GETTING TO THE OPTIMAL: TIMING AND FINANCING CHOICES

You can take it slow.. Or perhaps not…

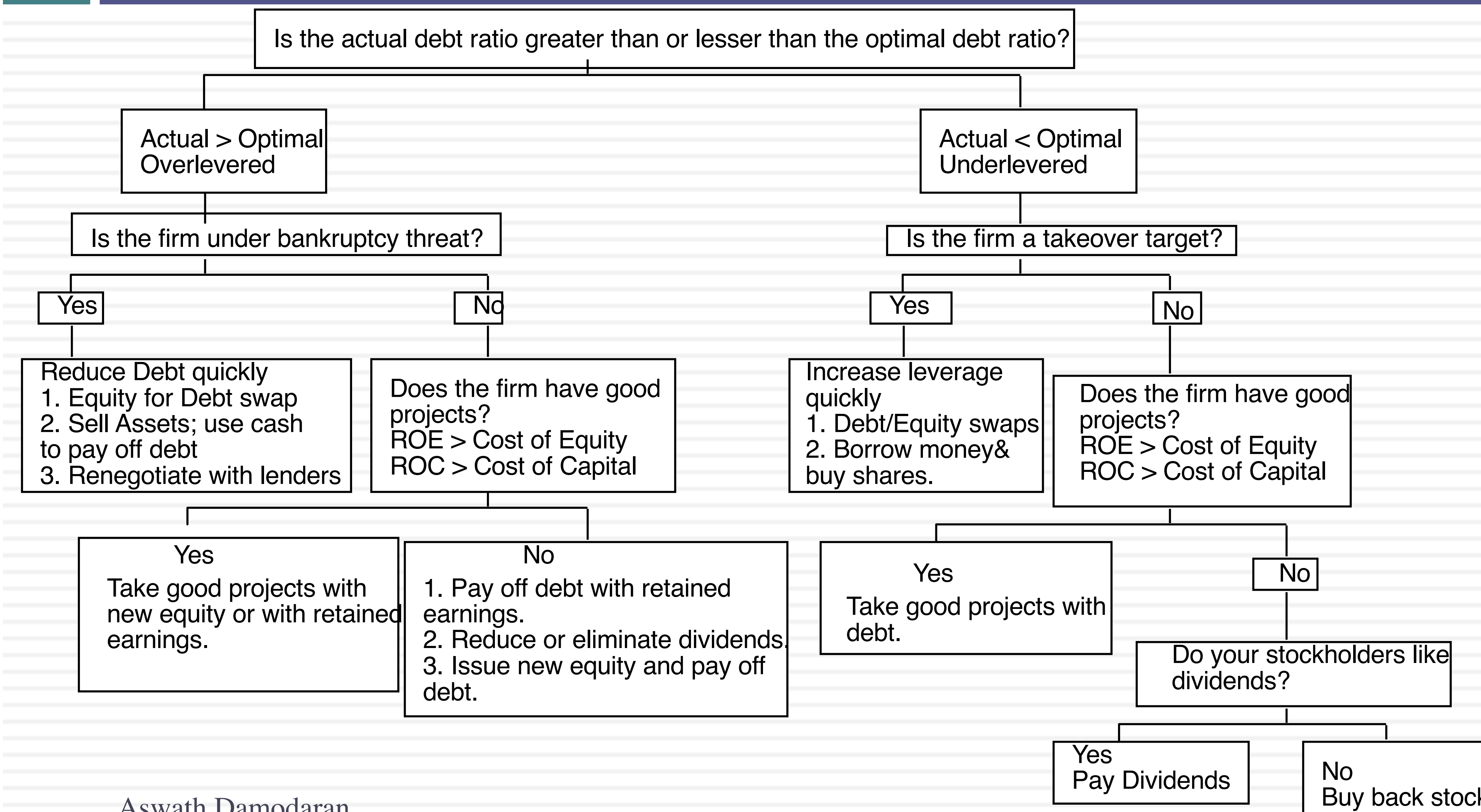
Big Picture…

- Maximize the value of the business (firm)
  - **The Investment Decision** Invest in assets that earn a return greater than the minimum acceptable hurdle rate
    - The **hurdle rate** should reflect the riskiness of the investment and the mix of debt and equity used to fund it.
    - The **return** should reflect the magnitude and the timing of the cashflows as well as all side effects.
  - **The Financing Decision** Find the right kind of debt for your firm and the right mix of debt and equity to fund your operations
    - The **optimal mix** of debt and equity maximizes firm value
    - The **right kind** of debt matches the tenor of your assets
  - **The Dividend Decision** If you cannot find investments that make your minimum acceptable rate, return the cash to owners of your business
    - **How much cash** you can return depends upon current & potential investment opportunities
    - **How you choose** to return cash to the owners will depend on whether they prefer dividends or buybacks

