# Adding Gold into the Valuation of the SDR

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Catherine R. Schenk
University of Glasgow

Catherine.schenk@gla.ac.uk

The SDR functions as a unit of account as well as forming a small part of national reserves of the international monetary system. There is a range of obstacles to the development of the SDR into an international currency (means of exchange) and to enhancing its role as an international reserve asset (store of value). This includes the limited liquidity, lack of secondary market and the constraints on its use. The SDR is a right to claim convertible currency from other IMF members rather than being a liquid convertible asset itself.

The valuation of the SDR is based on a weighted basket of international currencies chosen for their convertibility/free usability (Article XXX(f)) as well as importance in international trade and foreign exchange reserves. These properties constrain the components of the basket: the RMB, for example, is not part of the SDR valuation because the RMB is not a fully convertible currency.

Introducing gold into the valuation of the SDR might achieve several goals:

- Re-introduce a role for gold in the international monetary system (meeting some calls for this to take place)
- Provide a counterweight to the impact of the depreciation/appreciation of the US$ (and other currencies) since gold price tends to be inversely related to US$
- Reduce vulnerability to the USD exchange rate (although this could also be achieved by reducing the USD weighting – but in favour of what currency? Euro is vulnerable, Japanese economy is not growing, UK is small)

There are several obstacles:

- If gold operates similarly to other components in the basket, some agency would need to be ready to provide gold when SDR claims are presented
- Gold price tends to be volatile in times of economic uncertainty (when stability is required) and may be prone to 'bubbles'

Possible mitigation of obstacles

- Keep the gold share modest (proposed 5% of SDR value)
- IMF gold could be used to back the potential claims on gold from holders of SDR (at end August 2011 holdings = 90.5 million ounces with a market value of $164.1 billion – total allocations of SDR = SDR205 billion or $323 billion worth)
- Gold claims could be 'residual', i.e. gold could only be claimed when no convertible currency is available through voluntary agreements – this would reduce the strain on the IMF's gold reserves
- Countries in surplus with substantial gold reserves could be designated to buy SDR for gold in the same way they may be designated to buy SDR with freely usable currencies
- Use gold only for valuation and not include any right to sell SDR for gold.

Impact

- Would tie up or 'earmark' the IMF's gold reserves
- Provides a precedent for 'tier 2' SDR claims that might facilitate including the RMB
- Reduce interest payable on SDR balances (since gold has no market rate of interest)

**Model:**

Based on the quinquennial review of SDR valuation methodology where the weights are chosen, the currency values are determined that reflect these weights and then the monthly valuation of SDR in terms of USD is calculated on that month's exchange rates to the USD.

The actual weights and currency amounts for each component were reduced by 5% to allow a 5% weight for gold. The amount of gold at each review was determined as a residual to keep the USD value of the SDR at the same rate as the December 2005 and December 2010 (similar to the determination of currency amounts)

