

**INFORMAL
SESSION TO
ENGAGE**

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To: Members of the Executive Board

From: The Acting Secretary

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Questions: Ms. Allain, OBP (ext. 36349)
Mr. Alper, OBP (ext. 35907)



January 18, 2023

THE FUND'S BUDGET DEFLATOR

Approved By
Michele Shannon

Prepared by the Office of Budget and Planning (OBP) team led by Emre Alper under the supervision of Laurence Allain with contributions from Feras Abu Amra, Gillian Adu, Maria Albino, Leslie Alvarez, Anand Balakrishnan, Raquel Chuayffet, Angeliki Economopoulos, Huda Etushani, Benjamin Fosu, Cher Huo, Peter Mataruse, Lewis Murara, Mercy Pinargote, Delano Radgman, Andrea Salerno, Haydn Schaefermeyer, Anika Shtuni, Karen Toledo, Nomelie Veluz, and Barrie Williams.

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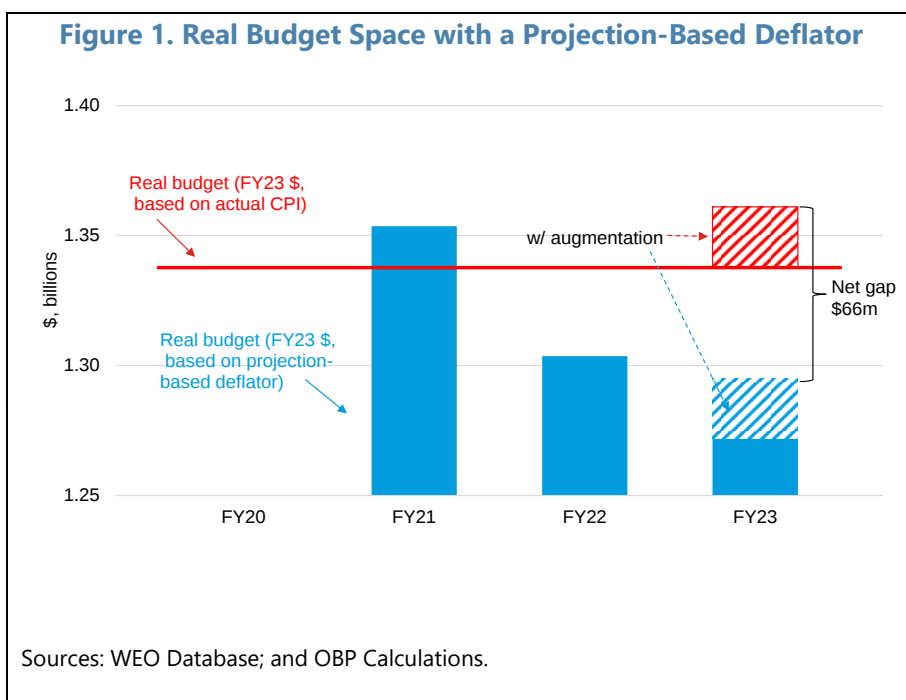
SECTION I. OVERVIEW

1. **Budget Framework:** Fiscal discipline has long been a fundamental principle underlying the Fund's budget, and this remains the case. Through continuous reprioritization and savings, the Fund maintained a real flat envelope for a decade despite a significant expansion of demands from the membership. The increased volume of activity in new areas was absorbed by reduced volume of activity in other areas.
2. **Addressing members' needs:** In [December 2021](#), the Executive Board agreed in principle to a three-step budget augmentation, recognizing this long period of consolidation and the need to address material new demands related to addressing longer-term challenges (climate, digital money, macrofinancial surveillance, fragility and inclusion/gender). The membership agreed this work could not be absorbed within the existing envelope without risks to delivery in the Fund's traditional core areas—especially important during this period of heightened needs, amidst a global environment marked by multiple shocks. Implementation was formally approved in the context of the [FY23-25 budget](#).

SECTION II. ISSUE

3. **A new challenge** has arisen that is putting the Fund's capacity to deliver at risk (Figure 1). Specifically, during a period of unprecedented gaps between projected and actual inflation, the use of deflator based on projections (adopted in FY21, Box 1) has led to a projected cumulative loss for FY21-23 of \$66 million in real budget space (FY23 prices, 5.2 percent of the net administrative budget).

- This gap reflects large negative differentials in FY22 and FY23 only partially balanced by a small positive differential between actual and projected inflation in FY21. Indeed, the extraordinary increase in U.S. CPI inflation—to its highest levels in last four decades—has led to one-sided forecast errors that are creating a divergence from the flat real concept.