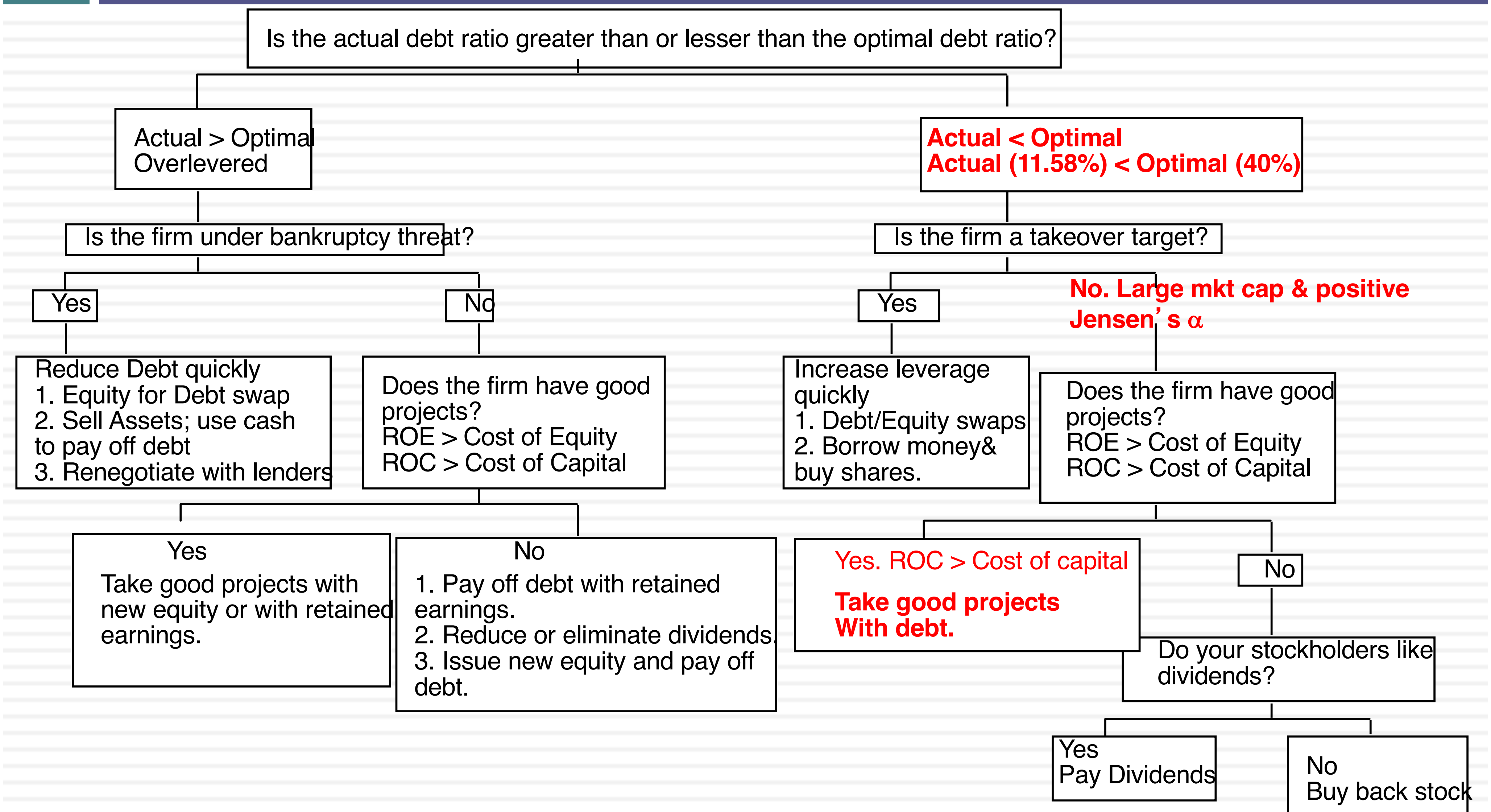
Now that we have an optimal.. And an actual.. What next?

