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POSSIBLE USE OF RISK PREMIUMS FOR ASSESSING THE CONCESSIONALITY OF LOANS IN DAC STATISTICS

Informal Meeting, 24 June 2014, Paris

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POSSIBLE USE OF RISK PREMIUMS FOR ASSESSING THE CONCESSIONALITY OF LOANS IN DAC STATISTICS

1. At its meeting on 23-24 April 2014, the WP-STAT examined the feasibility of risk-adjusted discount rates.¹ Most members could agree on the use of OECD Differentiated Discount Rates (DDRs) as the base for donors' funding costs. As regards the risk premiums, there were divergent views on the source of the data and the discussion concluded that further work was required to arrive at a suitable source. This note presents the findings of the Secretariat's research² in this regard **for discussion** at the Informal meeting of the WP-STAT on 24 June 2014.
2. The note examines three possible ways of taking risk into account in the discount rate:
 - a) Deriving risk premiums from the market;
 - b) Adopting the Export Credit Arrangement's Minimum Premium Rate (MPR) system, with fixed coefficients by risk category; or
 - c) Agreeing on a scale of risk premiums for the purpose of DAC reporting.
3. The risk premiums obtained would then be added to the DDR (or any other proxy chosen to reflect donors' funding costs).

a) Deriving risk premiums from the market

4. Four members, in their method of constructing risk-adjusted rates³, derived default spreads for each credit rating class and mapped those spreads to the OECD's country risk categories⁴ (see Table 1 below). The OECD country risk classification is described in Annex 1; it is updated every year and made public.

1. Cf. DCD/DAC/STAT(2014)1.

2. Including consultations with the IMF, World Bank, EIB and the OECD Export Credit Division.

3. See DCD/DAC/STAT(2012)22. Note however that at the time the proposal was not associated with the grant equivalent method.

4. This mapping reflects observations at a certain moment of time and is not fixed.

Table 1. Risk premiums derived from the market by country risk category

| Credit rating (Moody's) | OECD country risk category | Risk premium percentage points |
|------------------------------------|---|---|
| A1-A3 | 1 | 1 |
| Baa1-Baa3 | 2 | 1.75 |
| Ba1-Ba2 | 3 | 2.58 |
| Ba3 | 4 | 3.25 |
| B1 | 5 | 4 |
| B2 | 6 | 5 |
| B3 | 7 | 6 |
| Caa1-Caa3 | 8 | 8.5 |

Note: The OECD country risk classification includes 7 categories only. The proposal by the four members was to introduce an 8th category to account for the spread between B3 and Caa categories. Countries in OECD risk category 7 that do not have a credit rating of B3 would be subsumed under Caa rating.

5. The default spreads shown in this table are derived from available **market data published by specialised financial service providers**, namely Morningstar, Bloomberg and Capital IQ, as **analysed and published by Aswath Damodaran**, an academic. At the WP-STAT April meeting some members cautioned the credibility/reliability of such a data source over time, and asked whether a more formal and sustainable data source could be identified. This has proven difficult. However, it can be noted that data from commercial information providers such as Bloomberg are commonly used in the financial industry (private and public banks, regulatory authorities). The fact that risk data exist only for countries with access to the market is a caveat.

b) Adopting the Arrangement Minimum Premium Rate system

6. To limit trade distortions, the Arrangement on Officially Supported Export Credits, hereafter referred to as the Arrangement, stipulates Minimum Premium Rates (MPRs) that Participants to the Arrangement have to charge for credit risk. The methodology and calculation formula of the MPRs is shown in Annex 2. The formula is determined by a number of factors⁵ which vary according to the terms and conditions of the insurance, guarantee or direct credit being provided, as well as the country risk classification of the country in which the obligor is located (*i.e.* the country risk to which the transaction is exposed) and a risk assessment of the buyer. The applicable country risk classification is determined by the country risk experts of the Participants to the Arrangement and is common for all transactions involving a country, whereas the buyer risk component is mostly discretionary.

7. The general formula provided in the Arrangement may be simplified for the vast majority of aid loans, as illustrated in “*Straightening the Measuring Stick: A 14-Point Plan for Reforming the Definition of ODA*” (David Roodman)⁶, and summarised in the Box below. The resulting formula depends on the “horizon of risk” of the loan [which is calculated by adding half of the disbursement period (defined as the

5. The applicable country risk classification; the time at risk (*i.e.* the Horizon of Risk or HOR); the selected buyer risk category of the obligor; the percentage of political and commercial risk cover and quality of official export credit product provided; any country risk mitigation technique applied; and any buyer risk credit enhancements that have been applied.

