

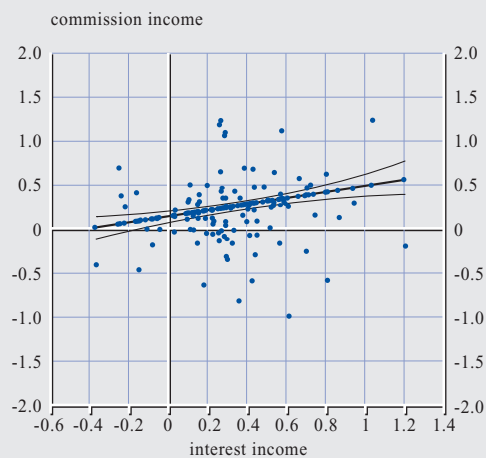
### Box 11 Net interest income and non-interest income in euro area banks

Banks have continued to broaden their potential sources of income growth, especially in light of declining margins on traditional retail lending. One possible effect of these attempts to diversify income sources might be an increase in the share of non-interest income in banks' total income, which could in turn reduce cyclical variation in banks' overall income. This Box examines whether this has occurred for a sample of 140 large euro area banks by looking at the changes over the period 1999-2003.

One component of non-interest income is fee and commission income, which accounts for the largest share of non-interest income for most institutions. This is the income received by financial institutions for the provision of services not directly related to lending, i.e. it excludes interest received from loans. It does, however, include fees for the arranging of loans and income from payment services. Therefore, a positive relationship between this component and

**Chart B11.1 Change in net interest income vs. net commission income**

(logs)



**Chart B11.2 Change in net interest income vs. net trading income**

(logs)



Source: ECB calculations based on annual accounts.

Note: The lines in both charts are regression lines fitted on a cross-section of banks using robust regression; the outer lines represent the 95% confidence interval.

interest income could be expected, as both will be driven by the lending cycle.<sup>1</sup> For the sampled euro area banks, this indeed appears to be the case (see Chart B11.1). Therefore, the potential diversification benefit from expanding activities towards sources of fee and commission income would appear to have been rather limited over recent years. Another type of non-interest income for banks is trading income. While the share of trading income in non-interest income is not as important as that of fee and commission income, it has nevertheless become more important for some institutions. There appears to be a weak negative relationship between this source of income and interest income (see Chart B11.2).<sup>2</sup> This could imply that although banks have potentially been incurring more market risk, this may have provided some diversification benefits. However, this may come at the expense of greater volatility for non-interest income as a whole.

Overall, the results suggest that the most important non-interest income sources are positively, though weakly, related to interest income for this sample of banks and time period. This implies that non-interest income may not necessarily be a substitute for interest income in times of slower income growth.

1 Fee income is also generated by the cross selling of products provided by institutions. This may account for the flat slope of the regression line. However, banks do not generally provide such a detailed breakdown in their published accounts to show the importance or otherwise of this source of income.

2 The regressions are estimated using robust regression methods to control for outliers. The results from these regressions are: commission income =  $\alpha + 0.10$  Interest income. The t-statistic on interest income is 3.54 and  $F(1,202)=12.52[.000]$ ; trading income =  $\alpha - 0.76$  Interest income. The t-statistic on income is 2.72 and  $F(1,139)=7.41[.007]$ .