

## Appendix 1: The Government-Sponsored Shadow Banking System

The shadow credit intermediation process, and the shadow banking system were to a great extent inspired by the government sponsored enterprises, namely the FHLB system, Fannie Mae and Freddie Mac. The GSEs are creations of law-makers and are **off-balance sheet "shadow banks"** of the U.S. Federal Government. The GSEs that make up the government-sponsored shadow banking system perform similar functions to term multi-seller conduits, credit risk repositories, and LPPCs and SIVs in the "private" shadow banking system. Thus, similar to multi-seller conduits, the FHLB system provides term loan warehousing for conforming mortgages (and other loans) to member commercial banks; similar to monoline insurers, Fannie Mae and Freddie Mac provide guarantees on the loans that back Agency MBS, turning them into credit risk-free rate products; and similar to SIVs or LPPCs, the GSE retained portfolios conduct maturity transformation on pools of mortgages and private-label term ABS. The credit intermediation process that goes through the government-sponsored shadow banking sub-system starts with commercial banks that originate conforming mortgages. These are either (1) funded with the FHLBs through maturity, or (2) are sold in the "TBA" market in order to be packaged into Agency MBS. As the loans pass through the TBA process, Fannie or Freddie provide guarantees on the loan pools, assuming the credit risk out of them. Some of the Agency MBS might end up being packaged into collateralized mortgage obligations (CMOs) which time-tranche the underlying cash-flows of mortgage pools. The short-dated tranches of CMOs are sold to 2(a)-7 MMMFs and other funds. Similarly, the GSE retained portfolios are funded through a mix of short-dated Agency discount notes (the GSE equivalent of private CP and ABCP) and Agency debt (the GSE equivalents of private MTNs and bonds) that are also sold to MMMFs and real money accounts, respectively.

