FOR AGENDA

SM/08/350
Supplement 1

January 16, 2009

To: Members of the Executive Board

From: The Secretary

Subject: **Charges and Maturities—Proposals for Reform**

The attached document provides supplementary information relating to the paper on charges and maturities—proposals for reform, which is tentatively scheduled for discussion on **Friday, January 23, 2009**.

The staff proposes the publication of this paper after the Executive Board completes its discussion, together with the main document (SM/08/350, 12/12/08) and a PIN summarizing the Executive Board's discussion.

Questions may be referred to Mr. Giorgianni, SPR (ext. 35326) and Mr. Savastano, WHD (ext. 38545).

This document will shortly be posted on the extranet, a secure website for Executive Directors and member country authorities.

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INTERNATIONAL MONETARY FUND

Charges and Maturities—Proposals for Reform
Supplement

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In consultation with Legal and other departments

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January 16, 2009

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A New System of Surcharges—Sensitivity Analyses of Staff's Proposal

In SM/08/350, staff proposed a new system of surcharges to replace the current system. At an informal seminar on December 16, 2008, Directors expressed interest in comparing the staff proposal with other possible surcharge systems. The question was also raised about the sensitivity of the pace of reserve accumulation to the level of credit outstanding. This supplement seeks to address these two issues.

I. Alternative Surcharge Systems

1. **Table 1 summarizes the main features of the six alternative surcharge systems examined in this supplement**. All the systems combine level-based and time-based surcharges, but differ in (i) the access threshold (in percent of quota) after which surcharges start to apply; (ii) the time at which the time-based surcharge(s) kicks in; and (iii) the level of the surcharges.

- Schedules 1 and 2 consist of a single level-based surcharge and a single time-based surcharge, as in the staff proposal of SM/08/350. In both schedules, the size of the level-based surcharge is 200 basis points: in Schedule 1, this is applicable to access above 500 percent of quota, while it is applicable to access above 300 percent of quota in Schedule 2. In both schedules, the time-based surcharge applies after 36 months: in Schedule 1, the size of this surcharge is 100 basis points, while it is 50 basis points in Schedule 2.

- Schedules 3–4 combine a single level-based surcharge (respectively of 200 and 100 basis points) applying to access above 300 percent of quota, but two time-based surcharges of different sizes and kicking in at different times;

- Schedule 5 contains two level-based surcharges each of 100 basis points (the first applicable to access between 200 percent and 500 percent of quota and the second to access above 500 percent of quota) and one time-based surcharge of 100 basis point kicking in after 36 months;

- Schedule 6 contains three level-based surcharges each of 100 basis points (the first applicable to access between 200 percent and 300 percent of quota, the second to access between 300 percent and 500 percent of quota, and the third to access above 500 percent of quota) and one time-based surcharge of 100 basis point kicking in after 36 months.

Table 1. Alternative Surcharge Schedules

	Current schedule	Proposed schedule as in SM/08/350	Alternative schedules 1	2	3	4	5	6
Level-based surcharge	Y	Y	Y	Y	Y	Y	Y	Y
Number of tiers	2	1	1	1	1	1	2	3
Quota threshold								
First tier	200	300	500	300	300	300	200	200
Second tier	300						500	300
Third tier								500
Surcharge (cumulative, bps)								
First tier	100	200	200	200	200	100	100	100
Second tier	200						200	200
Third tier								300
Time-based surcharge	N	Y	Y	Y	Y	Y	Y	Y
Number of steps		1	1	1	2	2	1	1
Duration trigger (in months)								
First step		36	36	36	27	24	36	36
Second step					39	36		
Surcharge (cumulative, bps)								
First step		100	100	50	50	100	100	100
Second step					100	150		

Source: Finance Department, IMF.

2. **The effects of these alternative surcharge systems on the potential cost for borrowers and, relatedly, the Fund's income depend on a number of parameters**. As discussed in SM/08/350, the amount and distribution over time of surcharge income from high access arrangements and, accordingly, the pace of accumulation of precautionary balances, depend on the type of Fund arrangement (e.g., under the SRF versus in the credit tranches), the total amount of access, the phasing of total access, and the repurchase schedule. For ease of comparison, this supplement presents calculations of surcharge income using a hypothetical arrangement with the same parameters used in the calculations reported in Sections IV and V of SM/08/350, namely, a 24-month Stand-by Arrangement (SBA) for a member country with quota of SDR 1300 million. One third of the total access under the arrangement is assumed to be disbursed upon approval, while the remaining two thirds is assumed to be evenly distributed in eight quarterly purchases. For the purposes of this exercise, repurchases are assumed to follow the obligations schedule, in order to highlight the impact of different assumptions for the time-based surcharge. As discussed in SM/08/350, however, the purpose of the time-based surcharge is to provide a price incentive for early repayment to substitute for the TBRE policy. Accordingly, the effective cost for borrowers and surcharge income for the Fund would be lower than indicated here to the extent members respond to the incentives in the new system and repay the Fund in advance of the obligations schedule. As in Table 6 of SM/08/350, surcharge income is calculated for three different access levels: 400, 800, and 1200 percent of quota.

