Both of these papers provide a complete and up-to-date assessment of the literature on the effects of financial integration, with special reference to the Economic and Monetary Union (EMU). Each of the two papers is composed of two parts. First, it describes the evolution of various markets upon the inception of EMU and concomitant reforms (FSAP, TARGET, etc.), drawing extensively on the recent body of empirical work that has analyzed them. Second, it produces some novel results on the effects of EMU on financial integration, and of both of them on the real economy of the euro area. In these comments I will focus on the latter.

The first novel result – in the study by Kalemli-Ozcan et al. – concerns the relationship between EMU and the integration of the credit market. Previous work has documented that EMU has been associated with greater integration in money, bond and stock markets, though to different extents. But we know much less about the integration of banks, largely because the inherent heterogeneity of bank loans makes it hard to assess international integration of the credit market. Kalemli-Ozcan et al. overcome this problem by measuring integration of banks via BIS data on banks’ bilateral cross-border holdings, and exploit the panel structure of these data to control for fixed country and country-pair effects. Interestingly, they find that this measure of bank integration is positively and significantly correlated not only with EMU, but also with the financial reforms associated with EMU. To my knowledge, this is the first study that documents a distinct effect of these reforms on financial integration, controlling for the effect of EMU itself.

The second set of novel results concerns the effect of EMU on risk sharing. Here we enter realm of the “real effects” of EMU and financial integration, with the latter being treated as an explanatory variable and no longer as the dependent variable. Most of the existing studies in this area have focused on “growth dividend” of EMU via financial integration and financial development. Much less effort has been directed to explore if EMU is also associated improved risk sharing, as the theory would predict. But both Lane and Kalemli-Ozcan et al. probe further into the macroeconomic evidence on this score.

They do so by using two variants of the same approach, based on the idea that in a financially integrated area the differences in consumption growth among pairs of countries should not be related to the respective difference in income growth. That is, if one estimates the regression

$$\Delta \log c_{it} - \Delta \log c_{jt} = \phi_{ij} + \delta_{t} + \beta(\Delta \log y_{it} - \Delta \log y_{jt})$$

for financially integrated countries, the coefficient $\beta$ should not be significantly different from zero. Previous studies, which are replicated in Lane’s paper, report that indeed the estimate of $\beta$ has decreased over time, and more so for EMU.
country pairs than for non-EMU ones. However, Lane also documents that this result is not stable over time, since it does not hold if the sample is extended to 2006. Kalemli-Ozcan et al. instead investigate the relationship between $\beta$ and their measure of banking integration, rather than EMU per se, and find that the estimate of $\beta$ has decreased more for country pairs with more cross-border bank assets. However, they find the opposite for liabilities (“desmoothing”).

A possible reading of this evidence is that indeed there is no detectable effect of EMU on risk sharing in macroeconomic data, which is consistent with the findings obtained by Jappelli and Pistaferri (2008) on microeconomic data for Italy. This is not contradicted by Kalemli-Ozcan et al.’s evidence of an effect of financial integration on risk sharing in a larger set of 20 countries, because this effect is not specifically connected with EMU. The “desmoothing effect” of cross-border liabilities may reflect episodes of “binge borrowing” arising from financial liberalization (including low interest rates upon entry in EMU: Spain, Ireland, etc.). Probably it is too early to expect detectable EMU-induced increases in risk sharing: the time series available since the inception of EMU are still quite short, and the short-term effects of such a large regime change are likely to cloud steady-state regularities.

Moreover, if indeed the greater financial integration induced by EMU truly increased international risk-sharing, it is likely to have done so not just among Euro-area countries but also between the Euro area as a whole and other countries, chiefly the United States. If so, perhaps the current financial crisis can be read as an instance of massive risk sharing, with Europe sharing the burden of the large negative shock arising in the United States. Of course, this is not a shock as normally defined in our models (that is, “news” about productivity or tastes), but a shock arising from a massive malfunctioning of markets. This suggests that better risk sharing may also mean sharing more in such malfunctioning. This point is emphasized by Lane, who points out that by facilitating financial integration, EMU may have strengthened “contagion”: perhaps, had they been less internationally integrated, European banks would have bought fewer toxic asset-backed securities. But quite rightly Lane also highlights that EMU may also have had a powerful stabilizing influence once the financial crisis erupted and propagated to Europe, insofar as it prevented it from turning into a currency crisis as well.

