

## Financial Markets in the Euro Area: Realising the Full Benefits of Integration†

Klaus Regling and Max Watson \*

*European Commission and Wolfson College*

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### Abstract

This paper explores the role of financial integration in supporting economic adjustment and convergence under monetary union. It discusses experience since the inception of EMU, based in part on research with a Dynamic Stochastic General Equilibrium (DSGE) model of the euro area. It finds that financial market developments, including declines in risk premia and increases in financial integration, have played a larger role than anticipated when EMU was created. Drawing on this experience, it underscores the importance of well-designed macroeconomic and structural policies in ensuring that the full potential gains of financial integration are tapped, and it links these lessons to the opportunities and challenges facing Cyprus in the immediate aftermath of its adoption of the euro.

**Keywords:** Euro Area, Monetary Union, EMU, Financial Integration, Financial Liberalisation, Financial Services Action Plan.

### 1. Introduction

Membership of the euro area marks the beginning of a new phase in the economic and financial history of Cyprus. It has joined a monetary union that is now nearly a decade old, and which has already become established as a pole of stability in the international economy. During this first decade of EMU, valuable lessons have emerged in terms of economic policy management. Cyprus stands to gain from that experience as it crafts

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\* Klaus Regling is Director-General of Economic and Financial Affairs at the European Commission. Max Watson is a Fellow of Wolfson College, Oxford, and was until recently an economic adviser at the Commission.

policies that will allow it to benefit fully from this new monetary environment.

One key area in this regard is the role of financial markets under EMU. The literature on optimal currency areas focuses mainly on mechanisms in the real economy, such as the synchronisation of business cycles and the capacity of real sector markets to adjust smoothly to asymmetric shocks. Much less has been written about the role of financial integration in monetary unions. Yet the early years of EMU underscore the crucial role that these markets can play in terms of growth, stabilisation and adjustment to shocks. This article reports on research at the European Commission designed to probe these aspects of life under EMU.

The core focus of this paper is on the role of financial markets in the economic adjustment process under EMU. Financial markets have played a more important role than expected in terms of shocks and of transmission mechanisms; but their great potential benefits for economic performance remain to be fully exploited. The growing integration of financial markets can play a particularly important role under monetary union in that it helps economic agents to weather adjustment stresses through risk-sharing and income- and consumption-smoothing. It thus “insures” economies against country-specific shocks and contributes to stabilizing them (which also encourages greater economic specialization). This role is especially valuable for economies in the euro area, since other conventional cross-country stabilization mechanisms – such as labour mobility or fiscal transfers – play a less prominent role. The financial sector can also help to reallocate resources smoothly after shocks, and dampen the effect of localized credit crunches. And integrated financial markets allow catching-up economies to tap external savings on a sizable scale, which has indeed been a key feature of experience under the euro and in Member States converging towards it.

The emergence of gains from financial integration, however, is far from automatic. The United States has been a monetary union for some two centuries, but full financial integration at the retail level is in many ways a product of the past few decades. Economies in the euro area stand to benefit greatly from the accelerated process of integration that now seems to be underway, particularly since other adjustment mechanisms to asymmetric shocks, as noted above, are much less prominent than in the United States. Indeed, the Financial Services Action Plan testifies to the strong policy resolve throughout the EU in this regard.

Achieving ever deeper financial integration, though, is not enough. Recent economic history underscores that well-designed macro- and microeconomic policies are crucial if such integration is to yield its full benefits. This lesson

has been most striking, perhaps, in the case of emerging market economies, which have specific vulnerabilities. But in all economies, growing and adaptive financial markets make a positive contribution only if policies are right. Financial markets enhance the gains under favourable policy frameworks; but in other circumstances they can serve rather to amplify distortions and policy weaknesses.

Indeed, the interaction between economic policies and financial markets offers continually evolving lessons. In this sense, policy-makers everywhere are engaged in a learning process as they seek to influence expectations and embed stability in innovative global financial markets. This is true in terms of tapping the gains of market innovation, and it is true also in safeguarding financial stability without engendering moral hazard.

So policy-makers in the euro area face challenges at various levels in realising the full benefits of financial integration:

- The first is the challenge of prudent policy management in the steady state of monetary union: assuring the pre-conditions for financial markets to help deliver sound resource allocation and economic stability.
- The second is a challenge specific to catching-up economies: learning the lessons from recent experience as countries navigate the rapids of nominal and real convergence.
- Last but not least, there is an implementation challenge: putting in place forcefully the elements of the EU's Financial Services Action Plan, and complementing it with additional actions to address remaining barriers to full integration.

