M. Hannoun discusses issues relating to financial markets and European Monetary Union Article by M. Hervé Hannoun[1], a Deputy Governor of the Bank of France, published in the autumn 1996 issue of "revue d'économie financière no. 38".

What impact will Monetary Union have on the financial markets?

I should preface any attempt to answer that question by saying that the financial markets have already been affected by Monetary Union, even though 1 January 1999 is still in the future. The interest rates on the French-franc market for maturities of 3, 5, 10 and 30 years already incorporate 1, 3, 8 and 28 years in euro. this means that medium-term market rates for the French franc already depend on the soundness and the credibility of the euro.

The first part of this article will deal with the *changeover of the markets* to the euro on 1 January 1999. The second part will discuss the more strategic issue of the *new environment* that will affect the leading European financial markets as a result of Monetary Union.

1. The technical preparations for the 1999 changeover of the markets to the euro are already well under way.

1.1. The Options Chosen

1.1.1. A Two-Stage Scenario

The scenario adopted comprises two stages, with the changeover in wholesale transactions occurring in the first and the changeover in retail operations in the second.

The changeover in the financial markets will occur rapidly because, starting on 1 January 1999, the European System of Central Banks (ESCB) will conduct its monetary policy in euro and the Monetary Union Member States will denominate their new government securities issues in euro. Then, by 1 January 2002, at the latest, when the euro bank notes and coins have been introduced and general government agencies have made the changeover to the euro, all retail banking activities will be conducted in euro.

During the transitional period from 1999 to 2002, banks will be on the frontier between two spheres, with the euro-denominated markets on one side, and the world of retail transactions, where national currencies will continue to be used, on the other. At the place where the two spheres meet and overlap, banks will play the vital role of interface, making them an important driving force in the changeover of the markets to the euro.

Converters will enable banks to meet the demand for euro from non-financial agents and let them integrate transactions on markets where the quotation, trading and settlement systems all operate in euro, into an economy where the national currency is bound to remain in widespread use. The converters will be located in the financial institutions.

1.1.2. The changeover will occur on 1 January 1999 for flows in the financial markets. It will be more gradual for the outstanding stock of securities and transactions.

The objective of the Paris banking and financial community is for all of the markets to change over

1 This article was written with the help of Denis Beau, the head of the French-franc trading room and Yves Nachbaur, Deputy Manager of the Financial Markets Division.

to the euro completely and for good on 1 January 1999. This applies to the foreign exchange, money, bond and equity markets.

However, we must make a distinction between the flows, which are the market transactions, and the stock of outstanding securities and market instruments exchanged in these transactions or underlying them. The diagram below shows that the changeover in terms of flows will be complete and immediate, whereas technical considerations will make the changeover in terms of stock more gradual and, in some cases, the pace of the changeover may differ.

The Changeover of the Markets to the Euro

Markets	Flows (transactions)	Stock (instruments)
Foreign Exchange Market	Euro (1/1/1999) Quotes Trading	Euro Immediate conversion of outstanding currency swaps, options and futures
Money Market	Euro (1/1/1999) Quotes Trading	Euro Automatic conversion of Ecu-denominated securities Rapid conversion of outstanding French-franc securities and repos into euro New government securities issues in euro
Bond Market	Euro (1/1/1999) Quotes Trading	Euro/Franc Automatic conversion of Ecu-denominated bonds Conversion of outstanding government bonds at the start of Stage 3 Gradual conversion of outstanding private-sector bonds New government bonds issued in euro
Equity Market	Euro (1/1/1999) Quotes Trading	Euro Conversion of par values into euro on 1/1/2002

1.2. The Impact of the Changeover on the Ways Markets Work

1.2.1. The Foreign Exchange Market

The foreign exchange markets are set to change over to the euro on 4 January 1999. In practical terms, this means that non-euro-area currencies will be quoted against the euro exclusively.