- The Fund's budget framework, based on a real flat anchor and a U.S. CPI-based deflator since FY21, anticipates a deflator methodology that provides a strong proxy for actual inflation. In this way, price dynamics over time are captured, and the volume of real space is held constant. While the projection-based methodology adopted in FY21 was well aligned with historic patterns, it has not proved robust during the recent period of extraordinary inflation pressures and large, one-sided U.S. CPI forecast errors, with no existing correction mechanism (Figure 2). This is a new challenge, as the component-based deflator in place through FY20 adjusted for underlying price movements over time.

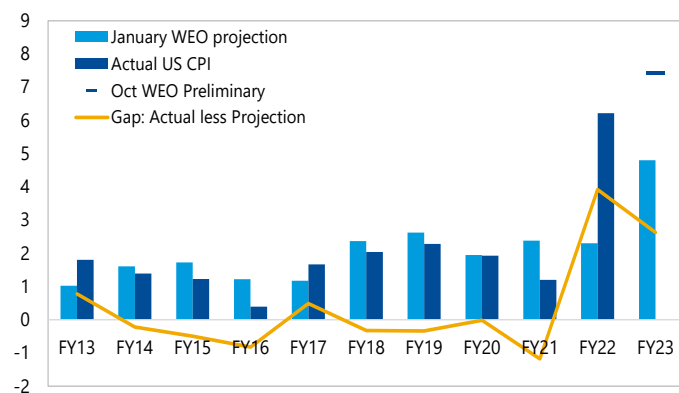
Box 1. 2019 Update to Deflator

In December 2019, at the time of the Comprehensive Compensation and Benefits Review (CCBR), the Executive Board agreed to adjust the Fund's budget deflator. Prior to this decision, the deflator was based on a weighted average of underlying costs, with a 70 percent weight based on changes in structural salaries and the remaining 30 percent based on U.S. CPI. The reform moved away from a component-based deflator by decoupling the deflator from the salary structure. As a result, the budget is expected to absorb any salary-inflation differentials.

Projected CPI, based on the Jan WEO Update, was adopted during the FY21-23 budget cycle to operationalize the new methodology. A robustness check carried out at the time concluded that WEO inflation forecasting errors had been historically small and two-sided, broadly balancing out over time (Figure 2). It also was recognized that if forecast errors were one-sided for a prolonged period, the actual budget could diverge from the flat real concept, as forecast errors compound. Staff committed to reporting in the annual budget outturn paper the inflation forecast errors from previous budgets and their cumulative impact, if any, on the budget envelope.

- To address this issue, staff are proposing an update to the methodology for calculating the deflator. Importantly, this update does not change the framework for the deflator agreed at the time of the CCBR reforms. No expansion in the real budget is sought, nor is staff proposing a return to a deflator linked to structural salary changes. Rather, the goal is to ensure the deflator reflects actual inflation, as originally conceived, and avoids a real budget contraction of a scale roughly equivalent to that of the augmentation approved in FY22.

Figure 2. U.S. CPI—Projection vs. Actual
(Percent)



Sources: WEO Database; and OBP Calculations.

4. Is this really a problem? While underlying cost dynamics may differ from actual inflation in any given year, costs can be expected to catch up over time. As such, maintaining constant real space requires that differentials between U.S. CPI and underlying costs be saved in years where there is a positive gap to cover future negative differentials.

- For non-salary costs (about 25 percent of the budget) price pressures are already evident, including for travel, some benefits, services, and subscriptions. Some benefits not linked to salary movements have also seen sizable increases.
- For personnel costs (about 75 percent of the budget), the structural salary increase was lower than the deflator in FY22 and FY23. However, the effect of inflation can be expected to lag under the comparator-based system for calculating Fund salaries. This reflects both the backward-looking nature of the comparison mechanism and an inherent lag in the impact of broader price movements on salaries. If the impact of projection errors on the deflator is not addressed, the Fund has no mechanism to absorb such future changes short of a real contraction in activity. This presents a critical risk to the budget.

5. Why can't this gap be absorbed? Reprioritization and savings continue to play a central role in ensuring the mix of Fund activities responds to high and changing real demands. During a period of intense demand on the Fund, they cannot at the same time address a price-based contraction of this scale, which would in effect unwind the augmentation. Indeed, seeking to absorb such large changes is inconsistent with the real flat principle underlying the Fund's budget framework.

