EMU AND THE EVOLUTION OF FINANCIAL STRUCTURE¹

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Introduction

It is widely accepted that the onset of EMU will strongly affect the evolution of financial markets in the euro area, and may change some long established features of financing behaviour. It will also render more effective the measures of liberalisation incorporated in the move to a Single Market. In this context, this article seeks to offer an outline of the potential longer-term consequences of EMU, as suggested in recent analyses of the subject², while also noting some of the factors that may delay the process of financial integration. It should be borne in mind at the outset that given the nature of the topic, the paper has to be wide ranging and is inherently forward-looking and to some extent speculative.

The article is structured as follows; the first section notes some of the underlying forces already affecting the evolution of European financial markets, as well as pointing to some of the changes in monetary and fiscal arrangements which EMU will entail. These provide background for the outline of the more market-driven developments in finance resulting from EMU which is the subject matter of the article. We deal successively with effects on securities markets, banking, corporate finance, institutional investment before concluding with a view of some factors which may slow the process of financial integration.

1 Background Elements

Before seeking to assess the direct consequences of EMU, it is important to stress the background factors that will continue to influence financial markets. In particular, financial change is well under way under the influence of autonomous forces. Deregulation, advances in technology and the growth of institutional investors³ and securities markets are among the most important causes of this pattern. Whereas these tendencies were observed most acutely at an early stage in the Anglo Saxon countries,

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For a more detailed discussion of effects of EMU see inter alia articles by De Bandt (1998), Dermine (1996), IMF (1997), McCauley and White (1997), Hannoun (1996) Schinasi and Prati (1997), Gros (1998) and Bishop (1998) as well as commentaries by Mantel and Bowers (1997), UBS (1997), Flemings (1998) and HSBC (1998).

Factors underlying growth of institutional investors include demographic change and, in some countries, reform or privatisation of pension systems.

and later in Japan and the Nordic countries, they have increasingly made themselves felt in Continental Europe, not least as a consequence of the Single Market programme. Accordingly, both in Europe and elsewhere, the growth of domestic and international capital markets (linked partly to the rise of institutional investors) has encouraged disintermediation of corporate finance. Securitised assets also met with strong demand from institutional investors. Abolition of exchange controls has meant that demand for securities and securitised assets become more global and is not limited to institutional investors from the country concerned.

In addition, the scope of public as opposed to private information and the efficiency of its use by markets has been increased by the development of information technology and the related growth in influence of rating agencies, investment banks and credit assessors covering a wider range of firms. The traditional comparative advantages of banks in this area resulting from economies of scale in information gathering, screening and monitoring (Diamond (1984)) were thus eroded, even abstracting from price considerations. Meanwhile on the liabilities side of banks' balance sheets, wholesale depositors such as corporate treasurers and institutional investors tended to be ready customers for repos, commercial paper and other money market instruments rather than bank deposits - and in some countries individuals had attractive opportunities to hold money market funds⁴ - in each case undermining banks' comparative advantage in liquidity provision (Dermine (1991)). Both of these trends led to a decline in banks' traditional on-balance sheet business.

Such disintermediation was combined with financial liberalisation – and in particular for Europe the Single Market Programme - innovations and technical developments that enhanced competition also for traditional banking products such as mortgages, consumer credit and deposits (Vives 1991), between domestic and foreign banks, vis-à-vis non-bank financial institutions (notably insurance companies) and with non financial players such as department stores and car companies. Together with capital market disintermediation, these impacted on banks' margins and made it difficult for banks to operate with their traditional mix of business alone. In effect, banks were left with a problem of "excess capacity" owing to the shift towards a more competitive market (Davis and Salo 1998).

A second important background feature, which we also take as given, is EMUs direct implications for monetary and fiscal integration (for a discussion of the concepts of monetary and financial integration see Majnoni et al 1992). These include the fact that by definition, Monetary Union is characterised by an elimination of exchange rate risk within the Union⁵; this eliminates not only short-term intra-euro area exchange rate volatility, but also the risk of longer-term real exchange rate misalignments driven by nominal exchange rate changes⁶. Second, as a consequence of monetary integration (as generated by the single monetary policy directed through the TARGET linked payments system), overnight money

In the 1980s and 1990s, the public also had the option of holding public debt which offered high yields relative to bank deposits.

