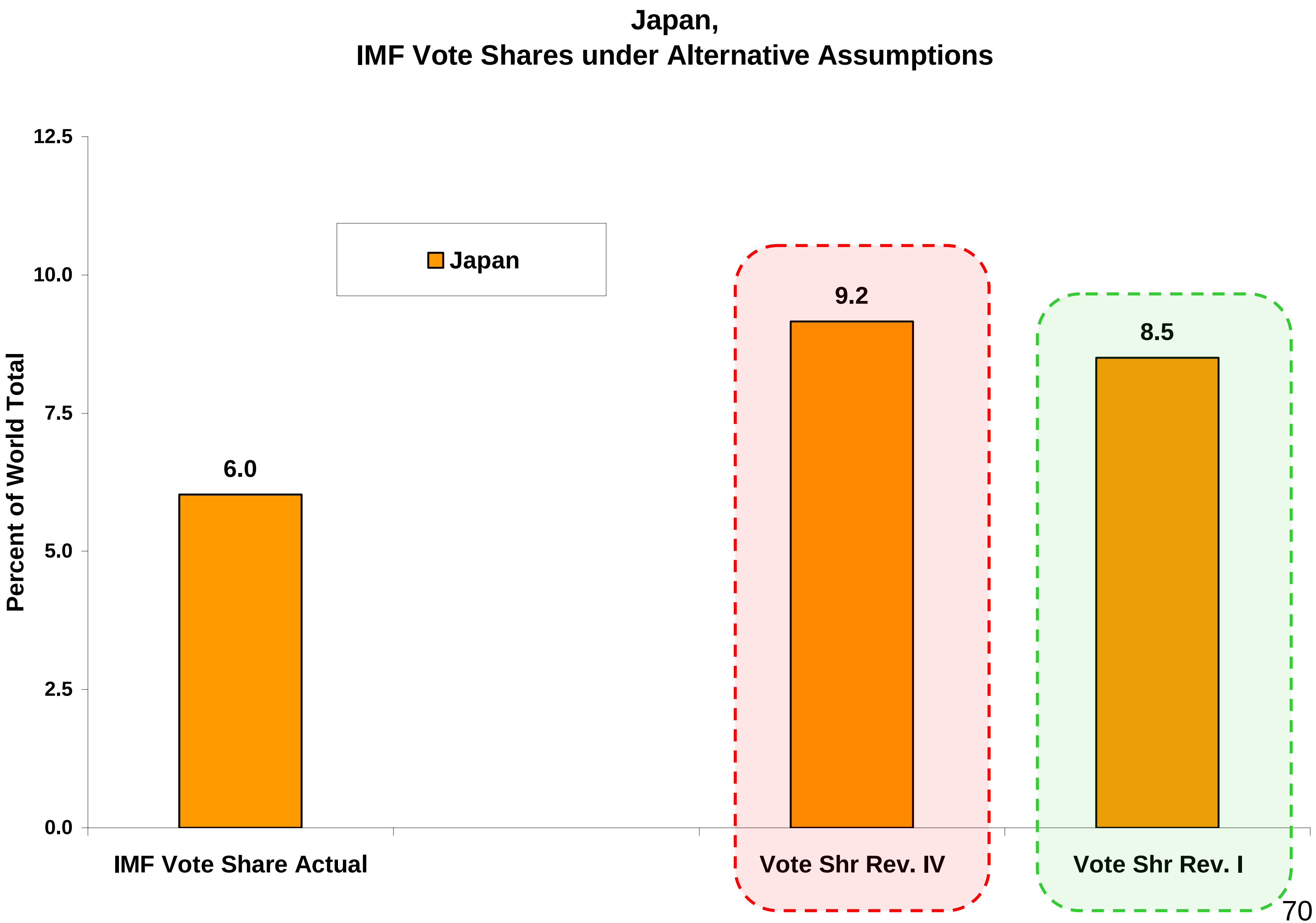


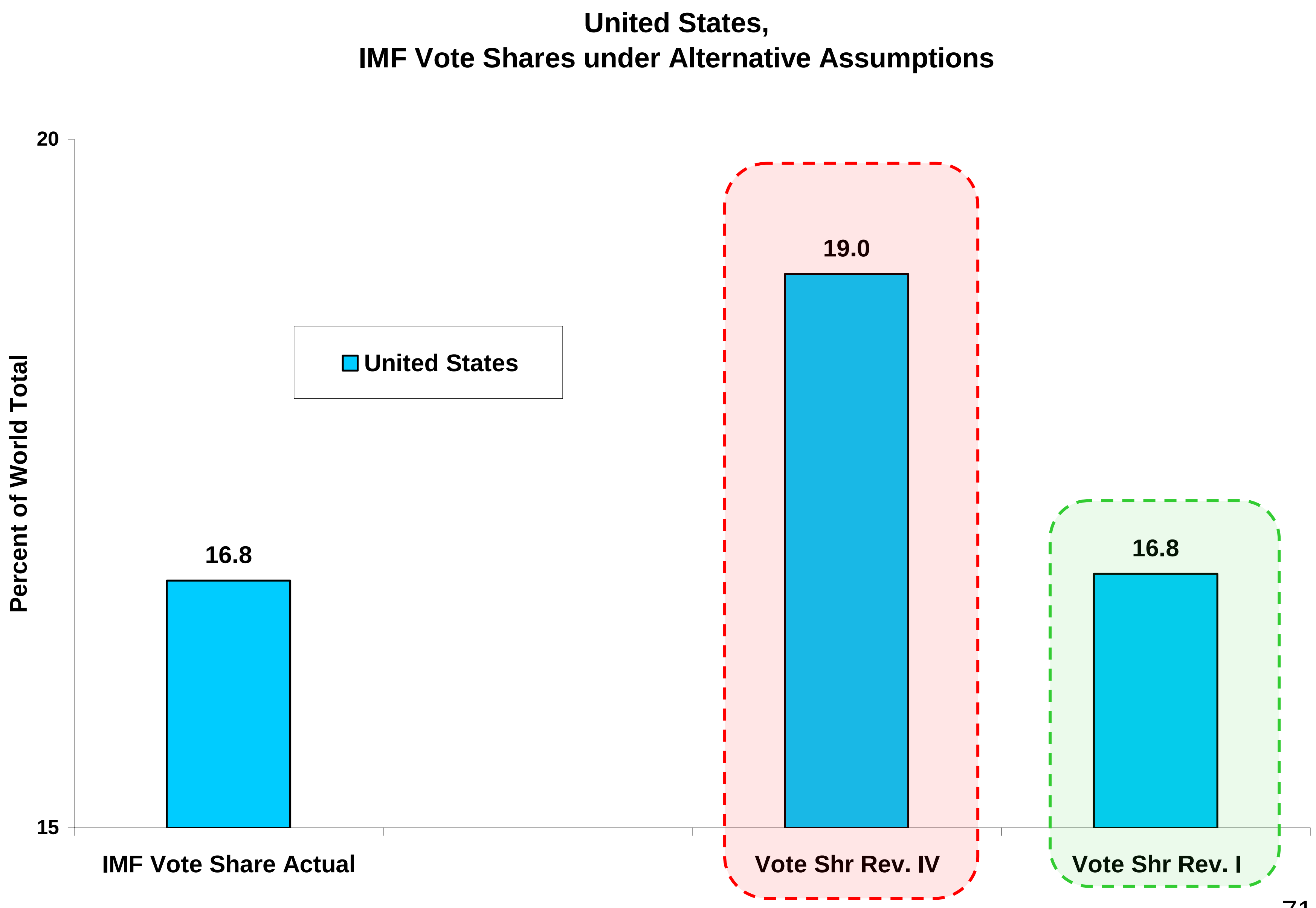
Five Emerging-Market Economies and Five European Economies, IMF Vote Shares under Alternative Assumptions



