INTRODUCTION

The Economic and Monetary Union in Europe, with a single currency for participating members, is now a definite reality. The single currency of the European Monetary Union, the 'euro' will be launched on January 1,1999. Effective this date, exchange rates of the currencies of the 11 participating countries will be irrevocably linked to each other and to euro. A common monetary and exchange rate policy will become effective, which will be managed by the European Central Bank. The euro will initially be used by central banks, commercial banks and some large market players. Smaller players and consumers in general are expected to shift to the euro latest by January 1, 2002, by which date euro notes and coins will be put in circulation along with notes and coins of participating countries. From January 1, 2002 to June 30, 2002, both euro notes and coins, and notes and coins of national currencies will co-exist as legal tender. By July 1, 2002, the switchover to euro will be complete, with the national currencies of the member nations losing their legal tender, and being replaced completely by euro, for all cash and currency transactions.

2. In order to study the implications of the launching of euro from 1.1.1999, the implications during the transition period from 1.1.1999 to 1.1.2002, the implications of the final switch-over to euro from 1.7.2002, and to study the measures required to be undertaken to ensure the preparedness of the Indian banking system for the transition to euro, the Reserve Bank of India constituted a Working Group under the Chairmanship of Shri V. Subrahmanyam, Executive Director. The Group comprised of officials of Reserve Bank of India, a few Indian and foreign banks and Government of India. (See Annexure X).

3. The Group examined various issues concerning euro, ranging from the broader economic impacts on trade and investment to micro and operational aspects relevant for commercial banks in India and also for trade and industry. The Group interfaced with the officials of the European Commission, Brussels, who imparted valuable information with regard to the launching of euro and the course that it is expected to follow subsequent to the launch and with the Foreign Exchange Dealers Association of India, who on the basis of the reports prepared by the working groups constituted under their aegis, gave detailed information regarding the operational changes that would be needed in the banking sector with the advent of euro.

4. This Report puts together the outcome of all the above initiatives and addresses the issue in two parts. Part I gives a detailed and consolidated narrative of the euro, its background, its general implications, its expected future course and the changes that will come about for central banks, commercial banks and their customers, as a consequence of the euro coming into existence. Part II examines the practical implications for banks operating in India, corporates and exporters.

5. The major focus of the report has been to provide an overview of the EMU and analyse the practical implications of euro for the Indian banks and corporates and an attempt has been made to prepare a comprehensive report covering all major aspects relating to introduction of euro. Important developments have been taking place in relation to euro as the Group was working on the report and every endeavour has been made to bring the report up to date. The Group trusts the Report would be useful for banks, their corporate customers, retail clients, as well as for general public who may want to be conversant with the euro and its implications, and be aware of the changes that will percolate to them and the options that will be available to them during the transition period to enable them to make informed decisions regarding their financial/banking transactions which are presently denominated in currencies of the EMU member states.

6. The Working Group also relied on the reports prepared by several banks as per the list furnished in the Acknowledgements at the end of the report.

RESERVE BANK OF INDIA
DATED : OCTOBER 31, 1998

EXECUTIVE SUMMARY AND RECOMMENDATIONS

Economic and Monetary Union in Europe refers to the movement towards economic and monetary unification with the ultimate goal of introduction of a single currency. There are three stages for European Monetary Union (EMU). With stage III which is to commence from January 1, 1999, monetary union will be completed.

2. The Maastricht Treaty signed in February 1992 laid the foundation for the EMU in Europe. The treaty, inter-alia, laid down five convergence criteria for membership of EMU covering price stability, sustainable government financial position and convergence of interest rates and exchange rate stability.

3. The Council of Ministers meeting at Brussels over the weekend of May 2-3, 1998, decided that 11 of the 15 member states of the European Union were eligible and willing to join EMU. Greece was the only country to have failed to meet the economic convergence criteria laid down by the Maastricht Treaty. Denmark, Sweden and UK exercised their right under the treaty not to take part in the initial stages of the transition to the single European currency. The participating countries are Germany, France, Italy, Spain, The Netherlands, Belgium, Austria, Finland, Portugal, Ireland and Luxembourg. EMU comprising the eleven countries will be the second largest economic area with a single currency after the USA (It will be the largest economic area once the other members join). Nearly 30% of the GDP of the OECD is generated in EMU.

4. To ensure that EMU participants, once qualified, do not run an excessive deficit and endanger the price stability of EMU, the Stability and Growth Pact was formulated in December, 1996. Countries will face sanctions including fines if they exceed a deficit of 3% of GDP, unless the country takes immediate corrective action or faces exceptional circumstances such as recession.

5. When Stage III begins, the conversion rates of the national currencies to the euro will be fixed irrevocably and hence also the bilateral rates between the participating currencies. It has been decided that the current bilateral central rates of the EMU currencies in the ERM would be used for the irrevocable fixing of the conversion rates to the euro. This is to ensure a smooth transition from the national currencies to the euro and prevent speculative attacks on the currencies in the foreign exchange markets in the run up to the final fixing of exchange rates on December 31, 1998. The Central banks would take appropriate measures to bring these rates back to the parities announced in the unlikely event of differences arising.

6. The transition to the euro will be in three phases; during the first phase (Phase A) from May to December 1998, the European Central Bank and the European System of Central Banks were established. The legal framework and preparations by the banking sector will also be underway during this phase. In the second phase (January 1999- December 2001) (Phase B) the conversion rates between the euro and the national currencies will be fixed irrevocably. National currencies will thereafter be no more than different sub-divisions of the euro. However the euro will only exist as book money during this phase. Notes and coins will be introduced from January 1, 2002 (Phase C) and the exchange of notes and coins will be completed by July 1, 2002 at the latest. National notes and coins will cease to be legal tender from this date.

7. The switch to the euro is at varying speeds. The money, foreign exchange, securities markets and exchange and most clearing systems will switch to the euro on January 1,1999. Banking for individuals will probably be done largely in local currency upto the final changeover date. Corporate banking may well start using the euro earlier.

8. At the EU level, the legal framework for the changeover to the euro is based on two Council regulations. The first regulation took effect on June 20, 1997 and applies to all EU countries. A major component of the regulation is the confirmation of the legal principle of the continuity of contract. This means that existing contracts will remain in force with all rights and obligations – provided no other agreement has been made – after the advent of the new currency. The introduction of the euro will not result in "frustration of contract' and will not in principle, constitute grounds for unilaterally adjusting, not to mention terminating a contract.

9. The regulation also lays down, that ECU denominated receivables and payables will be converted to euro at a rate of 1:1. The conversion rates shall be adopted as one euro expressed in national currencies and shall be adopted with six significant digits. These rates which must not be rounded will be used to convert monetary amounts from national currency into euro and euro amounts into national currency. In the case of conversion from one participating currency to another, it must first be converted to a euro amount rounded to no less than three decimal places and then converted to other national currencies. This is called triangulation.

10. The regulation relating to legal status of the national currencies also called the legacy currencies, during the transitional phase January 1999 to December 2001 (Phase B), has also been passed. During the transitional phase B, anyone who wants to use the euro can, but no one can be forced to do so. New contracts and other legal instruments can be denominated in either national currency or euro. During this phase, non-cash transactions within one member country can be carried out in both euro and national currency. This principle is called "no compulsion, no prohibition". However all transactions in financial markets and those put through by ESCB will be in euro.

11. The irrevocable conversion rates for the euro must be identical to the value of the official ECU expressed in units of the legacy currencies on December 31, 1998. Since the bilateral rates at which the EMU legacy currencies will be 'locked in' are now known, the only uncertainty relates to the value of the legacy currencies against the euro. The exchange rates between the ECU and the participating currencies may fluctuate upto the last trading day of 1998 because currencies which are included in the ECU but will not participate in EMU can still influence these rates. Changes in the value of the ECU versus the participating currencies up to the end of 1998 and therefore the euro conversion rates – have no effect on the monetary value of the euro since all amounts expressed in national currency will be converted at the same rate. When the monetary union begins, the euro will become a currency in its own right and the official ECU basket will cease to exist. The external value of the euro will then develop on its own, no longer based on a currency basket of any type. One euro will be sub-divided into 100 cents and will be settled to 2 decimal places.

12. In theory, rounding errors can happen but they are expected to be minimal and on an average neither party should lose money.

13. The European Central Bank will be the central decision making body for monetary policy post January 1, 1999. Each 'in' country central bank will be responsible for (a) managing a portion of reserves on behalf of ECB (b) undertaking foreign exchange and reserves management operations in accordance with the instructions and investment parameters laid down by the ECB (c) monitoring collateral for TARGET (payments system) and (d) supplying the domestic markets with money.

14. The primary aim of the ECB and the ESCB is to maintain euro 'price stability with growth'. From January 1, 1999 sole monetary competence will lie with the Governing Council of the ECB which replaces national decision making bodies such as the Bundesbank Council.

15. The day-to-day exchange rate policy is the responsibility of the ECB. The ECOFIN Council can only make general recommendations. The goal of price stability takes priority. Clear regulations exist for situations of conflict between the domestic stability (inflation rate) and external stability of the currency. ECB may not for instance pursue an exchange rate target versus the US dollar if this would threaten price stability.