Currency rates on the euro market could be quoted quite naturally as rates against the euro to ensure continuity with practices on the Ecu market, where the rates for all currencies, including sterling, are quoted as rates against the Ecu.

At the same time, the institutions' foreign exchange holdings of euro-area currencies must be converted into the single currency and settlements arising from the interbank foreign exchange market will be made in euro.

Market professionals' open interest in swaps, futures and options on euro-area currencies will automatically be converted, with the substitution of the euro for the national currencies of the euro area countries.

The immediate changeover of the foreign exchange market will call for some operating rules to be worked out by 1 January 1999.

Such rules should cover such matters as the way benchmark exchange rates are worked out. The Banque de France publishes daily benchmark rates for the franc against various other currencies. These rates are often used for valuation for tax, accounting and prudential purposes. Benchmark rates will still be needed after 1 January 1999 to give the euro price of non-euro-area currencies. We must make sure we know how this need will be met.

Rules must also be defined to harmonize value dates. The creation of a unified foreign exchange market for the whole euro area will be an incentive for such harmonization.

Other rules will be needed for dealing with open interest in currency futures and swaps on currencies from the countries entering Monetary Union. By 31 December 1998 at the latest, the final value of such contracts will be known for certain, and a cash settlement price can then be worked out on the basis of the difference between the rate originally contracted and the irrevocably-fixed conversion rate that is ultimately set. The questions that then arise are whether contracts should be liquidated early or whether they should continue to run until their originally agreed maturities. These are the kinds of questions that the working groups are studying at the moment.

1.2.2. Interest-Rate Markets

The changeover to the euro on 1 January 1999 will not raise any problems for quotes on interest-rate markets, because they are given as rates or percentages of par values. Cash settlements arising from delivery-versus-payment securities transactions will be made exclusively in euro in the RGV and RELIT securities settlement systems.

The Money Market

The changeover in the money market should occur quickly for transactions in the interbank, negotiable debt securities and repo segments.

On the *interbank market*, the changeover will be facilitated because, starting on 1 January 1999, monetary policy transactions will be conducted in euro, the banks' accounts with the central banks will be held exclusively in euro and the large-value payment systems will operate in euro. The TARGET system, which will handle all monetary policy operations and many interbank payments, will be operational and should ensure perfectly smooth circulation of central money, thus enhancing the effectiveness of the changeover process.

On *negotiable debt securities market*, the outstanding government bonds will be converted into euro immediately. The technical process of converting other debt securities will be facilitated by the fact that most of them are short-term securities issued or held by credit institutions. Nevertheless, the participants in these markets must define the technical procedures for converting securities of all maturities into euro so that they can be used as instruments in a broader euro money market.

The *repo market* could, of course, operate in euro with securities denominated in francs at first. But outstanding repos must be converted into euro rapidly in 1999 so as to constitute a uniform euro money market in which the expertise and experience of operators in Paris should give them an important role.

The Bond Market

The technical problems involved in the changeover of the bond market are a more delicate matter.

New State bonded debt will be issued in euro starting on 1 January 1999, and the French treasury has committed itself to converting its outstanding bonds into euro as soon as possible. This is bound to create a very favourable volume effect, but the conversion of other outstanding bond issues may occur more gradually.

One of the difficulties arising in the changeover in bonds is how to convert par values. Because bonds carry set denominations, the conversion of par values raises the problem of rounding and fractional values. For example, how should a 2,000-franc OAT bond be converted into a euro-denominated bond, and what should the new denomination be, as the franc/euro conversion rate is unlikely to produce a whole number. One solution under consideration is to create bonds with a par value of one euro each. The feasibility of this solution is under study.

Benchmark rates are another problem that requires further thought and it affects both the money and bond markets. Will the benchmark rates such as the average weighted money market rate (TMP), the average bond yield (TMO) and the PIBOR still be in use after the changeover? Should we consider making some of them “European” rates? The dynamics of a single financial market obviously create an incentive to harmonize the market benchmark rates used in the various financial centres for the money market, and for the bond market as well. It is in everybody’s interest for the different financial centres to work together and with the monetary authorities on these issues, which the EMI will also study as part of its work on the harmonization of market standards.