6. <http://www.cgdev.org/publication/straightening-measuring-stick-14-point-plan-reforming-definition-official-development>.

time between the first drawing of a credit and the starting point of credit) to the entire repayment period (defined as the time between the starting point of credit and the last repayment)], and on three coefficients for which the values are set in the Arrangement by country risk category and reproduced in the Box below.

Box 1. MPR formula

General formula

(for calculating the applicable MPR for an export credit involving an obligor/guarantor in a country classified in Country Risk Categories 1-7)

$$\text{MPR} = \{ [(a_i * \text{HOR} + b_i) * \max(\text{PCC}, \text{PCP}) / 0.95] * (1 - \text{LCF}) + [c_{in} * \text{PCC} / 0.95 * \text{HOR} * (1 - \text{CEF})] \} * \text{QPF}_i * \text{PCF}_i * \text{BTSF}$$

where:

- a_i = country risk coefficient in country risk category i ($i = 1-7$)
- c_{in} = buyer risk coefficient for buyer category n ($n = \text{SOV+}, \text{SOV/CCO}, \text{CC1-CC5}$) in country risk category i ($i = 1-7$)
- b_i = constant for country category risk category i ($i = 1-7$)
- HOR = horizon of risk
- PCC = commercial (buyer) risk percentage of cover
- PCP = political (country) risk percentage of cover
- CEF = credit enhancements factor
- QPF_i = quality of product factor in country risk category i ($i = 1-7$)
- PCF_i = percentage of cover factor in country risk category i ($i = 1-7$)
- BTSF = better than sovereign factor
- LCF = local currency factor

Simplified formula for aid loans

For hard currency loans with sovereign lenders and borrowers, $\text{PCC} = \text{PCP} = \text{BTSF} = \text{QPF} = 1$ and $\text{LCF} = \text{CEF} = c_{in} = 0$, and the general formula simplifies as follows:

| | |
|--------------------|---|
| FORMULA (1) | $\text{MPR} = [(a_i * \text{HOR} + b_i) / 0.95] * (1 + \text{percentage of cover coefficient}_i)$ |
|--------------------|---|

where

- the values of “a”, “b” and “percentage of cover coefficient” are set in the Arrangement for each OECD country risk category
- $\text{HOR} = (\text{length of the disbursement period} * 0.5) + \text{the length of the repayment period}$ (for standard repayment profiles, i.e. equal semi-annual repayments of principal)

| | Country Risk Category | | | | | | |
|---------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| a | 0.090 | 0.200 | 0.350 | 0.550 | 0.740 | 0.900 | 1.100 |
| b | 0.350 | 0.350 | 0.350 | 0.350 | 0.750 | 1.200 | 1.800 |
| Percentage of cover coefficient | 0.00000 | 0.00337 | 0.00489 | 0.01639 | 0.03657 | 0.05878 | 0.08598 |

8. MPRs are expressed in percentages of the principal (volume) of the credit as if premium were collected in full at the date of the first drawdown of the credit (see Table 2). A methodology for translating these “up-front” MPRs into a per annum spread would need to be carefully developed and agreed. The spread – or margin – could then possibly be added to the DDR (or any other proxy chosen to reflect donors’ funding costs) to derive some type of “risk-adjusted” discount rate.⁷

Table 2. Up-front MPRs by country risk category for selected horizons of risk, expressed in percentages of the loan principal (volume)

| Horizon of risk | Country risk categories | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------|-------------------------|-----|-----|------|------|------|------|------|
| | 2 | | 0.6 | 0.8 | 1.1 | 1.6 | 2.4 | 3.3 |
| 5 | | 0.8 | 1.4 | 2.2 | 3.3 | 4.9 | 6.4 | 8.3 |
| 10 | | 1.3 | 2.5 | 4.1 | 6.3 | 8.9 | 11.4 | 14.6 |
| 15 | | 1.8 | 3.5 | 5.9 | 9.2 | 12.9 | 16.4 | 20.9 |
| 20 | | 2.3 | 4.6 | 7.8 | 12.1 | 17.0 | 21.4 | 27.2 |
| 30 | | 3.2 | 6.7 | 11.5 | 18.0 | 25.0 | 31.4 | 39.8 |

9. Although MPRs are in the public domain and could be used from a technical perspective, according to the Export Credit Division there are many conceptual reasons for considering them as unsuitable for the DAC concessionality calculation:

