

The SDR as a Unit of Account in Private Transactions

Currency cocktails as a means of reducing the instability of relative currency values inherent in the post-1973 system of floating exchange rates have attracted considerable attention among banking and financial circles.¹ The Special Drawing Right (SDR) of the International Monetary Fund (IMF) has emerged as the best prospect for worldwide use.² However, until quite recently, actual practice has trailed behind the initial promise.

Background

The SDR was created in 1970 under the First Amendment to the IMF's Article of Agreement and was originally designed as a reserve asset ("paper gold") to supplement national holdings of gold and hard currencies.³ Moreover, the SDR was not a tangible medium of exchange like money, but was merely a measuring unit used solely for some bookkeeping purposes of the IMF and Central Banks of IMF member countries.⁴ In this context, and as long as the SDR remained on a gold standard⁵ and closely linked with the U.S. dollar (US\$) under a system of fixed exchange rates, there was little or no impetus for use of the SDR as a unit of account in private international contracts.

The IMF's decision in 1974 to value the SDR in terms of a standard basket of sixteen floating currencies first set the stage for the SDR as an

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¹See Johnson, Hultman & Zuber, *Currency Cocktails and Exchange Rate Stability*, 14 COLUM. J. WORLD BUS. 117 (Win. 1979).

²See Landau, *Will SDRs Become the New Supercurrency?* INST. INVEST. 31 (Aug. 1975).

³THE INTERNATIONAL MONETARY FUND: AN INTRODUCTION, IMF Brochure (Sept. 1981), at 18; Heywood, *The Banks Led the Way in Simplifying the SDR*, EUROMONEY 68 (Dec. 1980), at 68. See further GOLD, SPECIAL DRAWING RIGHTS: CHARACTER AND USE, IMF Pamphlet No. 13 (1970).

⁴Landau, *supra* note 2, at 32.

⁵*Cf.* Table 1 *infra*.

international unit of account.⁶ As distinct from privately created currency cocktails, the SDR has the IMF's official sponsorship. Unlike regional multicurrency composites such as the European currency unit, the SDR was and still is more widely known and generally accepted. Quite significantly, daily publication of IMF-calculated exchange rates for the SDR in terms of the U.S. dollar and other national currencies can obviate potential difficulties, confusion and disputes over proper valuation of the numeraire currency.⁷ Also important is the portfolio effect of a basket of currencies which stabilizes variability of the SDR composite value as compared with variability of individual reference currency values.⁸

In 1975, three SDR-denominated issues were floated and various international banks offered a range of SDR-denominated services, including loans, deposits and future contracts.⁹ By and large, these transactions were conducted with the SDR as the unit of account and the U.S. dollar as the vehicle currency (means of payment). Suez Canal rates were set in terms of SDRs¹⁰ and some export-import contracts were framed with reference to SDR pricing.¹¹ The Organization of Oil Exporting Countries seriously considered pricing their oil in SDRs and the International Air Transport Association similarly discussed the possibility of SDR-denominated air fares.¹² However, as the US\$ regained strength, passions cooled for commercial uses of the SDR.¹³ It has thus been observed that "private interest in the SDR is strongest when the U.S. dollar is weak."¹⁴ Other deterrents to wider commercial use of the SDR at this time were its complexity¹⁵ and the lack of an active secondary market.¹⁶ Also, until October 28, 1977, a cloud of uncertainty hung over the legality of SDR-denominated transactions under U.S. law.¹⁷

⁶Genillard, *Currency Indexation Arrives in the Capital Markets*, EUROMONEY 76 (Sept. 1975), at 78.

⁷*Id.* J. GOLD, FLOATING CURRENCIES, GOLD, AND SDRS: SOME RECENT LEGAL DEVELOPMENTS, IMF Pamphlet No. 19 (1976), at 61.

⁸*Cf.* text accompanying notes 66-67 *infra*.

⁹*Op. cit.*, at 58-63. Although physical exchange of SDRs by commercial banks and other private parties was not feasible, spot and future SDR prices could be calculated and quoted in terms of the US\$ and other currencies. *Id.* in n.137 at 62.

¹⁰Johnson, Hultman & Zuber, *supra* note 1, at 118.

¹¹GOLD, *supra* note 7, in n.140 at 63; Gerstein, *Protecting Exchange Deals in Private Transactions*, 72 ABA BANKING J. 82 (Jan. 1980), at 88.

¹²GOLD, *supra* note 7, at 63.

¹³O'Connell & de V. Wragg, *SDR Bond Issues May Take Off in 1981*, EUROMONEY 74 (Dec. 1980), at 78; Johnson, Hultman & Zuber, *supra* note 1, at 118; J. GOLD, SDRS, GOLD, AND CURRENCIES: THIRD SURVEY OF NEW LEGAL DEVELOPMENTS, IMF Pamphlet No. 26 (1979), at 29 and in n.20 at 80.

¹⁴Habermeier, *The SDR as An International Unit of Account*, 16(1) FIN. & DEV. 11 (Mar. 1979), at 13.

¹⁵J. GOLD, *supra* note 7, in n.141 at 64.

¹⁶O'Connell & Wragg, *supra* note 13, at 88.

¹⁷The problem stemmed from U.S. Supreme Court interpretations of the Gold Clause Joint Resolution of the U.S. Congress of June 3, 1933 so as to prohibit enforcement of multicurrency contracts in the U.S. GOLD, *supra* note 7, at 66-71. However, Public Law 95-147 abrogates the Joint Resolution with prospective effect from October 28, 1977, which "should put the

After 1975, the primary focus of the SDR saga shifted to international treaties.¹⁸ For various purposes and in varying degrees of significance, the SDR is mentioned as a unit of account in no less than 15 international conventions (some of which are in effect) and is under consideration for at least four other international agreements.¹⁹ The SDR is also being used as a unit of account by seventeen or more international organizations.²⁰ Moreover, the IMF sister organization the International Bank for Reconstruction and Development (World Bank) and its affiliate the International Development Association, the Andean Reserve Fund, the Arab Monetary Fund, the Bank for International Settlements (BIS), the East Caribbean Currency Authority, the International Fund for Agricultural Development, the Nordic Investment Bank (NIB), and the Swiss National Bank have all been prescribed as "other holders" of SDRs, thereby authorizing these institutions (in addition to the IMF and its 141 member countries) to buy or sell SDRs (spot or forward) and to receive or use SDRs in loans, pledges, swaps or donations (grants).²¹