This stabilizing role that EMU has played on the monetary front in the current crisis must however not make us oblivious to the fact that the crisis has also painfully exposed the unfinished state of the institutions of EU financial markets. This has been evident, for instance, in the uncoordinated policy response to bank solvency problems. Indeed, the crisis has tarnished two of the main “success stories” of European financial integration: a vibrant euro-area corporate bond market, and the emergence of a few large pan-European banks. The corporate bond market has been dramatically hit in terms of trading volumes, liquidity and issuance, while concerns have arisen about the solvency of the large pan-European banks that have played an important role in integrating euro-area financial markets. This suggests that in the current uneasy “middle station” the
gains made by Europe on the front of greater financial integration are still at risk. In particular, monetary union badly needs to be complemented by coordinated supervision and crisis management of large pan-European banks. While this raises politically thorny regulatory and fiscal issues, it is a need that can no longer be neglected if financial integration is to be put on a firmer footing for the future. Hopefully the severity of the current crisis has convinced European policy-makers to face up to this challenge as soon as possible.
COMMENT

BY AXEL A. WEBER, PRESIDENT OF THE DEUTSCHE BUNDESBANK

I INTRODUCTION

The euro at ten can justifiably be called a success story, and increasing financial integration in the euro area is a striking example of this. I am therefore pleased to comment on the two very interesting and insightful papers presented by Philip Lane and by Sebnem Kalemli-Ozcan, Simone Manganelli, Elias Papaioannou and José Luis Peydró.

Professor Pagano has already given some helpful and meaningful comments on the papers. In my comments, I shall first concentrate on Philip’s reflections on EMU and financial integration and add to them some findings for Germany. Second, I shall discuss some issues raised by Sebnem Kalemli-Ozcan et al. in their paper on the role of the monetary union for financial integration and risk sharing.

2 PHILIP LANE

Philip Lane’s paper builds on his extensive research on EMU and financial integration, and presents us with a comprehensive and well structured overview of recent research and market developments. The paper provides broadly based evidence that the first ten years of EMU have seen a remarkable increase in financial integration, even if the extent of convergence varies across different sectors. Philip notes that there are still many barriers to full integration, but that initiatives, such as SEPA, Target 2 and T2S should remove some of these obstacles. This is why the Eurosystem is actively supporting these projects. Philip then challenges a number of general predictions about the macroeconomic impact of financial integration on the financial development of euro-area countries, international risk sharing and net capital movements.

3 HOME BIAS

To complement Philip’s findings on financial integration in bond and equity markets, I would like to focus on one issue of great importance: To what extent has investors’ home bias changed over the past decade? Using German data it can be shown nicely, first, that home bias has declined and second, that EMU plays a prominent role in how the portfolios of German investors are diversified internationally.

To start with some theory, Solnik’s (1974) international Capital Asset Pricing Model predicts – given there are no transaction costs – that the regional
diversification of a securities portfolio should be the same in all countries worldwide and it should copy the structure of the global portfolio.

In reality, the portfolios in all countries show divergences from this “benchmark portfolio” in favour of domestic securities; this “home bias” can be explained by transaction costs and imperfect information, in particular, concerning foreign securities.

In the euro area, transaction costs should have declined significantly with the abolition of exchange rate movements within the European Monetary Union and further initiatives for harmonising the financial market institutions by the Financial Services Action Plan (FSAP). At the same time, information on foreign investments can be expected to have improved within EMU. To see whether these predictions are true, I shall now investigate the regional structure of the German international investment position. German investors’ preference for domestic securities is calculated by comparing the share of actual foreign assets held by German investors with the percentage of foreign assets in the global benchmark portfolio.¹

Against this backdrop, home bias on the assets side indicates whether foreign securities are less intensively (and domestic securities are more strongly) represented in the national portfolio compared with the benchmark. A home bias would reach the value 100 if investors were to take exclusively domestic securities into their portfolios. If the benchmark portfolio is perfectly copied, the home bias would carry the value 0. A negative number of the home bias indicates that domestic investors invest more heavily in the securities of a particular country or group of countries than is indicated by the global benchmark portfolio.

