Which Banks are (Over) Levered? Insights from Shadow Banks and Uninsured Leverage

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We examine why banks maintain such high financial leverage, with debt financing accounting for about 90% of banks' assets. To answer this question, we use uniquely assembled data on capital structure decisions of shadow banks that on the asset side conduct very similar business to banks. The shadow bank data provides us with a window into "free market" financing choices of financial intermediaries that unlike banks are lightly regulated and do not have access to insured deposit funding. We demonstrate that shadow banks employ twice the amount of equity capital compared to equivalent banks, with the most significant disparity observed between smaller and mid-size banks. Uninsured leverage, defined as uninsured debt funding to assets, increases with size for both banks and shadow banks while cost of debt declines with size. We rationalize these facts within a calibrated quantitative equilibrium model of intermediation. Our analysis reveals that the primary driver of high leverage among smaller and mid-size banks is their access to insured deposit funding. In the absence of deposit insurance, these banks would maintain a capitalization level at least 25% higher in relative terms than observed in the data. Conversely, deposit insurance plays a comparatively minor role in influencing the financial leverage of the largest banks, where the predominant factor is their capacity to generate money-like deposits. These results suggest a significant scope for the increase of

capitalization of smaller and mid-size banks to align their capital structures with their private market counterparts. The aggregate consequences of such increase would be limited, because of reallocation of lending activity from smaller to large banks and to shadow banks.

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