From 1975 through 1980, further development of the private use of the SDR as a unit of account proceeded without much fanfare. In 1976, the NIB (formed and operated by all five Scandinavian countries) came into being, with its share capital and other accounts expressed in SDRs. By the end of 1977, this bank had agreed to make 15 loans aggregating SDR 103 million, most of which were denominated in SDRs.²² Scandinavian borrowers also dominated three further issues of SDR Eurobonds.²³ Hambros Bank, Chase Manhattan, Chemical Bank, and Kredietbank were also continuing to provide SDR-related banking services.²⁴ However, private financial marketing of SDR-denominated paper tended to be low volume and quite specialized, with a preponderance of short maturities and very little redepositing.²⁵ A secondary market for SDR-denominated instruments remained thin and illiquid.²⁶

Then, in 1980, the flames were fanned again for utilization of the SDR as a unit of account in private transactions. The new impetus stemmed mainly from a decision of the IMF's Executive Board to adopt a five-currency bas-

question of the validity of the SDR as a contractual unit of account beyond controversy in the U.S." GOLD, *supra* note 13, at 47. See also Rosenn, *Protecting Contracts from Inflation*, 33 BUS. LAW. 729 (1978), at 734-38.

¹⁸See Silard, *Carriage of the SDR by Sea: The Unit of Account of the Hamburg Rules*, 10 J. MAR. L. & COM. 13 (1978).

¹⁹J. GOLD, SDRs, CURRENCIES AND GOLD: FOURTH SURVEY OF NEW LEGAL DEVELOPMENTS, IMF Pamphlet No. 33 (1980), at 37-39.

²⁰*Id.* at 38. See further, J. GOLD, FLOATING CURRENCIES, SDRs, AND GOLD: FURTHER LEGAL DEVELOPMENTS, IMF Pamphlet No. 22 (1977).

²¹WORLD BANK AND IDA NOW 'OTHER HOLDERS' OF SDRs, IMF SURVEY 6 (Jan. 12, 1981), at 6.

²²J. GOLD, *supra* note 13, at 28-29.

²³J. GOLD, *supra* note 19, at 41-43; O'Connell & Wragg, *supra* note 13, at 74.

²⁴*Id.* at 29-30; Heywood, *supra* note 3, at 71.

²⁵Habermeier, *supra* note 14, at p. 13.

²⁶O'Connell & Wragg, *supra* note 13, at 78.

ket for determining both the value of and interest rate on the SDR.²⁷ The object of the change from the IMF's perspective was "to facilitate the wider use of SDR-denominated assets and liabilities in financial markets and in international transactions resulting in a wider role for the SDR in international monetary system."²⁸ Unlike other aspects of IMF aims and operations, privatization of the SDR appears to have the blessings of the Reagan administration.²⁹ Another impetus came from commercial banks who anticipated profitable operations from SDR-related services, especially for international organizations and Central Banks whose capital structures and accounting bases are defined in terms of SDRs.³⁰ In particular, one of the authorized forms of investment for the IMF's Trust Fund is now SDR-denominated deposits with commercial banks.³¹ Further, as part of a new policy of "enlarged access" to finance its growing commitments, the IMF entered into a large-scale borrowing agreement with the Saudi Arabian Monetary Authority (SAMA) on May 7, 1981, whereby the SAMA is to advance the IMF SDR-denominated loans with a right for the SAMA to request and obtain from the IMF promissory notes in bearer form which could be transferrable to private as well as official parties.³² Thus, rekindled interest in the SDR as a unit of account has also come from anticipation of SDR-denominated, IMF-backed instruments in private international capital markets.³³

In 1981, responding to these favorable developments, commercial banks acted to facilitate enhancement of a secondary market for SDR instruments. A group of banks (Barclays, Chemical, Midland, Westminster, and Standard Chartered) have formed a London financial market to issue and trade SDR-denominated certificates of deposit (CDs) using standardized

²⁷ACTIVITIES OF THE FUND, INTERNATIONAL MONETARY FUND: ANNUAL REPORT OF THE EXECUTIVE BOARD FOR THE FINANCIAL YEAR ENDED APRIL 30, 1981, Ch. 3, at 95 [hereinafter "IMF 1981"]. The new valuation basket took effect January 1, 1981 and the new interest rate calculation was effective May 1, 1981. *Id.* at 95-96. *Cf.* Tables 2 and 3 and text accompanying notes 44-58 *infra*.

²⁸*Op. cit.*, at 95-96.

²⁹Pringle, *Reaganomics Enters the Fund*, 131 (667) *BANKER* 89 (Sept. 1981), at 93; Wels, *Reviewing the Role of Fund and Bank*, 131 (667) *BANKER* 95 (Sept. 1981), at 97. *See further* Rowen, *IMF/World Bank I: The Washington Report*, 15 (9) *INST. INVEST.* 337 (Sept. 1981); Shapiro, *IMF/WORLD BANK II: AMERICA'S CONSERVATIVES CLOSE IN ON THE WORLD BANK*, 131 (667) *INST. INVEST.* 343 (Sept. 1981).

³⁰Heywood, *supra* note 3, at 72; Habermeier, *supra* note 14, at 13.

³¹J. GOLD, *supra* note 19, at 41. The IMF's Managing Director has been authorized to place SDR-denominated deposits with the BIS; but if the interest rate offered is not sufficiently attractive, he may make other proposals to the IMF's executive board for SDR-denominated obligations which may include commercial banks. IMF Decision No. 5973-(78/189) TR of December 4, 1978, *id.* Appendix E, at 114.

³²IMF 1981, *supra* note 27, at 90-91. New bilateral borrowing arrangements on terms similar to the SAMA agreement have also been concluded between the IMF and the Central Banks or official agencies of 16 industrial IMF member countries. And, discussions were under way with other countries for placements of short-term paper issued by the IMF. *Id.* at 90.

³³O'Connell & Wragg, *supra* note 13, at 74 and 80. However, it has been noted that "development of privately issued SDR liabilities might turn out to be competitive rather than complementary to the SDR proper." Pringle, *supra* note 29, at 90.

documentation and procedures closely paralleling those in the London market for eurodollar CDs.³⁴ The Brussels office of Morgan Guaranty has also launched a clearing system for SDR-denominated bond issues.³⁵ In addition, the first SDR-denominated, floating-rate note has been launched; and Sweden and the Ivory Coast have raised SDR-denominated eurocredits.³⁶

Although the present SDR market is predominately wholesale (minimum denominations of SDR one million) and skewed toward CDs for periods of up to one year,³⁷ the expected trend is toward longer terms and a narrowing of spreads between bid and offered rates so as to assist development of an interbank market in SDR deposits.³⁸ Also, vehicle currencies other than the U.S. dollar may also emerge significantly against deposits of which SDR instruments could be issued and in which repayment could be effected.³⁹ The extent to which SDR pricing will develop to any major degree in export-import, construction, shipping, insurance, and other private contracts remains to be seen.

