Box 6

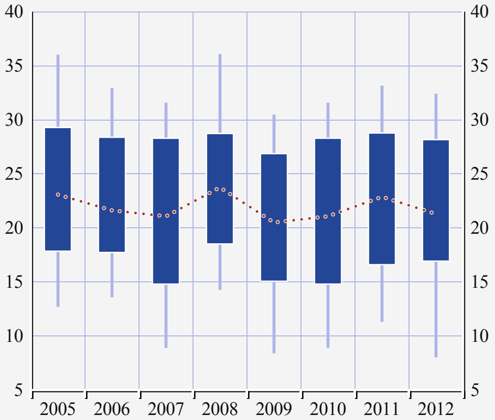
THE DYNAMICS OF FEE AND COMMISSION INCOME IN EURO AREA BANKS

The financial crisis has tested the resilience of banks across advanced economies – in terms of not only the composition of their balance sheets, but also the robustness of their business models in generating profits even in times of acute distress. While fee and commission income has been a key and relatively stable mainstay of profitability in euro area banks, it is more closely linked to macro-financial conditions than is often assumed. Indeed, this source of income tends to be loosely modelled in forward-looking analyses such as stress tests.

The evolution of fee and commission income in euro area banks since 2005 has been characterised by three broad tendencies. First, it has continued to account for a relatively significant share of euro area SBGs' income in the face of marked changes in the prevailing operating environment. Indeed, revenues from this source have hovered at around one-fifth to a quarter of banks' total income – and in some cases, even accounting for up to one-third of their income (see Chart A). The share is clearly linked to the business model – and includes the shares accounted for by traditional retail customer business, such as granting loans and managing deposit accounts, as well as investment banking activities (e.g. securities underwriting, merger and acquisition-related business, brokerage services, etc.) and asset management.

Chart A Euro area banks' fee and commission income

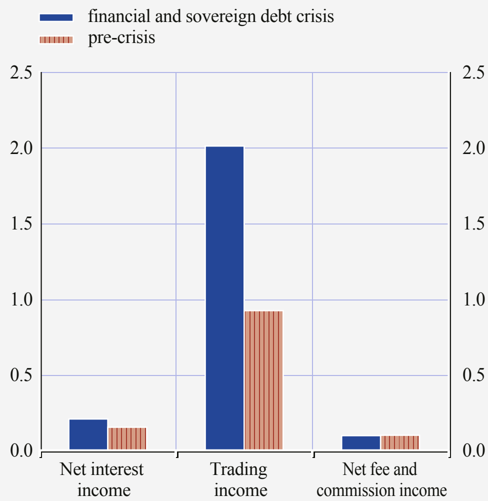
(2005 – 2012; percentage of total income; median, 10th and 90th percentile and interquartile range distribution across SBGs)



Source: SNL Financial.
Note: Sample of 62 euro area SBGs.

Chart B Changes in euro area banks' income sources

(2006 – H1 2013; coefficient of variation)



Source: SNL Financial.
Notes: Sample of 62 euro area SBGs. "Pre-crisis" refers to the period from January 2006 to June 2008, while "financial and sovereign debt crisis" refers to the period from July 2008 to June 2013.

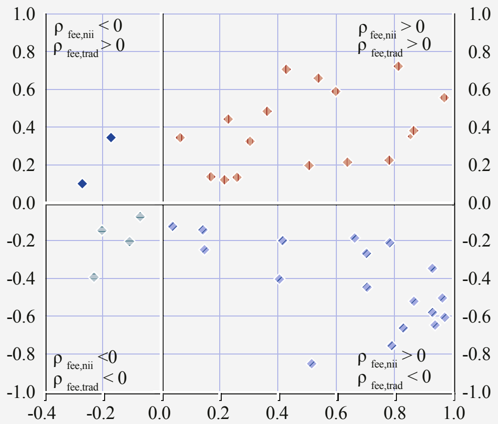
Second, fee and commission income – together with net interest income – has been a certain anchor for profitability in the face of marked volatility in trading income (see Chart B). This observation is also confirmed when standard portfolio theory is used to decompose the contributions of different income sources to the volatility of total net operating income growth.[1] For the sample of euro area SBGs analysed in this box, the contribution of the volatility of fee and commission income to the variation of total operating income was around eight times lower than the contribution of other income sources. These results are corroborated by findings in the academic literature that suggest that fees and commissions are a more stable source of income than banks' other sources of income (trading income in particular).[2]