II. Implications for Surcharge Income and Precautionary Balances

3. **The alternative surcharge systems considered here would in some cases have a significant impact on potential surcharge income for the Fund**. Compared to the system proposed in SM/08/350, the impact would be largest with Schedules 1 and 6 (Table 2, Figure 1). The former would yield consistently lower surcharge income, reflecting the higher threshold for the introduction of surcharges (500 percent of quota rather than 300 percent as proposed in SM/08/350), while the latter would yield consistently higher surcharge income. The differences are less marked, but still significant, with Schedules 2-5. Schedule 3, which has two time-based steps, would potentially yield moderately more than the proposal in SM/08/350 at higher access levels, while Schedules 2, 4, and 5 would yield moderately less.

Table 2. Comparison of Surcharges Income under Alternative Schedules
(in SDR millions) 1/

	Current schedule	Proposed schedule as in SM/08/350	Alternative schedules 2/ 1	2	3	4	5	6
Access of 400 percent of quota								
Surcharge income	97.4	51.5	0.0	51.5	52.2	29.2	83.3	107.5
Change relative to current schedule			-97.4	-45.9	-45.2	-68.1	-14.1	10.2
Change relative to proposed schedule as in SM/08/350			-51.5	0.0	0.7	-22.2	31.8	56.1
Access of 800 percent of quota								
Surcharge income	473.4	473.4	191.8	439.3	516.8	438.2	447.4	643.5
Change relative to current schedule			-281.7	-34.1	43.3	-35.2	-26.0	170.1
Change relative to proposed schedule as in SM/08/350			-281.7	-34.1	43.3	-35.2	-26.0	170.1
Access of 1200 percent of quota								
Surcharge income	886.0	984.8	615.9	898.6	1085.5	953.9	915.7	1321.9
Change relative to current schedule			-270.2	12.6	199.5	67.8	29.7	435.9
Change relative to proposed schedule as in SM/08/350			-368.9	-86.1	100.8	-30.9	-69.1	337.2