SDR Valuation

Changes in SDR valuation are summarized in Table 1 below. When first established, the SDR unit of account was valued in terms of gold at the

Table 1. Summary of Changes in SDR Valuation

Date	Valuation Basis	US \$ Equivalent
1 January 1970	gold*	SDR 1.00 = US\$1.00000
1 July 1974	currency basket†	SDR 1.00 = US\$1.20635
1 July 1978	currency basket†	SDR 1.00 = US\$1.23953
1 January 1981	currency basket†	SDR 1.00 = US\$1.27174

SOURCES: J. Heywood, *The Banks Led the Way in Simplifying the SDR*, EUROMONEY (Dec. 1980), at 68; *Method of Calculation of SDR Exchange Rates Same Under New Basket*, IMF SURVEY (Jan. 12, 1981), at 6; *Introduction*, INT'L FINANCIAL STATISTICS (Sept. 1978), at 4-7.

*The unit value of the SDR was originally defined as equivalent to 0.088867088 grams of fine gold, which corresponded to the par value of the US\$ as of July 1, 1944.

†The first SDR basket comprised the US\$, the German mark (DM), the British pound (£), the French franc (FF), the Japanese yen (¥), the Canadian dollar, the Italian lira, the Dutch guilder, the Belgian franc, the Swedish krona, the Australian dollar, the Danish krone, the Norwegian krone, the Spanish peseta, the Austrian schilling, and the South African rand. In the second SDR basket, the Saudi Arabian riyal and Iranian rial replaced the Danish krone and the South African rand. And, in the third SDR basket, all currencies were dropped except for the US\$, the DM, the £, the FF, and the ¥.

³⁴LONDON MARKET FORMED FOR SDR-DENOMINATED CERTIFICATES OF DEPOSIT, IMF SURVEY 6 (Jan. 12, 1981), at 6. [hereinafter LONDON MARKET].

³⁵Wels, *supra* note 29, at 97.

³⁶*Id.*

³⁷LONDON MARKET, *supra* note 34, at 6.

³⁸O'Connell & Wragg, *supra* note 13, at 78.

³⁹LONDON MARKET, *supra* note 34, at p. 6.

1970 par value of the U.S. dollar. However, since the SDR was not revalued in terms of gold (a step which would have necessitated amendment to the IMF's Articles of Agreement) after the 1971 and 1973 devaluations of the U.S. dollar, the SDR appreciated relative to the U.S. dollar. Thus, at June 30, 1974, the SDR unit was equivalent to US\$1.20635.

In 1974 (following the removal of the U.S. dollar from a gold standard of valuation and the emergence of a system of floating exchange rates), the principle of valuation was changed from a gold standard to a currency basket basis. The sixteen currencies included in the first SDR basket were assigned relative weights which were generally proportional to their country's share of world exports of goods and services. However, to reflect its greater role in international finance, the U.S. dollar was given a weight of 33 percent, which was proportionately greater than its share of exports.

In 1978, minor adjustments were made in the composition and weights of the sixteen-currency basket. It was also contemplated at that time that the next revision of SDR valuation would be as of July 1, 1983, and it has been noted that (since predictability of change is desirable) the method of SDR valuation "should be as stable as possible and therefore not changed often or for trivial reasons."⁴⁰

However, as a result of intensive studies of possible instruments denominated in SDRs that the IMF might issue and with great weight given to improvements in the method of SDR valuation that would encourage private use of the SDR as a unit of account, it became clear that changes should be made without delay.⁴¹ Accordingly, a new five-currency basket was instituted effective January 1, 1981. The relative weights and unit amounts of each currency in the new SDR basket are summarized in Table 2 on following page.

A number of "recognized and influential" considerations have guided IMF decisions on formulating the SDR basket valuation method.⁴² Firstly, the basket should be sufficiently representative of the total volume of IMF members' international commercial and financial transactions, with exports of goods and services being used as the measure of relative importance.⁴³ Secondly, continuity in the value of the SDR has featured in all decisions

⁴⁰J. Gold, *New Directions in the Financial Activities of the International Monetary Fund*, 13 INT'L LAW. 449 (1979), at 467.

⁴¹J. GOLD, SDRs, CURRENCIES, AND GOLD: FIFTH SURVEY OF NEW LEGAL DEVELOPMENTS, IMF Pamphlet No. 36 (1981), at 3.

⁴²*Id.* at 4.

⁴³*Id.* VALUATION OF THE SPECIAL DRAWING RIGHT, SELECTED DECISIONS OF THE INTERNATIONAL MONETARY FUND AND SELECTED DOCUMENTS 236 (9th issue, June 15, 1981), at 236-37, [hereinafter Basket 1981]. The decision effecting the 1978 revision laid down that future revisions would be determined by reference to the sum of two criteria: the average annual value of a member's exports of goods and services during the relevant preceding five-year period, plus the average value of a member's current balances held by the monetary authorities of other members at the end of the each year during the period. However, although

**Table 2. Summary of SDR Valuation Basis
Effective January 1, 1981**

Currency	Weight (%)	Unit Amount
U.S. dollar	42	0.540
Deutsche mark	19	0.460
French franc	13	0.740
Japanese yen	13	34.000
Pound sterling	13	0.071

SOURCE: APPENDIX II: PRINCIPAL POLICY DECISIONS OF THE EXECUTIVE BOARD, INTERNATIONAL MONETARY FUND: ANNUAL REPORT OF THE EXECUTIVE BOARD FOR THE FINANCIAL YEAR ENDED APRIL 30, 1981, at 142-43.

regarding change of valuation method.⁴⁴ Thirdly, stability of the basket has been a factor in both selection of currencies and in assigning of weights.⁴⁵ Fourthly, members' quotas in the IMF may also be relevant.⁴⁶ Fifthly, the preeminent role of the U.S. dollar in international finance has been considered as the rationale for assigning the U.S. dollar a greater weight in the basket than would be indicated solely on a trade-weighted basis.⁴⁷ And, sixthly, the regular availability of forward as well as spot exchange rates in active exchange markets and of domestic interest rates was also seemingly relevant in selecting the 1981 five-currency basket.⁴⁸

the currencies and their weights in the 1981 basket were determined on the basis of the relevant data for 1975-79, the two criteria were not strictly applied. GOLD, at 6.