There may still be fluctuations and misalignments vis-à-vis third markets.

Difficulties in terms of real competitiveness may still arise from differentials in inflation.

market interest rates are equalised across the euro area. Interbank wholesale money markets are fully integrated from day one. The repo becomes an attractive money market instrument, with the ECB operating with a range of paper as collateral. Third, although exchange rate risk is eliminated, fiscal positions will continue to vary (subject to the limits imposed by the Stability and Growth Pact), which, in the context of a single currency where monetisation is ruled out, leads to the principal source of differentials between government bond yields being credit risk (Bishop 1996).

2 EMU and securities markets

Lower inflation uncertainty and the elimination of exchange rate uncertainty as well as redenomination of existing stocks of bonds and fiscal consolidation provides important preconditions for the integration of bond markets across the euro area. An important driver or integration is flows from respective national markets to other euro area markets, as EU investors, notably pension funds and other institutional investors seek to diversify within the new 'domestic' zone given currency-matching restrictions no longer bite across the euro area⁷. Integration will also be boosted by enhanced attractiveness of euro-bond markets to global issuers and investors.

The integration process should benefit from intensified competition among underwriters and better pricing⁸ compared with existing segmented markets dominated by home currency banks (Dermine 1996). Competition should be more intense because any national advantage to underwriters will diminish owing to a reduced value of access to home investors (as home bias diminishes given opportunities of diversifying across the euro area and the investor base becomes euro wide), of knowledge of monetary policy and various idiosyncratic features of national markets. This will lead to further benefits both in terms of market conditions and a wider range of instruments available. Government bonds, for example, may well become more liquid and transaction costs may fall owing to competition between banks of different nationalities; liquidity should tend to reduce day-to-day volatility. The number of derivatives contracts on government bonds will decline. Some segmentation may remain owing to differences in credit risk, market conventions etc.; however, governments, since they could in EMU no longer rely to the same extent on a domestic investor base, will come under pressure to eliminate causes of segmentation, in order to satisfy international investors (owing to their effects on the cost of borrowing).

Meanwhile, an actively traded euro yield curve derived from the swap curve and/or the benchmark sovereign issues gives one precondition for a broader corporate bond market to develop. For similar reasons to government bonds, corporate bonds should benefit from heightened competition between banks to underwrite deals. Internationalisation of industry sections or cross border mergers of borrowing companies will of themselves reduce any residual advantage to domestic banks in evaluation

Note that there may also be outflows, owing to the lesser diversification benefits of holding assets in the individual euro-area countries.

Easier hedging in a liquid government bond market would contribute to this development.

of credit risk. Moreover, the "anchoring principle" whereby domestic authorities would insist on domestic institutions lead managing domestic issues, will no longer hold across the euro area, increasing competition further. This tendency will again be enhanced as the investor base tends to become international. Meanwhile issuers and lead managers will seek to minimise unnecessary yield differences arising from issuing technology, financial infrastructure and other market practices which segment markets. Securitisation of loans would also be facilitated, albeit without the type of government assistance typical of the US.

A focus on credit risk differentials which as noted will in any case arise for government bonds may also be helpful to the development of private debt instruments in the euro area, boosting a sector which is dwarfed by that of the United States at present (see Bishop 1998). Among the reasons for this expected growth are that increased demand, eg for annuities, may compress existing risk premia, making issuance more attractive. On the other, risk tolerance in search of a yield pick-up may allow a wider range of credits to access the market⁹, see Cooper (1998). The Stability and Growth Pact should ensure more scope for such corporate issuance, by limiting net sovereign issuance. Bond as well as money market development will be aided by the chosen monetary policy instruments of the ECB, notably the use of repos.

Equity market integration should also be furthered by EMU, not only owing to removal of exchange rate risk and the common interest rate, but also because, abstracting from asymmetric shocks, the cyclical situation within the euro area is likely to be rather homogeneous. Even more than for bonds, there will be strong flows from the national market to other euro area markets, as institutional investors, no longer subject to currency matching restrictions, seek to diversify on a sectoral basis within the new 'domestic' zone. EMU should provide the pre-conditions for creation of a larger and more liquid market than existing national bourses with lower transactions costs, thus generating improved market conditions. Flotations and new issues should be facilitated. The link up of London and Frankfurt may foreshadow unification of European bourses – at least for blue-chip stocks - under EMU¹¹. Of course, the growth of screen based trading and remote access means the location of an exchange is a less important matter than was hitherto the case.