16. There will be a single monetary policy and an integrated money market for countries participating in EMU. The regulation and supervision of banks and credit institutions continue to be the responsibility of the national supervisory authority.

17. The price stability expected of the euro both in terms of external value and interest rates, together with the low interest rate environment envisioned by adherence to monetary and fiscal discipline will provide for favourable trade finance terms in turn encouraging trade with the future eurozone marketplace.

18. ECB will be responsible for setting up the interest rate policy. The interest rates in euro areas will be influenced by the overnight reference interest rate to be sponsored by the ESCB (to be known as Euro Over Night Index Average, EONIA) and will be calculated as the weighted average of all overnight unsecured lending transactions in the inter-bank market. Amongst the various competitive sources for euro fixings in the inter bank market, the two main rivals will be EURO LIBOR (of the British Bankers' Association) and EURIBOR (of the European Banking Federation).

19. The ECB will not issue bonds. National EMU country governments will continue to issue debt in their own names. It is likely that EMU country governments will issue less debt in the future as they are bound by the Stability Pact to maintain relatively low levels of debt compared to current values. However, it is likely that corporate debt will close the gap.

20. The EMU has resulted in broadly positive ratings adjustment for sovereign debt issues in Europe due to removal of transfer risk and increased fiscal discipline and stable economic outlook. The EMU sovereign issues will now be assessed on the basis of stand-alone fiscal performance.

21. The real time gross settlement system being developed by ESCB (known as the TARGET) will link all RTGS systems in EU countries. It is set to be launched co-terminus with the onset of Stage III of EMU. TARGET is an inter-bank system for making payments in euro real time and on a 'payment by payment' basis. There will be standardised hours, standardised pricing and standardised intra day credit. NCBs will grant overdraft facilities only if they are fully collateralised.

22. The major positive implication of euro on business is the reduction in transaction costs and elimination of exchange rate uncertainty. However, the medium term sustainability of the financial discipline of the participating sovereigns will continue to remain as the critical factor for the success of euro.

23. For travellers to eurozone the costs will fall immediately since exchange rates will be irrevocably fixed and banks need no longer include a margin for foreign exchange risk but only a charge for administration costs.

24. For companies operating in India, the impact will be determined by the extent of contact they have with eurozone countries and the industry sector. They should assess strategic, operational and information technology issues as they progressively adopt the euro. Despite the principle of 'no compulsion no prohibition', many key European companies have already declared that they will adopt the euro as their preferred transaction currency. Therefore both importers and exporters may have to be prepared to make or receive payments in euro early in the transition period.

25. For importers, the prices of European goods and services are set for a shake up, as the euro will enable them to benefit from being able to compare more easily between eurozone countries and select on price. Exporters will have to harmonise selling prices in different markets. It may also be necessary to have the sales price in both euro and national currency.

26. Companies will be able to enter one coherent market free from impediments to internal trade with an impressive growth potential. Firms will be able to effect all their financial transactions in the entire EMU area only in one currency. This will offer ample scope for streamlining their treasury activities. At the same time competition between firms in eurozone will increase making it harder to operate in the area. All corporates will have to make sure that their business strategies live up to the demands of this environment.

27. Improved liquidity and lower transaction costs associated with euro will enhance its attraction “for issues of bonds from India”.

28. Indian companies dealing in EMU currencies in view of the “ no-compulsion no prohibition” principle are not required to invoice in or use euro till 2001. They can continue to invoice in the national currency if they desire. However as the rate between the national currency and the euro will be fixed, there is fungibility between euro and the national currencies.

29. For companies which have contracts denominated in EMU currencies there will be continuity of such contracts and they can receive in any national currency till 2001. If the contract continues beyond 2001, the payments/receipts will be in euro.

30. The money market in the Eurozone will be integrated and the overnight interest rate will be EONIA. Presently the loans/credits are linked to LIBOR or the prime rate. In future there will be two benchmarks, EURO LIBOR and EURIBOR. EURO LIBOR is like the offshore US dollar and will be based on rates quoted by 16 banks in London. The EURIBOR will be an onshore rate like PIBOR quotes. It will be collected from 57 banks from the eurozone. There is not likely to be much difference between EURIBOR & EURO LIBOR. In case of loans which are currently linked to LIBOR, they will in future be linked to EURO LIBOR which is the successor Index. The reference rate for new loans, could either be EUROLIBOR or EURIBOR.

31. As regards any existing contract where interest rate is fixed the rate will continue and there will be no change.

32. The launch of euro will provide an alternative to US dollar as a reserve currency. This is likely to have an impact on the portfolio allocation of investors.

33. The EU has been an important and growing trade partner for India. EU has emerged as India’s largest trading partner with 27 percent of India’s exports and over 30 percent share in imports. The economic reforms and liberalisation process introduced in India in early nineties has brought about significant improvement in bilateral initiatives for investment in India.

34. The advent of euro has significant consequences for the Indian Banking system. Some of the more important aspects are listed below :

i. Currently each bank has at least one nostro account for each European Currency. Over a period of time (during the transition period), banks have to take a decision on the number of nostro accounts required during Stage III and when they wish to dispense with legacy currency nostros. Banks will also have to decide on the number of euro accounts required to be maintained by them.

ii. Indian banks could avail of the pooling and sweeping services for more efficient cash management.

iii. RBI may permit banks to extend FCNR deposit facilities in euro and/or DM till 31 December 2001. Thereafter banks can offer only deposits denominated in euro.

iv. Even though there are at present several price sources, the ceiling rates of interest on FCNR deposits are linked to LIBOR. In the light of euro, new benchmarks are emerging. RBI may advise banks to adopt EURO LIBOR.

v. Banks may advise their borrowers (in foreign currency) regarding the change in respect of floating rate loans. The LIBOR linked loan will be linked to EURO LIBOR from 1 January 1999. Documentation may also be re-examined for impact and terms should be renegotiated where necessary. For new loans, banks may be allowed to use either EURO LIBOR or EURIBOR as reference rate for loans denominated in the eurozone currencies.

vi. In respect of overseas branches of Indian banks, they would be subject to host country regulations. The Chief Executive Officers at each centre should take a decision on opening of euro accounts taking into account a variety of factors affecting their business.

vii. Indian banks will have opportunities for diversifying their borrowing sources by tapping the vast liquid and diversified financial market. Indian Banks will have to gear themselves up to face more intense competition in the financial markets of EU. They will have to spruce up their systems / Information Technology to take care of the advent of euro.

viii. For investors, which includes foreign branches of Indian banks, currency performance considerations will cease to be a factor when investing within the EMU area. An array of financial instruments will become more accessible to investors via the single currency. In particular there will be a selection of bonds rated according to sovereign and corporate rather than currency risk. The single currency will have long run implications for industrial concentration, economic growth rates, tax regimes, labour costs and other factors affecting the profitability of companies in Europe.

ix. It is advisable for banks to incorporate a standard continuity clause in various agreements/documents to take care of transition to euro.

x. The emergence of euro will help create a bipolar or tripolar world. A question raised often is how strong will the euro be. This question refers to the future external value of the euro vis-a-vis the dollar and the yen. This is also related to the question of whether the euro will become an important international investment and reserve currency. The exchange rate of a currency depends on various determinants such as real interest rates, economic growth and external position. Global financial markets are not predictable and perhaps as subject to sentiment as to strictly economic forces. It is, therefore, not possible to make a prediction on the future strength of the euro.

xi Indian banks, IBA, FEDAI and several other organisations should take initiatives in the area of HRD, create awareness and understanding relating to euro and give wide publicity to the concept.

xii. The euro area has a long record of current account surpluses and this has the ability to finance foreign investment. For borrowers, the euro will become more attractive as a currency for international bond issues given the size and liquidity of the European bond markets. More companies can tap the enlarged euro market to raise funds in the form of debt and convertible issues for their growing investment in projects.

CHAPTER 1

EURO – AN OVERVIEW

Background to the EMU

Economic and Monetary Union (EMU) in Europe refers to the movement towards economic and monetary unification in the European Union, with the ultimate goal of introduction of a single currency. The process of economic integration in Europe began with the creation of European Economic Community (EEC), through the Treaty of Rome in 1957. The six founder members were Belgium, France, Germany, Italy, Luxembourg and the Netherlands. Subsequent to the signing of the treaty, a common market was set up in Europe with common tariffs in member countries. Over the next few decades, the six-member EEC evolved into the present fifteen-member European Union (EU). The EU countries included Denmark, Greece, Ireland, Portugal, Spain, United Kingdom (which joined in 1992), Sweden, Austria and Finland (which joined in 1995), apart from the original six EEC member countries.

1.2 The objectives of the European Union include :

- creation of an area without internal frontiers
- strengthening of economic and social cohesion
- establishment of economic and monetary union, **including a single currency**

1.3 The genesis of monetary integration in Europe can be traced to 1981 when the proposal to create the European Monetary Fund was considered, but did not fructify. In 1986, the member States of the European Community ratified the Single European Act, which led to the establishment of the EMU Committee in 1988.

