Homemade Leverage and Unleverage

In the previous page, I state that the key assumption of "firms and individuals can borrow and lend at the same rate of interest" allows the execution of homemade leverage and unleverage. Below is a set of numerical illustrations, which build on the example introduced in the previous pages, that help us understand how it works.

The Case of Homemade Leverage

Let's say we invest $20,000 in the Unlevered Firm that adopts the "Current" capital structure, and partially finance the investment with a personal loan of $8,000 at the same interest rate of 8% for an interest expense of $640. Our investment is $12,000.

Return on Investment in Unlevered Firm with Homemade Leverage

	Recession	Expected	Expansion
Invest. Income	$1,000	$2,000	$3,000
Less Loan Interest	$640	$640	$640
Net Invest. Income	$360	$1,360	$2,360
ROI	**3.0%**	**11.3%**	**19.7%**

Note that the return on this Investment in Unlevered Firm with Homemade Leverage is identical to the ROE for the levered firm (i.e., "Proposed" Capital Structure) in the previous pages. This demonstrates that when firms and investors can borrow at the same interest rate, one can replicate a firm's capital structure (i.e. the mix of debt and equity), with personal borrowing, i.e, Homemade Leverage, in this example! Note also that the personal debt-equity ratio is identical to that of the levered firm in the previous example.

The Case of Homemade Unleverage

Let's say we invest in both equity and debt issued by the Levered Firm that adopts the "Proposed" capital structure. In other words, we invest $12,000 in its equity and $8,000 in its debt for a total investment of $20,000.

Return on Investment in Levered Firm with Homemade Unleverage

	Recession	Expected	Expansion
Equity Invest. Income	$360	$1,360	$2,360

Debt Invest. Income	$640	$640	$640
Total Invest. Income	$1,000	$2,000	$3,000
ROI	**5.0%**	**10.0%**	**15.0%**

Note that the return on this Investment in Levered Firm with Homemade Unleverage is identical to the ROE for the unlevered firm (i.e., "Current" Capital Structure) in the previous example. This example demonstrates that when firms and investors can lend at the same interest rate, one can replicate a firm's capital structure (i.e., the mix of debt and equity), with personal lending, i.e, Homemade Unleverage, in this example!