INTERNATIONAL MONETARY FUND

Statistics Department

Remaining Maturity Classification—Clarification of the Definition

Remaining Maturity Classification—Clarification of the Definition[1]

Remaining maturity data are intended to convey information required for liquidity and maturity mismatches analysis. So, conceptually, the classification of debt liabilities on a remaining maturity basis relates to the payments that fall due: remaining maturity of one year or less relates to payments that fall due in the coming year, while remaining maturity over one year relates to all other debt payments on the instrument. The intent of this note is to clarify the definition of remaining maturity in BPM6 *(paragraphs 5.104 and 5.105). In line with the procedures developed for updating the* BPM6 *on an ongoing basis between revisions, this clarification is categorized as a "clarification beyond dispute" (see* BPM6*, paragraph 1.39).*

I. Introduction

1.   Debt instrument classification by maturity is recommended by statistical manuals and guides, including the sixth edition of the *Balance of Payments and International Investment Position Manual* (*BPM6*). The maturity of a debt instrument is classified as either short-term (one year or less) or long-term (over one year) (*BPM6*, paragraph 5.103) on an original or remaining maturity basis.

2.   Traditionally, original maturity is the basis used in most macroeconomic and debt-statistics systems. Nonetheless, there is growing interest in debt data on a remaining maturity basis, particularly short-term remaining maturity as a current or forward-looking measure that conveys information on liquidity risk of the debt and maturity mismatches.

3.   *BPM6* (paragraphs 5.104 and 5.105) discusses the maturity classification of debt instruments. Paragraph 5.104 describes remaining maturity as "the period from the reference date until the final contractually scheduled payment" while paragraph 5.105 explains that long term debt due for payment within one year or less can be combined with short term debt on an original maturity basis to calculate remaining maturity on a short-term maturity basis. As paragraph 5.104 speaks of "the final contractually scheduled payment," but paragraph 5.105 speaks of "due of payment," users have questioned the clarity of the guidance on remaining maturity in *BPM6*.

4.   Similar discussion is included in the *Government Finance Statistics Manual 2014* (paragraphs 7.267–7.269) and the *Public Sector Debt Statistics: Guide for Compilers and Users* (paragraphs 2.150–2.152). The *System of National Accounts 2008* (paragraphs 26.105

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[1] A previous version of this note (prepared by Marcelo Dinenzon, Balance of Payments Division, STA) was presented as a paper at the Twenty-Eighth Meeting of the IMF Committee on Balance of Payments Statistics in October 2015 (see BOPCOM 15/15 at http://www.imf.org/external/pubs/ft/bop/2015/28.htm). The paper proposed that a note be placed on the *BPM6* website setting out the options to calculate remaining maturity and so clarify the text in *BPM6*. BOPCOM members agreed that the remaining maturity definition in *BPM6* needed to be clarified and should be based on the debt payment schedule as explained in the 2013 *External Debt Statistics: Guide for Compilers and Users*.

and 27.20) and Chapter 4 of the draft of the new *Monetary and Financial Statistics Manual and Compilation Guide* (paragraph 4.217) describes remaining maturity as "the period from the reference date until the final contractually scheduled payment"—similar to *BPM6*, paragraph 5.104. Paragraph 4.210 of the pre-publication draft of the *Monetary and Financial Statistics Manual and Compilation Guide* (IMF, 2016) describes remaining maturity in a similar manner. However, it has added the following footnote to the definition: "For debt instruments repaid in installments, until the contractual dates of payments of individual installments," to confirm that the payment schedule should be used as the conceptual basis for classifying debt on a remaining maturity basis

5.   The purpose of this note is to clarify the wording in *BPM6*, confirming that the payment schedule should be used as the conceptual basis for classifying debt on a remaining maturity basis.

II. MEASURING DEBT ON A REMAINING MATURITY BASIS

6.   As noted above, *BPM6* discusses remaining maturity in two paragraphs—5.104 and 5.105.

7.   Paragraph 5.104 is intended to contrast the concept of remaining maturity for an instrument with that of original maturity. If a bond has been issued with a 10-year maturity, it is classified as a long-term on an original maturity basis regardless of whether any payments are due in the short term. Five years after the bond was issued, its remaining maturity is considered to be five years as that is when it is due to mature. So one approach to measuring remaining maturity would be when the final payment falls due.

8.   However, the analytical intent of remaining-maturity measures (sometimes referred to as residual-maturity measures) is to provide an indication of potential liquidity risks facing the debtors. Particularly important is compiling information on debt on a short-term remaining maturity basis, which indicates that part of the debt liabilities that fall due in the next 12 months. This suggests that the measure of remaining maturity should split that part of a debt instrument that is expected to fall due in the coming year from that part that will fall due in more than one year. In other words, and unlike the original maturity measure,[2] a debt instrument on a remaining maturity basis may not be valued as one instrument but its value divided up based on its payment schedule.

9.   This payments approach is that implied in *BPM6* in paragraph 5.105. However, *BPM6* provides little guidance on how to calculate remaining maturity beyond recommending that short-term remaining maturity be measured by adding the value of

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[2] Data on an original maturity basis convey information on the typical terms of debt and the debt structure, and gives an indication of the type of markets in which the debtor is borrowing.

outstanding short-term debt (original maturity) to the value of outstanding long-term debt (original maturity) due for payment in one year or less.

