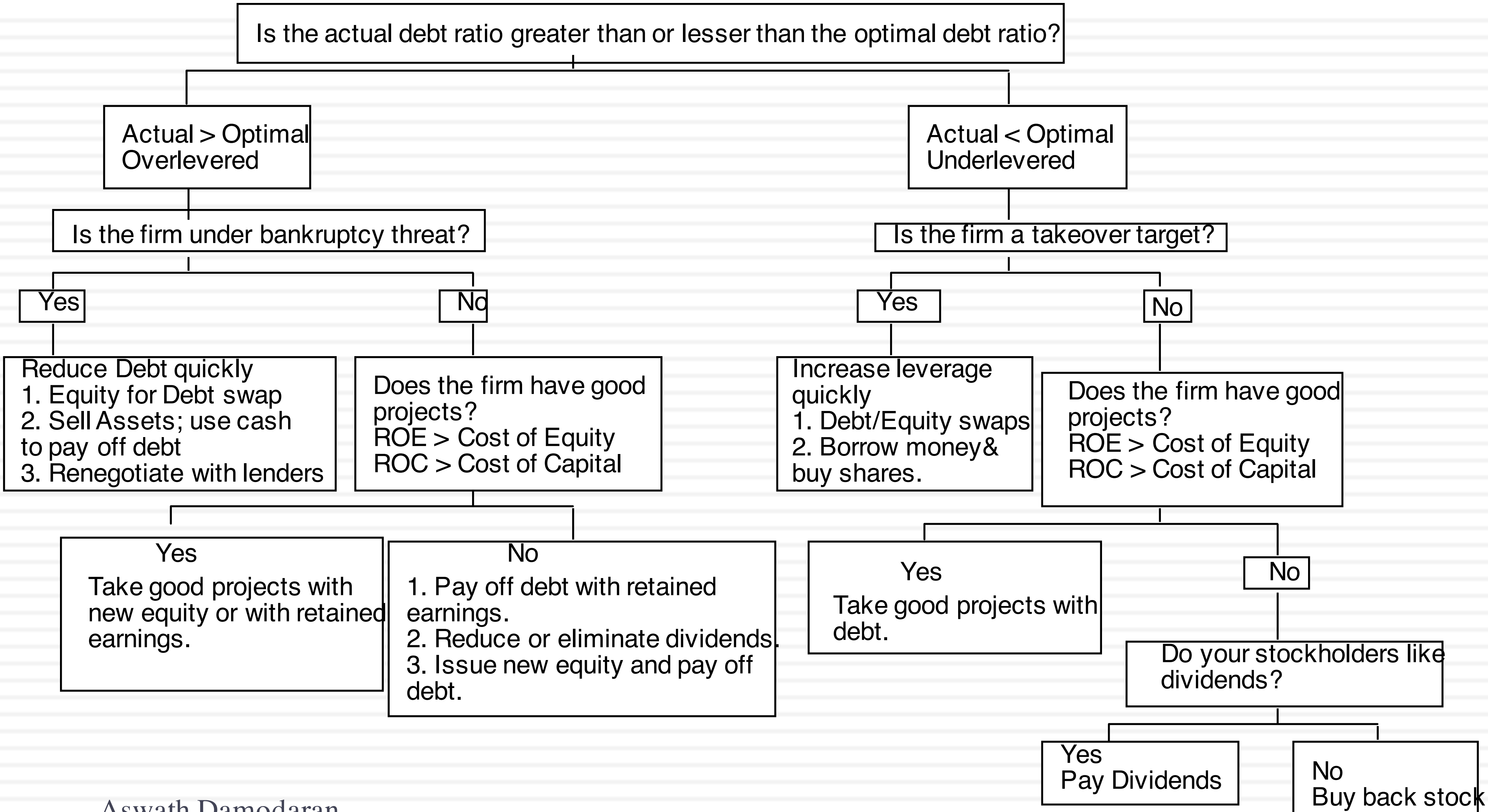
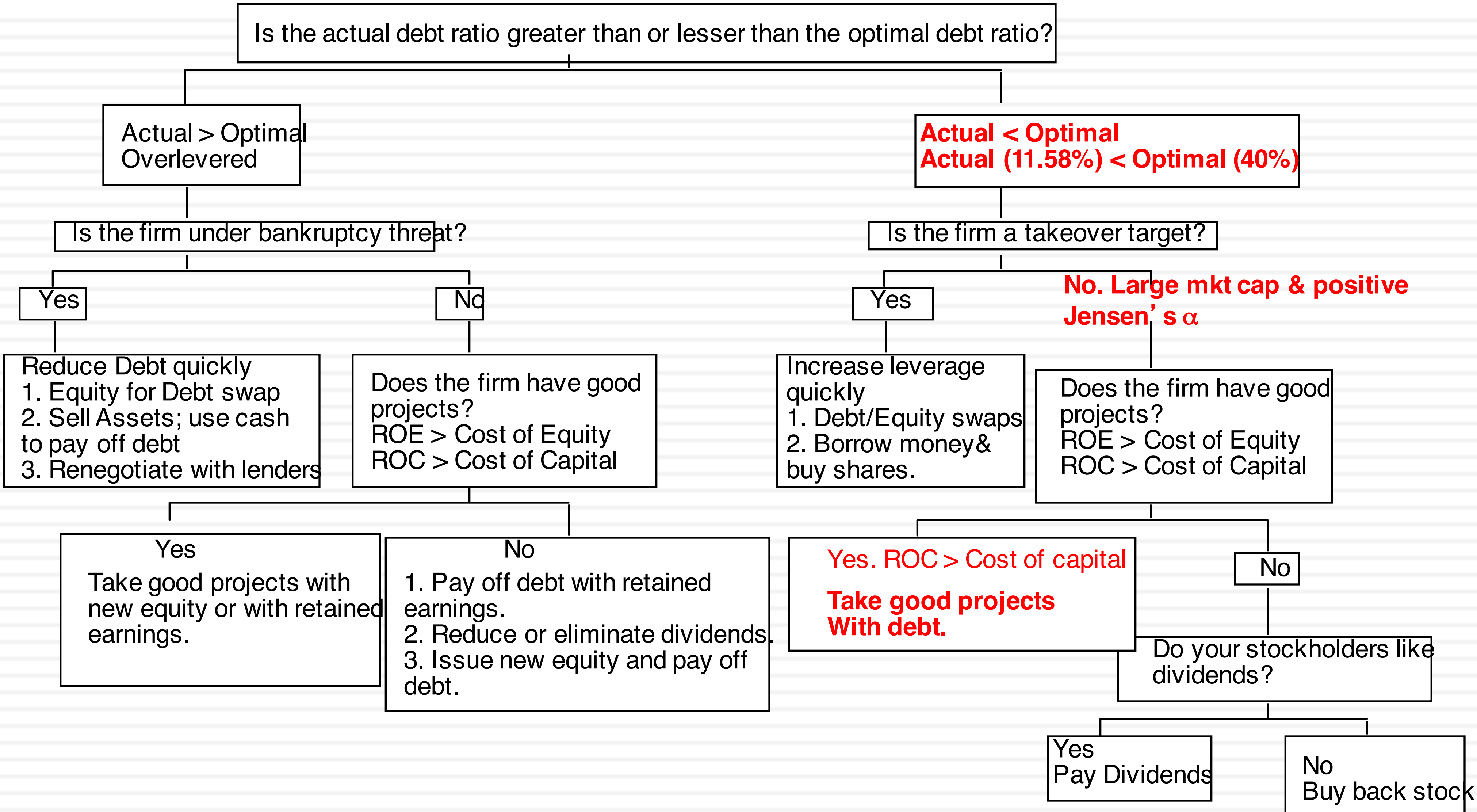
A Framework for Getting to the Optimal