- At the end of the analysis of financing mix (using whatever tool or tools you choose to use), you can come to one of three conclusions:
    1. The firm has the right financing mix
    2. It has too little debt (it is under levered)
    3. It has too much debt (it is over levered)
- The next step in the process is
    - Deciding how much quickly or gradually the firm should move to its optimal
    - Assuming that it does, the right kind of financing to use in making this adjustment

A Framework for Getting to the Optimal



Disney: Applying the Framework



⌛ Application Test: Getting to the Optimal

- Based upon your analysis of both the firm's capital structure and investment record, what path would you map out for the firm?
  a. Immediate change in leverage
  b. Gradual change in leverage
  c. No change in leverage
- Would you recommend that the firm change its financing mix by
  a. Paying off debt/Buying back equity
  b. Take projects with equity/debt

The Mechanics of Changing Debt Ratio quickly…

To decrease the debt ratio

Sell operating assets and use cash to pay down debt.

Issue new stock to retire debt or get debt holders to accept equity in the firm.

Assets	Liabilities
Cash	Debt
Opearing Assets in place	
Growth Assets	Equity

Sell operating assets and use cash to buy back stock or pay or special dividend

Borrow money and buy back stock or pay a large special dividend

To increase the debt ratio

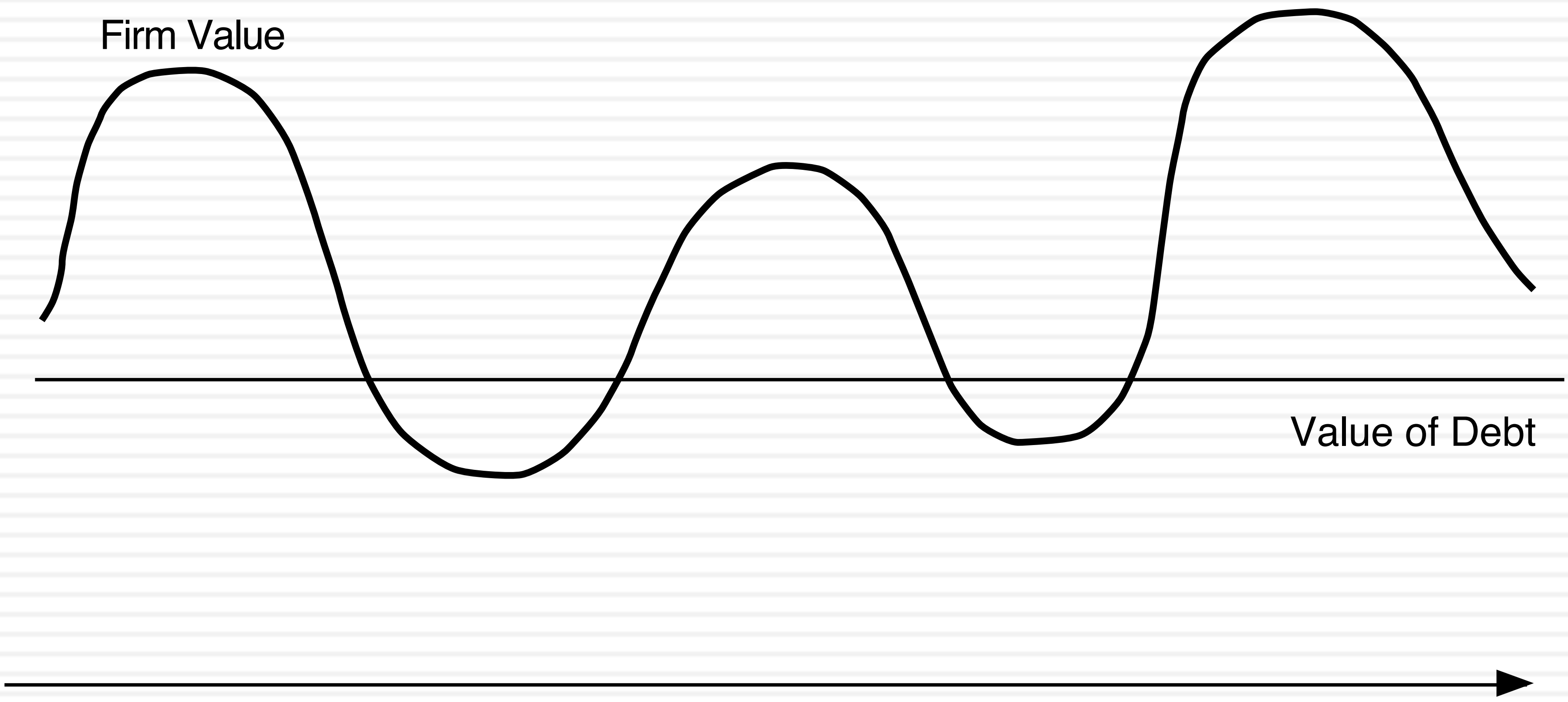
The mechanics of changing debt ratios over time… gradually…