The IMF's decision effecting the 1981 basket laid down as to future changes that a new currency should not replace another currency in the basket "unless the value of the exports of goods and services of the issuer of the former currency during the relevant period exceeds that of the issuer of the latter currency by at least one per cent." ¶ 3(a) of IMF Decision No. 6631-(80/145) G/S of September 17, 1981, Basket 1981, *op. cit.*, at 237.

⁴⁴*Id.*, ¶ 4, GOLD, at 8. The unit amounts of currencies in the 1981 basket were determined on the basis of average exchange rates for the three-month period ending December 31, 1980. However, to ensure continuity of value, the amounts so determined were subject to a small equiproportional adjustment. Thus, the SDR on December 31, 1980 has exactly the same value in terms of the new basket as in terms of the previous basket, although subsequent SDR valuation will diverge from what the value would have been had the previous basket remained in effect. *Id.* at 7-8.

⁴⁵*Id.* at 7.

⁴⁶*Id.* at 5. The five currencies in the 1981 basket are those of the five members now entitled (because of the size of their quotas) to appoint executive directors under Article XII(3) (b) (i) of the IMF's Articles of Agreement. *Id.* at 7.

⁴⁷*Id.* at 5. IMF members who frequently provide U.S. dollars in return for SDRs tend to compare the effective yield on SDRs with the effective yield on U.S. dollar instruments; this also has been considered to justify a greater weight on the U.S. dollar in the valuation basket. *Id.*

⁴⁸*Id.* at 3. Selection of currencies with these qualities makes it easier for obligors of SDR-denominated instruments to hedge against related exchange risks; and (with fewer number of currencies in the basket) the cost of coverage will tend to be less expensive. *Id.* at 6. See also Habermeier, *supra* note 14, at 13.

However, it is apparently not an explicit condition of selection that basket currencies be "freely usable" under Article XXX(f) of the IMF's Articles of Agreement which provides: "A freely usable currency means a member's currency that the Fund determines (i) is, in fact,

However, in the final analysis, it is necessary for the IMF's Executive Board to rely on judgment in selection of basket currencies and in assigning relative weights.⁴⁹

It is recognized that the timing of future SDR valuation changes should be predictable.⁵⁰ Accordingly, the IMF's September 17, 1980 decision effecting the 1981 basket laid down that the inclusion of basket currencies and their weights should be revised with effect on January 1, 1986 and on the first day of each subsequent period of five years.⁵¹ The purpose of the initial date and subsequent quinquennial periods is "to ensure that revisions will be considered at reasonable periods so that the method of valuation will be kept up to date."⁵² However, the IMF has reserved the right to "decide otherwise" as to timing and stated principles of future changes,⁵³ thus allowing room for reasonable modification as conditions warrant.

A 75 percent majority of total IMF voting power is required to determine the method of SDR valuation, but a "high majority" of 85 percent is needed "for change in the principle of valuation or a fundamental change in the application of the principle in effect."⁵⁴ The switch from gold to a basket of currencies constituted a change of principle requiring a "high majority." However, both basket revisions required only the smaller 75 percent majority, notwithstanding that the 1981 revision involved a reduction in number of currencies from sixteen to five: "No change in principle was involved because valuation continues to be based on a basket of specified amount of specified currencies."⁵⁵

At any rate, given that the five currencies in the present basket are the world's most significant in terms of use in international trade and finance and in forward exchange markets and that those are also the currencies of the five members now entitled to appoint IMF executive directors, it is highly likely that this composition will remain constant for the foreseeable future.⁵⁶ It can also be anticipated that any prequinquennial revisions will be merely by way of technical adjustments to improve the SDR as a unit of account.

widely used to make payments for international transactions, and (ii) is widely traded in the principle exchange markets." GOLD, *supra* note 41, at 7. Nevertheless, the five currencies in the 1981 basket are now the same as those that the IMF has determined so far to be "freely usable." *Id.* at 53.

⁴⁹*Id.* at 5. Thus, to avoid "a spurious appearance of precision," the weights in the 1981 basket were presented as whole percentage points instead of being rounded to the nearest one half of 1 percent as called for in the 1978 decision on future changes. *Id.* at 6.

⁵⁰*Id.* at 8. *Cf.* text accompanying note 40 *supra*.

⁵¹Basket 1981, *supra* note 43, at ¶ 3 at 236.

⁵²GOLD, *supra* note 41, at 9.

⁵³Basket 1981, *supra* note 43, in ¶ 3 at 236.

⁵⁴ARTICLE XV(2), ARTICLES OF AGREEMENT: INTERNATIONAL MONETARY FUND (1978), at 50.

⁵⁵GOLD, *supra* note 41, at 11. It seems that there is a rebuttable presumption in favor of finding that all proposed changes in the application of the principle in effect are *not* fundamental changes. *Id.*

⁵⁶IMF 1981, *supra* note 27, at 96.

**Table 3. Elements of the SDR Interest Rate
Effective May 1, 1981**

Country	Weight (%)	Instrument
United States	42	market yield* for three-month (U.S.) Treasury bills
Germany	19	rate for three-month interbank deposits
France	13	rate for three-month interbank money against private paper
Japan	13	discount rate on two-month (private) bills
United Kingdom	13	market yield* for three-month (U.K.) Treasury bills

SOURCES: J. GOLD, SDRs, CURRENCIES, AND GOLD: FIFTH SURVEY OF NEW LEGAL DEVELOPMENTS, IMF Pamphlet No. 36 (1981), at 19 and in n.19 at 105; APPENDIX II PRINCIPAL POLICY DECISIONS OF THE EXECUTIVE BOARD, INTERNATIONAL MONETARY FUND: ANNUAL REPORT OF THE EXECUTIVE BOARD FOR THE FINANCIAL YEAR ENDED APRIL 30, 1980, at 14.

*"Market yield" is now calculated as the "bond-equivalent yield" (i.e., the difference between the purchase price and the face value of a bill expressed as a percentage of the purchase price), which results in a higher rate of interest than the former "market yield on a discount basis" (i.e., the difference expressed as a percentage of the face value of the bill).

