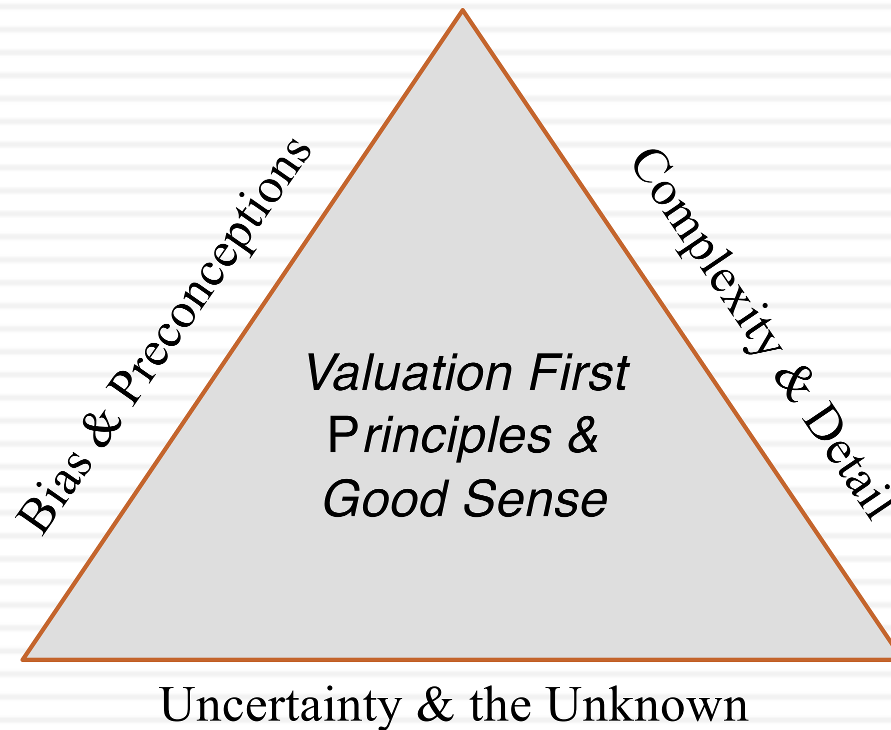
PRIVATE COMPANY VALUATIONS

Aswath Damodaran

The Bermuda Triangle of Valuation



Process of Valuing Private Companies

- The intrinsic value of an asset or company is a function of its expected cash flows and the risk in these cash flow:

$$\text{Value of asset} = \frac{E(CF_1)}{(1+r)} + \frac{E(CF_2)}{(1+r)^2} + \frac{E(CF_3)}{(1+r)^3} \ldots.. + \frac{E(CF_n)}{(1+r)^n}$$

- The process of valuing private companies is not different from the process of valuing public companies. You estimate cash flows, attach a discount rate based upon the riskiness of the cash flows and compute a present value.
- When valuing private companies, you face three standard problems:
  - There is no market value for either debt or equity
  - At small private business, the financials may be opaque or misleading
  - How you value a private business can be affected by why you are valuing it in the first place.

1. No Market Value?

- Market values as inputs: Since neither the debt nor equity of a private business is traded, any inputs that require them cannot be estimated.
  1. Debt ratios for going from unlevered to levered betas and for computing cost of capital.
  2. Market prices to compute the value of options and warrants granted to employees.
- Market price based risk measures, such as beta and bond ratings, will not be available for private businesses.
- Market value as output: When valuing publicly traded firms, the market value operates as a measure of reasonableness. In private company valuation, the value stands alone.

2. Cash Flow Estimation Issues

- Different Accounting Standards: The accounting statements for private firms are often based upon different accounting standards than public firms, which operate under much tighter constraints on what to report and when to report.
  - Separating "Salaries" from "Dividends": It is difficult to tell where salaries end and dividends begin in a private firm, since they both end up with the owner.
  - Official versus unofficial numbers: To the extent that a business's financial statements can become the basis for taxes due, there can be a divide between "reported" and "actual" numbers.
- Intermingling of the personal and business: In the case of private firms, the line between the person (especially on personal service businesses) and the business is a gray one, with implications for value and business life.