Interest-Rate Derivatives Markets

On the interest-rate derivatives markets, the changeover to the single currency will lead to the constitution of a euro yield curve. Traders will be able to start trading on this curve immediately. Financial centres, such a Paris, must be prepared to:

- offer a complete range of products covering all the strategic points on the new yield curve as soon as possible;

- ensure that the liquidity of contracts denominated in national currency is transferred to euro contracts.

Some 80% of the trading volume on the MATIF futures market in Paris involves interest-rate products, and all of them are to be converted into euro on 1 January 1999.

With this in mind, MATIF SA, and the market players, have just presented a strategic plan aimed at providing participants with instruments covering the whole euro yield curve in 1999, and ensuring greater liquidity for the existing French-franc products, for example, by introducing a five-year contract. MATIF SA has also decided that PIBOR contracts maturing after 1999, will be traded in an environment of euro-denominated benchmark rates, and not French franc rates.

1.2.3. Equity Markets

The banking and financial community opted for a simultaneous changeover for the monthly settlement, spot, and OTC equity markets on 1 January 1999.

Starting on 1 January 1999, shares, profit-sharing certificates and convertible bonds will be quoted in euro. Credit institutions' entire securities operations will change over to the euro all at once. The market intermediaries will install converters to provide the interface for customers holding French-franc denominated accounts during the transitional period up until 1 January 2002.

The changeover in equity transactions will be a complex project that must reconcile the use of the euro for quotations and delivery-versus-payment settlements with the use of the French franc by issuers for their accounting. French-franc issuers will have to convert the par values of their shares at a later date.

Thus, if we wish to limit the number of conversion operations that the intermediaries will have to carry out, we should examine which legal conditions would enable listed companies to express the financial flows relating to their securities issues and dividend payments in euro during the transitional period.

Transactions with customers will continue to be dealt with in the national currency during the transitional period, particularly in the case of shares. On the other hand, the changeover to the euro in over-the-counter market transactions between professionals is unlikely to raise any special problems. Markets always adapt rapidly by nature. The work under way proves that market professionals are determined to be ready on time, but the legal framework defined for the use of the euro also has an important role to play. The options chosen in the draft European regulations on the status of the euro provide market participants with a clear-cut legal framework that will make the changeover easier.

2. European Financial Markets and Monetary Union: The New Environment

The changeover of the financial markets to the euro on 1 January 1999 requires appropriate technical preparations to set the ground rules. But, within this carefully defined framework, the strategic responses of the participants and institutions involved will be vitally important. The Paris financial market should be able to build on its considerable advantages to flourish as the environment grows more competitive.

2.1. Expected Changes in the Competition between European Financial Centres

2.1.1. Short-term interest rates will be the same throughout the euro area.

Entry into Monetary Union will be based on macro-economic convergence, irrevocable fixing of exchange rates, a single monetary policy and fiscal policies that are consistent with the Stability Pact. This means that the main macro-economic factors influencing the value of financial assets should become more uniform.

Substitution between financial assets within the same categories should become easier, even though the issuers are still of different nationalities. This phenomenon is bound to have the greatest impact on interbank deposits, because the single monetary policy within the euro area will mean that banks with comparable credit ratings should logically pay the same rate of interest, no matter which country they are from. It follows that the prices of other categories of short-term securities, which are usually set with reference to interbank interest rates, should also start to show uniform yield curves. For example, the prices of French Treasury bills (BTFs) are set with reference to interbank rate expectations via the arbitraging mechanisms linking the interbank rates to their derivatives in the form of interest-rate futures and swaps.

2.1.2. At the long end of the yield curve there may be some residual differences between government bond markets in the euro area.