- The MPRs are politically-negotiated rates that find their origins in the “Knaepen Package” negotiations (1990s)⁸. They have no meaning other than that they were the levels negotiated.
- They have no link to the market or any other empirical basis. It is only in a very large sense that one could argue that they are “risk-based” insofar as they increase as the risk increases (based on the country risk category) but the MPR formula is primarily determined by other factors (see footnote 5), none of which link to the market, and the use of coefficients whose values are set in the Arrangement.
- They have largely remained unchanged since the 1990s.⁹

7. David Roodman uses an alternative methodology to integrate MPRs in the concessionality assessment of loans: “For a borrower seen as safe, the MPR on a 40-year loan might be 10%, which is equivalent to an annual interest spread of about 0.5% if the balance declines linearly to zero. For a borrower perceived as riskier, the MPR could be as high as 50%. [...] An MPR enters a concessionality calculation as follows. Using a discount rate that does not reflect default risk, the net present value (NPV) of required future debt service is computed. Now, an MPR of 10%, say, indicates an expectation that the NPV of actual debt service will be 90% of that required debt service.” This reasoning can be translated in formulas which allow computing the grant element of a loan adjusted for the MPR, as follows: $expected_NPV = (1 - MPR) NPV$ and $GE_{adj} = 1 - (1 - MPR) * (1 - GE)$ with $GE = grant\ element\ of\ the\ loan$; $GE_{adj} = grant\ element\ adjusted\ for\ the\ MPR$; $NPV = Net\ Present\ Value = FaceValue * (1 - GE)$.” This method has not yet been verified by the OECD Export Credit Division.

8. See “Smart rules for fair trade – 50 years of export credits” (OECD, 2011) and pages 220-228 on “Premium: the least understood rules of the Arrangement” and <http://www.oecd.org/tad/xcred/premiumforofficiallysupportedexportcredits.htm>.

- They are extremely unsuitable for long tenors and high risks. They were originally designed for tenors of no more than 12 years (while longer terms have since been allowed under the Arrangement – up to 18 years for renewable power and nuclear).

c) Agreeing on a scale of risk premiums for the purpose of DAC reporting

10. An alternative to the above two options would be for the DAC to develop and agree upon its own scale of risk premiums. That could rely on a classification of countries by risk and a premium to be determined for each category. The OECD country risk classification is well established, and meant to represent long term assessments (although not as long as 40 years), it could be used for DAC calculations as well. For risk premiums, the absence of straightforward reliable source of data may point to the need for a certain level of arbitrariness in the determination of the discount rate to use in concessionality assessments. One could imagine introducing a scale for risk premiums to then add to the DDR (or any other proxy chosen to reflect donors' funding costs). The scale would ideally need to be backed with some reasoning/benchmarking, at least a one time off justification. Table 3 below presents an example of how such a scale could look like.

Table 3. Possible scale of risk premiums to be developed and agreed by risk category

| Country Risk category | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------------------------|---|---|-----|---|-----|---|-----|---|
| Possible scale for risk premia | 0 | 0 | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 |

11. **Members' comments are invited.**

9. They were revised in 2010 to integrate (1) a common framework for the pricing of buyer credit risk; and (2) new minimum premium rates for country credit risk that had remained unchanged since the first rules on risk premium (the Knaepen Package) came into effect in 1999.

ANNEX 1. OECD COUNTRY RISK CLASSIFICATION

12. [Arrangement on officially supported export credits - TAD/PG(2014)1, paragraph 26]

13. With the exception of High Income OECD countries and High Income Euro Area countries, countries shall be classified according to the likelihood of whether they will service their external debts (i.e. country credit risk).

- a) The five elements of country credit risk are:
 1. General moratorium on repayments decreed by the obligor's/guarantor's government or by that agency of a country through which repayment is affected.
 2. Political events and/or economic difficulties arising outside the country of the notifying Participant or legislative/administrative measures taken outside the country of the notifying Participant which prevent or delay the transfer of funds paid in respect of the credit.
 3. Legal provisions adopted in the obligor's/guarantor's country declaring repayments made in local currency to be a valid discharge of the debt, notwithstanding that, as a result of fluctuations in exchange rates, such repayments, when converted into the currency of the credit, no longer cover the amount of the debt at the date of the transfer of funds.
 4. Any other measure or decision of the government of a foreign country which prevents repayment under a credit.
 5. Cases of force majeure occurring outside the country of the notifying Participant, i.e. war (including civil war), expropriation, revolution, riot, civil disturbances, cyclones, floods, earthquakes, eruptions, tidal waves and nuclear accidents.
- b) Countries are classified into one of eight Country Risk Categories (0-7). MPRs have been established for Categories 1 through 7, but not for Category 0, as the level of country risk is considered to be negligible for countries in this Category. The credit risk associated with transactions in Category 0 countries is predominantly related to the risk of the obligor/guarantor.
- c) The classification of countries is achieved through the Country Risk Classification Methodology, which is comprised of:
 1. The Country Risk Assessment Model (the Model), which produces a quantitative assessment of country credit risk which is based, for each country, on three groups of risk indicators: the payment experience of the Participants, the financial situation and the economic situation. The methodology of the Model consists of different steps including the assessment of the three groups of risk indicators, and the combination and flexible weighting of the risk indicator groups.