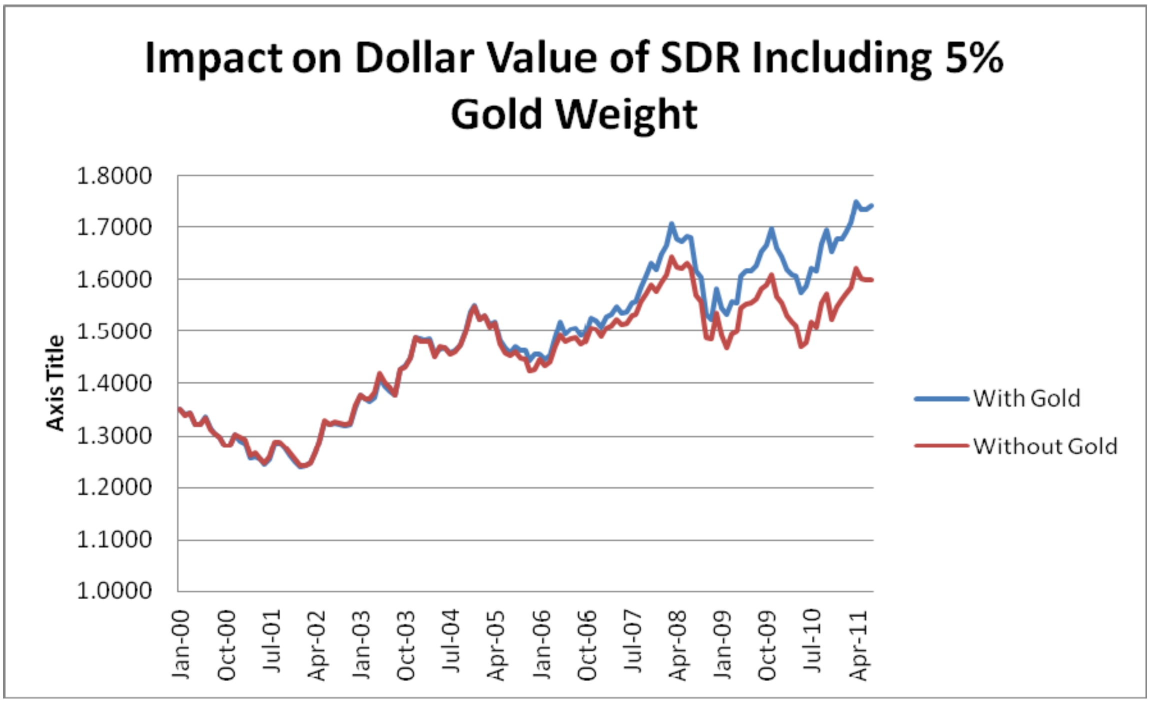
Notional Weights: %

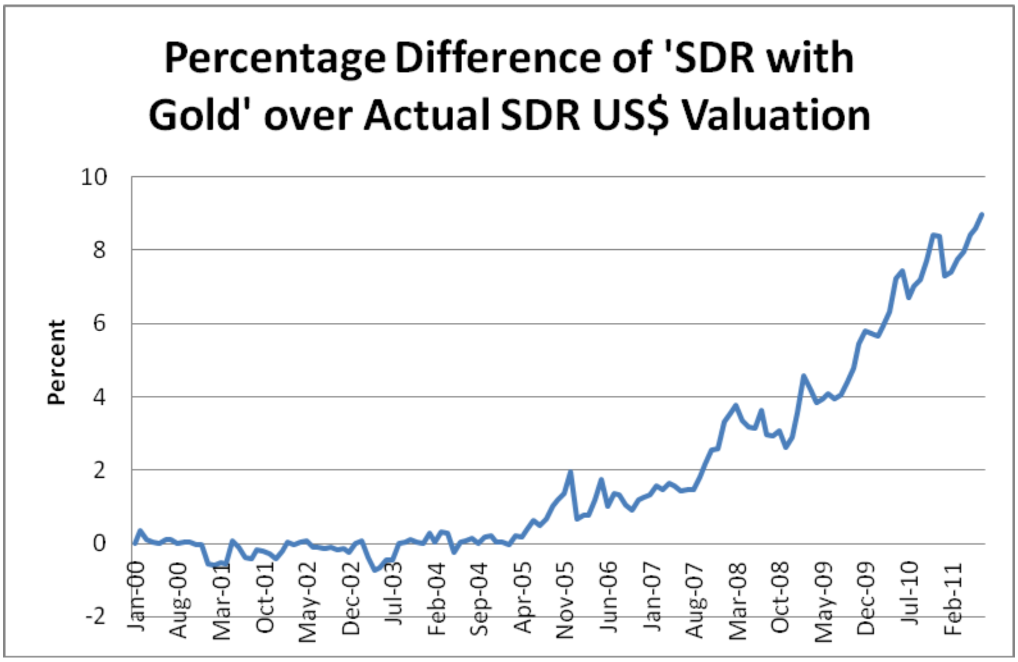
| | Gold | USD | Euro | Yen | Pound | Total |
|---|---|---|---|---|---|---|
| Jan 2000 | 5.0 | 42.75 | 27.55 | 14.25 | 10.45 | 100 |
| Jan 2006 | 5.0 | 41.8 | 32.3 | 10.45 | 10.45 | 100 |
| Jan 2011 | 5.0 | 39.805 | 35.53 | 8.93 | 10.735 | 100 |

Notional Currency Amounts (in national currency units or ounces of gold)

| | Gold | USD | Euro | Yen | Pound |
|---|---|---|---|---|---|
| Jan 2000 | 0.000238 | 0.553 | 0.3343 | 25.84 | 0.0998 |
| Jan 2006 | 0.000149 | 0.6004 | 0.3895 | 17.48 | 0.08579 |
| Jan 2011 | 0.000142 | 0.627 | 0.40185 | 11.495 | 0.10545 |

Notes: the exchange rate for the Yen is expressed in terms of currency units per USD, other rates are expressed as USD per currency unit.

