The new method of valuing special drawing rights

As a result of amendments to the International Monetary Fund's Articles of Agreement in 1969, the Fund was empowered to create new international reserve assets in the form of special drawing rights (SDRs).[1] During the following three years, 9,315 million of them were allocated to the hundred and more members of the Fund which participated in the scheme, an amount roughly equal to 12% of the total of international reserves at the end of 1969 just before the first allocation. Although their use is at present somewhat restricted by the IMF Articles, SDRs have been widely employed by members needing to draw on their reserves to make payments to other SDR holders. To date, transactions total over SDR 5,000 million. The vast majority of less developed countries have been net users of SDRs, as have been a number of developed countries including the United Kingdom: these SDRs have been acquired by other countries and by the Fund (for example, when they have been used to repay drawings from the Fund).

The IMF Articles specify that SDR 1 is equivalent to 0·888671 grammes of fine gold. In 1969, this was the same as the par value of the US dollar, so that SDR 1 equalled US $1. More recently, the two formal devaluations of the dollar changed its par value to SDR 1 equals US $1·20635 (equivalent to US $42·2222 per fine ounce of gold).

The Articles require that the exchange rates used for transactions in SDRs must be such that a user receives the same value in exchange no matter which currency is employed or which member country supplies it. To give effect to this 'equal value principle', the rules originally provided that exchanges of SDRs against US dollars should be at the dollar's par value, and against other currencies on the basis of their current market rate with the US dollar.

At a time when exchange rates were customarily maintained within narrow margins of parity, this meant that the value of the SDR tended to be stable in transactions against individual currencies and so against currencies in general: except when par values changed, it fluctuated only to the extent of the permitted exchange margin between a particular currency and the US dollar. A change in the par value of a currency affected the value of the SDR in transactions against the currency; and so over time its value against currencies generally could change, the size and direction of the change depending on the balance between devaluations and revaluations.

With the movement towards wider exchange margins, and particularly with the general floating in force after March 1973, the method of valuation produced substantially wider fluctuations than before in the transactions value of the SDR against currencies other than the US dollar and so in its value against currencies in general. This greater volatility tended to conflict with the aim of developing it as the principal reserve asset of a reformed international monetary system. Its adoption as the unit of account for all IMF transactions also focussed attention upon the method of valuation. The Fund therefore has recently adopted a new method of valuation designed to ensure the stability of the value of the SDR against currencies in general – it will, of course, continue to fluctuate against individual currencies in line with their general strength or weakness in exchange markets.

The new method of valuation

During 1973, the Fund's Committee on the Reform of the International Monetary System (the Committee of Twenty) and the Fund's Executive Board examined various alternative methods of valuation. It was quickly accepted that, with the main currencies floating, it would be irrational to continue with a fixed link between one currency (the US dollar) and the SDR; and, at its meeting in Rome in January 1974, the committee agreed

[1] June 1968 *Bulletin*, page 146.

in principle to recommend adoption of a method by which the value of the SDR was based upon the value of a group of major currencies in specified proportions. This came to be referred to as the 'standard basket'. It was accepted that this solution was to be adopted for an interim period only and without prejudice to the method of valuation to be adopted once the reform of the international monetary system had been completed. After further discussion of the technicalities, the Executive Board decided to implement the new valuation as from 1st July.

Under the standard basket, one SDR is equal to the sum of specified quantities of the sixteen currencies whose issuers each accounted for more than 1% of world exports of goods and services in the period 1968–72; these quantities will remain fixed until the composition of the basket is reviewed, which must be within two years. The amounts are shown in Table A.

Table A
The SDR basket
Units of currency in one SDR

US dollar	0·40	Belgian franc	1·6
Deutschemark	0·38	Swedish krona	0·13
Pound sterling	0·045	Australian dollar	0·012
French franc	0·44	Danish krone	0·11
Japanese yen	26	Norwegian krone	0·099
Canadian dollar	0·071	Spanish peseta	1·1
Italian lira	47	Austrian schilling	0·22
Netherlands guilder	0·14	South African rand	0·0082

The weightings used to determine the quantities of each currency in the basket were based mainly on exports of goods and services, but for some countries – particularly for the United States – they were adjusted to acknowledge that trade shares are not necessarily the sole determinant of a currency's importance. These initial weightings are given in Table B. The calculations were necessarily a little arbitrary, because of the need to ensure that there was no discontinuity in the value of the SDR. Thus, the different currency components were combined in such a way that, when valued at market exchange rates on 28th June 1974, they yielded exactly the same value for the SDR in terms of the US dollar as the old method of valuation – that is, SDR 1 equals US $1·20635. From 1st July onwards, however, the SDR value of the dollar, as for any other currency, was free to fluctuate according to the movement of market exchange rates.