2. The qualitative assessment of the Model results, considered country-by-country to integrate the political risk and/or other risk factors not taken into account in full or in part by the Model. If appropriate, this may lead to an adjustment to the quantitative Model assessment to reflect the final assessment of the country credit risk.
- d) Country Risk Classifications shall be monitored on an on-going basis and reviewed at least annually and changes resulting from the Country Risk Classification Methodology shall be immediately communicated by the Secretariat. When a country is re-classified in a lower or higher Country Risk Category, the Participants shall, no later than five working days after the re classification has been communicated by the Secretariat, charge premium rates at or above the MPRs associated with the new Country Risk Category.
 - e) The country risk classifications shall be made public by the Secretariat.

ANNEX 2. MINIMUM PREMIUM RATES FOR CREDIT RISK

14. [Arrangement on officially supported export credits - TAD/PG(2014)1, paragraph 24]

15. The Participants shall charge no less than the applicable Minimum Premium Rate (MPR) for Credit Risk.

a) The applicable MPR is determined according to the following factors:

1. The applicable country risk classification.
2. The time at risk (*i.e.* the Horizon of Risk or HOR).
3. The selected buyer risk category of the obligor.
4. The percentage of political and commercial risk cover and quality of official export credit product provided.
5. Any country risk mitigation technique applied.
6. Any buyer risk credit enhancements that have been applied.

b) MPRs are expressed in percentages of the principal value of the credit as if premium were collected in full at the date of the first drawdown of the credit. An explanation of how to calculate the MPRs, including the mathematical formula, is provided in Annex VIII.

c) There are no MPRs for transactions involving obligors in Category 0 countries, High Income OECD Countries and High Income Euro Area Countries¹⁰. The premium rates charged by Participants for transactions in such countries shall be determined on a case-by-case basis. In order to ensure that the premium rates charged for transactions involving obligors in such countries do not undercut private market pricing, the Participants shall adhere to the following procedure:

¹⁰ The status of a country in terms of: (1) whether it is a High Income country (as defined by the World Bank on an annual basis according to *per capita* GNI), (2) membership in the OECD and (3) whether it is part of the Euro Area is reviewed on an annual basis. The designation of a country under Article 25 c) as a High Income OECD country or a High Income Euro Area country as well as the removal of such designation will only come into effect after the country's income classification (High Income or otherwise) has remained unchanged for two consecutive years. A change in a country's designation as a High Income OECD country or a High Income Euro Area country as well as the removal of such designation related to a change in OECD membership or being part of the Euro Area will come into effect immediately at the time of the annual review of countries' status.