1.4 The EMU was launched in 1989 with the publication of the EMU Report. A year later, the study report 'One Market, One Money' argued for a single currency in Europe, which provided the broad contours of the present euro. This was also **Stage I** of the EMU. The idea of single currency acquired legal dimensions with the signing of the Treaty on European Union (Maastricht Treaty) in 1992. The Treaty was ratified by most EU members, a year later.

1.5 **Stage II** of the EMU started in 1994 with the establishment of the European Monetary Institute (EMI) in Frankfurt. The EMI, along with the European Commission has done most of the necessary groundwork chartered out by the provisions of the Maastricht Treaty. Stage II is manifested by a ban on central bank financing of public deficits and closer monitoring of the economic and fiscal policies of the members. The most important event of this phase has been the

selection of the eleven founding members of EMU at the special summit in May 1998.

1.6 **Stage III** is to begin on 1.1.1999 with the formal launching of the euro. As ratified by the European Council meeting of May 2, 1998, with effect from 1.1.1999, the exchange rates of the currencies of the 11 member countries vis-à-vis euro will be fixed irrevocably and hence also the bilateral rates between the participating currencies. Responsibility for the single monetary policy will be transferred to the European System of Central Banks (ESCB) comprising of the European

Central Bank (ECB) and the national central banks (NCBs) of the participating countries. On 1.1.2002, euro notes and coins will be introduced and the national notes and coins will be progressively withdrawn from circulation.

1.7 For the transition phase between 1.1.2002 and 30.6.2002, there will be a period of dual legal tender status for euro and national currencies. On 1.7.2002, the legal tender status of the currencies of the participating countries will be formally withdrawn. Euro will stand as the only legal currency in the euro zone.

1.8 Detailed events on the run-up to the launch of euro are given at Annexure I.

The Maastricht Treaty and the EMU:

1.9 The Treaty of the European Union (Maastricht Treaty) was signed on February 7, 1992 by the heads of states of what were then the 12 member states of the European Union. The treaty came into force on November 1, 1993. The treaty lays the foundation for the economic and monetary union in Europe. It includes seven titles, protocols and a final act. It covers provisions amending the Treaty, establishing the European Economic Commission, as also other provisions, such as those for common foreign and security policy and for co-operation in the fields of Justice & Home Affairs. The protocols provide for detailed statutory provisions, including those for the ECB and the ESCB.

The Convergence Criteria

1.10 The key to the monetary union is stipulated in the Article 109 j (1) of the Treaty, which lays down a convergence criteria that the member-states need to fulfil so as to qualify for joining the EMU at Stage III. The criteria are presented in the box given below. The Maastricht Treaty also makes it obligatory for the members-state to make necessary legal provisions to ensure independence of their central banks.

CONVERGENCE CRITERIA as laid down under the Maastricht Treaty	
PRICE STABILITY	***LONG-TERM INTEREST RATES***
Average inflation rate during last 1-year should not have exceeded the inflation rate of the three member states with the lowest inflation rate by more than 1.5%.	***Average nominal interest rates on long term government bonds or comparable securities during last 1 year should not have exceeded 2 percentage points that of the average of the three best performing in terms of price stability.***
EXCHANGE RATES	***GOVERNMENT DEFICITS***
The currency must have fluctuated within the EMS bands for last 2 years without severe tensions and member must not have devalued its currency's central rate on its own initiative.	***GFD/GDP must be less than 3.0% or declining towards that level.*** ***Public Debt/GDP ratio must be less than 60% or approaching that level.***

Convergence among the EU members:

1.11 Adherence to the convergence criteria set by the Maastricht Treaty as a qualification for inclusion in the European Monetary Union was closely monitored through regular semi-annual reports prepared by the European Commission (EC), the executive organ of the EU, and the European Monetary Institute (EMI). The Convergence Reports prepared by the EC and the EMI in March 25, 1998 recommended the inclusion of 11 out of 15 member states in the EMU. These 11 states were considered to have achieved a high degree of sustainable economic convergence. These are Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal and Finland. These countries were accepted by the EU Council as first wave of entrants (‘in’ countries) or the founding members of the EMU to be launched on January 1, 1999. Out of the remaining four countries, Greece is considered not to have met the necessary conditions for joining the EMU, while three other members of the EU – Sweden, Denmark and United Kingdom (UK) have exercised their rights under the Treaty not to participate in EMU for the time being.

1.12 Eight countries - Belgium, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Finland, have met the legal provisions on national central bank independence in accordance with the Maastricht Treaty. Others, viz., France, Spain, Luxembourg and Austria have announced suitable legislation to bring about the required changes. Sweden is likely to consider these changes only at the end of this year due to legal compulsions. Denmark and U.K. are yet to ensure necessary legal changes for national central bank independence. Tables 1 to 3 appended to this report give the characteristics, economic and financial, of the euro area.

Stability and Growth Pact

1.13 In December 1996, the European Council Meeting held at Dublin agreed to the establishment of a stability and growth pact to support sound fiscal policy in the monetary union. The pact imposes on member states in Stage III of EMU, an obligation to avoid excessive deficits. Each member is expected to commit itself to aim for a medium term budgetary position of close to balance or in surplus, as well as outline an adjustment path to this target. The objective is to allow member states to deal with normal cyclical fluctuations while keeping government deficit within the reference value, which is 3%. To this end, two regulations have been agreed upon :

- strengthening of surveillance procedure and budgetary discipline
- excessive deficit procedure

1.14 By the surveillance procedure, EU member states will have to report their convergence programmes to the European Council. The EMU member states will, however, be obliged to submit stability programmes, which specify their budgetary objectives, together with adjustment path for the government surplus or deficit ratio and the government debt ratio. They will be subject to agreed sanctions for failure to act effectively on excessive deficits. The European Council will regularly examine both sets of programmes. If significant slippage from targets is identified, the Council can issue a recommendation to the concerned member-state of the EU or EMU. Such recommendations will constitute an early warning mechanism.

1.15 EMU member states that breach the 3% reference value will have to prove that downfall is due to an unusual event such as a natural disaster or a severe economic downturn. If the deficit cannot be justified, the member- state will be placed in an excessive deficit situation and the Council will issue a recommendation. Failure to take prompt corrective action - within ten months, at the most, from the date when data become available - would lead the Council to impose sanctions on a prescribed scale.

1.16 The sanctions will initially take the form of a non-interest bearing deposit at the European Central Bank, which will be converted into fines after two years, if the deficit of the government continues to be excessive. The maximum penalty in any one year will be 0.5% of the GDP.

1.17 The Stability and Growth Pact aims to follow a twin track approach : an early warning system for identifying and correcting budgetary slippages before they occur, and a dissuasive set of rules with a deterrent effect to encourage member states to avoid problems. By using a system of multilateral surveillance and sanctions, the Stability and Growth Pact is designed to guarantee budgetary discipline amongst members of the euro zone. These mechanisms are expected to encourage sustainable convergence of national economies, leading to lower interest rates and thus stronger economic growth.

The Exchange Rate Arrangement under the EMU:

1.18 Article 109 l (4) of the Maastricht Treaty provides for the irrevocably fixed conversion rates among participating EMU member countries, which forms the basis for the single currency. The European Council, will adopt the fixed conversion rates for the single currency on the first day of Stage III of the EMU, which is now fixed for January 1, 1999.[1] In a major move to reduce the speculative positions in currency markets, as well as to guard against a repeat of the ERM crisis of 1992, the European Council, exercised its powers under Article 109 l (4) on May 2, 1998 to adopt the then current bilateral central rates of the currencies of the EMU members for determining the irrevocable conversion rates for the euro. This decision is based on the recommendations of the Ministers of the EMU member states, the Governors of the central banks of the EMU and the EMI. The EMI believes that these rates are compatible with economic fundamentals of the countries, and is compatible with sustainable convergence among the member states participating in the euro area.

1.19 The ‘in’ NCBs will ensure through appropriate market techniques, that on December 31, 1998 market exchange rates between each pair of ‘in’ currencies – implied by the regular concertation procedure for calculating daily official European Currency Unit (ECU) rates – will equal their ERM bilateral central rates[2]. The Treaty requirement that the adoption of the irrevocable conversion rates for the euro must not modify the external value of the ECU (which will be replaced 1:1 by the euro), will thus be satisfied.

[1] The Maastricht Treaty provided for January 1, 1997 as the first possible date for beginning of Stage III and January 1, 1999 as the second such possible date. The Stage III is now set for the latter date.
[2] Concertation exchange rates are the rates communicated daily by the central banks of EU members as the representative exchange rate of their respective currency against the US dollar.

1.20 The bilateral central rates are given in the parity grid in the Table at Annexure II.

CHAPTER 2

STRUCTURE AND SYSTEMS FOR SWITCH-OVER TO EURO

The European Monetary Institute

The European Monetary Institute (EMI) was set up on January 1, 1994, under the Maastricht Treaty. The main task of the EMI was to prepare the regulatory, logistical and operational framework for the European System of Central Banks (ESCB) to perform its functions. According to the treaty, and the corresponding EMI protocol, the central tasks of the EMI were :

- improved co-ordination of the EU nations' monetary policies during the second stage of EMU, to support in particular the objective of price stability;
- Prepare the ground for the third stage of EMU, by integrated testing of various procedures between mid 1998 and end 1998;

The EMI was the forerunner of the European Central Bank. With the establishment of the ECB on June 1, 1998, the EMI ceased to exist.