The calculations yield some interesting results: First, since the start of EMU, the home bias of German investors in equities has been tending to decline. While, in 1998, German investors invested 76% of their stock in domestic equities, this share had diminished to 58% at the end of 2007. By comparison, the percentage of German equities in the global benchmark portfolio was 6% in both years. In our calculations, this yields a decline in the home bias from 75% to 55% of the benchmark.

Second, German investors have developed a strong liking for stocks of EMU partner countries – as the corresponding negative home bias demonstrates. In the beginning, the German “EMU bias” was only small but it has grown to a notable amount during the past decade. At the end of 2007, the share of EMU equity securities in German investors’ portfolio was 51% higher than the corresponding portion in the global benchmark portfolio.

Third, with regard to extra-EMU investment, German home bias was also reduced, albeit slightly.

¹ The calculations are similar to those carried out by De Santis, R. A. and Gérard, B. (2006).
These results are not specific to German portfolios. Investors from other EMU countries also display a bias in favour of German bonds. This is reflected in the disproportionately large representation of German bonds in the portfolios of the other EMU member states.

Source: Bundesbank calculations.
Note: Equity portfolios include investment certificates. The number indicates the underrepresentation of foreign securities in German portfolios as a percentage of their share in the benchmark portfolio. A negative number indicates an overrepresentation.

These results are not specific to German portfolios. Investors from other EMU countries also display a bias in favour of German bonds. This is reflected in the disproportionately large representation of German bonds in the portfolios of the other EMU member states.

Source: Bundesbank calculations.
Note: Bond portfolios include medium to long-term debt securities. The number indicates the underrepresentation of foreign securities in German portfolios as a percentage of their share in the benchmark portfolio. A negative number indicates an overrepresentation.
To put it in a nutshell, the data on home bias and “EMU bias” with regard to German cross-border investment in securities give an idea of how EMU has influenced cross-border financial integration. The home bias is also an important issue when it comes to investigating international risk sharing. This brings me to the paper by Sebnem Kalemlı-Ozcan, Simone Manganelli, Elias Papaioannou and José Luis Peydró.

4 SEBNEM KALEMLI-OZCAN ET AL.

Part I of their interesting and topical paper gives an overview of financial integration in EMU and describes the main legislative and regulatory policies that EU member states have implemented in financial markets. Part II provides empirical evidence for the impact of the single currency and European harmonisation policies on financial integration. Furthermore, it analyses the implications for consumption risk sharing in the euro area. The main findings are that the single currency and the harmonisation policies of EU have both fostered financial integration and that cross-border banking integration increases consumption risk sharing.

4.1 EMU AND CROSS-BORDER BANKING INTEGRATION

An important contribution made by Kalemli-Ozcan et al. is that they try to disentangle the impact of the single currency and harmonisation policies on financial integration. This distinction is of major relevance with respect to the further process of integration.

The authors’ focus on banking integration is appropriate with regard to the subsequent analysis of consumption risk sharing, where bank lending is deemed to be a prominent transmission channel. However, it should be kept in mind that there are more financial market segments of interest and that the euro and harmonisation policies might affect them to a different degree. As I have already noted, there is strong evidence that monetary union has fostered integration of markets for equity and long-term debt securities.

4.2 BANKING INTEGRATION AND RISK SHARING

As for the authors’ concept of consumption risk sharing, let me make two remarks. First, consumption smoothing is measured relative to a panel of 20 European and non-European countries. This reflects the fact that the paper concentrates on differences in consumption growth across countries and, therefore, analyses international consumption smoothing. Domestic smoothing is thereby ignored. Furthermore, the estimates do not make a distinction between whether consumption smoothing of EMU countries takes place within the euro area or vis-à-vis the rest of the world. It is true that, from a welfare point of view, a distinction between intra- and extra-euro-area risk sharing does not make sense. However, the authors conclude that “the increased cross-banking integration due to the euro has improved ex-post the optimality of the currency union by
improving risk sharing”. This implies that risk sharing of euro area countries takes place mainly among each other.