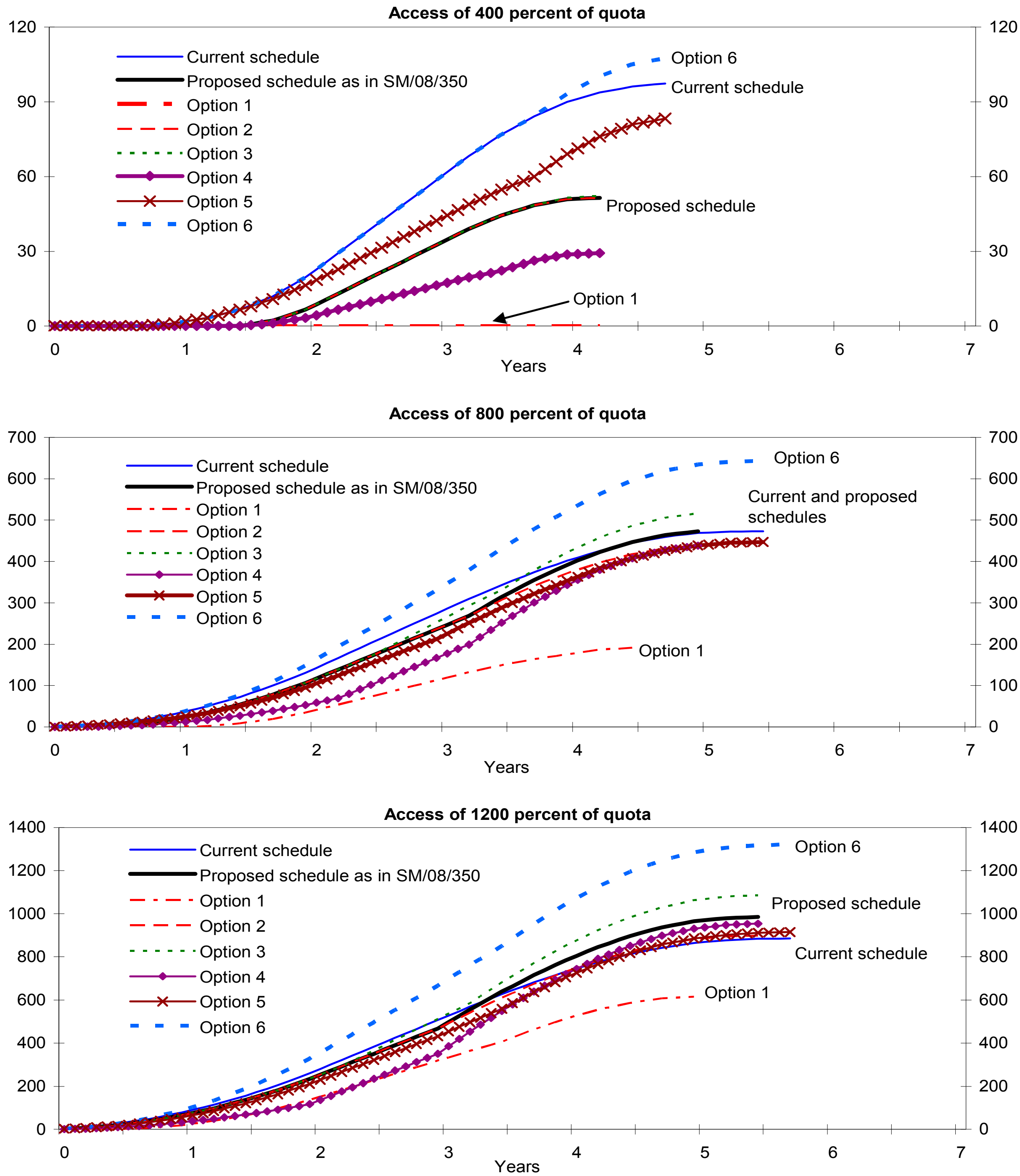
Source: Finance Department, IMF.

1/ Calculations assume a 24-month SBA where one-third of the committed resources is disbursed upon approval, and the remaining two-thirds are evenly disbursed in eight quarterly installments. Repurchases are assumed to follow obligation schedule. The quota of the country is assumed to be SDR 1300 million.
2/ Key parameters of surcharge schedules as described in Table 1.

4. **The potential effects of these alternative schedules on the pace of accumulation of precautionary balances are summarized in Figure 2.** In all cases, the scenarios use the stylized example in Figure 8 of SM/08/350, where total credit outstanding stays constant at SDR 40 billion, of which SDR 30 billion is assumed to be subject to surcharges.[1] Examples are provided assuming access of 500 percent of quota (top panel) and 1000 percent of quota (bottom panel). These scenarios should be viewed as purely illustrative as, in practice, total Fund credit outstanding is not constant, but rather varies significantly over time and tends to