European System of Central Banks (ESCB)

2.2 The monetary policy of the euro area will be conducted by the two tier ESCB, the European Central Bank (ECB) and the 15 National Central Banks (NCBs) of the European Union. The statutes of the ESCB and ECB are contained in a Protocol of the Maastricht Treaty, and thus have constitutional value; they can be changed only by a modification of the Treaty, unanimously agreed and ratified by all member states. The ECB will be responsible for framing the monetary policy for the euro area. The NCBs of the participating countries will be responsible for implementation of the monetary policy set by the ECB. The NCBs of 'out' countries also form part of the ESCB, but only through the General Council of the ECB.

Objectives of ESCB

2.3 The primary objective of the ESCB is to maintain price stability in the euro area. All other objectives are subordinate to this prime objective. Four other tasks in addition to ensuring EU – wide price stability as mentioned in Article 105 of the Treaty and in ESCB's statute include :

- taking monetary policy decisions for the euro zone;
- carrying out foreign exchange transactions;
- holding and managing the official foreign reserves of the member states in accordance with the Treaty/Protocol;
- promoting smooth flow of payments in the EU.

Independence of ESCB

2.4 An essential feature of the ESCB is that it is independent from political authorities, both at the national and EU level. The independence is in the following four main forms :

- institutional independence : neither the ECB nor the national central banks may take instructions from national governments or European institutions;
- operational independence : with regard to choosing and implementing the monetary policy instruments by the ECB;
- independent personnel : members of Governing Council are appointed for long terms of office. The Executive Board members have a non-renewable eight-year term. NCB governors may have a five-year term with provisions for re-appointment;
- financial independence : independent national central banks are the sole subscribers to and holders of the capital of ECB.

European Central Bank (ECB)

2.5 The ECB came into existence on June 1, 1998. It is a legislative authority in its own right. An ECB regulation is binding in its entirety, and is directly applicable to participating member states. The ECB is expected to impose fines for breach of its regulations and decisions. However, such ECB instruments will not apply to 'out' countries. The two main decision making bodies of the ECB are the Governing Council and the Executive Board.

2.6 The Governing Council comprises the Executive Board members and the 11 Governors of the participating NCBs. It will formulate the monetary policy of the euro area, and will take decisions necessary to ensure the performance of all functions of the ESCB.

2.7 The Executive Board comprises the President, Vice president and four other full time members. The Board will have powers to implement monetary policy in accordance with the guidelines and decisions of the Governing Council.

2.8 There is also a General Council, which comprises President and Vice president of ECB, and Governors of all 15 EU NCBs. The General Council will take over the task of the European Monetary Institute in relation to 'out' NCBs, and will help prepare the decisions necessary for the 'outs' to join the single currency. The General Council will be kept informed of all the activities of the Governing Council, including the decisions on monetary policy.

Capital of ECB

2.9 The capital of ECB is 5 billion euros, to be subscribed by all the fifteen NCBs on the basis of population and economic strength (GNP) of the constituents. Each of the two factors for deciding the subscription amounts is given equal importance. The non-euro area NCBs will pay up 5 percentage of their subscriptions to the capital of ECB, and the euro area NCBs will pay up their full subscriptions. On this basis, the paid up capital of ECB will be just under 4 billion euros.

Reserve Assets

2.10 The foreign reserve assets of the ECB as stipulated by the Maastricht Treaty should be upto 50 billion euros to be held in non-EMU currencies or gold and transferable to the ECB by the NCBs upon joining the EMU. In accordance with this, the Governing Council has decided that the 11 national central banks will initially transfer foreign exchange and gold reserves equivalent of 39.50 billion euros to the ECB. This implies that with effect from January 1, 1999, an EMU participating nation's gold stock and foreign currency reserves will no longer serve the purpose of supporting the national currency, since the national currencies will only be sub-denominations of euro. The reserves of the ECB will serve to support the euro.

2.11 In addition, the Governing Council of the ECB has decided to hold gold at a proportion of 15% of the total reserves. Excess reserve assets will be held by individual national central banks, and above a certain amount, their use will require the approval of the governing council, as this could affect the efficacy of the ECB. The foreign reserve assets remaining with NCBs will be managed by the NCBs subject to the guidelines set by the ECB.

2.12 Interventions will be conducted on the basis of foreign reserve assets owned by the ECB. Interventions will be conducted either through NCBs, acting as agents of the ECB, or in exceptional circumstances by ECB itself.

2.13 Participating countries will require much lower foreign reserves in EMU than before, when they each had their own national currency to defend. One of the possible applications of the excess reserves is anticipated to be for the purpose of reduction of government debt.

Strategy for Monetary Policy

2.14 ECB will start setting the monetary policy for the 11 member states from January 1, 1999. The strategy for the conduct of the single monetary policy will include monetary targeting (where central bank controls the money supply) and direct inflation targeting (where central bank controls interest rates for a set forecast of future rate of inflation). The ECB meeting of September 1998 has announced a three pillared approach to monetary policy under the EMU, based on an explicit inflation target, a money reference value and a mix of other indicators. The monetary pillar will be the most significant. The inflation target would be a range of 2 percent or less.

Instruments of monetary policy of ECB

2.15 For the implementation of the monetary policy by ECB, three main instruments have been prepared, ***open market operations***, ***standing facilities*** and ***reserve requirements.*** These monetary instruments will enable the ECB to control short-term interest rates.

2.16 There will be four types of **open market operations** (OMO).

- Main refinancing operations conducted on a weekly basis with a maturity of two weeks.

This is aimed at providing refinance to the banking system at regular intervals;

- longer term monthly tenders with maturity of 3 months in order to provide longer term finance to the banking system;
- Fine tuning operations;
- Structural operations.

2.17 The latter two will be conducted with the goal of influencing the structural position of the banking sector. The OMOs will be conducted in a decentralised manner, through the NCBs. The terms and conditions will be decided by the ECB and applied to the entire euro area banking system.

2.18 Standing facilities will be of two types.

- **marginal refinancing facility,** for counterparties in need of overnight credit, at an interest rate higher than the market rate and
- **deposit facility**, at a rate lower than the market rate, for counterparties with an excess of liquidity at the end of the day.

2.19 The rates for the marginal refinancing and the deposit facility will determine the ceiling and the floor for the overnight rate, which will be influenced by the rate on the regular repo tenders. It is thus intended that the money market rates move within a corridor delineated by the two standing facilities.

2.20 The ECB will have a minimum **reserve requirement system** for commercial banks, by which they are required to place funds at their central banks, in relation to their liabilities. The main features of the minimum reserve system, which will be specified by November 1998, are :

- The reserve base will comprise of bank deposits, debt securities issued and money market paper. Repos, deposits and debt securities with a maturity of more than two years will not be subject to minimum reserve requirements.
- The reserve ratios will be in the range of 1.5% to 2.5% .
- The Minimum reserve holdings will bear interest. The interest rate will correspond to the rate for the main refinancing instrument of ECB.
- A lump sum allowance of EUR 100,000 will be permitted to be deducted from an institution's reserve requirements so that institutions with a small reserve base will not have to hold minimum reserves.

2.21 The minimum reserve system will provide a level playing field to all the EMU countries. While some countries like Germany have already a minimum reserve system, compulsory reserves will be a new feature for some countries like Belgium and Luxembourg.

2.22 There will be no rediscount facility extended by the ECB. Currently, the rediscount facility is used only by a few countries within the EMU and is cost intensive, besides having other subsidisation effects. The ECB will however accept government and private assets, including private bills of exchange as long as they meet certain requirements, as collateral for lending to banks. All central bank credit, both intra-day and at longer maturity will have to be collateralised, as specified in the ESCB Statutes. The collateral shall constitute assets issued by financially sound institutions, denominated in euro, and located in euro area. This will permit greater flexibility in open market operations and allow banks, which do not have sufficient collateral in the form of government bonds to have direct access to the lending facilities of ECB.

2.23 Risk management measures to protect the ESCB against market and credit risk are also being developed.

2.24 The ECB will be required to draw up an annual report as per the Statute, and at least one report per quarter on the monetary policy.

Exchange Rate Mechanism - 2

2.25 On 1.1.1999, ERM-2 will replace the present ERM which was introduced in 1979 under the European Monetary System of the European Economic Community. The present ERM is based on the principle of parity grid linking of currencies and initially provided for a 2.25 percent fluctuation band (either way). This band was later increased to 15 percent (either way). It also in principle guarantees symmetrical and mandatory interventions from all ERM members to defend a currency which has reached the limits of its bands. The leading role under ERM is being played by ECOFIN and the Council of Ministers.