European Union Countries (EMU Thirteen and EU Other Fourteen), IMF Vote Shares under Alternative Assumptions




Japan,
IMF Vote Shares under Alternative Assumptions
Percent of World Total
12.5
10.0
7.5
5.0
2.5
0.0
Japan
6.0
9.2
8.5
IMF Vote Share Actual
Vote Shr Rev. IV
Vote Shr Rev. I



United States,
IMF Vote Shares under Alternative Assumptions
20
15
Percent of World Total
United States
16.8
19.0
16.8
IMF Vote Share Actual
Vote Shr Rev. IV
Vote Shr Rev. I

Using Population as a Variable in a Revised Formula

- **Population is not merely another economic variable.**

- **Inevitably, to consider population as a formula variable explicitly introduces political considerations into the discussion.**

- **But the entire discussion is political in any event!**

GDP Shares, Population Shares, Country "Productivity"

Identity:

$$\frac{Y_i}{\sum_i Y_i} \equiv \left(\frac{N_i}{\sum_i N_i}\right)\left[\frac{\frac{Y_i}{N_i}}{\frac{\sum_i Y_i}{\sum_i N_i}}\right]$$

In words, the share of a country in world GDP is the *product* of

its share in world population and

the ratio of the country's productivity (measured by country output per capita) to world average productivity (world output per capita).

Hypothetically, if every country had productivity equal to world average productivity, then it would make no difference whether member nations are weighted relative to each other by their GDP shares or by their population shares.

But of course country relative productivities are hugely different.

If vote shares were to be chosen exclusively by shares in world population, the process would entirely ignore cross-national differences in productivity and hence in output and wealth.

Such a process would ignore the fact that the capacity of a country to contribute resources to the IMF, and to support of IMF operations more generally, is significantly determined by its productivity and wealth.

But if vote shares were to be chosen solely on the basis of GDP shares, that process would embody the other extreme.

The implicit principle would be to count each individual in the world, not as an entire person, but rather weighting individual persons in each nation by how much output per capita is produced in that nation relative to the average output produced by all individuals in all nations.

For purposes of governance, do we believe in weighting jurisdictions by how much output and wealth they produce, or by how many individuals are resident within the jurisdictions?

Within **democratic nations, the second method is unambiguously preferred for public institutions.**

Example of New Jersey and West Virginia.

The presumption is of course different across nations! The IMF is a public institution, but it has specialized functions.

Example of the United States and Brazil.

But just how different should IMF governance be? Accord world shares in population a weight of exactly *zero* once world shares in GDP are taken into account?

More broadly, suppose we stand back from today's political perspectives and take a long view about the history of governance and suffrage:

The notion in a democratic society of one-adult-person-one-vote was certainly not written in tablets of stone at the outset of civilization!

- And yet? Allow only those with significant property to vote?

- And yet? Allow only men to vote, not women?

If you look ahead 50 or 100 years, should you presume that voting rights in world international financial institutions will depend only on the wealth of a nation's residents, giving literally a weight of zero to the number of people living in a nation independently of the wealth of that nation?

Rich nations always get more votes in proportion to their wealth, regardless of their populations, while poor nations, regardless of their populations, have diminished votes because they are poorer and have fewer resources?

Is it really too soon to let the camel's nose a little bit into the tent?

Measuring the "Variability" or "Volatility" of International Transactions?