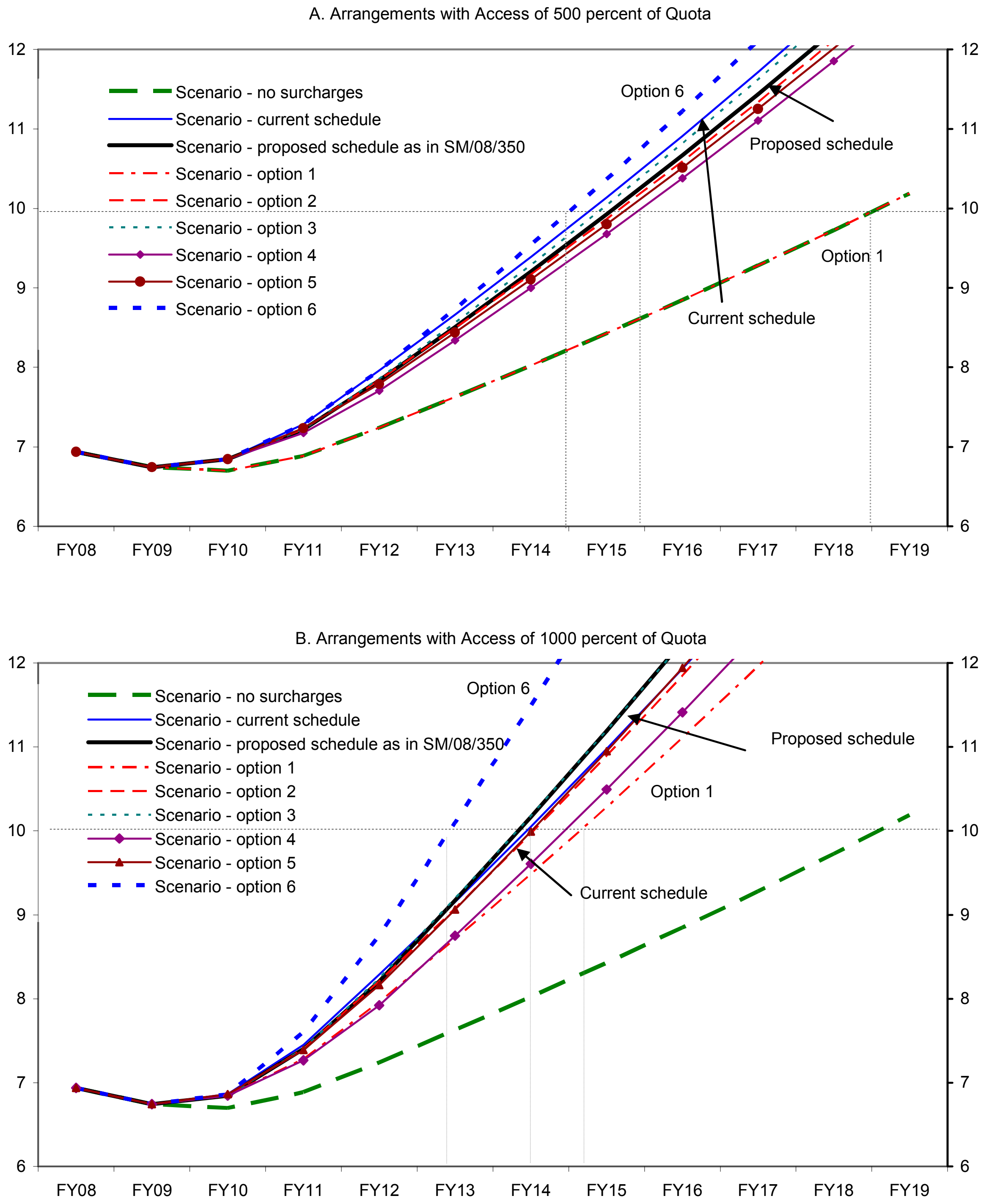
[1] See *Review of the Role and Adequacy of the Fund's Precautionary Balances,* EBS/08/110 (9/24/08), page 19.

Figure 1. Cumulative Surcharge Income under Alternative Schedules
(in SDR millions) 1/ 2/



Source: Finance Department, IMF.
1/ Key parameters of surcharge schedules as described in Table 1. Calculations assume a 24-month SBA where one-third of the committed resources is disbursed upon approval, and the remaining two-thirds are evenly disbursed in eight quarterly installments. Repurchases are assumed to follow obligation schedule. The quota of the country is assumed to be SDR 1300 million.
2/ Lines end at different points in time to reflect that surcharges apply only when outstanding credit remains above the access threshold, with the latter varying according to different options.

Figure 2. Reserve Accumulation Under Alternative Surcharge Schedules
(in SDR billions) 1/



Source: Finance Department, IMF.
1/ All scenarios assume SDR 40 billion of credit outstanding (credit tranches terms) for arrangements with access of 500 percent (Panel A) and 1000 percent (Panel B) of quota. Scenarios assume that SDR 10 billion in credit outstanding is not subject to surcharges.

be subject to large cycles of uncertain size and duration. As a result, precautionary balances do not increase smoothly over time; instead, they rise faster in the early years of high-access Fund arrangements, and flatten out before those loans are fully repaid (Figure 1; see also the projections for surcharge income presented in the recently issued Board paper on the medium-term income and budget framework).[2] In addition, actual income from surcharges and the build up of precautionary balances will depend on many factors not captured by the above simulations, including how members respond to the incentives embedded in a new system of surcharges.[3]

5. **All things considered, staff believes that the surcharge system proposed in SM/08/350 strikes a good balance between the need to reduce complexity and preserving income.** Of the alternative systems considered in this supplement, Options 3, 4, 5, and 6 would seem less consistent with the goal of reducing complexity, because of themultiple tiers of level- and time-based surcharges. The remaining (single-tier) systems considered in this supplement (Options 1 and 2) go further in the direction of reducing complexity, but Option 1 has the disadvantage of delivering income levels and a pace ofAccumulation of precautionary balances that are much lower than those arising from the existing surcharge system and that proposed in SM/08/350.