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

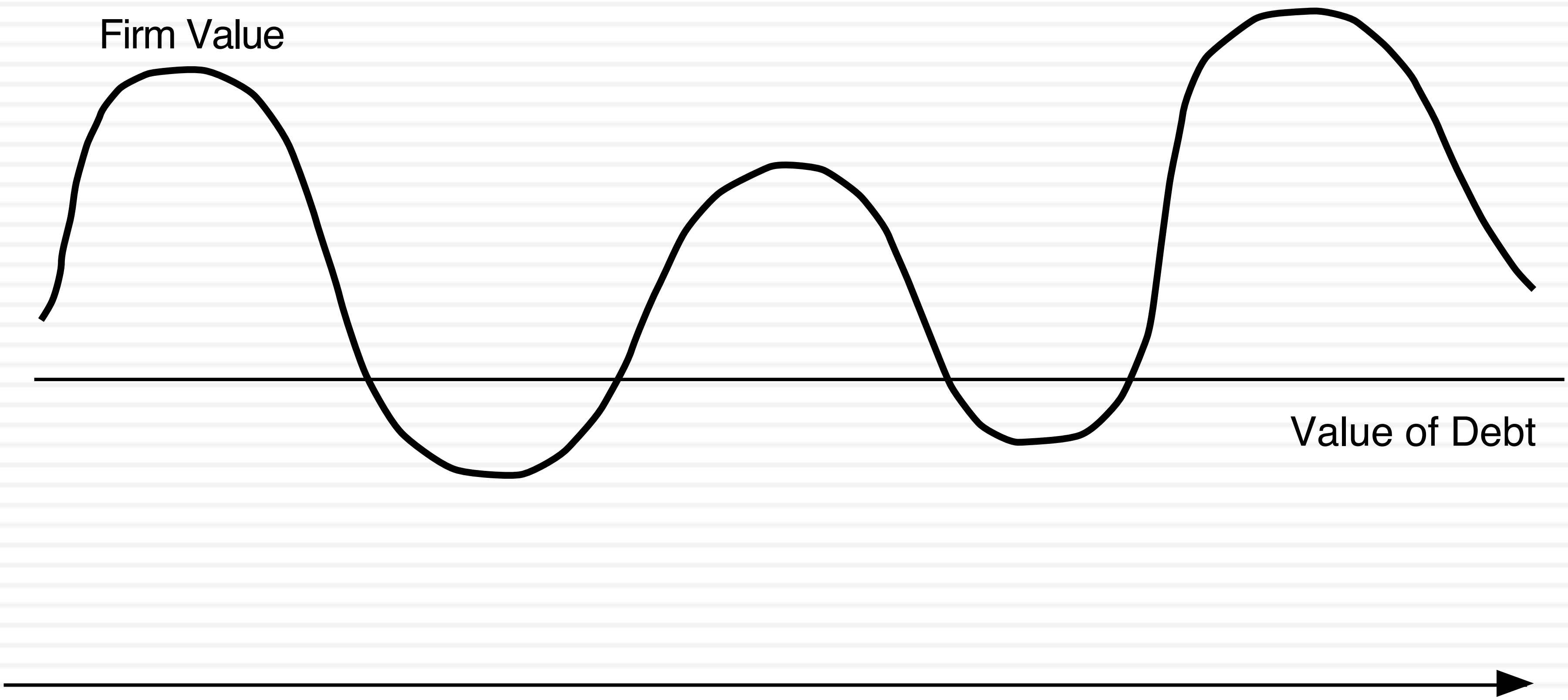
The mechanics of changing debt ratios over time… gradually…