2.26 The ERM-2, will be the most important exchange rate policy ‘bridge’ between euro and the currencies of the member states with a derogation (those exempted from EMU participation). ERM-2 is designed to promote economic convergence in member states outside the euro area, through a currency peg to the euro, and thereby assist them in their preparation for joining the EMU. The euro will be the anchor of the ERM 2, while ‘out’ currencies or ‘pre-in’ may be linked directly and bilaterally to the anchor. Accordingly, central parities will be set for the ‘pre-in’ currencies against the euro, with a relatively wide standard fluctuation band of +/-15%. Narrower margins may be agreed in line with the progress on convergence. If the exchange rate of an ERM-2 currency threatens to move out of the defined band, the ECB and the national central bank of the respective country will intervene, in principle on an unlimited scale. However, interventions would be discontinued if it jeopardises the goal of monetary stability. Thus, intervention support by ECB will, in principle, be automatic and unlimited at the margin, subject to the overall objective of price stability. The burden of intervention will however be primarily borne by the central banks of the EU countries in the ERM-2. They will essentially use their foreign exchange reserves to defend their own currency. Central banks of ‘pre-ins’ will also have access to credit facilities.

2.27 All interventions will be in euros and not third currencies like US dollar. In order to preclude monetary policy disruptions due to large scale interventions, the sustainability of central parities will be reviewed on a continuous basis and realignments of central rates, if necessary, will be effected in a timely manner, in order to avoid speculation.

2.28 At the start of Stage III of EMU, when ERM-2 will become effective, it will have only two members apart from the euro zone countries viz. Denmark and Greece. Given the small initial membership of ERM-2, and the consequent small potential need for intervention to stabilise exchange rates, the new mechanism is expected to be less vulnerable to currency crisis than its predecessor.

2.29 Each member state is required to treat its exchange rate policy as a matter of common interest. This applies to both non-participating and participating countries from the beginning of Stage III. Even though the exchange rate will not be an immediate target for the conduct of the single monetary policy, the ESCB may decide to effect interventions in the foreign exchange market, in co-ordination with other major central banks.

Interest Rate Policy under the EMU

2.30 The interest rate policy under the EMU will be set by the European Central Bank (ECB). However, the open market operations in the ESCB will be conducted by the national central banks. Therefore, the interest rates in the monetary union will be influenced by actions of both ECB and the national central banks. ECB will however have an overriding position in the conduct of monetary policy in the single currency area.

2.31 The interest rates in euro areas will be influenced by the overnight reference interest rate to be sponsored by the ESCB and calculated by the ECB. This effective overnight reference rate in euro will be known as the Euro Over-Night Index Average (EONIA) and will be calculated as a weighted average of all (without exception) overnight unsecured lending transactions in the inter-bank market, expressed in two decimals. The rate will be based on the transactions of the same panel of declaring banks as is accounted for in the calculation of EURIBOR. This would ensure that the most active banks located in euro area will be represented on the panel even while ensuring that the geographical dimensions of euro area are well covered.

2.32 It is possible that in due course banking associations, money and foreign exchange markets bring out alternative indicative rates representative of euro area. These could be calculated as mean rates or offered rates linked to an effective commitment to deal at these rates. However, the EONIA would retain its information value as calculations of alternative indicative rates could be problematic because of possible non-response in view of the sensitivity of the information required to calculate the indicative rates.

Payment and Settlement Systems – TARGET

2.33 TARGET (Trans European Automated Real Time Gross Settlement Express Transfer) is the real-time gross settlement (RTGS) system that has been developed to link the ESCB and the domestic clearing systems in the EU countries. All EU-central banks, will be linked through TARGET. Therefore, TARGET will also have an interface with the RTGS systems in the 'out' countries. TARGET has now been tested and is set to be launched co-terminus with the onset of Stage III of EMU. It is designed to facilitate trading in monetary instruments, particularly those related to open market operations. It is designed for large value payments, particularly those related to monetary policy but can be used for any cross-border euro payment. Substantial volume of commercial payments would however still go through netting system like ECU Banking Association (EBA). TARGET complies with the Lamfalussy standards.

2.34 The following will be the significant features of TARGET :

- Normal operating hours will be 7.00 a.m. to 6.00 p.m. Frankfurt time. Some facility for extended hours will be left to national central banks.
- In addition to Saturdays and Sundays, there will be two common holidays for TARGET, viz., Christmas Day, and New Years Day. On other business days TARGET will remain open, although some national RTGS systems may close on local public holidays.
- There will be a common cross-border price for TARGET transfers.
- Control procedures for TARGET have been provided by the ECB. ECB will also provide settlement services to cross-border large value net settlement systems including EBA. It will process payments for its own account, and will maintain accounts for certain international customers.
- NCBs will also provide TARGET level services to their RTGS members. It will cover the service level in a normal business day like operating time, availability of the system, capacity, security, irrevocability and finality.
- There is provision for intra-day credit by non-euro area NCB to their own RTGS participants on the basis of a euro deposit with ESCB. Use of intra-day credit by a participant will be subject to a ceiling of 1 billion euro. After a liquidity deadline, ‘out’ banks can make payments only on the basis of positive cash balances. To avoid spill over risk, ‘out’ banks have to square their positions by close of business, or pay penalty of 5 percent over ESCB’s marginal lending rate. ‘Out’ banks can keep overnight balances with their local NCBs, which will be remunerated at the deposit rate. ‘Out’ NCBs will take domestic collateral as security for their lending. ‘In’ NCBs can also accept this collateral for intra-day payment purposes, provided, the collateral is of the same quality as ESCB’s eligible assets and the risk is borne by ‘out’ NCBs.
- There will be a wide variety of alternative arrangements available to make euro payments. Each EU country will have at least one national euro payment system and in some cases two (an RTGS system and a net end-of-day settlement system). All these mechanisms will be available for cross border euro payments. In addition, the 15 national RTGS systems will be linked through TARGET. In UK, the RTGS system, CHAPS EURO will be linked to TARGET.
- There are approximately 50 days on which there is a national holiday in at least one of the participating member states. Every national RTGS system will remain open on all TARGET business days.

2.35 A number of alternative payment arrangements will be competing for euro business. Some new routes will become available, in addition to the present mechanism for effecting cross border payments. While it is not yet clear which routes will be most heavily used, it is likely that there will be standard settlement methods for particular kinds of payments. A group of 31 major payment banks in Europe which has been meeting regularly, has recommended that the payment mechanism chosen should be at the discretion of the sender’s bank, provided there is no specific agreement on the mechanism in the underlying contract. The sender’s bank should use a route which delivers to the precise branch specified by the recipient’s bank.

2.36 Individual banks will need to decide and specify the euro standard settlement instructions for each of their counterparties. This process of formulating, and distributing the instructions and their being agreed to by the recipient counterparties will require considerable efforts from all banks. An accurate database for this purpose will have to be created in view of the huge number of bank branches involved. In addition, banks with accounts in several systems may find themselves 'short' in some systems and 'long' in others. It will take some time for them to efficiently manage liquidity in all the systems simultaneously. These issues need to be addressed by the banks on a priority basis.

Options for cross-border payments within the EMU

2.37 Several clearing options will be available to banks for cross-border payments within EMU. These will include :

- TARGET, which will be operational from 1.1.1999, and which will clear euro transactions across banking industry. It will primarily be used for urgent high value payments.
- Correspondent banking, the traditional clearing method used for low value bulk payments, may continue to be the prevailing method for a majority of banks.
- EBA clearing, which is the ECU Banking Association processing centre for ECU between 49 major clearing banks. This will become the processing centre for euros, with the introduction of euro.
- Banks having pan-European network, which use their own network and access the local clearing directly.

Summary of options

	Payment type	End-to-end execution time	Geographic coverage	Service quality
TARGET	• Urgent • High value	Within minutes depending on banks involved	• All EU countries • All banks	• Real time execution • Finality of payments
Correspondent banking	• Urgent • Standard • Bulk	1-4 days depending on countries and banks involved	• All countries • Most banks	Quality differs country And bank-wise
EBA clearing	• Urgent • Standard • Bulk	Same day	• All countries • Member banks (49)	Quality differs bank-wise
European network banks	• Urgent • Standard • Bulk	• within minutes • Same day • 1-2 days	• All countries • All banks through local clearing houses	• Different services Available • Consistency across all countries.

2.38 Cost and efficiency will be the main determinants of the distribution of payment flows among the different systems. Prices for cross border payments will become more transparent, and the volume of payments will increase. Competition between payment systems will over a period of time ensure speed, reliability and economy in international payments in euro zone.

Settlement Systems in the EMU:

2.39 The standards for the use of EU Securities Settlement Systems (SSSs) have also been set out. The SSSs would be based on a set of nine standards, which would be used for settlement of credit operations of the ESCB during Stage III of EMU. These standards are expected to minimise the credit risks to which the ESCB will be exposed. The standards would ensure that adequate collateral is maintained and that a sound legal basis exists for timely payment and smooth transfer of securities. These standards would address the settlement and custody risks as well, besides implementing a proper risk management procedure. Over the medium-term (by January 1, 2002), SSSs are expected to provide Delivery versus payment (DvP) facilities on an intra-day basis and not just on end-of-day basis. The ECB is expected to shortly publish the list of SSSs, which comply with these standards and can thus become part of the EU SSSs by January 1, 1999.