Benefiting from the experience of existing members of the euro area, Cyprus is well-placed to avoid the pitfalls and maximize the benefits of this process.

## **2. Analysing the impact of financial market changes**

The impact of financial market developments on economic adjustment in the euro area has been the subject of an extensive research programme in the European Commission, based partly on the use of a two-country, three-sector DSGE model of the euro area. Among the key conclusions from this review are the following:

- Growth and inflation differences and current account trends in the euro area have been driven to a notable extent by capital flows and asset

market movements, including during the processes of nominal and real convergence: savings have flowed across borders in response to lower risk premia and higher returns, and these movements have substantially influenced competitiveness.

- Asset markets have, at times, played an important role in amplifying real interest rate effects through changes in wealth: housing prices, in particular, have tended to boom during periods of low real interest rates, and conversely.
- Credit and asset price booms have had sizeable but transient effects on budgets, since asset price and consumption booms were particularly rich in terms of tax yield: the magnitude and reversibility of these effects has not always been fully internalized by policy-makers when they assessed underlying fiscal positions.
- Financial markets are still far from playing their full role in risk-sharing and income- and consumption-smoothing. Among other elements, there appears to be great unexploited scope for mortgage market integration to dampen local real estate market cycles.

A few examples illustrate well the important role that declines in risk premia and financial integration (driven in part by past national programmes of financial liberalization) have played in influencing macroeconomic developments in the euro area. Among other things, financial factors help to explain the protracted divergences in inflation rates, cyclical positions and current account balances that have been a feature of the early years of the euro area. Six case studies of Member State experience in the 2006 EU Economy Review highlighted different kinds of “shocks” that affected growth, inflation and current account balances, during the early years of monetary union based on simulations with the DSGE model of the euro area. The Member States selected for these studies were Germany, Spain, Ireland, Italy, the Netherlands, and Portugal, since these experienced particularly striking divergences in growth, inflation and current account balances.

In most of these cases, financial factors such as risk premia declines and higher levels of domestic credit turn out to have played a major role in explaining these macroeconomic trends – together, of course with real sector influences such as the after-effects of German unification, changes in TFP growth in the traded and non-traded goods sectors, and migration flows.

Specifically, a reduction in the exchange rate premium was an important influence on economic developments in a majority of these cases, and especially in Spain, Italy, and Portugal. Changes in credit constraints

played a significant role in four of the cases. In addition, financial market factors, together with real sector effects such as migration, were a key influence on housing demand – and this played a major role in all cases. Finally, when we consider the channels through which these factors operated, we find that house prices played a significant role, especially in Italy and the Netherlands. Based on simulations with the DSGE model referred to above, the financial shocks set out in the Table below were among the key drivers of persistent imbalances within the euro area.

TABLE 1  
*Financial market and asset price influences on growth, inflation  
and current account balances (1995-2005)*

	Germany	Spain	Ireland	Italy	Netherlands	Portugal
Decline In Exchange Risk Premium <sup>1</sup>	0	90	60	90	40	140
Easier Credit Constraints <sup>2</sup>	-2	24	21	7	22	25
Major Impact of Housing Demand	Yes	Yes	Yes	Yes	Yes	Yes
House Prices: Major Role in Transmission				Yes	Yes	

Notes: <sup>1</sup> Exchange risk premium improvement (+) versus Germany: model values for 1995-8, in basis points.

<sup>2</sup> Rise (+) in household debt ratio to GDP 1999-2005, in percentage points.

Source: 2006 EU Economy Review.

Experience in the early years of the euro thus highlights the role of the financial sector as a source and transmission channel of country-specific developments – in this case mainly through benign shocks in the form of lower risk premia and easier borrowing constraints.

It is important to reflect how far this experience is a guide to the future. After all, many of the initial shocks that predated or followed the creation of the euro are now tapering off, including the impact of nominal convergence in economies that had experienced high risk premia before the strengthening of macroeconomic policies and elimination of nominal exchange rate fluctuations.