- To change debt ratios over time, you use the same mix of tools that you used to change debt ratios gradually:
  - Dividends and stock buybacks: Dividends and stock buybacks will reduce the value of equity.
  - Debt repayments: will reduce the value of debt.
- The complication of changing debt ratios over time is that firm value is itself a moving target.
  - If equity is fairly valued today, the equity value should change over time to reflect the expected price appreciation:
  - Expected Price appreciation = Cost of equity – Dividend Yield
  - Debt will also change over time, in conjunction as firm value changes.

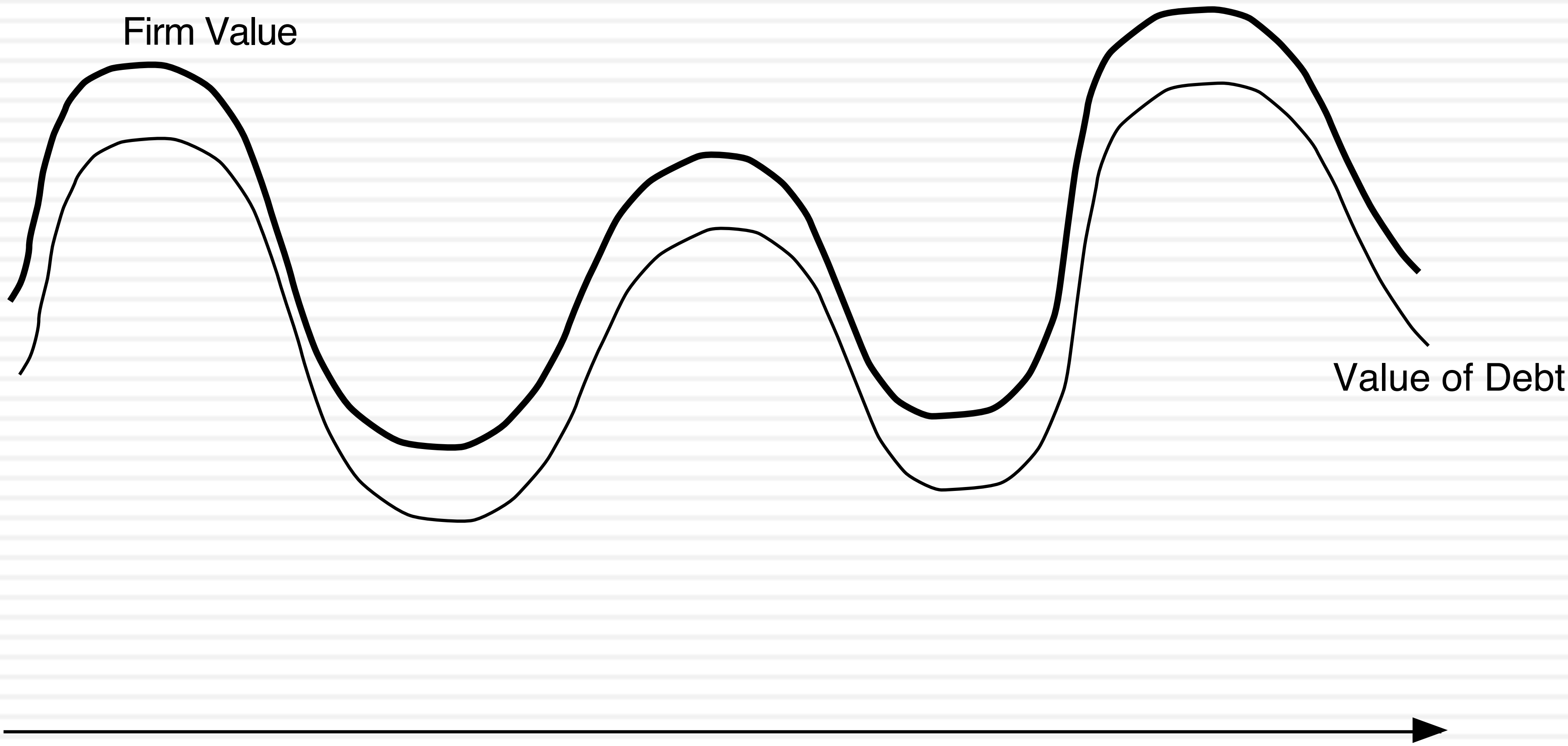
Designing Debt: The Fundamental Principle