Euro and ECU

2.40 From 1.1.1999, the ECU will be replaced by euro on a 1:1 basis. All ECU payments for settlement beyond 1999 will automatically be made in euros. From the moment the conversion rates are announced, there will be no reason for a spot market in ECU distinct from the spot market in national currencies. This is because spot trades are for settlement two working days later. Any spot trade in ECU on December 31, 1998 will be settled on January 5, 1999 in euro, and will be convertible into national currencies at the fixed conversion rates. The quotation of the ECU in the foreign exchange markets as a basket will continue to be relevant only up until December 31, 1998, for same-day value. This same-day market might exist because any exceptional overnight ECU loans on that night and required to be settled through the EBA clearing system will attract interest at the usual overnight 'basket' interest rate calculated by the EBA, before being converted to euro at the start of 1999. Any trades involving ECU on either December 30, 1998 or before 11.30 CET on December 31, 1998, for spot settlement will also be settled in 1999 in euros. Consequently, the spot value of ECU against the 'in' currencies on both these days will reflect the expectation of the irrevocable conversion rates to be set at 11.30 CET on December 31, 1998.

2.41 For the short period on December 31, 1998 from 11.30 CET until the early afternoon announcement, market rates for ECU against national currencies will presumably remain locked at the market's own observation of the 11.30 rates. During this interval between 11.30 and the announcement, there may still theoretically be a bid-offer spread in cross rates between ECU and national currency reflecting minor market uncertainties over the exact rates observed by national central banks for purposes of fixation. In practice, however, cross-trades during this short interval are highly unlikely. Once the conversion rates have been announced, there should be no reason for any spot trades between ECU and national currencies, given the facility to convert amounts at fixed rates on the settlement day instead.

2.42 Institutions that adhere to daily valuation or end of the year valuation would require to value their ECU and national currency denominated assets and liabilities as at end-of-day on December 31, 1998. It will be left to the institutions themselves to determine whether to value these assets and liabilities at the irrevocable conversion rates announced, or to obtain market exchange rates for each currency separately. It is expected, however, that there will be very little difference between the two methods.

CHAPTER 3

PROCEDURES FOR TRANSITION TO EURO

Conversion Weekend

A good deal of work will be required to be completed by various market participants over the conversion weekend in January 1999. This chapter elaborates on some of the procedures that would assume importance during the conversion weekend and thereafter.

The Principle of 'No Compulsion - No Prohibition'

3.2 From January 1, 1999, the money, foreign exchange, bond and capital markets will switch over to euro. All new tradable debt will be issued in euro by the participating countries. All participating governments, banks and financial institutions in the EU will switch to euro almost immediately after its introduction on 1.1.1999. However, other economic agents viz., individuals, corporates and institutions will be free, but not forced to use the euro during the transition period upto 30.6.2002. The principle of 'no compulsion – no prohibition' will apply to such economic agents. They will be free to decide the optimum time for switch-over to euro, based on the costs involved in maintaining accounts in two currencies. Many European firms have formulated detailed change-over plans so that they can incorporate the changes they need to make into their investment programmes and strategic planning.

Legal Status of Euro

3.3 The legal status of euro and the national currencies (during the transition phase) is covered under Article 109 1 (4) Regulation adopted in May 1998. The Article states that with effect from January 1, 1999, the euro will be the currency of the participating member states, while the national currency units will become different denominations of the euro. The Article also covers the use of euro in private and public law. The rules give content to the principle of 'no compulsion – no prohibition' already established in Madrid in 1995. The Article provides for drawing legal instruments like contracts and laws either in euros or national currency units during the transition period. Legal instruments drawn up before January 1, 1999 will not change their denomination at this date, unless agreed or decided otherwise.

Calculation of irrevocable conversion rates

3.4 To calculate the irrevocable conversion rates on December 31, 1998, the regular daily concertation procedure for the official ECU will be used. This daily ECU procedure involves three steps.

- The first step involves each NCB of EU determining the exchange rate of its currency against the US dollar and communicating at 11.30 a.m. (CET) the mid points of the bid-ask spreads (rounded off to six significant digits), to the European Commission.
- The second step involves the European Commission calculating the exchange rates of the official ECU, using the rate recorded in the first step. The US$/ECU exchange rate (expressed as ECU 1: US$ X) is obtained by summing the US$ equivalents of national currency amounts that compose the ECU.
- In the third and final step, the official ECU exchange rates against the EU currencies are

calculated (rounded to the sixth significant digit) by multiplying the US$/ECU exchange rate by their respective US$ exchange rates.

3.5 The same method of calculation, including the rounding convention will be used in determining the irrevocable conversion rates against the euro for the euro area currencies on December 31, 1998. However, in the first step, the bilateral rates between the euro area participating currencies obtained by crossing their respective US$ rates will be equal to the pre-announced ERM bilateral central rates, upto the sixth significant digit.

3.6 Hence, from January 1, 1999, the irrevocable conversion rate between the euro and each participating currency will be the only rate used for conversion either way, and also for conversions between the participating national currencies which are required to go through the euro. The rounding off may result in the implicit bilateral rates not always corresponding, to the last significant digit, to the pre-announced ERM bilateral central rates.

3.7 The announcement that the current bilateral central rates will be used for permanently fixing the rates to determine the external value of the ECU, (which will be replaced by euro at the rate of 1:1) has reduced exchange rate uncertainty, but not eliminated it. There are a number of factors which still leave scope for movement in the exchange rates of the ECU vis-à-vis national currencies in the lead up to the monetary union. These are the following :

- The ECU currency basket includes Pound Sterling, Danish Kroner and Greek Drachma, the member states of which are not participating in the EMU. Before the exchange rates are fixed on December 31, 1998, the forward exchange rates for the euro against participating currencies for settlement dates in 1999, will be equal to the market's expectation of the conversion rates, and will therefore depend on the expected exchange rates for the three non-participating currencies at the moment of fixing.
- Though the participating central banks would be expected to ensure through "appropriate market techniques" that on December 31, 1998 the market exchange rates recorded according to the regular concertation procedure used for calculating the daily exchange rate of the official ECU, are equal to the ERM bilateral central rates (as given in Annexure II), it is not necessary that this will be easily achieved. Unless the parities are perceived by the market to be credible, speculative pressures could emerge raising prospects for some realignment of parities. One or more central banks can become involved in an acrimonious debate over who bears the responsibility for divergence of the currency from its ERM central rate and who should bear the costs of adjustments in the form of intervention losses or interest rate changes.
- While the process of calculating exchange rates of the official ECU on December 31, 1998 has been well defined in terms of regular daily concertation procedure, problems could arise if the concertation exchange rates are not representative of market determined rates. Adverse shocks, economic or political or developments in financial markets, could severely test the arrangements as EU central banks seek to alter their daily concertation rates artificially, close to the date of the launch of euro.

3.8 From the early afternoon announcement on December 31, 1998, the forward value of the euro in relation to all the 11 currencies will be known. The ability to convert national currency amounts to euro at the conversion rates at any forward date means that there will be no forward markets in national currencies distinct from the forward market in euro.

Conversion, rounding and triangulation procedures

3.9 The euro will be the single currency for the EMU from 1.1.1999. Amounts in euro will be expressed with two digits following the decimal point and the small sub-division of the euro is the 'cent'. National currencies of participating countries will continue to exist till 30.6.2002 as different denominations of euro. In addition, the principle of 'no compulsion no prohibition' will not necessitate conversions from euro to national currencies and *vice versa*, during the transition phase from 1.1.1999 to 30.6.2002.

3.10 The rules for conversion, rounding and triangulation between euro, 11 NCUs and the ECU are governed by regulation under Article 235 of the Maastricht Treaty. The geographical jurisdiction of this Regulation will extend to the entire EU zone. However, the rules on conversion and rounding will be applicable to conversions between the euro and its 11 national denominations. These include conversions from a national currency units (NCU) to euro or from euro to a NCU, or from one NCU to another.

3.11 Conversion

- The conversion rates will be adopted as one euro expressed in terms of each of the 11 NCUs to six significant digits. The number of decimal places will vary from one national currency unit to another.
- The conversion rates shall be used for conversions in either direction between the euro and the NCUs. Inverse rates derived from the conversion rates shall not be used.[1]
- The bilateral central ERM rates of the participating countries' currencies will be used only for determining the irrevocable conversion rates for each of these currencies against the euro at the start of 1999. Article 235 prohibits usage of these bilateral rates for the purposes of conversion thereafter.

Conversion between euro and other currencies

3.12 Conversions between euro and other (EU or non-EU) currencies (such as pound sterling, dollar or yen) can arise after a foreign exchange transaction, or when accounts originally expressed in a number of other currencies need to be expressed in a single currency. Settlement of such transactions will take place in the same way that foreign exchange transactions are carried out, using rates quoted in the foreign exchange markets. Conversion and rounding rules of Article 235 Regulation do not apply to the calculations made after such operations. Currently there are no universally accepted rules on conversion and rounding after foreign exchange transaction, and the introduction of the euro will not change this position.