III. Sensitivity of Reserve Accumulation to Credit Outstanding

6. **A question was raised at the informal seminar about the sensitivity of the pace of reserve accumulation to the amount of credit outstanding.** In Figure 8 of SM/08/250, scenarios were provided to compare the pace of accumulation of precautionary balances under the current and proposed system of surcharges with two levels of access—500 percent of quota and 1000 percent of quota. As noted above, these scenarios all assumed a constant level of credit of SDR 40 billion. Figure 3 illustrates the sensitivity of these estimates to different levels of credit outstanding using the scenario with access of 500 percent of quota. The simulations suggest that the precautionary balances target of SDR 10 billion would be reached in about five years when total credit outstanding is held constant at SDR 50 billion, compared with about six years when it is SDR 40 billion, and about eight years when it is SDR 30 billion. As noted, however, these stylized examples should be treated with caution, as they do not capture the highly variable nature of Fund lending, and are also based on highly simplified assumptions—including concerning the share of total Fund credit that is subject to surcharges.

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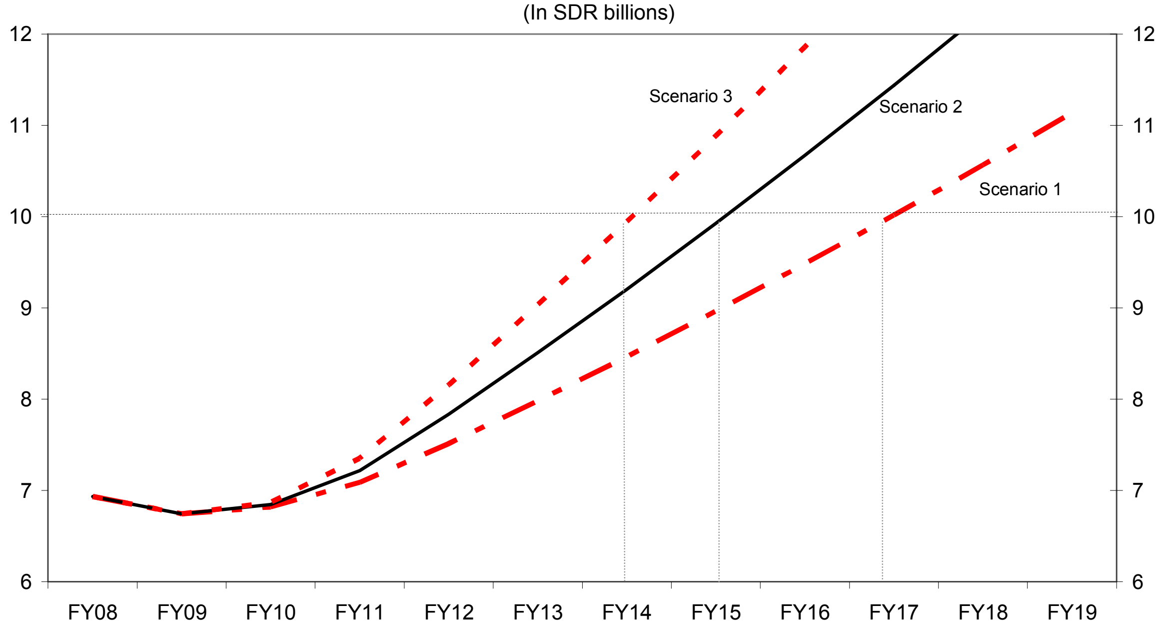
[2] Consolidated Medium-Term Income and Budget Framework, EB/CB/08/6, (12/29/08), Tables I.1–I.4.

[3] As noted, under the system proposed in SM/08/350, should members opt to repay early to avoid the time-based surcharge, surcharge income would be lower than what is suggested by the estimates presented in Table 2 and Figure 1, which assume that repayments of the hypothetical SBAs follow the obligations schedule.

Figure 3. Reserve Accumulation Scenarios
(In SDR billions)



Source: Finance Department, IMF.

Scenario 1: Credit = SDR 30 billion, SDR 20 billion subject to proposed surcharge schedule in the credit tranches (access of 500 percent of quota).
Scenario 2: Credit = SDR 40 billion, SDR 30 billion subject to proposed surcharge schedule in the credit tranches (access of 500 percent of quota).
Scenario 3: Credit = SDR 50 billion, SDR 40 billion subject to proposed surcharge schedule in the credit tranches (access of 500 percent of quota).