Market commentators make the following suggestions regarding the consequences of EMU for equilibrium returns and risks on bonds and equities. It may be added that this is an area of particular uncertainty. Elimination of exchange rate risk for a wide group of investors (i.e. these in the euro area),

Note that in the past many EU governments discouraged issue of high-yield bonds of low credit quality.

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As is the case for bonds, a corollary of the common cycle and reduction of exchange rate risk is that the diversification benefits of investing in euro area equities will be reduced because of the single currency and single monetary policy (same interest rate, real exchange rate and hence likely cyclical synchronisation). This will increase the correlation of equity prices. It may thus become relatively more attractive, notably for investors from outside the Monetary Union to invest outside the euro area.

A market seeking to protect itself from competition, e.g. by use of the "regulated market" concept under ISD, or by retaining idiosyncratic accounting or operating procedures, may risk to lose business.

correction of budgetary difficulties, a reduction in perceptions of inflation risk, in some countries a decline in expected inflation per se and lower short-term rates in such countries has already tended to reduce long term interest rates. For similar reasons average long term interest rates could well remain lower in the longer term than in the absence of EMU. Perceived risk as well as return seems likely to decline; lower long rates should, in turn, stimulate economic growth, all other things being equal.

Meanwhile, corporate restructuring¹², especially if combined with higher growth, may raise the return on equities as well as the corporate cashflow from which contributions are generated. Companies desiring to issue to institutional investors¹³ in the integrated euro area equity markets (as opposed to selling shares largely to more passive domestic holders such as households and companies) may face greater pressure to act in the interests of investors, again tending to boost returns.

However, note that the removal of the exchange rate instrument and limitation of the use of automatic stabilisers of fiscal policy puts considerable weight on labour and product market flexibility as an instrument of economic adjustment in response to those shocks to which monetary policy cannot respond (because they only affect one country and not the whole euro area). This could lead to heightened macroeconomic volatility of individual countries¹⁴ in the case of such asymmetric shocks, to add to the increase in competitive pressures owing to price transparency, which could in turn increase risks on equity for companies dependent on the domestic economy. Property would perhaps be yet more severely affected. On the other hand, such an increase in risk would be less marked for companies whose business is well diversified across the euro area, across which growth will be much less volatile than in individual countries. Even for "domestic" firms' shares it will be partly diversifiable. It could also be attenuated by a lower debt/equity ratio, as could be achieved by flotation or new equity issues.

3 EMU and Banking

As emphasised in section 1, banking sectors were experiencing heightened competition even before EMU, owing to pressures arising from the Single Market and other types of deregulation, technology, growth of capital markets and institutional investment. Their profitability may come under increased pressure in the context of EMU (Dermine 1996, De Bandt 1998). There will be a direct reduction in income owing to the elimination of certain types of foreign exchange transactions and the costs of the changeover to EMU will bear temporarily on profitability. Such changeover costs are higher for commercial banks than for investment banks, given the complexity of their business (McCauley and White 1997). Banks will also face pressure owing to disintermediation from the securities markets,

Restructuring may link inter alia to enhanced price transparency, generating a desire to seek economies of scale across the larger market and heightened cross border competition.

One uncertain element in this context is the extent to which EU investors prove willing to abandon their traditional risk aversion and shift a significant proportion of their portfolios into equities, e.g. via equity mutual funds. There is also a question whether the restrictions on equity holdings of pension funds and life insurers that prevail in some countries will be rapidly abolished.

The pattern of rapid growth in some peripheral countries is a current example.

given the above-mentioned stimulus to the development of money, bond and equity markets. In integrated capital markets, companies of higher credit quality should find corporate bond issuance¹⁵ and commercial paper programmes increasingly attractive alternatives to bank borrowing. Meanwhile, institutional investors and corporate treasurers will find repos as well as commercial paper attractive alternative repositories of liquidity to traditional deposits. In other words, integrated capital markets will reduce banks' comparative advantage in provision of liquidity insurance to wholesale investors in the sense of Diamond and Dybvig (1993). Lower inflation per se in some countries will tend to reduce interest rate margins as the "endowment effect" of zero interest sight deposits tends to diminish. Competition between banks for deposits and loans will also tend to intensify in a Single Currency environment. This will be the case notably for financial business of large companies and institutions which face low switching costs and face a wide range of options in terms of banking as well as use of capital markets. Customer poaching in wholesale markets may undermine traditional "relationship banking".