SDR Interest Rate

Simplification of the SDR valuation basket in 1981 was simultaneously accompanied by a unification of this basket with the basket used to calculate the official SDR interest rate.⁵⁷ And, as a further step to enhance the attractiveness of the SDR, with effect from May 1, 1981 the SDR interest rate was increased from 80 percent to 100 percent of the combined market interest rate shown in Table 3 above. This rate (which is rounded to the two nearest decimal places) is arrived at by adding up proportionate amounts of the average yield or rate on each of the respective instruments for the fifteen business days preceding the last two business days of the last month before the calendar quarter for which the interest is to be calculated.⁵⁸

"Flexible" Versus "Frozen" SDRs

Given that SDR valuation is subject to change,⁵⁹ the issue in SDR private use had to be faced early on of whether to have a "flexible" (variable

⁵⁷GOLD, *supra* note 41, at 14. Cf. text accompanying note 27 *supra*.

⁵⁸IMF 1981, *supra* note 27, at 144-45. Cf. Table 5 *infra*.

⁵⁹Cf. Table 1 and text accompanying notes 40-56 *supra*.

or floating or fluctuating) or a "frozen" (fixed) SDR unit of account.⁶⁰ The "flexible" SDR is valued in the manner determined by the IMF from time to time, whereas the "frozen" SDR is valued in accordance with the valuation method in effect at a particular date. Against the uncertainty produced by the possibility of change under a "flexible" regime were weighed several countervailing considerations. Firstly, there is no assurance that the IMF would continue to publish similar calculations for a method of valuation which is no longer in use by the IMF itself.⁶¹ Secondly, concurrent existence of multiple SDR units of account would tend to cause confusion among investors and make more difficult the trading of SDR-denominated instruments in a secondary market.⁶² Thirdly, besides promoting uniformity among SDR-denominated instruments, a "flexible" SDR will tend to reflect improvements in the valuation methods on the basis of trade volume and other considerations taken into account by the IMF.⁶³ Thus, the first three SDR eurobonds were all issued in "flexible" form,⁶⁴ a mode which apparently continues to be the norm.⁶⁵

Stabilization via the SDR Portfolio Effect

It is axiomatic that over time the composite value of a basket of currencies tends to show less volatility in relation to the respective values of individual component currencies as compared with their values over time in relation to each other.⁶⁶ In particular, with SDR valuation, extreme movements in any one currency are likely to be offset by movements of other currencies in the basket.⁶⁷ As a result of this increased stability, use of the SDR as a unit of account has become a significant exchange rate risk reduction tool in international commercial transactions.⁶⁸ And, due to the reduced exchange rate risk associated with SDR-denominated instruments, investors have been willing to accept a coupon rate lower than the theoretical weighted average of the coupons of component currencies.⁶⁹

However, with the U.S. dollar now accounting for 42 percent of the SDR

⁶⁰Genillard, *supra* note 6, at 78; GOLD, *supra* note 7, at 61.

⁶¹*Id.* at 62. Daily publication of IMF-calculated SDR values has been seen as significant both for the convenience of private parties entering into SDR-denominated transactions and to avoid disputes between them over proper unit of account valuation. *Id.* at 61. *Cf.* text accompanying note 7 *supra*.

⁶²GOLD, *supra* note 7, at 61; Genillard, *supra* note 6, at 78.

⁶³GOLD, at 61. *Cf.* text accompanying notes 42-49 *supra*.

⁶⁴GOLD, at 60.

⁶⁵GOLD, *supra* note 19, at 42. Under the IMF-BIS deposit arrangement effective June 1, 1981, a "flexible" SDR regime prevails unless the BIS makes a timely request to keep the SDR "frozen" for some particular operation, at which time the IMF may exercise its option of terminating the agreement. IMF Decision No. 6863-(81/81) as amended, IMF 1981, *supra* note 27, at 189-190.

⁶⁶Landau, *supra* note 2, at 32.

⁶⁷Johnson, Hultman & Zuber, *supra* note 1, at 119.

⁶⁸*Id.* at 117.

⁶⁹Genillard, *supra* note 6, at 78; O'Connell & Wragg, *supra* note 13, at 80.

basket, the SDR is not an optimal vehicle to move out of a dollar risk.⁷⁰ Moreover, the portfolio effect of the SDR takes much of the play out of foreign exchange risk management. Thus, sophisticated international operators (especially those with superior bargaining positions) are able to achieve more profitable results by denominating their transactions (mainly for shorter term arrangements) in a single currency.⁷¹ Also, for a given trading relationship, sophisticated investors with the aid of a computer are able to construct more optimal currency cocktails by employing the Markowitz and other portfolio diversification models.⁷²

On the other hand, private parties who opt to use the SDR as a unit of account may wish to achieve even greater smoothing of exchange rate fluctuations than that afforded by the portfolio effect of the SDR computed on a daily basis. To do this, they may decide to use average exchange rates of the component currencies for a given period in computing an alternative SDR valuation for a particular point in time⁷³ or they may opt for an average of official daily SDR values over a given time period.⁷⁴

Protection of Purchasing Power

Although the SDR portfolio effect tends to enhance capital preservation in the face of possible erosion by exchange value loss over time, currency cocktails (the SDR not excepted) do not maintain "real" value in terms of constant purchasing power of monetary amounts expressed in the unit of account. In other words, SDR denomination without more does not assure an inflation-proof contract.⁷⁵ In fact, in one analysis of currency cocktails, each cocktail had a negative purchasing power for the numeraire currency in the period under study.⁷⁶

However, the hope has been expressed in some quarters of developing a technique for indexing the SDR in a way that would maintain constant purchasing power.⁷⁷ While fully aware of the difficulties in such an undertaking, the Committee on International Monetary Law of the International Law Association at their 1980 Belgrade Conference nevertheless fostered the notion of formulating "real" value (compensatory purchasing power) clauses which link the amount of money due in a monetary obligation preferably to standards of value having a close tie to the economy of the con-

⁷⁰Heywood, *supra* note 3, at 72.

⁷¹Gerstein, *supra* note 11, at 88.

⁷²Johnson, Hultman & Zuber, *supra* note 1, at 122.

⁷³For example, the unit amounts of the five currencies in the 1981 basket have been determined on the basis of average exchange rates for three-month period that ended December 30, 1981. GOLD, *supra* note 19, at 66.

⁷⁴For example, postal charges in the currency equivalent of each member country under the Detailed Regulations of the Universal Postal Union are now determined on the basis of the average of SDR values in that currency for each day during a period of at least 12 months ending on the preceding September 30. *Id.* at 67.

⁷⁵GOLD, *supra* note 41, at 37.

⁷⁶Johnson, Hultman & Zuber, *supra* note 1, at 121-22.