- 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.

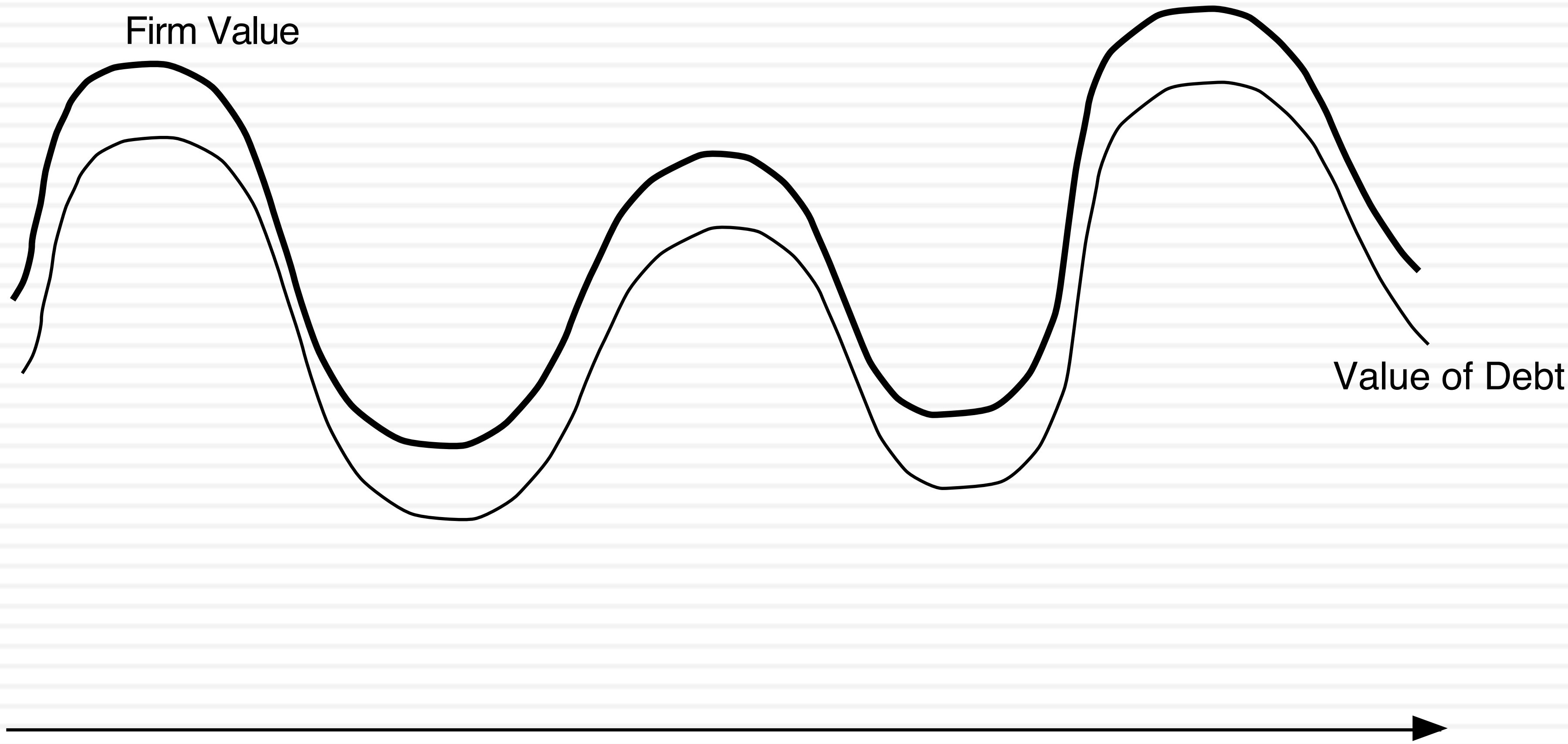
Designing Debt: The Fundamental Principle