Table B
Weights used to determine the basket
Per cent

United States	33	Belgium	3·5
Western Germany	12·5	Sweden	2·5
United Kingdom	9	Australia	1·5
France	7·5	Denmark	1·5
Japan	7·5	Norway	1·5
Canada	6	Spain	1·5
Italy	6	Austria	1
Netherlands	4·5	South Africa	1

The daily calculation

Under the new system, the Fund calculates each day the value of the SDR in terms of each currency used in SDR transactions or in drawings and repurchases. This includes all the sixteen reference currencies in the basket, together with several others.

For the US dollar, the SDR value is obtained by applying market exchange rates against the dollar to each of the other currencies in the basket. The amount of each of these currencies is thus converted into an equivalent number of US cents, and the sixteen amounts of US cents are totalled to give the US dollar value of the basket and therefore of the SDR. The exchange rates used for this calculation are supplied to the Fund under standing arrangements by the authorities in major exchange markets. Except for the yen (the rate for which is reported directly from Tokyo) the Bank of England normally provide the necessary rates; because of the time difference, the Fund can receive the London market's noon rates at the start of the business day in Washington. If the London market is closed, the Fund obtains the material it needs from New York or, failing that, from Frankfurt.

In theory, it would be possible to value other currencies in exactly the same way as for the US dollar. Each of the monetary authorities concerned could report to the Fund the daily market rates for its currency against the other components of the basket, and the total of the local currency equivalents of the components would provide the rate for the SDR in terms of the local currency. However, this would entail a quite unnecessary burden of reporting, besides some problems in obtaining meaningful quotations for all the relevant currencies.

In practice, therefore, a less cumbersome system is used: the value of the SDR for currencies other than the US dollar, whether inside or outside the basket, is calculated by applying local representative rates against the US dollar to the US $/SDR rate. As an example, if on a particular day SDR 1 equals US $1·21052, and the representative rate for the pound is US $2·3950, then SDR 1 would equal £1·21052/2·3950, that is £0·505436. (For currencies with direct quotations – those that are quoted in terms of currency units to one dollar – the two rates would be multiplied and not divided.) The representative market rates used for calculating the SDR values of currencies other than the US dollar are supplied individually by central banks in accordance with procedures established with the Fund. The majority therefore differ from the information used for the SDR/US $ calculation; as already explained, speed and convenience dictate that the rates in this calculation should come from as few centres as possible.

Since 1st July, the Fund has published daily SDR rates for all currencies for which representative rates are provided. The rate against sterling will in future issues of the *Bulletin* be shown in the statistical annex.

The mechanics of IMF operations have not been greatly affected by the basket valuation, although market rates and not par values now apply to all operations. Previously, all transactions in US dollars, and drawings and repurchases in currencies observing 1% margins, were conducted at par.

There will be no change for the time being in the method of valuing the SDR in the UK reserves. In accordance with the convention normally used for floating currencies, the last fixed rate (SDR 2·40=£1) will continue to be used. The Fund, however, for its publication *International Financial Statistics*, intends to use market rates to determine the SDR value of the currencies in members' reserves.

The SDR interest rate

As well as the change in valuation, the rate of interest on the SDR was raised from 1½% to 5% with effect from 1st July. As from 1st January 1975 this rate will normally be subject to a formula which will relate it to a weighted average of daily market interest rates on short-term obligations in five main centres. These rates and the weights to be used to calculate the average are set out in Table C. Unless the Executive Board decides otherwise, the average will trigger changes in the SDR interest rate if it falls below 9% or rises above 11%. Whenever this happens, the SDR rate – starting at 5% – will be adjusted by three fifths of the movement in the average rate beyond 9% or 11%, the result being rounded to the nearest ¼%.

Table C
Interest rates used for SDR average
Weights in per cent

United States:	yields for three-month Treasury bills	47
Western Germany:	three-month inter-bank deposits	18
United Kingdom:	yields for three-month Treasury bills	13
France:	three-month inter-bank rate against private paper	11
Japan:	call money market rate (unconditional)	11