2.1.2.1. *Entry into Monetary Union is a powerful factor for producing uniform yields on the participating countries' government bonds.*

Traditionally, two essential factors are put forward to explain differences in government bond yields. These are the premiums to cover credit and exchange risks. As Monetary Union is based on macro-economic convergence and irrevocably fixed exchange rates for the countries taking part, these premiums should be greatly reduced, or even disappear.

Theoretical Impact on the Credit Risk Premium

Traders will distinguish between the creditworthiness of two sovereign issuers if they feel that the risk of default is not the same in both cases. The credit risk depends directly on the issuer's debt servicing capacity. The assessment of a government as a credit risk is naturally based on an estimate of how sound its financial position is. The criteria that the major rating agencies and others usually apply relate to the main aspects of a country's economy, such as growth, inflation, the balance of payments, fiscal balance and outstanding government debt.

On the basis of these criteria, the countries in Monetary Union should, in theory, be given comparable credit ratings. Entry into Union requires strict adherence to the convergence criteria and compliance with the Stability Pact. These are serious guarantees of durable macro-economic convergence in the participating countries.

The leading international agencies have already given comparable ratings to the countries with the most similar economies, which are also the ones most widely believed by the markets to be the first to enter Monetary Union on 1 January 1999.

Theoretical Impact on the Exchange Risk Premium

Operators will demand a higher yield before investing in a foreign market if they perceive an exchange risk. This extra yield, or premium, offsets the losses that could be incurred due to a change in the exchange rate.

The exchange risk between the various countries entering Stage Three of Monetary Union will disappear on 1 January 1999. The yield differentials between these countries' government securities reflecting the risk of variations in the exchange rates between their currencies should naturally cancel each other out.

The euro is to be as strong and credible as the leading currencies in the European Exchange Rate Mechanism today. It will be a magnet for savings from non-euro area countries. A very large and liquid market of European government securities with fairly uniform features can be expected to emerge as an alternative to dollar-denominated investments. This is another factor contributing to uniform yields on bonds issued by the governments of countries in the euro area.

2.1.2.2. *Some economic and technical factors could be an obstacle to uniform yields and residual differentials may persist.*

The logical conclusion of the theoretical considerations outlined above would be that there is no fundamental reason for the yields on government bonds in the euro area to diverge once Monetary Union has been achieved. However, not all analysts agree with this prognosis and major financial players are conducting intensive research to estimate the yield differentials on euro-denominated government securities and to identify the determinants. Three main types of factors could explain the persistence of residual yield differentials.

Investor Behaviour in the New Euro Area

The irrevocable fixing of the parities between the currencies participating in Monetary Union and the economic convergence requirements for entry will eliminate many sources of the market segmentation and have a twofold impact on the flow of investment into interest-rate markets.

- There will be a reallocation of the savings invested in interest-rate products within the euro area; and

- a greater share of the total savings is likely to be invested in interest-rate markets outside the euro area.

These potential portfolio reallocations could be related to the fact that the range of assets on offer in the euro area countries will be less attractive once Monetary Union has been completed, because the variations in the exchange rates between their currencies, which can cause the value of the securities they issue to increase, will have been eliminated.

The changes in the prices of interest-rate products in euro area countries will be increasingly similar, making these products less attractive for international portfolio managers, who use modern portfolio management strategies based on diversification to optimize the risks-rewards relationship.

The disappearance of exchange risk will also lead to reallocation by inciting portfolio managers who had previously limited their activity to the domestic market to expand into the markets in other euro area countries. A major source of risk in investing in foreign markets within the euro area will have been eliminated and the factors affecting interest-rate product prices in two different Monetary Union currencies will become more and more similar.

This restructuring of interest-rate product portfolios could actually help maintain yield differentials on various euro area government securities. Since the bond markets in the euro area would appear to be good substitutes for each other once Monetary Union looks like a viable proposition, there would be a risk that the reallocation of cross-border investment flows could favour the markets with the most attractive technical features. The substantial technical differences between markets in the euro zone could, all things being equal, introduce yield differentials on government securities.