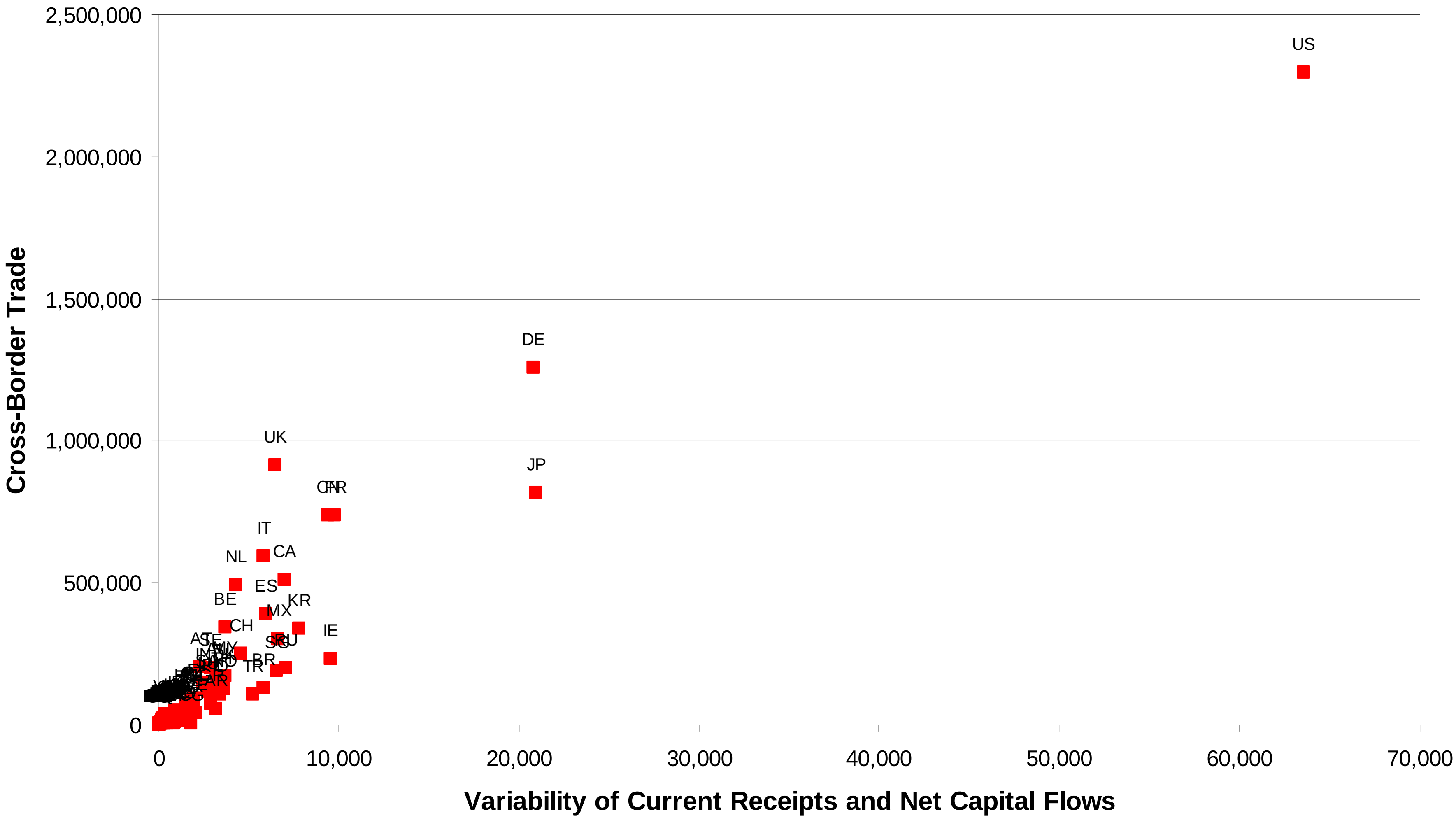
The "variability" variables used in the existing-formula calculations -- and even the substitute volatility variables suggested -- are not a sensible measure of *relative* variability across countries.

The conceptual definition of the variables is wrong.