In fact, there are at least two reasons to think that financial market influences on country developments in growth, inflation and current accounts may remain important:

- First, some countries (such as Ireland and Spain) have until recently been experiencing strong asset market booms. It remains to be seen

how the unwinding of booms will ultimately affect demands in these economies – although it is clear that housing demand in these cases has been responding to some permanent real sector influences, such as migration and rising income levels.

- Second, as in the early years of monetary union, the euro will continue to protect its members from some financial shocks through the elimination of intra-euro area nominal exchange rate fluctuations; but other financial shocks can still affect members differentially. Indeed, the euro area is already experiencing a new wave of shocks, this time from conditions in global markets in the wake of the sub-prime crisis.

These considerations underscore the case for increasing the efficiency with which real sector markets adjust, and for ensuring prudent fiscal policies to enhance economic resilience. But they also highlight the importance of realising the full benefits of financial integration in terms of its stabilizing role in the economy.

### **3. The challenges of nominal and real convergence**

A further feature of financial market experience since the inception of EMU concerns the processes of nominal and real convergence. It is particularly important to analyse this experience carefully, so that future euro area members can benefit from it.

As we look back on the track record of euro area members that have been experiencing nominal and real convergence, several points deserve attention. The first point is the importance of using the opportunity of nominal convergence booms, when economic conditions are particularly propitious, as a period to achieve fiscal consolidation. During these booms, fiscal consolidation will also help moderate the demand pressures on the economy of credit and asset price booms that result from lower interest rates. This fiscal strategy has the added advantage of ensuring budgetary room for maneuver in the future - which may be particularly valuable when a strong nominal convergence boom comes to an end.

In addition, work with the Commission's DSGE model has shed some light on the role of financial factors in real convergence experience in euro area members. While the DSGE modelling approach is not designed to capture long-run convergence effects, it does highlight differences in medium-term adjustment patterns, including through the impact of sectoral productivity shocks and through the relative role of financial and real shocks in stimulating demand. An example is the large and persistent current account deficit in Spain, and the associated loss of competitiveness of the

economy, during its catching-up process. Model simulations trace the sources of this imbalance to a combination of financial shocks (such as falling risk premia and an easing of credit constraints) and real sector shocks (such as migration and labour market reforms).

An enlightening contrast is between Ireland and Portugal, and this was explored in the 2006 EU Economy Review. In the former case, successful real convergence was driven initially by very strong productivity growth in tradeables, in a setting of fiscal and wage restraint. The latter, by contrast, initially experienced a powerful consumption and housing boom, driven in large part by financial integration; but this was not accompanied by strong productivity growth. Meanwhile, the authorities did not profit from these good times to consolidate the public finances – indeed there was an increase in the public debt. The boom in Portugal, as a consequence, did not lead to sustained real convergence: it was followed by a petering-out of growth.

Since the 2006 EU Economy Review was published, research work has continued in the Commission on trying to understand better the opportunities and challenges that arise during real convergence in current and prospective members of the euro area. This work has focused on the external imbalances observed in converging economies, and the price rises and real appreciation that accompany them. The research, some main lines of which are reported in Szekely and Watson (2007), sheds light on the risks associated with strong credit booms and large current account deficits during periods of financial integration.

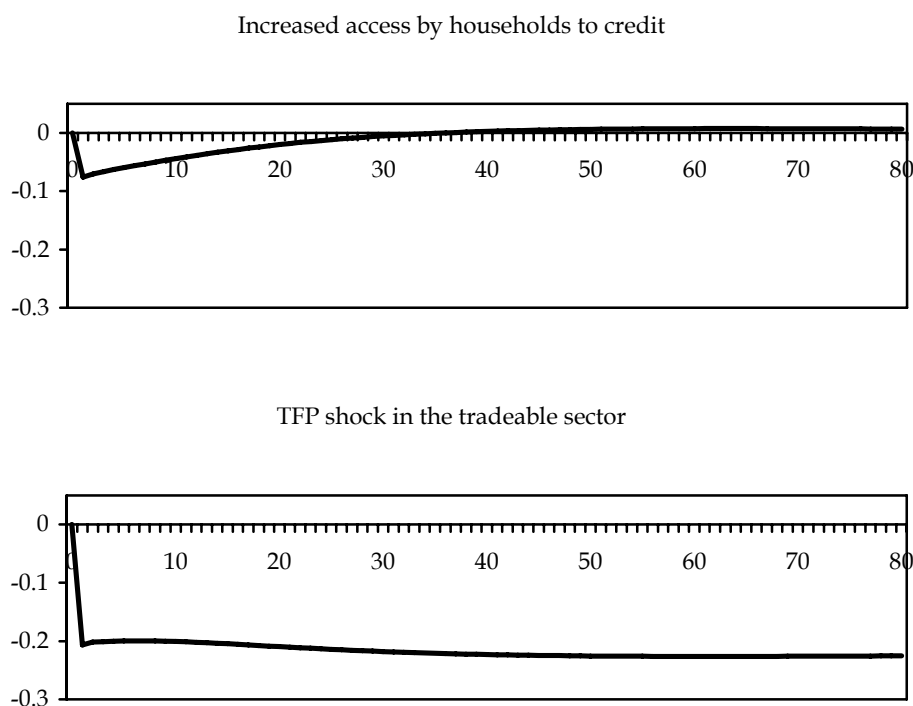
This research posits, for illustrative purposes, two alternative types of (stylised) credit boom, both of which take place against a backdrop of falling risk premia and growing financial integration in a converging EU economy:

