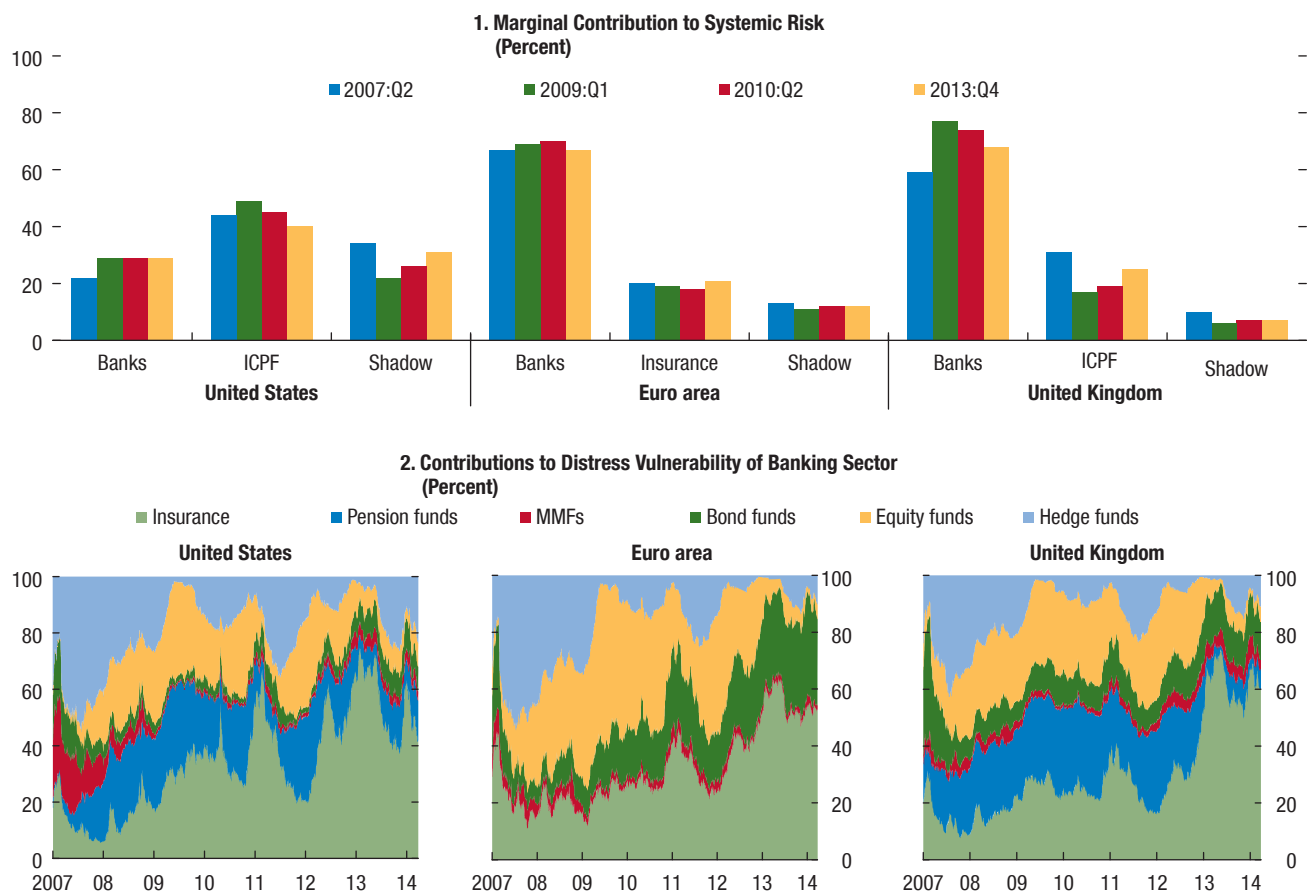


**Figure 2.11. Systemic Risk and Interdependence of Financial Intermediaries**



Sources: Bank of England; BarclayHedge; Bloomberg L.P.; European Central Bank; Federal Reserve; International Organization of Securities Commissions; Investment Company Institute; Investment Management Association; Thomson Reuters Datastream; Towers Watson; and IMF staff calculations.

Note: Contribution to the banking sector's vulnerability to distress is defined as the risk of distress spilling over from insurance companies and pension funds (ICPFs) and shadow banking sectors to banks. MMF = money market mutual fund. Shadow = the sum of contributions by mutual funds (money market, bond, equity) and hedge funds. Marginal contribution to systemic risk is defined as the percentage contribution to the expected systemic shortfall, following Tarashev, Borio, and Tsatsaronis (2010). For banks and insurance companies, the sample consists of the largest institutions by total assets. The analysis combines volume data from flow of funds accounts and asset price data. For pension funds, MMFs, and equity funds, asset price data are based on the sector's asset portfolio; data for hedge and bond funds are based on sectoral indices; and for banks and insurers, credit default swap spreads are used.