On balance, owing to disintermediation and competition for wholesale deposits and loans, banks may find the credit quality of their loan books deteriorating while net interest margins will come under pressure. Meanwhile, non-interest income may become more difficult to earn. For besides loss of foreign exchange commissions, multi-national enterprises may rationalise the number of their banking links with the single currency, suggesting an advantage for banks with "global reach". It is widely suggested that there will also be enhanced competition in correspondent banking.

In the longer term, formerly insulated¹⁶ national retail banking markets may also become subject to intensified cross border competition, especially on the deposit side where owing to electronic/internet/telephone banking, ATMs and related changing tastes, customer relations and "branding" of banking products are becoming increasingly unimportant. Margins may narrow further as banks are driven to attract more costly wholesale finance (CDs, interbank deposits, bonds). Lending to smaller companies seems less likely to become integrated owing to the importance of idiosyncratic information about small firms. (Diamond 1984), although penetration of other types of retail lending such as consumer lending markets by non financial firms, finance companies etc., as well as heightened competition for mortgages is a clear threat. Ease of securitisation may heighten contestability in the latter fields. A risk in this context of pressure on margins and heightened competitiveness is that banks may charge higher spreads on their remaining "captive customers", namely small companies.

Note that retail banks confined to national markets may be more vulnerable to variations in credit risk owing to the increased incidence of asymmetric shocks, also owing to an environment where national

As noted by Vives (1991), barriers to entry in retail banking include branch proliferation, creation of ATM networks, switching costs to consumers and reputation effects for incumbents. To this one could add on the asset side a risk of adverse selection, as a new entrant gains all the loan customers the incumbents refuse to lend to owing to perceptions of credit risk.

In the US, junk bond issuance grew from near zero in the early 1980s to around \$200 bn now, equivalent to a quarter of bank lending to companies.

cartels in any industrial sector¹⁷ will be much harder to sustain owing to the transparency that EMU and the Single Market will induce. Such a tendency may be enhanced by the dominance of national rather than cross-border banking mergers in Europe in recent years. This links to an overall issue for banks in the context of EMU, namely that as noted by Canals (1997), "most banks are limited to their own country, and their ability to identify opportunities [world wide] is less than that of the capital markets" whose reach is already global and which will have the additional stimulus in EMU to operate cross border owing to a common currency and diversification opportunities.

There is an interesting paradox here, that whereas cross border diversification is natural for securities market investors, the banks face an evident danger of adverse selection in entering new foreign markets even with a common currency; the quality of information is at the root of this. Do banks risk becoming less diversified by investing only in domestic markets, given the risk of asymmetric shocks? It is worth noting that the origin of mortgage securitisation in the US was the need to reduce risk for local lenders from regional economic difficulties, that could be diversified considerably when mortgages are pooled across the whole country. Similar incentives for securitisation could operate in the future euro-zone, as a means for banks of reducing risks from their home country orientation. There will also be an incentive for cross-border mergers to smooth income and expand distribution possibilities (Dermine 1996), as well as use of credit derivatives and cross border lending for diversification (Dermine 1998).

Legal, fiscal and regulatory barriers as well as differences in consumer preferences may still imply some degree of segmentation¹⁸ among banking sectors, remains for some time but these barriers will themselves be put under pressure by the scope for cross border banking. Cartels and oligopolies among banks that formerly regulated competition and minimised "customer poaching" in national markets will also prove difficult to maintain.

As noted all of these banking developments will occur in the context of pre-existing symptoms of excess capacity, high cost-income ratios and rather low profitability in banking in a number of countries (McCauley and White 1997, Davis and Salo 1998). The number and scope of bank mergers, notably with an aim to reduce costs, may be expected to increase; a wave of domestic mergersmergers among banks is already underway (Salomon Smith Barney 1998), although as noted, cross-border mergers remain exceptional. On the other hand, the size of public and mutual banking sectors may slow this adjustment process, since these are less amenable to market pressure.