- The first is caused by a new availability of mortgage collateral on which households can borrow. Prices rise, due to demand pressures on the non-traded goods sector; the real exchange rate appreciates; the current account deficit widens as savings are imported; credit and asset prices are buoyant; and growth accelerates.
- The second accompanies a favourable shock to productivity in traded goods. Again, prices rise due to relative productivity differentials (the Balassa-Samuelson effect); the real exchange rate appreciates; the current account deficit widens as savings are imported; credit and asset prices are buoyant; and growth accelerates.

In other words, it is extremely hard, initially, to tell the two booms apart (Figure 1). The potential adjustment challenge is very different at the end of these two booms, however. In the first case, there may be a large real effective depreciation to be achieved, either by nominal exchange rate adjustment or, under the euro, by relative price changes, since the net foreign liabilities that fed the mortgage boom need to be serviced out of income. In the second case, by contrast, the real effective exchange rate ends up in equilibrium, on the back of sustained productivity gains.

FIGURE 1

*Illustrative real exchange rate paths in a catching-up economy*



*Note:* - = Appreciation

*Source:* Szekely and Watson (2007).

The key lesson from this experience is that economies undergoing real convergence stand to benefit greatly from the increased savings flows allowed by financial integration, but only if policies are well-designed. Given the speed with which financial integration takes place, structural and institutional policy environments are particularly important in influencing patterns of resource allocation. There will be advantages if

resources flow strongly to the traded goods sector, and other productive activities: this can underpin productivity growth, and may tend to moderate cycles in competitiveness and the current account. Strong productivity growth also eases any corrections in competitiveness under monetary union, since it lessens the burden that has to be borne by nominal wage restraint. The public sector needs to support this process through good education and investment – but, as during nominal convergence booms, it also needs to reduce its use of savings as imbalances in the private sector widen.

During real convergence, banking supervisors also need to be vigilant. As well as asset allocation, including in areas such as real estate, it can be important to monitor cross-border funding patterns – such as possible over-reliance on short-term cross-border bank funding, which could give rise to fragility risks. Under monetary union, economies do not experience “external” financing constraints in the normal sense of the term; but patterns of current account financing, and the counterparts to current account imbalances, still provide valuable information to policy-makers about the sustainability of savings flows.

The circumstances of future euro area members, of course, vary greatly – and differ in many respects from their predecessors on the road to euro adoption. Among other factors, they typically lifted capital controls earlier than many existing members, and in some cases they have achieved already a substantial drop in risk premia. Some already have very sound fiscal positions. Financial sector catch-up is well underway, often from a modest starting-point.

So the relevance of past experience with nominal and real convergence will need to be interpreted carefully, on a case-by-case basis. Nonetheless, it remains a valuable policy resource for future euro area members to draw on, as they benefit from an expanded pool of savings in an open capital account setting – and also when their monetary autonomy either is, or soon will be, limited. It will be crucial that they achieve strong productivity gains to underpin income growth and to facilitate adjustment, so that the fruits of financial integration are reflected in sustained real convergence.