- Likewise, carryforward resources—which are one-off in nature and appropriate only to address temporary needs—cannot address the structural effects of this gap. As a practical matter, available carryforward resources are largely allocated, with current projections for FY23 utilization suggesting a drawdown of part of these resources this year. The scale of available carryforward resources is in any case expected to decline over time.
- The extraordinary nature of price movements during this period has led to gaps that would not be expected to be self-correcting through the normal two-way deviations between projections and actuals. In the pre-crisis period, such deviations tend to be limited (about 0.4 percent in absolute terms in FY13-20), moving in both directions. On a forward-looking basis, there is no basis to assume sustained one-sided over-projection that would close this gap. As such, without a change, the expectation is that the Fund would face a permanent real contraction in its budget, requiring a reduction in activity.

6. Comparators (Box 2). A review of comparators points to the existence of a wide range of budget frameworks and methodologies for ensuring budget discipline within a transparent framework, suggesting no one-size-fits-all model for determining the appropriate deflator.

Box 2. Comparators

Governments. The Fund's budget model differs from most governments, where discretionary adjustments may be considered to address changing conditions. Countries with budgets set in real terms (e.g., Netherlands, Finland, Denmark) may adjust the deflator in-year to respond to forecast changes and the availability of outturn data. Some countries use nominal ceilings, with flexibility to increase budgets in future to account for inflation surprises (e.g., Australia, Sweden, and UK for pensions policy). Other countries include flexibility for one-off measures to respond to higher than forecast inflation (e.g., Canada, Ireland, and France).

International organizations have varying budget frameworks, with differing anchors (e.g., real/nominal anchors, lending/income volumes; annual zero-based needs assessment) and use of both backward- and forward-looking projections in calculation of deflators, where relevant. Deflators include both component-based structures (with links between the deflator and salaries) and use of CPI-based anchors. Some adhere to zero-based frameworks, similar to the Fund, with one noting that their upcoming budget is likely to include an ad hoc request related to price changes. Others indicated discretion to request a budgetary adjustment in response to inflation, either intra-year or in the following cycle. A few noted the availability of contingency reserves that can be used for this purpose.

SECTION III. OPTIONS

7. In an initial discussion in November, Board members generally expressed openness to consider the issue and asked for staff to present options to update the deflator methodology. Such options are outlined below, including a proposal to reflect actual inflation, as requested by several Directors (Table 1). Recognizing the need to ensure no double counting in the first year of the change, a transitional factor is calculated for each option to provide for one-time rebasing of the deflator under a new methodology:

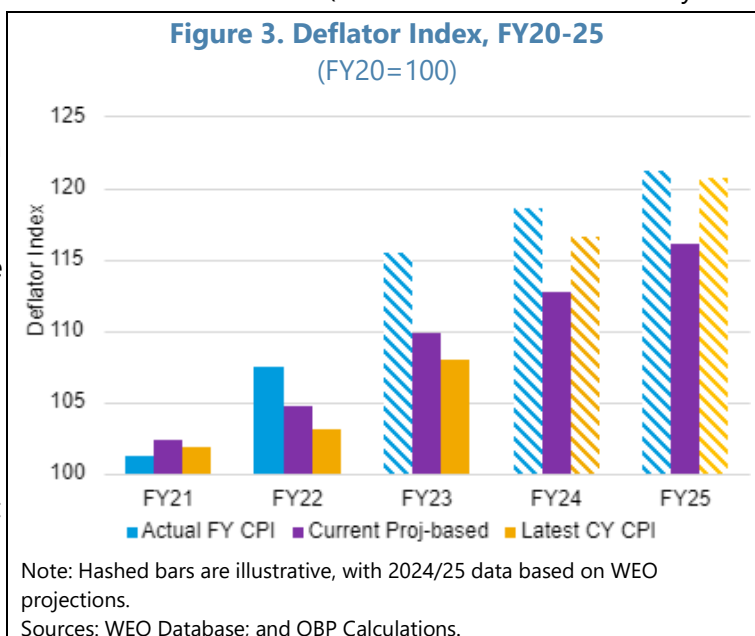
- For the first three options, where a change in the underlying deflator methodology is proposed to incorporate actual inflation, a consistent approach is applied to rebase the series as follows:
 - An index for the notional deflators under each option is calculated for FY21-23.
 - This index is compared with that for the projection-based deflator for FY21-23.
 - A transitional factor is calculated as the difference and applied to the FY24 baseline deflator. The scale of the transition factor is affected by differing lags in underlying data for the different options.
- For the fourth option, which maintains the existing projection-based deflator, the transition factor addresses the gap between projected and actual CPI for FY21-23.