Conversion between NCUs and other currencies

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[1] In practice this means that when converting from euro to national currency unit, it is necessary to ***multiply*** the euro amount by the conversion factor. When converting from a national currency unit to the euro, it is necessary to ***divide*** the national currency amount by the conversion factor.

3.13 As with conversions between the euro and other currencies dealt with in para 3.12, conversion between national denomination of the euro and other currencies like the pound sterling, dollar and yen could arise for a number of different reasons including foreign exchange transactions and conversion of accounts.

3.14 There are two methods for conversion between the national denominations of euro and other currencies, viz., via the euro or by using cross rates. Both are valid but do not necessarily produce the same result when applied to the initial amount. Counterparties to a transaction may therefore wish to check with each other on the type of method adopted.

3.15 Transactions settled via the euro involve a two step conversion from NCU to euro and then from euro to another world currency.[2] When converting from a NCU to another currency, the conversion rules (but not the rounding rules) apply to the initial step (from NCU to euro). When converting from another currency to a NCU, both conversion and rounding rules apply to the latter step (euro to NCU).

- Cross rates can be used to directly exchange from NCU to other currencies It will be possible to derive cross rates by using fixed conversion rates and the exchange rates between the euro and other currencies quoted in the foreign exchange market.[3] Besides, these rates could also be derived and published by information service providers, newspapers or individuals who may calculate these cross rates themselves. The conversion and rounding rules of Article 235 Regulation ***do not apply*** to this method – neither when converting from national denomination of a foreign currency, nor vice versa. There is no universally accepted convention on how many significant figures should be quoted in the cross rates, though they are often quoted up to four significant figures.

Rounding

3.16 The rounding rules contained in the Regulation are applicable solely in the context of conversions, and will not affect the existing rounding practices in other contexts.

- The conversion rates must not be rounded and truncated while making conversions. For example, if 1euro = DM 1.96045, the rounded rate of DM 2 or DM 1.96 will not be acceptable.
- After conversion into NCU, the results should be rounded up or down to the nearest sub-unit (or nearest unit in the absence of a sub-unit) or according to national law or practice to a multiple or fraction of the sub-unit or unit of the NCU. After conversion to the euro, the result must be rounded up or down to the nearest euro cent. If the result is exactly half way, then it must be rounded up.

3.17 The conversion and rounding rules of the Article 235 Regulation apply to currency and denominations only when converting between the euro and its 11 national denominations (NCU to euro, euro to NCU or NCU to NCU). They do not apply to any other type of conversion

[2] This process is similar to triangulation as discussed in para 3.19 below.
[3] Although it is not expected that there will be much trading in the foreign exchange market between the NCUs and other currencies, major banks in UK are expected to quote such cross rates involving sterling for their customers' use.

between the euro and other currencies like US$, Sterling or Yen. The rounding rules also do not affect existing rounding practices in other contexts like calculation of interest on a loan on a daily basis, where the amount of the loan and the interest amounts are expressed in the same denominations. Examples in conversion and rounding are given in Annexure III.

3.18 The Regulation, including its conversion and rounding rules will apply in all 15 EU member states. Some governments may, under their national law, introduce additional rules governing the introduction of the euro, which could have implications for the conversion and rounding requirements in those jurisdictions.

3.19 Triangulation

- Conversion between one national currency unit and another must be done via euro. This process is called ‘triangulation’. For example, in order to convert French Francs into Deutsche mark, the French Francs will first need to be converted to euro, and then converted to Deutsche mark. In triangulation, it is permitted, but not compulsory to round the intermediate euro amount to no fewer than three decimal places. The intermediate euro amount need not be recorded in any way. Different results may be derived from the triangulation process, depending on whether the intermediate euro amount is rounded, and if so to how many decimal places. If two different parties derive different results after triangulation, they may wish to check whether the intermediate euro amount has been rounded, and upto how many decimal places.
- No alternative method of calculations can be adopted, unless it produces the same results. In practice, it is difficult to prove that alternative methods of calculation do produce the same results as the triangulation algorithm. The onus of proof and the legal risks will rest with the person using the alternative method.

3.20 A table summarising the situations when the various methods of conversion should be used is given in Annexure IV.

Financial markets and exchanges

3.21 Money foreign exchange and bond market associations have proposed a harmonisation of market conventions in preparation for the euro. Some EU governments, on suggestion from market associations, have either already decided to use harmonised conventions for the new government debt in euro, or are currently examining the issue. The changes in the money, foreign exchange and bond markets expected after the introduction of euro. Table 5 appended to this report gives the changeover dates for the money, forex and bond markets. The proposed harmonised conventions in these markets are summarised below.

Money and foreign exchange markets

3.22 Immediately upon the introduction of the euro, during the first week of January 1999, interest reference rates would sought to be fixed.

Interest reference rates

3.23 There will be competitive sources for establishment of benchmarks for European short-term interest rates after the commencement of EMU, similar to the current LIBOR, PIBOR, FIBOR, SIBOR. The two active rivals will be British Bankers Association (BBA) with their benchmark EURO LIBOR, and the European Banking federation (EBF) with EURIBOR. Hence,

- fixed interest rates in legacy currencies will become fixed interest rates in euro
- BBA's ECU LIBOR will be replaced by EURO LIBOR
- Individual countries' LIBORs will be replaced by either EURO LIBOR or EURIBOR.

3.24 The main difference between the EURIBOR and the EURO LIBOR stems from the choice of participating banks. The EURO LIBOR will be, like the current LIBOR, the average of eight to sixteen lending rates of the most active and creditworthy banks in the London market. By contrast, EURIBOR index will be an average of rates quoted by a much larger panel of banks (initially 57), including atleast one from each member state within the euro area. The panel will be the same as that for the overnight reference rate for the euro, EONIA published by the ESCB. (See para 2.31).

3.25 With effect from January 1, 1999, EURIBOR will replace the national reference rates of all participating countries. Most EU countries have announced that they will replace national benchmark rates with EURIBOR for new and existing contracts.

3.26 International market participants may prefer to link new transactions to EURO LIBOR in order to avoid the basis risk, in relation to wholesale money market positions in London, and existing LIBOR based assets or liabilities. Domestic market participants in the euro area may prefer to use EURIBOR, which will replace the national inter-bank rates.

3.27 Market participants expect that there would be a spread between the two rates due to their different coverage. EURO LIBOR is likely to be lower than EURIBOR, if ECB reserve requirements impose a cost on deposit taking by banks established in the euro area. The ECB has decided to pay interest rate on the reserves. Since EURIBOR panel may contain some banks with low ratings, the reference rate could incorporate a risk premium which could set it higher than the EURO LIBOR benchmark. Hence, it is possible that EURO LIBOR : EURIBOR spread would be actively traded using basis swaps.

3.28 The table at Annexure V gives a comparison of the two benchmarks, EURO LIBOR and EURIBOR.

Market conventions

3.29 The market conventions for money, market foreign exchange markets and bond markets are given in Annexure VI.

3.30 The Bank of England has proposed that the euro should be quoted against the sterling on the basis of euro 1 = Pound sterling X. All market operators in London have been recommended to adopt this convention to avoid the risk of confusion and error.

Euro and the capital and bond markets

3.31 From the start of Stage III of EMU i.e. from 1.1.1999, all new government debt issued by participating member states will be in euro. Furthermore, the existing tradable public debt will be redenominated in euro. This would create sufficient liquidity in euro from the start of the Stage III itself. It will also help underline the credibility of member states' commitment to the EMU. The national authorities have also agreed to use the new harmonised market conventions for new debt as well as for redenominated debt .

3.32 All the exchanges in the euro area will convert to euro on January 4, 1999. This in effect means that all listed securities will be quoted and traded for settlement in euro. Bonds/equities denominated in national currencies will trade in these currencies, although cash consideration of each transaction will be calculated and expressed in euro. The final settlement in national currencies will be done by the intermediaries, viz., banks and brokers.

3.33 At the start of the transition period, local securities settlement, infrastructure and mechanisms are likely to remain unchanged. As the markets consolidate over time, it is anticipated that trading and settlement activity will concentrate, possibly in a regional cluster. National SSSs will need to align hours and agree on policies regarding local holidays. Over time, regulations would be harmonised as well. The move towards a pan – European exchange has already commenced, though it will take some time before it materialises.

3.34 Euro will eliminate currency risk within the euro area, which means that any remaining interest rate differentials or yield spreads in the euro bond markets will derive from differences in credit quality, liquidity, taxation and market infrastructure such as efficiency of distribution methods, and ease of settlement. The interest rate differentials will not be large in most cases, and the spreads are expected to fluctuate around 15-20 basis points. It is anticipated that while spreads stemming from market liquidity will probably be smaller than in the pre-EMU phase (due to the fact that bonds are denominated in the same currency) spreads stemming from credit risk could become somewhat larger.