#### **4. Relevance to Cyprus**

For all members of the euro area, including those still experiencing nominal and real convergence, the early years of monetary union highlight a number of policy priorities that are crucial in order to realise the full benefits of financial integration. It might be thought that policy-makers

and private sector agents in Cyprus, having known the discipline of an exchange rate peg for decades, and having executed a smooth convergence process, have little new to internalise. Such an interpretation would be mistaken, however.

The lessons that relate to fiscal policy, the functioning of real sector markets, and policy frameworks that govern the financial sector, are still very relevant in Cyprus. The experience of the Netherlands makes clear that 30 years of de facto monetary union does not exempt banks, real sector agents, or policy-makers from errors that pertain in part to the nature of adjustment under EMU. In particular, credit growth, asset price increases, wage developments and fiscal policy have the potential to interact in a pro-cyclical manner. However, the long experience of living with a peg no doubt helped economic actors in the Netherlands to correct problems quickly, and Cyprus too has a strong proven track record in this respect.

In terms of fiscal policy, financial integration has reduced the costs of borrowing, and the end of the peg regime will de facto increase the ease with which deficits can be financed by the public and private sector. Risk premia have fallen considerably, though they had far less distance to fall than in some other EU Member States. This puts the onus even more strongly on national policy-makers to exercise fiscal discipline within the broad framework of the Stability and Growth Pact. Strong national fiscal institutions can play an important role also in buttressing fiscal discipline, and the nature of these has been explored in recent reports on Public Finances in EMU by the European Commission.

Notably, experience in the early years of the euro has highlighted the importance of achieving adequate fiscal consolidation in “good times,” a priority that is underscored in the reformed Stability and Growth Pact. Here, fiscal policy-makers need to pay careful attention to the impact of country-specific booms under monetary union. These call for particular prudence at times when asset prices are rising, the composition of GDP is tax-rich, and estimates of potential output may be revised up prematurely. All these factors could contribute to overestimating underlying budget balances during boom periods, and thus could lead to pro-cyclical fiscal behaviour. The recent period of strong cyclical expansion in Cyprus, and the quite strong financial sector growth, make these lessons of experience worth noting.

This issue of fiscal analysis during credit and asset price booms is far from unique to the euro area; but the experience of the past ten years underscores that it is very important in this context. In particular, it is a mechanism through which there could be a mutually-reinforcing interaction between financial market and fiscal pro-cyclicity. In other

words, policy and market factors could amplify adjustment cycles in the economy, leading to unduly protracted swings in asset prices, output, and inflation. This heightens the case for fiscal vigilance in “good times,” and it also makes it important to be sure that private sector agents fully understand the temporary versus permanent nature of some of the boom effects – including how far they are accompanied by productivity gains. The public sector, meanwhile, needs to avoid triggering distortions through the impact of its wage-setting policies – which have indeed been marked by restraint during the nominal convergence process. This was a key lesson from the experience in Portugal, among other cases.

The euro area environment also places special responsibility on policy makers to ensure the efficient working of product and labour markets, and thus to create an environment in which the full benefits of financial integration can be tapped. This is important to foster growth, but the issue of adjustment to shocks is also of crucial importance. The more efficiently product and labour markets function, the less country-specific adjustment challenges, including national real interest rate effects, will result in any negative impact. In this regard, dialogue with the social partners, who share the common background of life with firm monetary discipline, can be a valuable element.

In particular, efficient real sector adjustment is the key to swift competitiveness adjustments after country-specific shocks. Here, productivity growth will also be key, and in Cyprus this has rightly been the subject of renewed attention. The economy enjoys a high income level compared with most other recently-acceded Member States, but policy-makers need to put a strong emphasis on measures to enhance productivity both for real convergence and for adjustment reasons.

Last but not least, financial sector policies need to drive integration forward, while ensuring that stability is not jeopardized. Indeed, policy-makers in Cyprus and throughout the euro area have a special interest in proceeding rapidly with implementation of the EU’s Financial Services Action Plan, given the adjustment benefits that integration can yield under monetary union. All euro area members stand to gain particularly strongly from measures to integrate the workings of mortgage markets, clearing and settlement arrangements, and deposit insurance – and vigilant competition policy at the EU level can help ensure that efficiency gains are passed on to consumers.