Table 1. Deflator—Options
(percent)

	FY21	FY22	FY23	FY21-23	FY24			
					FY24 base	Rule-based Adjustor	Transition Factor 1/	FY24 Total
FY Actual	1.2	6.2	7.4	15.5	...	...	...	...
Current projection-based	2.4	2.3	4.8	9.8	2.7	...	...	2.7
1. Actual CPI, latest CY	1.8	1.2	4.7	7.9	8.1	...	-1.7	6.2
2. Projection w/rules-based adjustor	2.4	1.6	3.6	7.8	2.7	3.9	-1.8	4.8
3. Actual CPI, latest 2-yr avg CY	2.1	1.5	3.0	6.8	6.4	...	-2.8	3.4
4. Projection w/ one-time adjustor	2.4	2.3	4.8	9.8	2.7	...	5.2	8.0

1/ For options 1, 2, and 3, change needed to address difference between a) deflator under the proposed methodology for FY21-23, and b) the projection-based deflator for the same period. For option 4, one-time adjustment for differential between projection-based deflator on actual CPI for FY21-23p.

8. Revised proposal—Deflator based on actuals (Figure 3). Based on initial feedback from the Board, staff propose shifting to a deflator based on actual inflation (as observed in the calendar year prior to budget approval). Such an approach is simple and would ensure that the deflator fully captures actual price movements over time, albeit with a short lag. This lag is expected to be manageable since the key budget risks arise from permanent deviation from the flat real path under a projection-based system (which would not be an issue with use of actual inflation). Annex Figure 1 visualizes how the transition factor ensures alignment with inflation developments over time, thereby correct for extraordinary inflation developments in FY21-23 (with a simplifying assumption that inflation is stable beginning in FY25).



- Applying this methodology beginning in FY21 would have led to a cumulative deflator of 7.9 percent over FY21-FY23. This compares to a 9.8 percent cumulative deflator under the existing projection-based methodology. A one-time transition factor of -1.7 percent is applied.
- For FY24, the deflator base would be calculated based on CY22 CPI at 8.1 percent (preliminary). With the transitional factor applied, the FY24 deflator would be 6.2 percent.

9. Projection-based deflator with rules-based adjustor. In November, staff presented an option which maintained a projection-based deflator, with a rule-based adjustor to account for observed gaps between projections and actuals in previous years. The mechanism maintains a forward-looking element but allows for two-way corrections. While some chairs saw merit in the proposal, others were concerned that it is overly complex.

- Applying this methodology beginning in FY21 would have led to a cumulative deflator of 7.8 percent through FY23 versus 9.8 percent under the projection-based deflator. As such a -1.8 percent one-time rebasing adjustment would be applied in FY24.
- For FY24, the deflator would be calculated based on FY24 projected CPI (2.7 percent), with a rule-based adjustor of 3.9 percent. The adjusted deflator, including the transitional factor, would be 4.8 percent.

10. Two-year rolling average, actual U.S. CPI: There was also a suggestion to use of a deflator based on a multi-year average to support smoothing of potential fluctuations in inflation between years. Option 3 is based on CPI averaged over the two most recent calendar years for which actual CPI is available. This mechanism would increase the lag effect, which in the current context implies a slower catch-up. This would carry risks in the current juncture if underlying cost pressures escalated quickly. To address this, the transition factor could be split over two years (not shown in table).

- Applying this methodology beginning in FY21 would have led to a cumulative deflator of 6.8 percent through FY23 versus 9.8 percent under the projection-based deflator. As such a -2.8 percent one-time rebasing adjustment would be applied.
- For FY24, the deflator base would be calculated as the average of CY21 and CY22 U.S. CPI, or 6.4 percent. With the transitional factor, the FY24 deflator would be 3.4 percent.

11. One-time adjustment: Another suggestion was for a one-time ad hoc adjustment to address the cumulative gap through FY23, assuming FY22 and FY23 inflation are likely to be outliers. Such a proposal would allow for an exceptional correction, while maintaining the benefits of a forward-looking deflator. However, given ongoing inflation uncertainty, there is a significant risk that this type of ad hoc adjustment would need to be repeated.

- Applying this mechanism, a 5.2 percent one-time adjustment would be needed.
- For FY24, the deflator base would be projected CPI for FY24, or a preliminary 2.7 percent. With the one-time adjustment, the deflator would be 8.0 percent.

Annex I. Illustrative Difference