- 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

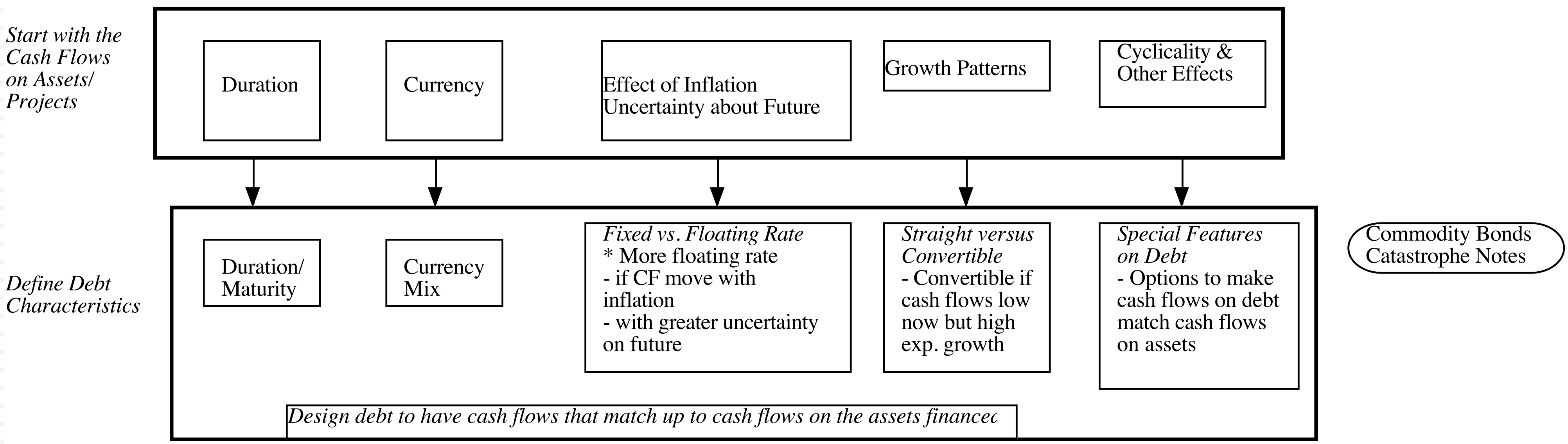


Firm with matched Debt



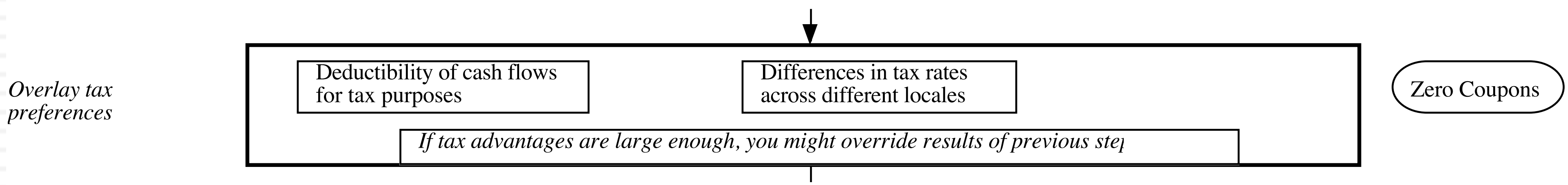
Design the perfect financing instrument

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



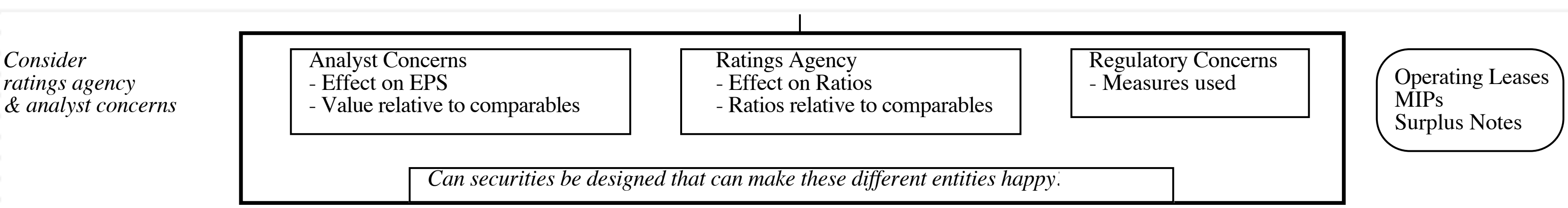
Ensuring that you have not crossed the line drawn by the tax code

- 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.



While keeping equity research analysts, ratings agencies and regulators applauding

- Ratings agencies want companies to issue equity, since it makes them safer.
- Equity research analysts want them not to issue equity because it dilutes earnings per share.
- Regulatory authorities want to ensure that you meet their requirements in terms of capital ratios (usually book value).
- Financing that leaves all three groups happy is nirvana.



Debt or Equity: The Strange Case of Trust Preferred

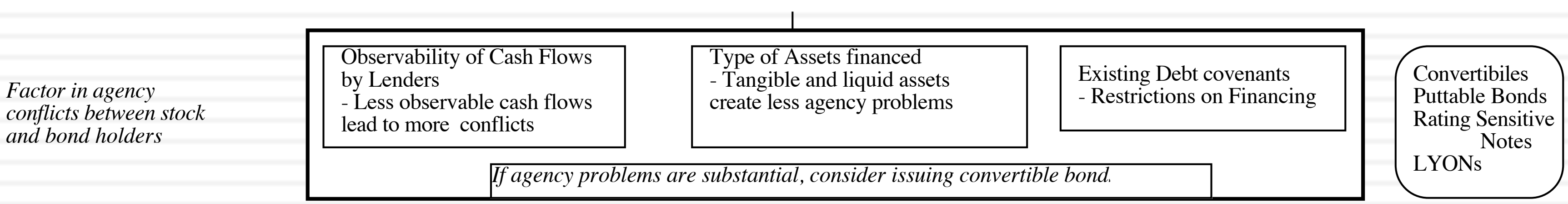
- Trust preferred stock has
  - A fixed dividend payment, specified at the time of the issue
  - That is tax deductible
  - And failing to make the payment can give these shareholders voting rights
- When trust preferred was first created, ratings agencies treated it as equity. As they have become more savvy, ratings agencies have started giving firms only partial equity credit for trust preferred.

Debt, Equity and Quasi Equity

- Assuming that trust preferred stock gets treated as equity by ratings agencies, which of the following firms is the most appropriate firm to be issuing it?
  a. A firm that is under levered, but has a rating constraint that would be violated if it moved to its optimal
  b. A firm that is over levered that is unable to issue debt because of the rating agency concerns.

Soothe bondholder fears

- There are some firms that face skepticism from bondholders when they go out to raise debt, because
  - Of their past history of defaults or other actions
  - They are small firms without any borrowing history
- Bondholders tend to demand much higher interest rates from these firms to reflect these concerns.