In the context of heightened competition in commercial banking activities, some large EU banks may seek to shift to a greater extent to investment banking activities such as underwriting, structured financing, trading and distribution – sectors that may benefit from the developments outlined in Section

As noted by Hellwig (1991), in the past banks may often have used their influence to induce borrowing customers to cartelise, thus protecting the loans made by the banks.

It is notable that the 1996 update to the original "Price Waterhouse" calculation of the benefits of 1992 found that the price dispersion in retail financial services across the EU had changed rather little.

3. However, they may meet tough competition from non-EU investment banks, which are experienced in credit risk evaluation for corporate bonds and securitisation in their home markets. Moreover, ¹⁹ in the medium term, competition in securities trading will intensify further owing to the integration of money, bond and equity markets. This may plausibly lead to a concentration of trading activity by players, particularly for "commoditised products" where idiosyncratic information is relatively unimportant and home country benefit consequently diminishes, notably as the investor base becomes pan-European. There may be less revenue from bond trading if credit risk perceptions are less volatile than exchange rate expectations. In the primary securities markets too, the dominance of underwriters based in the former domestic currency zone will cease to hold in what is now a subsection of the euro area, and corporate issuers tend to seek global (or at least euro-wide) distribution for their securities.

4 EMU and corporate finance

Concerning corporate governance, , owing to EMU institutional investors will seek to diversify much more widely across the Union (Section 2), they may also find themselves under enhanced competitive pressure (Section 5). Accordingly, they will seek to ensure that corporate management perform in line with "shareholder value", be it via development of hostile take-overs or direct shareholder pressure. Relationship banking is likely to weaken owing to this development combined with the above-mentioned increased price competition for individual banking products²⁰ (where relationship banking typically requires forms of cross-subsidy). This implies a reduction in willingness of banks to rescue firms (since they could not charge higher rates to compensate for the implicit insurance offered). Firms will consequently desire a lower debt equity ratio, giving an additional reason to issue equity (as well as the need for finance for corporate restructuring as noted above).

Equity issuance in turn implies a need to satisfy the expectations of institutional investors regarding dividends, information disclosure and comparability, minority protection and profitability. Development of a high-yield euro bond market (Cooper 1998) would help underpin a shift in modes of corporate governance by facilitating leveraged buyouts and take-overs as a means to discipline management. Companies, under pressure to maximise profits and also facing attractive prices in the context of pressures for institutions to diversify across the euro area, may begin to divest their cross-holdings thus eliminating a proportion of currently passive shareholders. Banks may equally seek to further reduce equity holdings, partly owing to capital adequacy considerations. These tendencies will of course be slow to operate, and family firms will be immune to them (except to the extent that IPOs become an attractive alternative to family control).

EMU in the area of investment banking will in effect "leverage" the Single Market in financial services, where the ISD granted the cross border passport to securities firms portfolio managers and investment advisors.

Technological advances which facilitate unbundling of financial product may also aid this development.

In the new European financial landscape, there will be a need for adequate adaptation of information to creditors and investors. Whereas banks rely on private information derived e.g. from ongoing credit relations, knowledge of the borrowers deposit history²¹ and use of transactions services, securities markets must rely on public information. In IMF (1997) it is argued that EMU will lower public information costs owing to the integration of markets for goods and services across the Union. This is because in such a situation there will for larger companies be less need for detailed knowledge of local market conditions; sectoral specialisation by equity or credit analysts across the Union would be sufficient for pricing of equity and securitised debt claims.

This argument cannot be pressed too far, not least given the issue of asymmetric shocks and differing fiscal situations as well as the continuing importance of local information for lender or shareholder evaluation of small and medium-sized companies. Cultural factors and durable differences in corporate governance (e.g. owing to family control) may also brake any overall tendency to greater transparency in the euro area. However, the argument does (in combination with other points made above) answer the potential criticism that a change in financial structure as is widely predicted in the literature on EMU would need not merely changes in the supply and demand for financial assets but also appropriate adaptation in respect of information.

