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THE EURO: THE USE OF TRIANGULATION

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FEE

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The principal objectives of FEE are:

- To promote and advance the interests of the European accountancy profession.
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- To represent the European accountancy profession at the international level.
- To promote co-operation between the professional accountancy bodies in Europe in relation to issues of common interest.
- To work towards the enhancement, harmonisation and liberalisation of the practice and regulation of accountancy in Europe, taking account of developments at a world-wide level and, where necessary, promoting and defending specific European interests.

The FEE Euro Project

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THE EURO: THE USE OF TRIANGULATION

1. Purpose of this statement

1.1 Although European law appears to require that all currency conversions between two national currency units of eurozone countries should be undertaken using a procedure known as triangulation, in practice, the use of this procedure may not always be necessary.

1.2 The purpose of this statement is to clarify when triangulation is required in the conversion of one national currency unit into another, and when it is not. This statement is based on the assumption that the purpose of the relevant European Union legislation is to ensure that a sufficient degree of accuracy is achieved when converting between two different eurozone national currency units. Where a lesser degree of accuracy can be used then triangulation may not be required. However it will be for an individual organisation, perhaps in consultation with third parties, to determine the appropriate degree of accuracy required in different circumstances.

1.3 This statement is FEE's interpretation of the position under European Union legislation and other guidance on the legal framework relating to the introduction of the euro, published by the European Commission. This statement does not have any legal authority and any company or person relying on it has an obligation to ensure that they are satisfied that the terms of the statement are properly applicable in the circumstances in which they are seeking to apply it.

2. Introduction

2.1 Triangulation is the term used to describe the procedure prescribed by European Union legislation for the conversion between two national currency units of participating Member States during the transitional period from 1 January 1999 to 31 December 2001. Such conversions should be made via an intermediate amount in euro, with defined accuracy, to ensure that the monetary value of amounts in different national currency units is maintained and that one party to a transaction cannot make a monetary gain at the expense of the other party.

2.2 The triangulation procedure cannot be handled by conventional multi-currency software and may require the acquisition of new software. However triangulation is not required for every conversion between the national currency units of participating Member States and is only essential where contract counter parties are involved or where taxation, or other, authorities may require it for particular transactions. Therefore companies do not need to acquire the functionality for triangulation in their software for every conversion between national currency units that they may need to undertake. Using bilateral rates may be adequate in these other circumstances, even though such calculations may sometimes give slightly different results to those calculated by the triangulation procedure.

3. European Union law on the conversion between two national currency units

3.1 Article 4 (4) of Council Regulation (EC) No. 1103/97, which is now in force in all Member States of the European Union, prescribes a procedure for the conversion between two national currency units of participating Member States during the transitional period, i.e.

“Monetary amounts to be converted from one national currency unit into another shall first be converted into a monetary amount expressed in the euro unit, which amount may be rounded to not less than three decimals and shall then be converted into the other national current unit. No alternative method of calculation may be used unless it produces the same results.”

3.2 This is the triangulation procedure. For example the conversion of 100,000 Belgian francs (BEF) to German marks (DEM) would proceed as follows, using the fixed conversion rates of 1 EUR = 40.3399 BEF and 1 EUR = 1.95583 DEM:

Step 1: **100,000 BEF** = $\frac{100,000}{40.3399}$ EUR = 2,478.935 EUR Intermediate value

Step 2: 2,478.935 EUR = 2,478.935 x 1.95583 DEM = **4,848.38 DEM**

3.3 Using a 6 significant figure bilateral exchange rate based on these fixed exchange rates would not necessarily give the same result. Using 1 DEM = 20.6255 BEF gives an answer of 4,848.37 DEM, i.e. a difference of 0.01 DEM compared with the triangulation result. If the bilateral rate were taken to one additional significant figure i.e. 1 DEM = 20.62546 BEF, then the result would be the same. The European Commission has undertaken research into the use of bilateral rates and has found that there may be instances where a bilateral rate will not provide the same results as triangulation even using up to 15 decimal places. There is no guarantee that bilateral rates will always give the same results as triangulation.