However, some major institutional investors in the euro area currently have management constraints, such as the matching principle for insurance companies, that limit their ability to buy securities denominated in other currencies. We cannot rule out the possibility that such investors may overlook the technical differences between national market segments in the euro area and increase their investment in securities carrying a premium. This would further contribute to a convergence of yields within the euro area.

The Way Fiscal Policy is Implemented

Article 104b of the Maastricht Treaty prohibits joint financial liability between the Member States. This means that when investors define and implement their portfolio strategies, they will still be just as sensitive to differences in fiscal policies as before, even though these policies will never be able to stray far or for long from the discipline laid down in the Stability Pact.

Under these conditions, the slightest sign perceived by the markets as a loosening of fiscal policy will be penalized by a widening of the yield differential between the offending country and the other countries in the euro area.

Technical Elements

Technical differences between national bond markets that have not been ironed out by the start of Stage Three could also contribute to the persistence of yield differentials on government securities.

The prime causes would be differences in the liquidity of government bonds stemming from the various governments' issuance policies, unequal development in repo markets and whether stripped bonds are available for investors wishing to take more sensitive positions.

Other causes could be differences in taxation and regulatory requirements affecting intermediaries and investors.

2.1.2.3. *Sizeable yield differentials between different bond markets could have a big impact on market benchmarks and financial asset pricing techniques*.

Financial asset pricing techniques all rely on the riskless yield curve and this raises the question of which rates will constitute this curve in the euro area. It could be made up of the lowest rates at each point along the curve, in which case it would not be very uniform. Or else, it could be made up of the average yields on government bonds. The lack of an undisputed benchmark curve could lead to varying practices within the market.

This problem could result in the interest-rate swap curve being taken as the benchmark curve, since the swap market is very wide and the technical conditions are the same everywhere. Indeed, we can see that the convergence process has already had a more pronounced impact on the interest-rate swap market. As this will continue after the start of Stage Three, the yield curve based on swaps can be expected to be more uniform than the government bond yield curve, thus prompting operators to use it as the benchmark for their pricing techniques.
Up until now these techniques have been based on the riskless yield curve. They will have to adopt a new and radically different benchmark.

2.1.2.4. *Certain measures can be considered to minimize yield differentials as far as possible.*

- *Issuing strategies could be harmonized*. Differences in issuing patterns relating to the range of securities on offer, the degree of fungibility and standardization of coupon payment dates, as well as issuing timetables can create liquidity premiums that vary from one country to the next on the same segment of the yield curve. For example, the differences in the yields on 2-year issues in France and Germany are amplified by the lesser liquidity of the German securities. Sweden has already started to standardize coupon payment dates by aligning that of its latest 10-year issue on the most liquid line of the 10-year French OAT bonds (25/10/2006).

- *Issuing techniques and market-making techniques on the secondary market could be harmonized*. Here again, differences in the techniques used can create yield differentials between comparable securities. This type of phenomenon is undoubtedly at work for French and German bonds. The Bundesbank’s auction technique, which combines syndication, competitive bidding and tap issues, as well as its presence in the secondary market are in contrast to the mainly competitive procedures used for French Treasury issues with bid-price auctions and the marginal role played by the Treasury on the secondary market.

- *Taxation could be harmonized.* Here, the priority should be on harmonizing taxes on income and capital gains from bonds. The example of municipal bonds in the United States, where tax exemptions lead to lower yields on these bonds than on federal government bonds, shows that tax considerations have a substantial impact on yields. It would also be a good idea to harmonize tax collection techniques, with the preference being given to withholding taxes on bonds.

2.2. The Strengths of the Paris Market in the New Environment Created by Monetary Union

The Paris financial centre and its participants have substantial advantages to meet the new competitive challenges in financial markets. These advantages will enable them to seize the opportunities offered by Monetary Union for the development of their activities.

2.2.1. A Wide Range of Competitive Financial Services and Products

Paris offers an array of financial services and products that enjoy a strong position in the international competition.