5 EMU and institutional investors

Drawing on the sections above, we can distinguish a number of ways in which EMU may impact on growth of institutional investors such as pension funds, life insurers and mutual funds. First, if EMU indeed generates more growth and lower inflation in the ways outlined, this environment tends to encourage private saving, which will link to demand for institutional investment. Certainly, high growth and high saving tend to correlate (see Masson et al (1995)), although the relationship may be two-way²². Sustained lower inflation, would make it easier for defined benefit pension funds to finance inflation indexation, while pension benefits from defined contribution funds will also more readily retain their purchasing power (Dickinson 1992).

Further favourable effects of EMU per se on institutional growth link to the above-mentioned potential changes in financial-market conditions, that may improve the risk/return trade-off or allowing better asset/liability matching. As noted, such effects are subject to considerable uncertainty and hence conclusions should be drawn with caution. In this context, a case has been made in Section 2 that the risk and return on "domestic" bonds will tend to fall, and the risk and return on equity could increase, thus potentially widening out the frontier of efficient portfolios in the euro area. Meanwhile, the broader availability of corporate bonds and securitised loans will increase the range of instruments available in terms of credit risk. Both bonds and equities may benefit from market integration (especially by

It could not be ruled out that reduced uncertainty about asset returns as a consequence of less volatile inflation will encourage borrowing and higher consumption rather than saving.

Note that disintermediation may disturb these information sources.

increased liquidity and lower transactions costs) as noted above. Moreover, in a deeper securities market there may arise financial innovations tailored to institutions' needs such as average earnings-linked bonds. In combination, these may in turn lead to a better risk/return trade-off being attainable. Asset/liability matching for pension funds and life insurers will also be favoured. These should stimulate growth²³ of institutions and notably the funding of private pensions. (The latter is also favoured by demographic developments and the financing problems of social security pensions schemes (Davis 1998)).

It was noted that the enhanced degree of transparency and competition under EMU may entail a heightened phase of corporate restructuring, as companies perceive a need to adjust in order to maintain competitiveness in the new environment. EMU should also put downward pressure on wage settlements and may put an even greater premium on labour market flexibility. Such a context may enhance private pension systems by increasing precautionary saving by the household sector on the one hand and increasing corporate profitability (and hence both cash flow to contribute to pensions and the return on equity), on the other.

One of the most important effects of EMU on life insurers and private pension funds may be to ease costs of regulation. Institutions which are currently subject to currency matching restrictions (European Commission 1997) would no longer be subject to them across the euro area, thus enabling a more diversified set of investments to be held. Any retention of such limits, or regulations with a similar effect, e.g. enforcing purchase of domestic government bonds, would expose institutions to undue levels of idiosyncratic risk. n indirect effect of deregulation may be greater comparability between performance of asset managers - because they are investing in a common market and are no longer largely confined to their national markets - and hence greater contestability of markets for asset management and pressure to improve performance in terms of risk and return. Freedom for institutions formerly restricted to national boundaries to invest across the euro area may lead to broader deregulation, especially of equity holdings and international investment, e.g. because of pressures by sponsoring firms to reduce costs of their own pension provision in the context of higher price and cost transparency following EMU. Such pressure would work 'with the grain' of continued pressure for deregulation by the Commission.

6 Limits to financial integration under EMU

Even before EMU, progress in financial market integration in Europe was considerable. For example, owing to large stocks of debt, the use of large issues as benchmarks and heightened capital mobility, integration of EU bond markets was already considerable, as evidenced by co-movements of yields (Fell

Also, lower long term interest rates have already provided one-off windfall gains to institutions on their bond holdings, which will strengthen their financial resources. Such an effect will be compounded to the extent that equity holdings are also being effectively revalued (owing to a lower long term interest rate at which future dividends are discounted).

1996). Equity market integration in Europe was also marked (Frankel 1996). Indeed, it was suggested in Bishop (1996) that "(EU countries') systems are currently designed to be completely compatible with one exception - the currency. Once the currency is the same, they can rapidly become an integrated capital market". Moreover, as noted by Frankel (1996), "Monetary Union may...be a far more powerful force for liberalising European (equity) market structure than any Directive ever could". The thrust of the discussion above is similar to these comments. But it may be useful to conclude with a note of caution regarding the view that EMU alone will be sufficient to ensure a fully integrated financial market in the euro area, except in the very long run. In effect, there are some barriers to integration, which may entail quite durable differences in the costs of capital across the euro area.