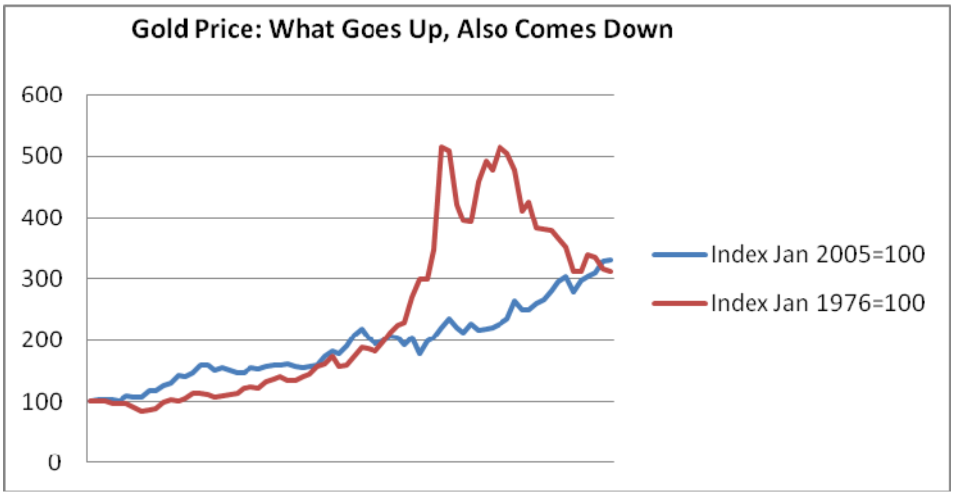



**Outcome**

- If gold had been included in the valuation of the SDR since 2000 it would not have had a significant impact until the surge in the gold price from May 2005.
- By July 2011, the SDR would be valued 9% higher in terms of USD than it was without gold included.
- Standard Deviation of monthly valuation is slightly higher with gold (.1412 vs .1103).
- Restoring the 5% gold valuation in the basket at each review period requires a sharply decreasing amount of gold in the basket (the volume halved from 2000 to 2011).
- A higher valuation of the SDR increases the price in terms of currencies when SDR are sold – so increases the potential claim on issuers of 'usable' currencies and increases the balance-sheet valuation of holders' reserves – offsetting some of the effects of dollar depreciation.

- Increasing the amount of gold in the basket will have a proportionally larger impact on valuation.



APPENDIX

IMF Determines New Currency Weights for SDR Valuation Basket

Press Release No. 10/434

November 15, 2010

With effect from January 1, 2011, the IMF has determined that the four currencies that meet the selection criterion for inclusion in the SDR valuation basket will be assigned the following weights based on their roles in international trade and finance:

U.S. dollar 41.9 percent (compared with 44 percent at the 2005 review)

Euro 37.4 percent (compared with 34 percent at the 2005 review)

Pound sterling 11.3 percent (compared with 11 percent at the 2005 review)

Japanese yen 9.4 percent (compared with 11 percent at the 2005 review)

The criterion used to select the currencies in the SDR basket remains unchanged from the 2000 and 2005 reviews: the currencies included in the SDR are the four currencies issued by Fund members, or by monetary unions that include Fund members, whose exports of goods and services during the five-year period ending 12 months before the effective date of the revision had the largest value, and which have been determined by the Fund to be freely usable currencies in accordance with Article XXX (f) of the Fund's Articles of Agreement. The weights assigned to these currencies continue to be based on the value of the exports of goods and services by the member (or by members included in a monetary union) issuing the currency and the amount of reserves denominated in the respective currencies that are held by other members of the IMF. These initial currency weights are rounded to one decimal place, rather than to the nearest whole percentage point as in past reviews.

The amounts of each of the four currencies to be included in the new SDR valuation basket will be calculated on December 30, 2010 in accordance with the new weights, and will go into effect on January 1, 2011. The calculation will be made on the basis of the average exchange rates for these currencies over the three months ending on that date in such a manner as to ensure that the value of the SDR will be the same on December 30, 2010 under both the revised valuation and present valuation baskets.

http://www.imf.org/external/np/sec/pr/2010/pr10434.htm

## Method:

- Set the Euro/Dollar/Yen/£ currency values and the gold ounces amount for each benchmark year (2000, 2005, 2010)
- Establish the weights: Reduce currencies by 5% each and add gold at 5% to get 100%
- Reduce the currency values by 5% and calculate dollar values
- Subtract the value of currencies from the value of the SDR in t-1 to get the amount of gold value needed to get to the dollar value of the SDR
- Calculate how many ounces of gold based on dollar price of gold.
- Using monthly data and actual benchmark currency values, so not quite accurate.