⁷⁷GOLD, *supra* note 41, at 87.

tract or to the activity of one or another of the parties.⁷⁸ The Study Group on International Payments of the United Nations Commission on International Trade Law has also been exploring development of a universal unit of account of constant value for use in international conventions.⁷⁹ As observers in these discussions, IMF staff have submitted that such a unit of account should: (1) have unambiguous equivalents in the currencies of many countries; and (2) retain over time its relation to other economic values notwithstanding changes in exchange rates and national price levels.⁸⁰

In general, the most effective way for contracting parties to protect their bargain against inflation is by linking its value to a broadly based price index (e.g., the implicit GNP deflator).⁸¹ It has been suggested that logically the structure of the SDR (in both selection of currencies and weighting) should govern the structure of an international price index, since component indices are readily available for all countries whose currencies make up the present five-currency basket.⁸² This approach should be quite feasible for parties desiring to have SDR indexation built into their contractual arrangement.

However, indexation is no panacea for the ills of inflation.⁸³ Hence, many parties merely attempt to "guesstimate" the inflation rate over the life of their contract⁸⁴ and take this inflation risk into account when pricing their contract (e.g., in arriving at the effective interest rate for SDR-denominated instruments not tied directly to the official SDR interest rate).

Mechanics of SDR Accounting

Calculation of the U.S. dollar value of one SDR on April 30, 1981 is shown in Table 4 on following page. Quite significant for dealers in SDR-denominated obligations is that all exchange rates used for calculating the value of the SDR are now obtained daily from the London market,⁸⁵

⁷⁸*Id.* at 37-38. Interestingly, the Committee considered that general index clauses do not seem to be suitable for use in international transactions. *Id.* at 38.

⁷⁹*Id.*

⁸⁰*Id.* The SDR meets the first criteria and the second as to exchange rate stability, but fails on the second criteria as it relates to national price levels (i.e., purchasing power preservation). *Id.*

⁸¹Rosenn, *supra* note 17, at 738.

⁸²J. GOLD, *supra* note 41, at 39. The suggestion that the SDR might be stabilized in terms of commodities was met with the objection, *inter alia*, that such indexation could conceivably accelerate inflation. *Id.*

⁸³Rosenn, *supra* note 17, at 747. It should be noted that an index clause will not completely neutralize the effects of inflation unless it contains a mechanism to compensate for ongoing inflation between adjustment periods. This is because price indices record previously experienced price changes, so that the corrective effect of indexation lags behind actual changes in the purchasing power of money. *Id.*

⁸⁴*Id.* at 731-32.

⁸⁵IMF 1981, *supra* note 27, at 95. Prior to January 1, 1981, the exchange rate for the yen was obtained in the Tokyo market, which closes before the London market opens for business. J. GOLD, *supra* note 41, at 13.

Table 4. SDR Valuation on 30 April 1981

Currency	Unit Amount	Exchange Rate*	US\$ Equivalent†
1	2	3	4
U.S. dollar	0.540	1.0000	0.540000
Deutsche mark	0.460	2.2145	0.207722
French franc	0.740	5.2145	0.140845
Japanese yen	34.000	215.1300	0.158044
Pound sterling	0.071	2.1404	0.151968

SDR 1.00 = 1.198579

SOURCE: ACTIVITIES OF THE FUND, INTERNATIONAL MONETARY FUND: ANNUAL REPORT OF THE EXECUTIVE BOARD FOR THE FINANCIAL YEAR ENDED APRIL 30, 1981, at 95.

*The exchange rate for the British pound is expressed in US\$ equivalents per pound sterling; all other exchange rates are expressed in currency units per US\$.

†The US\$ equivalent for the British pound is gotten by multiplying (2) × (3); US\$ equivalents for all other currencies are derived by dividing (2) ÷ (3).

thereby making it easier to replicate the SDR in private markets.⁸⁶ The relevant rate for each currency in the basket (other than the U.S. dollar) is the spot exchange rate against the U.S. dollar midway between the relevant buying and selling rates at noon as determined by the Bank of England.⁸⁷ SDR rates for more than forty currencies are posted by the IMF for each business day and carried by several wire services, major newspapers (including the *Wall Street Journal*) and financial periodicals as well as being published twice monthly in the *IMF Survey* and monthly (with a two-month data lag) in the IMF's *International Financial Statistics*.⁸⁸

The reciprocal of the US\$ equivalent of one SDR is equal to the SDR value of one US\$;⁸⁹ thus, $1/1.198579 = \text{US}\$1.00 = \text{SDR } 0.834321$. The equivalent of other currencies in terms of the SDR is derived by dividing the "representative spot rate" for that relevant currency against the US\$ into the corresponding SDR value of one US\$;⁹⁰ thus, $0.834321/2.2145 = \text{DM } 1.00 = \text{SDR } 0.376754$ and $0.834321/0.420521^{91} = \text{£}1.00 = \text{SDR } 1.984015$.

⁸⁶IMF 1981, *supra* note 27, at 95; Heywood, *supra* note 3, at 71.

⁸⁷Decision No. 6709-(80/189) S of December 19, 1980, IMF 1981, *supra* note 27, at 144. If the exchange rate for any currency cannot be obtained from the London Market, the New York market and then the Frankfurt market is to be used for exchange rate collection. *Id.*

⁸⁸*Method of Calculation of SDR Exchange Rates Same Under New Basket*, IMF SURVEY 6 (Jan. 12, 1981), at 6. Information is also available at IMF headquarters in Washington DC, at the Federal Reserve Bank of New York, and at the Central Banks of several IMF members. Gerstein, *supra* note 11, at 88.

⁸⁹Rule 0-2(a), BY-LAWS, RULES AND REGULATIONS: INTERNATIONAL MONETARY FUND (38th issue, July 1, 1981), at 55.

⁹⁰*Id.*

⁹¹The reciprocal of U.S. dollars per £ equals the £ equivalent of one U.S. dollar; thus, $1/2.378 = \text{US}\$.0420521$.

**Table 5. Illustration of SDR Interest
Rate Calculation**

Country	Weight (%)	Rate (%)*	Proportion (%)
United States	42	11.0	4.620
Germany	19	11.0	2.090
France	13	15.5	2.015
Japan	13	7.5	0.975
United Kingdom	13	15.5	<u>2.015</u>

SDR interest rate = 11.72%

SOURCE: IMF SURVEY (NOV. 23, 1981), at 380.

*Interest rates for component instruments were approximate levels of interest rates at November 1, 1981, rather than fifteen-day average rates two days prior to end of fiscal quarter as in the official SDR interest rate.