10.   In contrast, the 2013 *External Debt Statistics: Guide for Compilers and Users* (2013 *EDS Guide*) provides a conceptually accurate and clearer description of remaining maturity. It makes reference to debt payments as the basis for remaining maturity classification (i.e., the period of time from the reference date until the debt payments fall due).[3] The *2013 EDS Guide* further states that "conceptually, at the reference date, the value of outstanding long-term debt (original maturity) due to be paid in one year or less is the discounted value of payments to be made in the coming year, both interest and principal." See *2013 EDS Guide* (paragraph 6.7).

11.   The *2013 EDS Guide* is silent on which interest rate to use to discount the payments. For loans, the interest rate should be the contractual rate; for debt securities, the interest rate should be the market rate because it will be the market rate that will determine the value of the traded instrument. Indeed, while the remaining maturity measure divides up the value of the debt instrument based on the payment schedule, the total value of the remaining maturity "elements" of an instrument should equal the total value of the instrument as a whole.

12.   The *2013 EDS Guide* recognizes (paragraph 6.8) that compilers might have difficulty in calculating the discounted value of payments due to be paid within one year, and, therefore, recommends that for practical purposes, one proxy measure that might be used is the undiscounted value of principal payments on long-term external debt obligations (original maturity basis) due to be paid in one year or less (see 2013 *EDS Guide*, paragraph 6.8). Nonetheless, the *2013 EDS Guide* notes that this proxy measure is incomplete in its coverage of interest payments falling due in the coming year but can be compiled using the principles for projecting payments in a debt-service schedule.[4]

III. EXAMPLES OF CALCULATING REMAINING MATURITY

13.   The simple example below sets out the recording for the remaining maturity classification of a loan attributed (i) to the debt payments on a discounted basis, (ii) to debt payments of the principal amount undiscounted, and (iii) to the final schedule payment of the instrument. Consider a 200 loan issued at t with two scheduled repayments of $100 at $t+1$ (within one year) and $t+2$ (more than one year); the contractual interest rate of the loan is 5 percent a year (interest accrued during the year is paid at the end of the year).

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[3] A footnote to *2013EDS Guide* (paragraph 6.6) indicates that, for practical reasons, the maturity date of the debt instrument may be used as a proxy.

[4] See 2013 *EDS Guide* (paragraph 6.25–6.26). Similar guidance is included in the *Government Finance Statistics Manual* 2014 (paragraph 7.270) and the *Public Sector Debt Statistics: Guide for Compilers and Users* (paragraph 2.153).

Debt-service payment schedule of the loan	Principal payments	Interest payments	Loan outstanding position	*Present value of principal and interest payments as of end-Dec. 2014*
End-Dec 2014			200	*200*
End-Dec 2015	100	10	100	*105*
End-Dec 2016	100	5	0	*95*

As of end-Dec 2014	Classification based on scheduled payments of the loan		Classification based on the final scheduled payment of the loan
	Discounted value of principal and interest payments	Proxy measure based on the undiscounted value of principal payments	
Short-term remaining maturity	105	100	0
Long-term remaining maturity	95	100	200

14.   In this example, as of end-Dec. 2014 (the reference date), the classification based on the debt service payments of the loan provides the appropriate information for liquidity analysis. In this case, the loan would be split into two buckets, one short-term and one long-term based on the due dates for principal and interest payments. Two slightly different remaining maturity values are shown under the classification based on payments of the loan. The first calculation shows the discounted value of payments to be made in the coming year (short-term) and in more than one year (long-term), both interest and principal using the contractual rate of the loan for this calculation. And, the second calculation shows a simpler proxy measure based on the undiscounted value of principal payments due in one year or less (short-term) and in more than one year (long-term).

IV. REMAINING MATURITY IN THE SPECIAL DATA DISSEMINATION STANDARD

15.   Dissemination of data on gross outstanding external debt by remaining maturity is encouraged for SDDS subscribers (including SDDS Plus adherents) for principal and interest payments due in one year or less. As a consequence, as can be seen from the Quarterly External Debt Statistics (QEDS) database, countries reporting external debt on a short-term remaining maturity (QEDS/SDDS Table 4—Gross External Debt Position: Principal and Interest Payments Due in One Year of Less, by Sector—and Table 3.1—Gross External Debt

Position: Short-Term Remaining Maturity, by Sector and Instrument) draw these data from the debt-service payment schedule (QEDS/SDDS Table 3).[5]

V. FINAL REMARKS

16.   Remaining-maturity measures intend to convey information on liquidity risk of the debt. This implies that when measuring remaining maturity, the total value of a debt instrument is divided (or not) based on the payment schedule. Conceptually, remaining maturity should be calculated by discounting payments due, with those falling within one year or less as short-term remaining maturity and those falling beyond one year as long-term remaining maturity. However, given practical considerations, the undiscounted value of principal payments to calculate remaining maturity provides an acceptable proxy.

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[5] This can be seen from the consistency between the relevant tables.