1. Taking into consideration the availability of market information and the characteristics of the underlying transaction, Participants shall determine the premium rate to be applied by benchmarking against one or more of the market benchmarks set forth in Annex IX, choosing the benchmark(s) deemed most appropriate for the specific transaction.
2. Notwithstanding the preceding paragraph, if the relevance of the market information is limited for liquidity or other reasons, or if the transaction is small (credit value below 10 million SDRs), the Participants shall charge no less than the MPR corresponding to the appropriate buyer risk category in Country Risk Category 1.
3. On a temporary basis¹¹, the Participants shall give prior notification according to Article 48 for any transaction with obligor/guarantor in a Category 0 country, High Income OECD Country or High Income Euro Area Country having a credit value of greater than 10 million SDRs.
4. The “highest risk” countries in Category 7 shall, in principle, be subject to premium rates in excess of the MPRs established for that Category; these premium rates shall be determined by the Participant providing official support.
5. In calculating the MPR for a transaction, the applicable country risk classification shall be the classification of the obligor’s country and the applicable buyer risk classification shall be the classification of the obligor¹², unless:
 6. security in the form of an irrevocable, unconditional, on-demand, legally valid and enforceable guarantee of the total debt repayment obligation for the entire duration of the credit is provided by a third party that is creditworthy in relation to the size of the guaranteed debt. In the case of a third party guarantee, a Participant may choose to apply the country risk classification of the country in which the guarantor is located and the buyer risk category of the guarantor¹³; or
 7. a Multilateral or Regional Institution as set out in Article 28 is acting either as borrower or guarantor for the transaction, in which case the applicable Country Risk Classification and buyer risk category may be that of the specific Multilateral or Regional Institution involved.
- d) The criteria and conditions relating to the application of a third party guarantee according to the situations described in the first and second *tirets* of paragraph e) above are set out in Annex X.
- e) The HOR convention used in the calculation of an MPR is one-half of the disbursement period plus the entire repayment period and assumes a regular export credit repayment profile, *i.e.* repayment in equal semi-annual instalments of principal plus accrued interest beginning six months after the starting point of credit. For export credits with non-standard repayment profiles, the equivalent repayment period (expressed in terms of equal, semi-annual instalments)

¹¹ The requirement for prior notification set out in the third *tiret* of Article 24 c) shall be discontinued on 31 December 2014.

¹² The premium rates charged for transactions with a third party guarantee provided by an obligor in a High Income OECD country or a High Income Euro Area country are subject to the requirements set out in Article 24 c).

¹³ In the case of a third party guarantee, the applicable country risk classification and buyer risk category must be related to the same entity, *i.e.* either the obligor or the guarantor.

is calculated using the following formula: equivalent repayment period = (average weighted life of the repayment period - 0.25) / 0.5.

- f) The Participant choosing to apply an MPR associated with a third party guarantor located in a country other than that of the obligor shall give prior notification according to Article 47. The Participant choosing to apply a MPR associated with a Multilateral or Regional Institution acting as a guarantor shall give prior notification in accordance with Article 48.

CALCULATION OF THE MINIMUM PREMIUM RATES

16. [Arrangement on officially supported export credits - TAD/PG(2014)1, Annex VIII]

MPR Formula

17. The formula for calculating the applicable MPR for an export credit involving an obligor/guarantor in a country classified in Country Risk Categories 1-7 is:

$$18. \quad \text{MPR} = \{ [(a_i * \text{HOR} + b_i) * \max(\text{PCC}, \text{PCP}) / 0.95] * (1 - \text{LCF}) + [c_{in} * \text{PCC} / 0.95 * \text{HOR} * (1 - \text{CEF})] \} * \text{QPF}_i * \text{PCF}_i * \text{BTSF}$$

19. *where:*

- a_i = country risk coefficient in country risk category i ($i = 1-7$)
- c_{in} = buyer risk coefficient for buyer category n ($n = \text{SOV+}, \text{SOV/CCO}, \text{CC1-CC5}$) in country risk category i ($i = 1-7$)
- b_i = constant for country category risk category i ($i = 1-7$)
- HOR = horizon of risk
- PCC = commercial (buyer) risk percentage of cover
- PCP = political (country) risk percentage of cover
- CEF = credit enhancements factor
- QPF_i = quality of product factor in country risk category i ($i = 1-7$)
- PCF_i = percentage of cover factor in country risk category i ($i = 1-7$)
- BTSF = better than sovereign factor
- LCF = local currency factor

Applicable Country Risk Classification

20. The applicable country risk classification is determined according to Article 24 e) of the Arrangement, which in turn determines the country risk coefficient (a_i) and constant (b_i) that are obtained from the following table:

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|-------|-------|-------|-------|-------|-------|-------|
| a | 0.090 | 0.200 | 0.350 | 0.550 | 0.740 | 0.900 | 1.100 |
| b | 0.350 | 0.350 | 0.350 | 0.350 | 0.750 | 1.200 | 1.800 |

Selection of the Appropriate Buyer Risk Category

21. The appropriate buyer risk category is selected from the following table, which provides the combinations of country and buyer risk categories that have been established and the agreed concordance between buyer risk categories CC1-CC5 and the classifications of accredited CRAs. Qualitative descriptions of each buyer risk category (SOV+ to CC5) have been established to facilitate the classification of obligors (and guarantors) and are provided in Annex XI.