3.35 As stated in the above para, spread differentiation on account of credit risk will remain important within EMU. This is because, there is no legal constraint on deviating from the fiscal deficit norm, and therefore from the level of outstanding debt, despite the stability pact, once a country has entered EMU.[3]

3.36 The euro bond market is expected to become bigger and deeper than the national currency markets on account of the following :

- A bigger investor base as compared to the national currency markets should encourage securitisation of debt. Bank borrowings comprise more than half of financial assets in the 11 EMU countries, but less than a quarter in USA.
- Investors will have a greater appetite for credit risk because of the removal of currency risk,

[3] Moody's have stated in a special comment on Credit risk implications of EMU, that possible future increases in fiscal deficits, and therefore credit risk, must be taken into account when assigning the individual ratings of governments within EMU.

bringing more demand for paper rated below AA.

- EU pension fund assets are expected to increase and funds are likely to have more freedom to invest in a wider range of euro assets.
- Potential use of euro as a more important reserve / anchor currency than the national currencies that it replaces, will create demand for high quality debt and improve market liquidity.
- Euro area governments will continue to issue debts in their domestic markets, as well as in the international markets in some cases, though the Stability and Growth Pact ensures that market share of government debt will be reduced. To the extent regulatory restrictions are relaxed investors are likely to diversify across 'in' government issues to eliminate any excessive yield differences. The erosion of their captive domestic investor base will put governments under greater pressure to move their domestic markets in the direction of international best practices regarding transparency, issuance techniques, settlements, taxation, development of repo markets etc.
- The international euro market will remain the primary market for large international issuers that are well known to international investors. Some issuers may switch from the international market to domestic market, as in the case of 'in' governments who had previously issued in other EU national currencies. But the international distribution network of large investment banks will continue to attract bigger international issuers that want to use the international euro market in order to tap a wider investor base both inside and outside the euro area. The international euro market will benefit from the expected increase in euro issuance by EU corporates, if it is able successfully to market the lesser known issuers, perhaps rated below 'AA'.
- Domestic markets will also benefit from any additional non-government issuance. Some expectations are that the existing national markets will continue, as national investors will continue to have regulatory and tax incentives to invest in domestic assets, and local investors will be better able to assess the credit risk of local issuers. There is, however, another expectation that barriers between domestic markets will break down over time. Restrictions on issuers and intermediaries are likely to be removed quickly. For example, Bundesbank will remove the 'anchor principle', under which lead managers for DM bond issues in Germany must be incorporated locally. Similarly, the French authorities have announced that they are removing the distinction between international and domestic French Franc issues.

Market conventions in the Bond markets

3.37 The recommendations of the European Bond Commission on euro bond markets are given at Annexure VII.

Redenomination, Renominalisation and Reconventioning

3.38 In theory, all market participants will be free to choose either their local currency or euro for any securities transactions during the transition period. However, it is anticipated that the EMU securities market will move towards trading in euros from day one. All market quotes, local securities depositories and cash clearing houses will shift to euro. All 'on market' transactions will be in euro. For 'off market' transactions, participants will have the option to trade in euro or the local currency. However, given the situation, both issuers and subscribers will be comfortable if the national currency denominated securities are redenominated in euro.

3.39 Conversion of securities covers three distinct processes :

- Redenomination
- Renominalisation
- Reconventioning

3.40 **Redenomination** is a prerequisite to renominalisation and reconventioning. However, each of these processes can occur either at the same time or independently of each other at any time during the three year transition period. Much of the euro-zone Government debt will be redenominated over the conversion weekend.

3.41 Redenomination refers to the change of the unit in which the amount of outstanding debt is stated from a NCU to the euro. This can be achieved in two different ways:

- Bottom-Up method - where, each investor's holding is converted at fixed conversion factors and rounded;
- Top-down method - which assumes that the issue is divided into fixed number of units of the denomination increment size. Each unit is then converted, rounded and multiplied by the original fixed number of units. This process is unlikely to result in round euro amounts and as a result some issuers may choose to 'renominalise' as well.

3.42 **Renominalisation** refers to a change in the minimum nominal amount in which the security issue is held and traded. It occurs either immediately after redenomination or at some other future time. The purpose of renominalisation is to create more convenient trading amounts. This can be achieved in two ways :

- a)Reducing the minimum nominal amount to one euro cent. This is the method chosen by Germany. b) The issuers will make cash repayments in respect of the odd lots resulting from repackaging to a round euro amount. This is the approach being adopted by France in respect to its government debt.
- a)Re-packaging an odd amount into a round euro amount, either the nearest euro amount or some larger euro amount b) a secondary market trading and repackaging the odd lots.

3.43 **Reconventioning** involves adjusting the euro related terms and conditions of the bond, as part of the conversion process. One of the main areas where reconventioning will occur is in the harmonisation of different market conventions. This in particular, affects the day count for calculation of accrued interest.

3.44 Redenomination, renominalisation and reconventioning is expected to lead to greater liquidity for the euro market from the very start. Higher liquidity may then lead to better prices. However, individuals/corporates will have to keep in mind the cost involved in redenomination, which may be prohibitive in the case of small issues. Furthermore, renominalisation-reconventioning may require the approval of bond holders in some countries, or suitable legislatory support.

3.45 Details of all the individual securities that will be redenominated/and or reconventioned over the conversion weekend, and afterwards need to be made available to the whole market, as soon as possible. These will be available on Euroclear website. All individual government issuers will confirm the necessary detailed information about the redenomination of individual securities for proper planning for the conversion weekend.

3.46 Non Government debt would not be redenominated immediately during the conversion weekend because such bonds will be traded in euro whether or not they are redenominated, due to cost factors and there are no presentational advantages, as in the case of Government bonds. Furthermore, the volume of systems work needed to convert cash positions and redenominate government bonds is already enormous. It is expected that national authorities would discourage this practice by putting in place financial disincentives. If non-government issuers wish to redenominate, they should do so at a later date during the transition period, either on a limited number of days set aside in advance by the national authorities or on a coupon date.

Taxation in EMU

3.47 Work relating to harmonisation of tax rates within the EMU countries is yet to be taken up. The greater price transparency that monetary union will bring about, will make governments more sensitive to unfair policies to gain advantage. The European Commission has launched a ‘Draft Code of Conduct for Business Taxation’. This is a non-binding code of conduct to tackle ‘unfair’ tax competition between member states. Despite this, member states are expected to inform each other of existing or proposed measures that may lead to unfair tax competition. The areas that might be affected by this code of conduct are :

- Luxembourg’s lack of withholding tax on foreign savings deposits;
- Ireland’s docks schemes to attract financial services;
- The Netherlands’ co-ordination centres which offer tax breaks for multinationals.

SWIFT

3.48 SWIFT has already issued guidelines on the impact of euro on its messages, during conversion to euro. These guidelines have been endorsed by the SWIFT EMU Standards Working Group, which included experts from major user countries, Euroclear, European Committee for European Standards (ECB) and European Monitory Institute (EMI). The changes in message standards are being kept to a minimum by SWIFT. No new messages or fields are needed but new code words have been introduced in order to support the communication of Euro Related Information (ERI). In particular, during the transition period, if information is necessary both in euro and in ‘in’ currencies in a message, the same may be provided as ERI, in a free text field. The euro code (EUR) is available for testing from April 1998, and is available for live use for settlement messages carrying a value date on or after January 1, 1999. The national currency codes of ‘in’ currencies and the ECU code will remain on the network, until the maintenance agency of ISO currency codes advises their deletion.

3.49 ERI will allow transport of euro related information, in particular the original currency and amount, in the free text fields of SWIFT messages. The basic principles of ERI are :

- Its use is optional; institutions will decide with their correspondents if they wish to use it.
- It may only be used when the settlement amount is expressed in euro and the original amount is in ‘in’ currency denomination.
- It may be used only in messages which do not have existing fields to specify the information.
- It is for information purposes only. In case of any discrepancy between the ERI and the settlement amount (or net proceeds) specified in the message, the settlement amount will prevail.

3.50 SWIFT has analysed different market scenarios and has published lists of messages likely to be used with or without ERI, during the conversion weekend. SWIFT has also prescribed ERI validation rules. The network will validate the structure of ERI but not its content.

ICC Decision

3.51 The International Chamber of Commerce, the world business organisation based in Paris[4] by its decision of April 6, 1998 does not amend the ICC rules in any way. Instead it has held that the introduction of the euro shall not have any effect of altering, discharging or excusing performance under any instrument subject to ICC rules. This decision emphasises the need to correctly interpret and apply ICC rules. All national committees of the ICC have been advised to interpret this decision widely. Continuity of contracts will not be affected by euro.

3.52 The above principles affecting national currency are legally binding in all EMU participating states and apply equally to payments to be made in a national currency unit by persons located outside EU. This is on account of the generally accepted legal principle that the definition of what constitutes legal tender is governed by the law of the country whose currency is involved. Banks in India should take care to subject all letters of credit and other documentary credits to the ICC rules of April 1998 along with the normal rules.

3.53 The consequences of the introduction of the euro in practice under the various ICC rules have been summarised in the table at Annexure IX.

[4] The ICC Commission on Banking Technique & Practice develops and maintains uniform rules for international trade, including Uniform Rules for Contract Guarantees, Uniform Rules for Demand Guarantees, Uniform Customs and Practices for Documentary credits, Uniform Rules for Collections, Uniform Rules for Contract Bonds and Uniform Rules for Bank to Bank reimbursements. All these rules are collectively called ICC Rules.