Third, notwithstanding the limited volatility, fee and commission income has proven to exhibit some relatively pronounced cyclical tendencies. Indeed, the fee and commission income of euro area SBGs has generally tended to correlate strongly with net interest income over the last few years (see Chart C). This suggests that both sources of income are driven by some common underlying factors, such as broad macroeconomic activity and retail customer business activities.[3] Activities of a cyclical nature probably relate to economic and financial market activities, such as financial services (including those to retail customers), securities and loan underwriting, advisory services related to mergers and acquisitions (M&As) and

1 This analysis follows C. Calmés and Y. Liu, "Financial structure change and banking income: A Canada-U.S. comparison", *Journal of International Financial Markets*, Vol. 19(1), February 2009, for the United States and Canada respectively.
2 See, for example, A. Saunders and I. Walters, *Universal banking in the United States: What could we gain? What could we lose?*, Oxford University Press, 1994, and H. Kwan and S. Laderman, "On the portfolio effects of financial convergence – a review of the literature", *Federal Reserve Bank of San Francisco Economic Review*. 1999.
3 This is not surprising as many products offered by banks have both an interest rate and a fee component (e.g. customer accounts and various forms of credit agreements).

Chart C Correlation between the subcomponents of significant banking groups' income

(2005 – 2012; correlation coefficient of fee and commission income with net interest income ($\rho_{fee,nii}$; x-axis) and with trading income ($\rho_{fee,trad}$; y-axis) for each bank)



Source: SNL Financial.
Note: Sample of 62 euro area significant banking groups.

Correlation between average euro area banks' net fee and commission income and economic and financial variables

(2005 - 2012 ; average across banks of correlation coefficients)

European-level variables	
GDP (euro area 17)	35.44%
EURO STOXX 50 – prices	-10.33%
EURO STOXX 50 – volatility	25.45%
Euro-denominated securities – gross issuance (euro area 17)	36.26%
EONIA	4.66%
Spread between 12-month and 1-week EURIBOR	27.43%
Interest rate on loans to households and non-financial corporations (euro area 17)	11.75%
Country-level data	
GDP	44.27%
Stock market return	17.18%
Stock market volatility	21.20%
Bonds – gross issuance	24.74%
Interest rate on loans to households and non-financial corporations	16.45%
Bank-level variables	
Operating expenses	55.35%
Total assets	54.29%
Loans/total assets	27.34%
Common equity Tier 1 capital ratio	8.28%
Mergers and acquisitions - value of fees*	13.45%

Source: ECB calculations.
Note: * Value of the M&A fees generated in deals for which the bank acted as main adviser.

securities brokerage business. However, also more structural factors, such as payment transactions, safe custody administration and bank competition, are important determinants.

By contrast, the movement of fee and commission income in relation to trading income has been more heterogeneous across banks in the SBG sample, as evidenced by both positive and negative correlation coefficients.[4]

This cyclicality, even in relation to other income sources, is confirmed by simple correlation analysis. This suggests a link to real economic activity (e.g. GDP), as well as to equity price developments – not least because securities and M&A transactions affect banks' trading and underwriting activities. Positive relationships are also found with regard to overall bank business volumes (e.g. operating expenses, total assets and loan volumes).

This analysis suggests that fee and commission income provides a good source of relative stability in generating profitability through turbulent times. At the same time, while simple and illustrative, the results suggest that fee and commission income is also impacted by the cyclicality of general economic activity and is related to changes in banks' other income components. For that reason, a more systematic modelling of fee and commission income in relation to underlying macro-financial drivers could help in forward-looking exercises such as stress tests – in contrast to the frequently applied assumption of a constant or judgemental evolution.

4 This may reflect the fact that, although trading activity can trigger fee and commission income, it can be highly volatile (on account of price valuation adjustments) during periods of turbulence that do not necessarily affect banks' trading-related fees and commissions (which are linked to business volumes). Although such an imperfect correlation may suggest some potential diversification effects, the findings of the academic literature are ambiguous in this regard (see, for example, K. Stiroh and A. Rumble, "The dark side of diversification: The case of US financial holding companies", *Journal of Banking & Finance*, Vol. 30(8), August 2006).