Despite the pressures for liberalisation, portfolio regulations may still apply to certain institutional investors such as pension funds and insurance companies. Even if no longer operative across the euro area, they may still impinge on investment outside the area and on the holdings of assets with relatively volatile returns, such as equities and property. This may hinder integration of the markets concerned.

Market structures, notable for trading of equities, remains highly fragmented across the Union, and as noted by Steil (1996), there are grounds to suggest that the Investment Services Directive will not permit financial integration in this area to the extent desirable, owing for example to use of the "regulated markets" provisions for protectionist purposes. Lack of harmonised listing requirements is a related difficulty. However, as per Frankel's comment noted above, EMU should over the longer term unleash sufficient competition and pressure for liberalisation to overcome any remaining barriers.

Differences in bankruptcy law still remain at an EU level, although policy action is currently underway to seek to rectify this. Prevailing differences include bankruptcy law per se, sanctions against directors of failed businesses and restrictions on managers' freedom to alter capital structures (Fukao 1993). These may make the riskiness of firms dependent on the country they operate in, and hence hinder integration.

As noted by Gros (1998), taxation of financial instruments may lead to inequalities in the returns on financial assets independent of risk. This applies notably to cross-border holders of equities who may find it difficult to reclaim withholding taxes on dividends. Differences in corporate tax systems may also introduce distortions to rates of return, although as noted by Fukao (1993), they may be less distortionary at the low rates of inflation which should prevail in the euro area. And more generally, differences in government debt stocks in EMU will give rise to credit risk premia, which may carry over to private issuers in the country concerned, owing to their potential liability to taxation.

A further feature is differing traditions in financial markets. These go well beyond differences in balance sheets and types of instrument (fixed and variable rates, for example). Rather, it is the contrast between "bank dominated" financial sectors, with close relations between banks and firms based on sharing of information unavailable to other investors and relatively underdeveloped securities markets on the one

hand, and more market oriented systems based on "transactions banking" on the other. The coexistence of such systems could act to prevent full integration, especially for bank loans. Related variations in availability of public information could continue to segment securities markets. Such structural differences link to variations in ability to exert corporate control, which may be restricted by the type of managerial structure or even by direct limits on foreign shareholdings. However, the durability, at least of such direct restrictions, may be limited in the context of the Monetary Union, as noted above, also given the likely influence of growth in funded pension schemes (Davis 1998).

This last point links to the point that integration does not of course remove the importance of fundamentals such as asymmetric information as a background for asset pricing. This may particularly apply to bank loans for smaller firms, but also to equities in some degree. Even if information is available, cross border flows may be limited within the euro area due to differences in language, legal framework, contracts, accounting, etc. which may make information difficult to interpret, and hence equalisation of borrowing costs and costs of equity capital would be hindered.

Finally, integration of financial markets, it is worth noting, need not mean integration of markets for immobile assets. They may also become more volatile. Monetary Union, by adopting a Single Monetary Policy, will probably increase the overall correlation of economic cycles within the euro area. It may also be expected to increase spillovers between countries, leading to a similar result (since the exchange rate cannot vary to provide a buffer). On the other hand, the incidence of the transmission mechanism will vary as long as financial structures and economic behaviour are not identical, and asymmetric shocks cannot be ruled out. As argued by Lindsey (1996), US evidence suggests that within a monetary union, asymmetric shocks may bear heavily on markets for immobile assets (in particular, affecting real estate prices), depending on the degree of mobility of other factors of production.

Conclusion

EMU is predicted to have wide ranging impacts on euro area financial markets and institutions. While the precise direction and time pattern of such effects is uncertain, it seems clear that the overall consequence over the longer term will be increased financial integration in all fields. In addition to having direct effects, EMU will accentuate the leverage of certain underlying forces for change, notably deregulation, disintermediation, institutionalisation and internationalisation of financial markets. These developments will incidentally also tend to move the European financial system closer to the US in terms of the importance of capital markets, institutional investment and publicly-available information regarding issuers and borrowers, as opposed to the European tradition of banking intermediation based on private information and close banking relationships. There will nonetheless be some barriers to these processes, which may delay complete integration in all but the long term.

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