

## Box 10

### IDENTIFYING LARGE AND COMPLEX BANKING GROUPS FOR FINANCIAL SYSTEM STABILITY ASSESSMENT: AN UPDATE

The financial performances of large and complex banking groups (LCBGs) are regularly monitored and analysed for the financial system stability assessment in the ECB's FSR.<sup>1</sup> As noted in the December 2006 FSR, updates of the identification of LCBGs are periodically needed to take into account the effects of structural change such as mergers, acquisitions and organic growth in the banking sector.<sup>2</sup> It was also noted that the analysis could benefit from expanding the set of variables used to identify LCBGs to make the analysis more robust and complete. This box presents the results of the first update of the analysis used to identify LCBGs.

The LCBG identification process for this issue of the FSR uses as a starting point 2006 data covering a sample of 415 euro area and non-euro area banks.<sup>3</sup> In addition, where available, six new indicators were included to refine the notion of a bank's size in the various aspects of financial intermediation as well as the degree of interconnectedness of the institution within the system (see Table).

- 1 Global LCBGs are analysed in Section 1.3 "Conditions of global financial institutions" and LCBGs located in the euro area are analysed in Section 4 "The euro area banking sector".
- 2 See ECB (2006), "Identifying large and complex banking groups for financial system stability assessment", *Financial Stability Review*, December, for a detailed presentation of how LCBGs are identified. This box only discusses changes made in that analysis.
- 3 A bank is included in the analysis if it met one or more of the following criteria in 2006: 1) domiciled in Europe and with total assets in excess of one billion euro; 2) domiciled outside Europe with total assets above ten billion euro; 3) included in the top 50 bookrunners in the European equity, bond and syndicated lending markets; 4) among the top 51 worldwide custodian banks.

Table Indicators used to identify large and complex banking groups

Indicators used in 2006 and 2007	Additional indicators used in 2007
1 Assets under custody	14 Cross-border assets
2 Contingent liabilities	15 Eonia overnight lending contributions
3 Customer loans	16 Market capitalisation
4 Deposits	17 Number of recorded subsidiaries
5 Interbank assets	18 Subordinated debt issuance
6 Interbank liabilities	19 Trading income
7 Mortgages	
8 Net interest revenue	
9 Net non-interest revenue	
10 Other assets	
11 Proceeds from bond issuance	
12 Proceeds from equity issuance	
13 Proceeds from syndicated loan issuance	

Sources: ECB, Banking Supervision Committee, Bureau van Dijk's Bankscope, Thomson Financial's Thomson ONE Banker - Deals and GlobalCustody.net  
Note: Cross-border assets data are for 2005 and were collected by the Banking Supervision Committee. They represent the total assets of subsidiaries and branches of EU banks outside the home country.

As in Special Feature A of the December 2006 FSR, an average linkage cluster method was used to identify the set of LCBGs. The updated analysis identifies 36 LCBGs. Of these institutions, 21 of them are located in the euro area and 15 outside. Among the euro area LCBGs, two new banking groups have been included – one as the result of a merger and the other as the result of organic growth in terms of several of the indicators used in the analysis. Two global LCBGs have been added to the set of banking groups identified in the December 2006 FSR due to higher indicator values in 2006 for these banks and/or high values for the new indicators used.

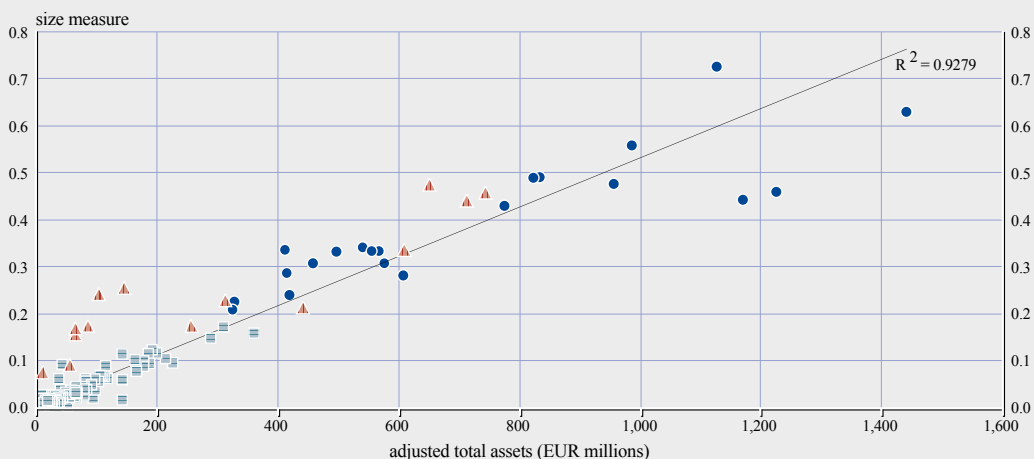
There continues to be a very close relationship between adjusted total assets (a traditional measure of a bank's importance) and a composite size measure based on the 19 indicators used in the cluster analysis (see Chart). However, the presence of deviations suggests that the multi-indicator methodology adds value over and above a selection based simply on total assets, as some banking groups with relatively low levels of total assets have other characteristics that make them important for the financial system.

It is foreseen that the set of LCBGs will continue to be regularly updated in the future. The methodology could also further benefit from refining the set of indicators used, as the current ones represent choices imposed by the paucity of publicly available data for a large number of banks. For these reasons, the set of LCBGs identified is likely to continue evolving over time.

**Chart Size measure vs. adjusted total assets**

(2006)

- large and complex banking groups in the euro area (21)
- ▲ global large and complex banking groups (15)
- banks not identified as large and complex banking groups



Sources: ECB, Banking Supervision Committee, Bureau van Dijk (Bankscope), Thomson ONE Banker - Deals, GlobalCustody.net and ECB calculations.

Note: The size measure ranges between 0 and 1 and is the average of the 19 scaled indicators used in the analysis. Adjusted total assets are scaled down to 50% if the bank is domiciled in a non-euro area EU country, 40% if in a non-EU European country, and 10% if located outside Europe.