| Country Risk Category | | | | | | |
|------------------------|------------------------|------------------------|--------------------|--------------------|--------------------|--------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| SOV+ | SOV+ | SOV+ | SOV+ | SOV+ | SOV+ | SOV+ |
| SOV / CC0 | SOV / CC0 | SOV / CC0 | SOV / CC0 | SOV / CC0 | SOV / CC0 | SOV / CC0 |
| CC1 AAA to AA- | CC1 A+ to A- | CC1 BBB+ to BBB- | CC1 BB+ to BB | CC1 BB- | CC1 B+ | CC1 B |
| CC2 A+ to A- | CC2 BBB+ to BBB- | CC2 BB+ to BB | CC2 BB- | CC2 B+ | CC2 B | CC2 B- or worse |
| CC3 BBB+ to BBB- | CC3 BB+ to BB | CC3 BB- | CC3 B+ | CC3 B | CC3 B- or worse | |
| CC4 BB+ to BB | CC4 BB- | CC4 B+ | CC4 B | CC4 B- or worse | | |
| CC5 BB- or worse | CC5 B+ or worse | CC5 B or worse | CC5 B- or worse | | | |

22. The selected buyer risk category, in combination with the applicable country risk category determines the buyer risk coefficient (c_{in}) that is obtained from the following table:

| Buyer Risk Category | Country Risk Category | | | | | | |
|---------------------|-----------------------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| SOV+ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| SOV / CC0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| CC1 | 0.110 | 0.120 | 0.110 | 0.100 | 0.100 | 0.100 | 0.125 |
| CC2 | 0.200 | 0.212 | 0.223 | 0.234 | 0.246 | 0.258 | 0.271 |
| CC3 | 0.270 | 0.320 | 0.320 | 0.350 | 0.380 | 0.480 | n/a |
| CC4 | 0.405 | 0.459 | 0.495 | 0.540 | 0.621 | n/a | n/a |
| CC5 | 0.630 | 0.675 | 0.720 | 0.810 | n/a | n/a | n/a |

Horizon of Risk (HOR)

23. The Horizon of Risk (HOR) is calculated as follows:

- For standard repayment profiles (*i.e.* equal semi-annual repayments of principal):
 - $HOR = (\text{length of the disbursement period} * 0.5) + \text{the length of the repayment period}$
- For non-standard repayment profiles:

- $HOR = (\text{length of the disbursement period} * 0.5) + (\text{weighted average life of the repayment period} - 0.25) / 0.5$

24. In the above formulas, the unit of measurement for time is years.

Percentage of Cover for Commercial (Buyer) Risk (PCC) and Political (Country) Risk (PCP)

25. The Percentages of Cover (PCC and PCP) expressed as a decimal value (*i.e.* 95% is expressed as 0.95) in the MPR formula.

Buyer Risk Credit Enhancements

26. The value of the credit enhancement factor (CEF) is 0 for any transaction that is not subject to any buyer risk credit enhancements. The value of the CEF for transactions that are subject to buyer risk credit enhancements is determined according to Annex XII, subject to the restrictions set out in Article 31 c) of the Arrangement and may not exceed 0.35.

Quality of Product Factor (QPF)

27. The QPF is obtained from the following table:

| Product Quality | Country Risk Category | | | | | | |
|-----------------|-----------------------|--------|--------|--------|--------|--------|--------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Below Standard | 0.9965 | 0.9935 | 0.9850 | 0.9825 | 0.9825 | 0.9800 | 0.9800 |
| Standard | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Above Standard | 1.0035 | 1.0065 | 1.0150 | 1.0175 | 1.0175 | 1.0200 | 1.0200 |

Percentage of Cover Factor (PCF)

28. The PCF is determined as follows:

- For $(\max(\text{PCC}, \text{PCP}) \leq 0.95, \text{PCF} = 1)$
- For $(\max(\text{PCC}, \text{PCP}) > 0.95, \text{PCF} = 1 + ((\max(\text{PCC}, \text{PCP}) - 0.95) / 0.05) * (\text{percentage of cover coefficient}))$

29. The percentage of cover coefficient is obtained from the following table:

| | Country Risk Category | | | | | | |
|---------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Percentage of cover coefficient | 0.00000 | 0.00337 | 0.00489 | 0.01639 | 0.03657 | 0.05878 | 0.08598 |

Better than Sovereign Factor (BTSF)

30. When an obligor is classified in the “better than sovereign” (SOV+) buyer risk category, BTSF = 0.9, otherwise BTSF = 1.

Local Currency Factor (LCF)

31. For transaction making use of local currency country risk mitigation, the value of the LCF may not exceed 0.2. The value of the LCF for all other transactions is 0.