can also be lowered in a boom through an explicit centralized tax. The tax has the potential to enhance efficiency of the overall financial system in the same way that a congestion charge would improve traffic in a city. By counteracting an existing inefficiency through a tax, one can counteract the harmful externality. Just as with a traffic congestion charge, the revenue raised in the tax is not an essential component of the scheme. However, if the revenue raised through the Pigovian Tax could be put into a separate bank resolution fund, then the scheme would not imply a net transfer away from the banking sector.

Approach 3: Structural reform of intermediation

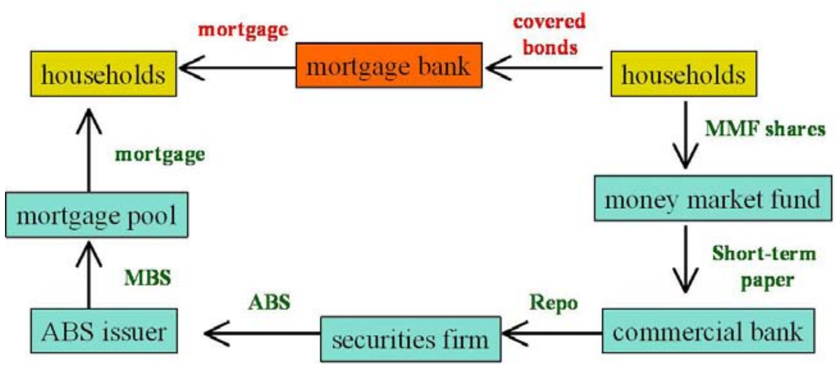
A third approach is more long term, and is aimed at influencing the market structure of the financial intermediary sector as a whole. The idea is to restrain the lengthening of intermediation chains, and encourage the formation of shorter intermediation chains.

$$\sum_{i=1}^{n} y_i = \sum_{i=1}^{n} e_i z_i (\lambda_i - 1) + \sum_{i=1}^{n} e_i$$

In terms of the aggregate balance sheet identity, the objective is to operate directly on the mode of financial intermediation so that the funding profile $\{z_i\}$ is maintained at high levels, thereby limiting the number of intermediaries *n* and moderating the fluctuations in leverage and total assets. The idea is to induce a shortening of the financial intermediation chain by linking ultimate borrowers and ultimate lenders more directly.

One potential way to induce such shortening of the intermediation chain would be through the encouragement of the issuance of covered bonds – bonds issued against segregated assets on a bank's balance sheet, with recourse against the issuing bank itself.

Figure 10
Shortening the intermediation chain through covered bonds



The intermediation chain associated with a covered bond is short, since the bank holds mortgage claims against ultimate borrowers, and issues covered bonds that could be sold directly to households or to long-only institutions such as mutual funds or pension funds. The bonds offer longer duration that match the duration of the assets. The longer duration of the liabilities have two advantages. First, the duration matching between assets and liabilities means that the issuing bank does not engage in maturity transformation in funding. Rigorous application of marking to market makes less sense when loans are segregated to back such liabilties. In the Geneva Report, we have argued that the accounting treatment of such assets can take account