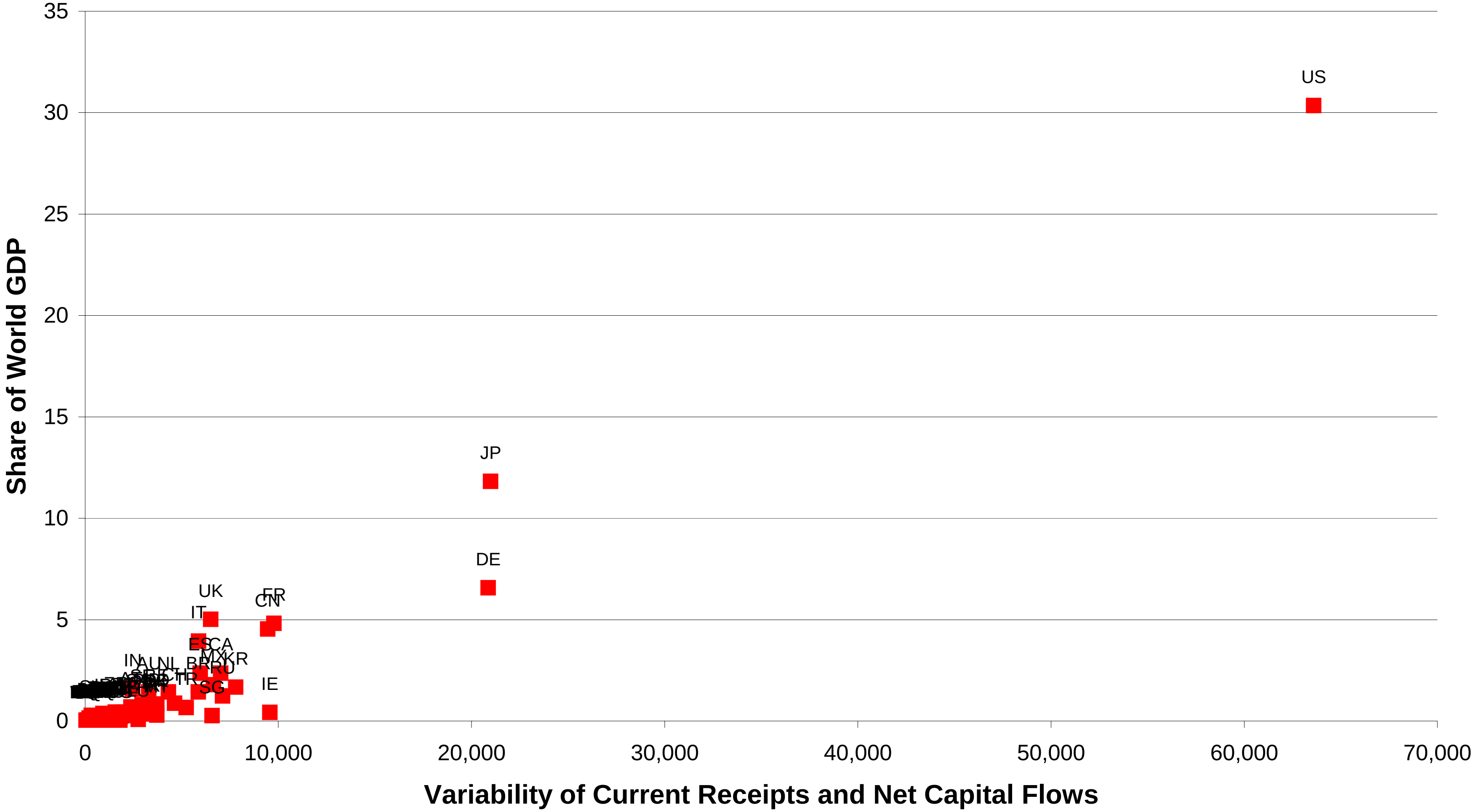
The existing definition of variability is a function of the standard deviation only (one standard deviation from a centered five-year moving average, for a recent 13-year period).

But a measure of the standard deviation should be scaled by some scale variable for the country, for example GDP. Otherwise, the variability indicator is little more than another scale variable highly correlated with trade itself.

Correlation between Existing "Variability" Measure and Cross-Border Trade



Correlation between "Variability" of Current Receipts and Net Capital Flows with Share of World GDP



Correlation between "Variability" of Current Receipts and Net Capital Flows with Share of World GDP, Excluding the U.S., Japan, and Germany