- The regulated markets, SBF, Bourse de Paris and MATIF, rank among the world leaders. MATIF is Europe’s second largest derivatives market. The French equity market has surged ahead in recent years and attracts large numbers of foreign investors, who currently hold about a third of the total market capitalization.

- Paris OTC markets, particularly for derivatives, are technically advanced and highly active. According to a Banque de France survey published in April 1995 as part of a coordinated project involving six financial centres under the aegis of the Bank for International Settlements, France’s derivatives markets rank fourth world-wide, accounting for 6.4% of world activity. The transactions are highly international, with 76% of the transactions in currency derivatives and 47% of the transactions in interest-rate derivatives involving non-resident counterparties.

- France’s attractive money market is open to industrial and commercial companies, allowing them to issue negotiable debt securities. It is based on highly efficient repurchase agreements. The repo market has grown substantially in recent years. The volume of the main operators’ lending granted under repurchase agreements with delivery of the securities increased twelve fold between the fourth quarter of 1991 and the fourth quarter of 1994, and then it doubled again by the end of 1995. This form of repo accounted for only 3% of the main operators’ lending on the interbank market in 1991, but this figure increased to 37% in 1995. The Banque de France worked hard to achieve this increase. It helped eliminate legal risk with a market agreement introduced in September 1988, followed by a second version, backed up by a standard repo contract in July 1990. At the same date, the Banque de France also introduced Treasury bill repos for its bid tenders. This momentum was reinforced in 1994 and 1995 by an Act of Parliament defining the repurchase agreement with delivery of the securities. The Act cleared up the remaining uncertainties over the legal and tax status of repos. The Treasury also set up a circle of market-makers, creating a class of primary dealers in Treasury repos (SPVTs-Spécialistes en pensions sur valeurs du Trésor).

- Paris has a large bond market driven by both public- and private-sector issuers. The overall value of outstanding issues on the French bond market stood at USD 1,011 billion at the end of 1995, which is 16% of the world total. This makes the French market the fourth largest in the world, behind the American, Japanese and German markets.

- Paris offers fast and reliable delivery-versus-payment settlement systems. In 1997, the Transferts Banque de France, or TBF, real-time gross settlement system will be introduced as part of the risk-prevention programme. It will provide immediate finality of payment for large-value funds transfers throughout the day. At the same time, the delivery-versus-payment securities settlement system will be unified and provide same-day settlement as part of the Relit Grande Vitesse Project (RVG).

2.2.2. An Attractive Government Debt Market that will Set the Pace in the Euro Area

The French government securities market is one of the key advantages that Paris enjoys in the run-up to the euro. It is based on a system of market-makers, where the primary dealers are known as SVTs, and offers a very large pool of securities covering the whole spectrum of the yield curve. It is one of the world's most advanced and efficient bond markets.

It benefits from the Treasury's issuance policy, which currently offers three key advantages: simple products; highly liquid lines (many of which are fungible); and maximum regularity of issuance. The other advantages of the market include the group of specialized operators, who are the primary dealers in Treasury securities and the transparency of its organized procedures that are open to all investors. The market's leadership is based on the high credit rating of the French State and the highly developed MATIF futures and options market, which is one of the top-ranking markets of the world.

In a euro-denominated government debt market, where the yield differentials on bonds from the different sovereign issuers should be small, the advantages of the French debt market should attract investors to French government securities and should generate a great deal of business for all the related products, including derivatives and bonds from other French public-sector issuers.

I will conclude by saying that the changeover to the euro will bring sweeping changes to the competitive environment in financial markets. But it will not necessarily lead to disruption, if the markets have prepared properly for the transition. The ESCB, with its multiple-based operations, will ensure equal treatment of the various financial centres.

A key differentiation factor will be the skills and the expertise of the trading-room teams. This means Paris has everything it will take to flourish in the new competitive environment resulting from Monetary Union.