Similarly, an illustration of how the SDR interest rate is to be calculated is shown in Table 5 above. The official IMF-calculated SDR interest rate is the rate received by all holders of SDRs (i.e., the IMF and its constituent members as well as other prescribed holders) on the basis of their respective SDR holdings.⁹² However, reference should be made to the terms of the particular SDR instrument to determine the basis for calculating the effective rate for that instrument (which may well differ from the official SDR interest rate).⁹³

Translation of SDR Items for Financial Statements of U.S. Reporting Enterprises

For fiscal years beginning on or after December 15, 1982, U.S. enterprises with a foreign branch or subsidiary will (in the appropriate case) be required to translate all elements of the foreign entity's financial statements (FS) by using a "current exchange rate" (i.e., the rate at which one unit of a currency can be exchanged for or converted into another currency as of the end of the period covered by the FS or as of the dates of recognition in those FS in the case of revenues, expenses, gains, and losses).⁹⁴ That is the date set for Statement of Financial Accounting Standards Number 52 (FAS 52) issued by the Financial Accounting Standards Board to replace Statement Number 8 (FAS 8) which was issued in 1975 and established the

⁹²J. GOLD, *supra* note 41, at 14.

⁹³O'Connell & Wragg, *supra* note 13, at 76; Heywood, *supra* note 3, at 71.

⁹⁴FINANCIAL ACCOUNTING STANDARDS BOARD, STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 52: FOREIGN CURRENCY TRANSLATION (Dec. 1981), in ¶ 12 at 5 [hereinafter FAS 52]. Where it is generally impractical to translate numerous revenues, expenses, gains, and losses at separate exchange rates on each date that those elements are recognized, an appropriately weighted average exchange rate for the period may be used to translate those elements. *Id.*

“temporal” (modified monetary-nonmonetary) method of translation.⁹⁵

The change of method resulted from intense criticism of FAS 8, because of the volatility it extended to earnings statements against the background of floating exchange rates.⁹⁶ In particular, it was charged that the “temporal” method (under which cash, inventory carried at a market price, receivables, and payables as “monetary” items are translated at the “current exchange rate,” whereas fixed assets and related depreciation accounts, inventory carried at cost, intangibles, prepaid expenses, deferred income, and shareholders’ equity accounts as “nonmonetary” items are translated at various associated “historical” exchange rates⁹⁷) not only distorted the real performance of enterprises but also led them to spend time, effort and money on expensive hedging operations to achieve the “best accounting” results rather than results that were more desirable economically.⁹⁸ The “temporal” method (because it uses both “current” and “historical” rates of exchange) also causes distortion of financial ratios, whereas translation from expression in one currency to another under the “current” (closing rate) method of FAS 52 which uses a single exchange rate preserves financial relationships between items of a FS.⁹⁹

Another major difference between the two methods is in the handling of “translation adjustments” (translation gain or loss). Under FAS 8, items subject to translation at “historical” rates do not give rise to gain or loss due to translation, but those items translated at “current” rates do¹⁰⁰ and the entire resulting gain or loss passes through the enterprise’s income statement.¹⁰¹ In contrast, FAS 52 only requires translation of a foreign entity’s FS in which its “functional currency”¹⁰² (FC) is a “foreign currency,” in which case adjustments resulting from the translation process bypass the

⁹⁵*Id.*, in ¶ 33 at 13. However, earlier application is encouraged and FS for fiscal years before the effective date and financial summaries or other data derived therefrom may have to be restated to conform to FAS 52. *Id.*

⁹⁶J. Bettner, *Companies Press for New Accounting Method that Could Improve 1981 Per-Share Earnings*, *Wall St. J.* 56 (Nov. 9, 1981), at 56; *Accounting for Exchange Rate Fluctuations: More Confusion Than Ever*, 12 INT. CUR. REV. 31 (1980), at 32. [hereinafter *Accounting Confusion*].

⁹⁷F.D.S. CHOI & G.B. MUELLER, AN INTRODUCTION TO MULTINATIONAL ACCOUNTING (1978), at 68–70.

⁹⁸*Accounting Confusion*, *supra* note 96, at 31–32; J. GOLD, *supra* note 41, at 61.

⁹⁹CHOI & MUELLER, *supra* note 97, at 76 and 80; E.R. Simpson, *Foreign Currency Translation: Financial Reporting in a Time of Volatile Exchange Rates*, HIGHLIGHTS OF FIN. REPORTING ISSUES 1 (Sept. 1, 1981), at 3.

¹⁰⁰CHOI & MUELLER, *supra* note 97, at 72.

¹⁰¹AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, “ACCOUNTING,” 3 AICPA PROFESSIONAL STANDARDS 7595 (June 1, 1980), in § 1083.183 at 7665. [hereinafter FAS 8].

¹⁰²A foreign entity’s FC is the currency of the primary economic environment in which the entity operates. For an entity with operations that are relatively “self-contained and integrated” within a particular country, the FC generally would be the local currency of that country. However, the reporting enterprise’s currency (US\$) generally would be the FC for foreign operations that are a “direct and integral component or extension” of that enterprise’s operations. Also, FS of a foreign entity in a “highly inflationary economy” (i.e., cumulative inflation of 100 percent or more over a three-year period) is to be remeasured as if the FC were the reporting enterprise’s currency (US\$). But, in the final analysis, management’s judgment

enterprise's income statement and are reported and accumulated in a separate component of equity;¹⁰³ but if a foreign entity's FC is the "reporting currency" (RC), which is the U.S. dollar for U.S. reporting enterprises, then remeasurement of the foreign entity's books of record from the "foreign currency" in which they are kept into the RC obviates the need for translation.¹⁰⁴

However, both FAS 8 and FAS 52 require immediate recognition of foreign currency "transaction" (exchange) gain or loss¹⁰⁵ and generally require that such gain or loss be included in determining net income for the period in which the exchange rate changes.¹⁰⁶ Exceptions are made for gain or loss resulting from consolidation of intercompany transactions that are of a long-term-investment nature and for gain or loss on a forward contract that is intended to hedge a firm and identifiable foreign current commitment, both of which are reported in the same manner as "translation adjustments."¹⁰⁷

Of particular interest here, FAS 8 and FAS 52 both also provide that SDRs and other composites of currencies "used to set prices or denominate amounts of loans, etc., have the characteristics of foreign currency for the purposes of applying" these FAS Statements.¹⁰⁸ Thus, U.S. reporting enterprises with SDR-denominated assets or liabilities (either held directly or through a foreign subsidiary) will be required to account appropriately for transactions affecting SDR items and to translate appropriately the foreign entity FS for which the SDR is the FC (e.g., the NIB).¹⁰⁹

Under FAS 8, when foreign FS are prepared in SDRs, it is first necessary to separate "monetary" from "nonmonetary" items. The former are to be

will be required to determine the FC in which financial results and relationships are measured with the greatest degree of relevance and reliability. FAS 52, *supra* note 94, in ¶¶ 5-11 at 3-5.