- The objective in designing debt is to make the cash flows on debt match up as closely as possible with the cash flows that the firm makes on its assets.
- By doing so, we reduce our risk of default, increase debt capacity and increase firm value.

Firm with mismatched debt

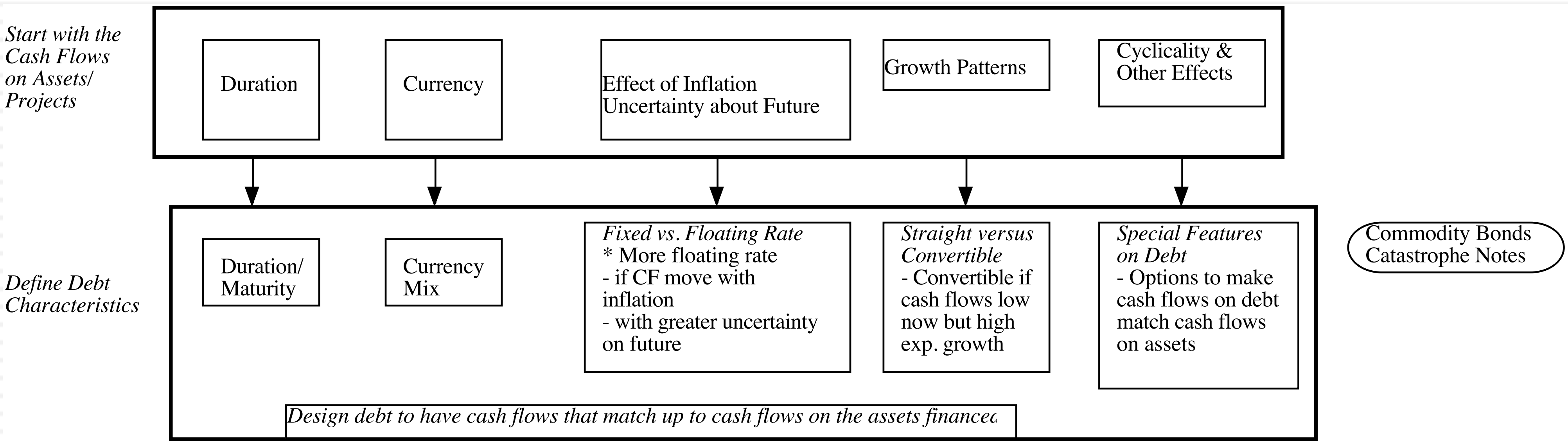


Firm with matched Debt



Design the perfect financing instrument

- The perfect financing instrument will
  - Have all of the tax advantages of debt
  - While preserving the flexibility offered by equity



Ensuring that you have not crossed the line drawn by the tax code

- All of this design work is lost, however, if the security that you have designed does not deliver the tax benefits.
- In addition, there may be a trade off between mismatching debt and getting greater tax benefits.