My second comment concerns the way the authors measure consumption smoothing. The paper regresses international differences in consumption growth on international differences in GDP growth, multiplied by a term including banking integration. A perfect consumption smoothing would imply that asymmetric GDP shocks do not transmit into diverging consumption paths at all.

Following Asdrubali, Sørensen and Yosha (1996) and the modification of Mélitz (2004), it might be helpful not to stop here but to have a further look at the individual components of GDP and the respective channels of risk sharing.

Expressed in logarithms and first differences, GDP growth can be decomposed into:

\[
\Delta \ln GDP = \Delta \ln C + \Delta \ln GDP - \Delta \ln C
\]

(growth of private consumption)

or, in more detail,

\[
\Delta \ln GDP = \Delta \ln C + \Delta \ln GDP - \Delta \ln GNP + \Delta \ln GDP - \Delta \ln A + \Delta \ln A - \Delta \ln C
\]

(smoothing by net foreign income)

(smoothing by external saving)

(smoothing by domestic saving)

In this disaggregation, we would expect the term \(\Delta \ln GDP - \Delta \ln A\) to be the main channel through which consumption smoothing by cross-border banking integration should work.

In the following table, calculated for Germany, the coefficients \(\beta_E\) and \(\beta_H\) indicate the absorption of additional GDP growth by net foreign income and external saving, respectively.\(^3\) A positive sign stands for a positive effect on consumption smoothing. The coefficients suggest that international consumption risk sharing in Germany is primarily achieved by countercyclical net foreign income, whereas external saving tends to go along with business cycles. This outcome holds for both overall consumption smoothing and consumption smoothing vis-à-vis other euro-area countries only.

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2 Where GDP = Gross Domestic Product, GNP = Gross National Product, \(A\) = domestic absorption, \(C\) = private consumption.

3 The estimates result from the regressions

\[
\Delta \ln GDP - \Delta \ln GNP = \alpha_E + \beta_E \Delta \ln GDP + \epsilon_E
\]

\[
\Delta \ln GNP - \Delta \ln A = \alpha_H + \beta_H \Delta \ln GDP + \epsilon_H.
\]

The sum of \(\beta_E\) and \(\beta_H\) corresponds to \(1-\kappa\) in the paper of Kalemli-Ozcan et al. However, the coefficients are calculated by simple OLS and do not account for endogeneity and other factors like – for example – serial correlation. Therefore, significance levels are not indicated and the values should be interpreted with caution.
Obviously, your paper goes beyond these simple correlations. It clearly identifies the impact of cross border banking integration and uses more sophisticated econometric techniques. I highly appreciate your work and consider it a valuable contribution to the current debate. Nevertheless, I would like to stress that this interesting topic leaves much room for further research.

5 CONCLUDING REMARKS

To conclude, both papers are very instructive in terms of learning more about details of the ongoing process of financial integration in the European Monetary Union. They have both shown that cross-border risk-sharing has improved during the past decade and that EMU has given a major stimulus to this. Our own calculations on the German home bias point in the same direction. These approaches, therefore, allow us to conclude that EMU has welfare-enhancing effects.

The Eurosystem will do its best to make them come to the fore with full force in the years to come.

REFERENCES


GENERAL DISCUSSION

Charles Engel expressed the view that both papers in this session focused excessively on international risk sharing. He wondered whether there is evidence that greater financial market integration has improved capital allocation within the euro area. Philip Lane responded that cross-country capital flows have increased with the EMU. However, the market for venture capital remains little developed in Europe. Sebnem Kalemli-Ozcan thought that a study with firm-level data would be required to answer Engel’s question concerning capital allocation. Elias Papaioannou added that research based on sector-level data shows a positive effect of financial integration on capital allocation.

Mark Spiegel observed that the empirical findings of Kalemli-Ozcan et al. concerning international risk sharing are about cross-country averages. However, there seems to be significant heterogeneity across countries which the authors fail to explore. Alex Cukierman thought that one way to summarize the papers in this session was to observe that small countries have benefited significantly from financial market integration in the euro area, while large countries have benefited by a lesser extent. This is exactly what trade theory would have predicted.