And do not lock in market mistakes that work against you

- Ratings agencies can sometimes under rate a firm, and markets can under price a firm's stock or bonds. If this occurs, firms should not lock in these mistakes by issuing securities for the long term. In particular,
  - Issuing equity or equity based products (including convertibles), when equity is under priced transfers wealth from existing stockholders to the new stockholders
  - Issuing long term debt when a firm is under rated locks in rates at levels that are far too high, given the firm's default risk.
- What is the solution
  - If you need to use equity?
  - If you need to use debt?

Designing Debt: Bringing it all together

Start with the Cash Flows on Assets/ Projects

- Duration
- Currency
- Effect of Inflation
  Uncertainty about Future
- Growth Patterns
- Cyclicality &
  Other Effects

Define Debt Characteristics

- Duration/
  Maturity
- Currency
  Mix
- *Fixed vs. Floating Rate*
  * More floating rate
  - if CF move with inflation
  - with greater uncertainty on future
- *Straight versus Convertible*
  - Convertible if cash flows low now but high exp. growth
- *Special Features on Debt*
  - Options to make cash flows on debt match cash flows on assets

Design debt to have cash flows that match up to cash flows on the assets financed

Commodity Bonds
Catastrophe Notes

Overlay tax preferences

- Deductibility of cash flows
  for tax purposes
- Differences in tax rates
  across different locales

If tax advantages are large enough, you might override results of previous step

Zero Coupons

Consider ratings agency & analyst concerns

- Analyst Concerns
  - Effect on EPS
  - Value relative to comparables
- Ratings Agency
  - Effect on Ratios
  - Ratios relative to comparables
- Regulatory Concerns
  - Measures used

Can securities be designed that can make these different entities happy?

Operating Leases
MIPs
Surplus Notes

Factor in agency conflicts between stock and bond holders

- Observability of Cash Flows by Lenders
  - Less observable cash flows lead to more conflicts
- Type of Assets financed
  - Tangible and liquid assets create less agency problems
- Existing Debt covenants
  - Restrictions on Financing

If agency problems are substantial, consider issuing convertible bonds

Convertibiles
Puttable Bonds
Rating Sensitive Notes
LYONs

Consider Information Asymmetries

- Uncertainty about Future Cashflows
  - When there is more uncertainty, it may be better to use short term debt
- Credibility & Quality of the Firm
  - Firms with credibility problems will issue more short term debt

Approaches for evaluating Asset Cash Flows

I. Intuitive Approach

- Are the projects typically long term or short term? What is the cash flow pattern on projects?
- How much growth potential does the firm have relative to current projects?
- How cyclical are the cash flows? What specific factors determine the cash flows on projects?

II. Project Cash Flow Approach

- Estimate expected cash flows on a typical project for the firm
- Do scenario analyses on these cash flows, based upon different macro economic scenarios

III. Historical Data

- Operating Cash Flows
- Firm Value

I. Intuitive Approach - Disney

Business	*Project Cash Flow Characteristics*	*Type of Financing*
Studio entertainment	Movie projects are likely to • Be short-term • Have cash outflows primarily in dollars (because Disney makes most of its movies in the U.S.), but cash inflows could have a substantial foreign currency component (because of overseas revenues) • Have net cash flows that are heavily driven by whether the movie is a hit, which is often difficult to predict	Debt should be 1. Short-term 2. Mixed currency debt, reflecting audience make-up. 3. If possible, tied to the success of movies.
Media networks	Projects are likely to be 1. Short-term 2. Primarily in dollars, though foreign component is growing, especially for ESPN. 3. Driven by advertising revenues and show success (Nielsen ratings)	Debt should be 1. Short-term 2. Primarily dollar debt 3. If possible, linked to network ratings
Park resorts	Projects are likely to be 1. Very long-term 2. Currency will be a function of the region (rather than country) where park is located. 3. Affected by success of studio entertainment and media networks divisions	Debt should be 1. Long-term 2. Mix of currencies, based on tourist makeup at the park.
Consumer products	Projects are likely to be short- to medium-term and linked to the success of the movie division; most of Disney's product offerings and licensing revenues are derived from their movie productions	Debt should be 1. Medium-term 2. Dollar debt
Interactive	Projects are likely to be short-term, with high growth potential and significant risk. While cash flows will initially be primarily in US dollars, the mix of currencies will shift as the business ages.	Debt should be short-term, convertible US dollar debt.

⌛ Application Test: Choosing your Financing Type

- Based upon the business that your firm is in, and the typical investments that it makes, what kind of financing would you expect your firm to use in terms of
  a. Duration (long term or short term)
  b. Currency
  c. Fixed or Floating rate
  d. Straight or Convertible