4. When triangulation is required

4.1 Two companies or individuals in the eurozone may enter into a contract that specifies payment for goods or services in a national currency unit which is different to the base currency used by the party who is to pay for the goods or services. If the party making the payment wishes to calculate, and pay, the amount owed in their own national currency unit, then they should use the triangulation procedure to calculate the amount owed under the contract in their own national currency unit. This is to ensure that the amount received by the other party in the other national currency unit, after conversion by the banking system, will properly discharge the debt outstanding.

4.2 We do not envisage other circumstances where triangulation is needed in practice, except where the use of a bilateral rate would produce results which could be materially incorrect and therefore misleading to third parties such as an investor in a company or other users of a company's financial statements.

5. When triangulation may not be required

5.1 Triangulation may not be required in the circumstances set out below:

(i) Internal financial management and consolidation of group accounts

When internal transactions within a company are made for the company's own internal accounting and financial management purposes such as stock pricing, costing and internal transfer pricing it may be possible to use a bilateral rate which produces the appropriate degree of accuracy in the company's management information.

Where the consolidation of accounts is undertaken using either the net investment/closing rate method or the temporal method, then the use of a bilateral rate is unlikely to result in material differences in the consolidated group accounts compared with the results obtained through use of the triangulation procedure. Where this is so, the use of a bilateral rate should be acceptable.

However where a method of calculation other than triangulation is used for internal company transactions or for the purposes of consolidation the other method should be clearly specified as company policy and it alone should be used. The statutory auditor should be informed and his agreement sought and an appropriate audit trail should be produced for such transactions. Whilst differences arising from an alternative method are unlikely to be material, the issue of materiality should be agreed with the company auditors. Companies should also ensure that where internal company transactions affect tax calculations that the appropriate taxation authorities are prepared to agree to the alternative method of calculation.

(ii) Conversions between national currency units and other currencies

The legal framework for the introduction of the euro is applicable to all Member States of the European Union, but does not apply to those currencies of the pre-in countries i.e. British Pounds, Danish and Swedish Kroner and Greek Drachma. The legal framework does not apply to currencies of countries outside of the European Union e.g. US Dollar, Japanese Yen. The exchange rates between the euro and all these currencies will continue to fluctuate after 1 January 1999 and the triangulation procedure (as defined in Section 3 above) is not directly applicable to conversions between these other currencies and eurozone national currency units.

Conversions between these other currencies and a eurozone national currency unit could be made directly according to a bilateral exchange rate which may be published or which is agreed by the parties to a contract.

Where bilateral quotations between eurozone national currency units and other currencies are not available after 1 January 1999, then conversions between eurozone national currency units and other currencies will have to be carried out by a two-stage procedure i.e. via an intermediate euro amount. This is similar to the triangulation procedure and would use the fixed conversion rate between the national currency unit and the euro and the variable exchange rate between the euro unit and the third currency.

6. General advice on handling triangulation and related issues

6.1 On a practical level, a company will not need to use triangulation once it has changed its base currency to the euro and the company only subsequently needs to make conversions between the euro and national currency units.

6.2 For a company with relatively few transactions in other national currency units the company should ask its bank to pay the counter-party in the agreed national currency unit of the transaction and the bank will undertake the conversion between the national currency units.

6.3 Where two parties have several transactions, each requiring a conversion from one national currency unit to another, then the converted total of the transactions may differ from the sum of the converted individual transactions as a consequence of the rounding of the results of the individual transactions. The parties to the transactions should agree in advance on how to treat such rounding differences, if they were to occur.

6.4 In some circumstances, particularly where retail transactions are involved, a company may be prepared to accept the notes and coins of a national currency unit of another eurozone country to settle a transaction involving the sale of goods or services. In order to establish the exact equivalence between the amount due in one national currency unit and the payment of this amount in the other national currency unit, a triangulation calculation is required. A company may find that it is either not possible to upgrade its point-of-sale equipment to handle triangulation or it may be too expensive for the company to do so. In order to avoid staff having to perform manually the triangulation procedure, or using bilateral rates, the company should therefore issue a properly calculated “ready-reckoner” to its staff to use for such transactions.

7. Disclaimer

No responsibility for loss occasioned to any person acting or refraining from action as a result of material in this statement can be accepted by the Fédération des Experts Comptables Européens and organisations are advised to seek appropriate specialist advice to support their own implementation programme in relation to the introduction of the euro.

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