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The Macroeconomics of Modigliani-Miller*

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We examine the validity of a macroeconomic version of the Modigliani-Miller theorem. By this, we mean that different capital structures can occur in equilibrium and that all of them are associated with the same allocation of commodities and the same welfare. We develop a general equilibrium model with two production sectors, risk-averse households, and financial intermediation by banks. Banks are funded by deposits and (outside) equity and monitor borrowers in lending. Two sets of equilibria emerge when deposits are guaranteed by governments and bailouts are financed by non-distortionary taxes. These sets differ with regard to the debt-equity ratios of banks, investement in risky technologies, bank defaults, and whether first-best allocations are attained. Hence, the macroeconomic version of the Modigliani-Miller theorem fails to hold. Imposing minimum equity capital requirements, however, eliminates all inefficient equilibria and guarantees the validity of the macroeconomic version of the Modigliani-Miller theorem.

Keywords: Financial intermediation, banking, capital structure, Modigliani-Miller, general equilibrium, capital requirements
JEL Classification: D53, E44, G2

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