Growing financial integration has implications for supervision. Here, Cyprus has a strong track record. It is important that market participants and their supervisors internalise the continuing impact of financial integration under EMU, and take an appropriate medium-term view of the

opportunities and risks that may accompany extended swings in output. There is a particular need for close prudential surveillance during extended country-specific booms, in order to counter excessive risk-taking that could impair resilience during downswings. The risk of pro-cyclical tendencies in supervision needs to be carefully guarded against. And, throughout the EU, cross-border supervision and crisis management will need to keep pace with continuing market integration. As always, integrated and innovative financial markets tend to amplify both the opportunities and the challenges for policy-makers.

#### BOX 1

##### *The role of financial markets in risk-sharing and consumption smoothing*

Financial markets can be compared with other institutional channels as a route for risk sharing. In particular, it is interesting to explore their significance relative to the more familiar route of the fiscal system, which shares risks through taxes and transfers. In the United States, the role of private risk sharing has been compared to that of fiscal transfers, and according to some estimates private risk sharing has an even greater impact. According to Asdrubali, Sørensen and Yosha (1996), 39 percent of shocks to gross state product are smoothed by capital markets and 23 percent are smoothed by credit markets. This compares with 13 percent that are smoothed by the federal government. The remaining 25 percent are not smoothed. Thus the role of private risk sharing (and of financial markets more generally) in the United States is large relative to that of fiscal transfers.

As regards the euro area, at this stage it is difficult to assess the quantitative importance of this type of adjustment, in particular when comparing it with other types of adjustment processes. Available estimates for the period before adoption of the euro suggest that risk-sharing through financial markets may have smoothed at least 10 percent of shocks among EU Member States, but this proportion is considered to have been rising strongly since the late 1990s. As the EU budget is much smaller than the federal budget in the United States, and does not respond to cyclical swings, it is logical to assume that risk-sharing through financial asset holdings could play by far the predominant role as financial market integration continues. More broadly, it is clear that risk-sharing and resource reallocation through financial markets can play a critically important role in a monetary union where labour mobility is low and there is not a large federal budget.

Finally, there is the stabilizing role of financial integration. Financial sector integration can greatly enhance the adjustment process under monetary union. The financial sector can help reallocate resources smoothly after shocks; dampen the effect of local credit crunches; and smooth incomes and consumption through the use of financial instruments and through cross-border holdings of financial assets. Firms and households can benefit

from growing integration through diversification of their balance sheets and smoothing of their incomes. The government will have access to cheaper funding for the public debt. More generally, a widely integrated and diversified financial sector should increase resilience at times of economic stress. Cyprus, as a small and open economy that is quite specialized in its output, has much to gain here.

Experience in the United States underscores the benefits of financial integration for the adjustment process. When specific shocks affect output in a U.S. state, almost two-fifths of the impact on incomes of firms and households is diversified away by cross-state asset holdings (Box 1). In the European Union, the equivalent effect has been estimated at only 10 percent – although current research suggests it is on a rising trend. Also, as mortgage markets have become more integrated in the United States in recent years, some estimates suggest that this may have halved the scale of “credit crunches” in local real estate cycles.

Catalysing stronger stabilisation benefits through financial integration is particularly important for the euro area, since other cross-country stabilization mechanisms are less prominent. Labour mobility is lower than in the United States; and there are no sizable fiscal transfers to smooth inter-country shocks. Even in the United States, some estimates suggest that financial integration plays a larger role than the Federal Government in smoothing income fluctuations following economic shocks. This contribution of financial markets is of thus of key importance in the steady state of monetary union.

## **5. Conclusion**

Where financial markets are concerned, in sum, the messages of the euro’s first decade are clear. Financial integration can bring important gains in terms of supporting growth, adjustment, and convergence in the euro area – and allowing new members to share fully in its benefits. But well-designed policies are needed to seize these opportunities. This paper has explored how new research on the euro area adds to our knowledge of these issues, and has also highlighted aspects that may be particularly relevant in Cyprus today.

In these respects, the fiscal, structural, and financial policies of the EU provide the essential framework for all of its members as they seek to realize fully the gains of financial integration. In all these policy domains, there is continuing potential for a positive and constructive interplay between policy initiatives at the EU-27 level and the frameworks needed for a well-functioning monetary union. The Stability and Growth Pact, the

Lisbon Strategy, and the Financial Services Action Plan are all EU-wide initiatives. They are, however, even more important for members of the monetary union in order for its full gains are to be realised. For those that already participate in monetary union, the case for pressing forward strongly in implementing those policies is all the more compelling.

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