¹⁰³*Id.* in ¶ 13 at 5-6. Only when the foreign entity is sold or liquidated is the associated gain or loss to be removed from the equity section and pass through the income statement for the period during which the sale or liquidation occurred. *Id.* in ¶ 14 at 6.

¹⁰⁴*Id.* in ¶ 10 at 5. However, FAS 52 remeasurement involves FAS 8-style translation *Cf.* text accompanying note 112 *infra*.

¹⁰⁵Under FAS 52, a foreign currency "transaction" gain or loss results from an increase or decrease in expected FC cash flows due to a change in exchange rates between the FC and the currency in which a transaction is denominated. *Id.* in ¶ 15 at 6. For a similar definition under FAS 8, *see* FAS 8, *supra* note 101, in § 1083.018 at 7600-7601.

¹⁰⁶*Id.*

¹⁰⁷FAS 52, *supra* note 94, in ¶¶ 21-21 at 8-9. However, gain or loss on forward exchange contracts that do not meet the criteria of ¶ 21 cannot be deferred or reported in equity. *Id.* in ¶ 17 at 7. For some parallel provisions of FAS 8, *supra* note 101, in §§ 1083.021-8 at 7602-4.

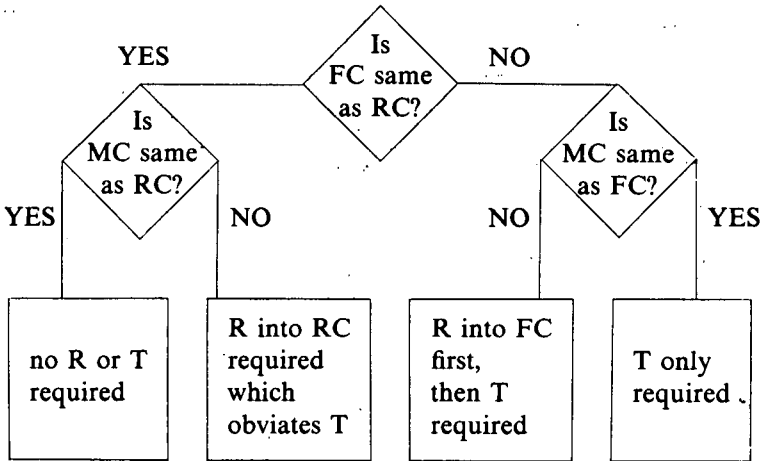
¹⁰⁸FAS 52, *supra* note 94, in ¶ 162 at 76; FAS 8, *supra* note 101, in § 1083.243 at 7683. *See further* J. GOLD, *supra* note 41, at 35-37.

¹⁰⁹*Cf.* text accompanying note 22 *supra*. There is also a small "SDR area" in which a number of countries (Burma; Guinea; Guinea-Bissau; Iran; Jordan, Kenya, Malawi; Mauritius; Sao Tome and Principe, Seychelles; Sierra Leone; Viet Nam; Zaire, and Zambia) have pegged their currencies to the SDR in order to stabilize their external and internal positions and to better protect their economies from the effects of instability elsewhere. Habermeier, *supra* note 14, at 13; IMF 1981, *supra* note 27, Appendix I, at 116-18. It is therefore quite conceivable that the SDR could be the FAS 52 FC for entities operating in the "SDR area" countries.

translated at the "current" SDR/US\$ exchange rate and the latter at various associated "historical" SDR/US\$ exchange rates.¹¹⁰

Under FAS 52, when the SDR is the foreign entity's "measuring currency" (currency in which the books of record are kept), management of the U.S. reporting enterprise must first determine the appropriate FC for that entity. If the FC is the RC (US\$) or some "foreign currency" besides the SDR, then remeasurement of the foreign entity's books of record into the FC is required.¹¹¹ To accomplish the same result as if those books of record had been initially recorded in the FC, it is necessary to use the equivalent of FAS 8 "temporal" translation (including current recognition in income of all exchange gain or loss from remeasurement of all "non-

Figure A. Translation of Foreign Entity Financial Statements Under FAS 52



Key:
 FC = the foreign entity's "functional currency"
 RC = the U.S. reporting enterprise's "reporting currency" (US\$)
 MC = the "measuring currency" in which the foreign entity's books of record are kept
 R = "remeasurement" using equivalent of FAS 8 "temporal" translation
 T = "translation" using the "current exchange rate"

¹¹⁰Cf. text accompanying note 97 *supra*. For pre-1970 "historical" rates, it would probably be justifiable to use the par value of one U.S. dollar as being equal to one SDR. Cf. Table 1 *supra*.

¹¹¹FAS 52, *supra* note 94, in ¶ 10 at 5.

monetary" items that are not denominated in the FC).¹¹² Remeasurement into the RC obviates translation,¹¹³ but translation of the foreign entity's FS into US\$ is required if the FC is the SDR or some other "foreign currency."¹¹⁴ In the latter case only, translation of all FS items is at the "current" FC/US\$ rate of exchange.¹¹⁵ This aspect of FAS 52 is generalized and summarized in Figure A above.

Conclusion

Several factors (including simplification of the SDR and unification of the currency basket with the interest rate basket as well as enhancement of a secondary market for SDR instruments) have converged recently, making it probable for increased private use of the SDR as a unit of account. In essence, viability of the SDR for this purpose rests on the proposition "that it is more stable than individual currencies and that it helps give a means of exchange stability to those whose business is either in SDRs or who are exposed to exchange risks in several currencies in proportions approximately matching the composition of the SDR."¹¹⁶ The IMF and some major commercial banks both seem ready to promote the SDR as an "all-weather instrument" for worldwide use. If they succeed, lawyers in the 1980s and beyond may well be occupied in advising on and drafting documentation for a wide range of SDR contracts and transactions.

¹¹²*Id.* in ¶ 47 at 31.

¹¹³*Id.* in ¶ 9 at 5. *Cf.* text accompanying note 104 *supra*.

¹¹⁴*Id.* in ¶ 13 at 5-6.

¹¹⁵*Id.* in ¶ 12 at 5. *Cf.* note 94 *supra* and accompanying text.

¹¹⁶Habermeier, *supra* note 14, at 13.