3. With private company valuation, motive matters…

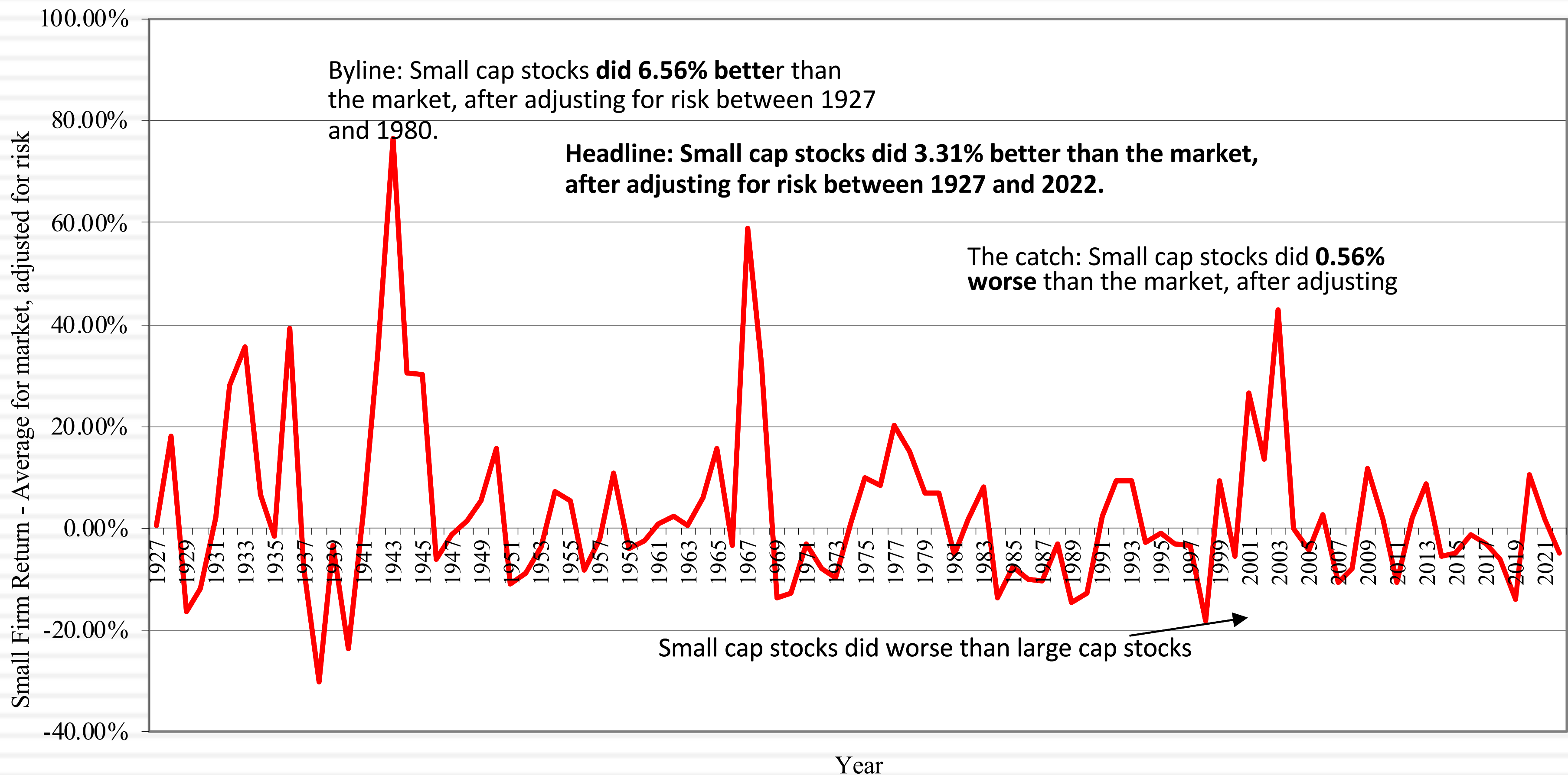
- You can value a private company/assets for
  - 'Show' valuations
    - Curiosity: How much is my business really worth?
    - Legal purposes: Estate tax and divorce court
    - Fair value: To meet accounting requirements and "mark to market"
  - Transaction valuations
    - Sale or prospective sale to another individual or private entity.
    - Sale of one partner's interest to another
    - Sale to a publicly traded firm
  - As prelude to setting the offering price in an initial public offering
- You can value a division or divisions of a publicly traded firm
  - As prelude to a spin off
  - For sale to another entity
  - To do a sum-of-the-parts valuation to determine whether a firm will be worth more broken up or if it is being efficiently run.

A. Show Valuations

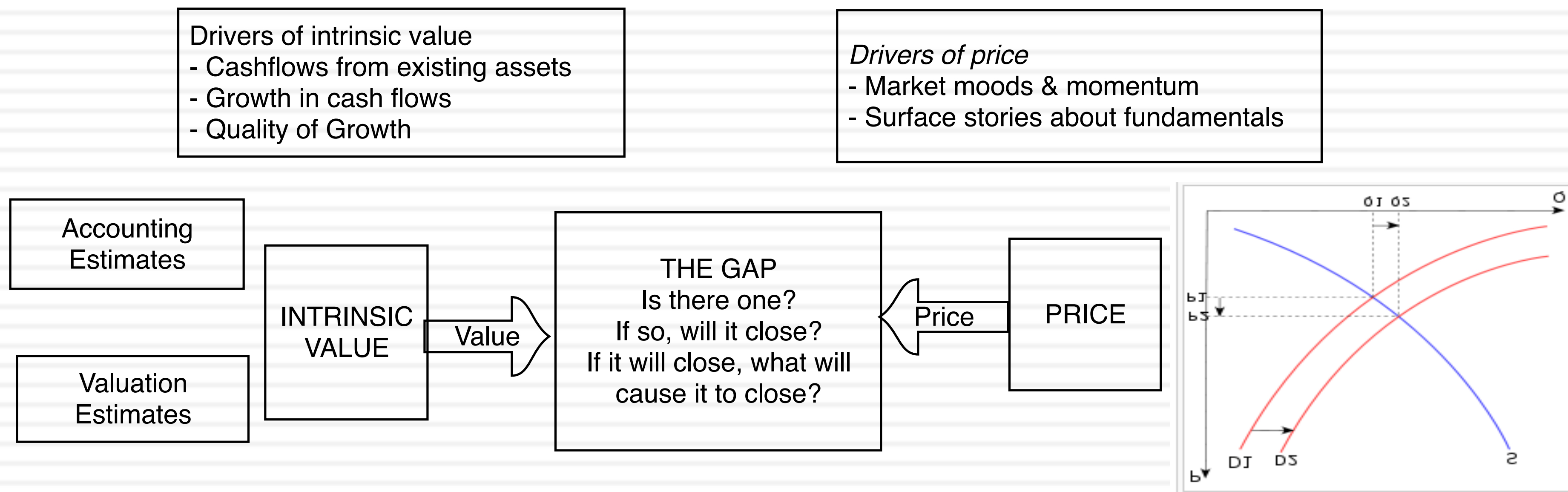
- With show valuations, the objective is not to do a good valuation, or one that is even close to the truth, but one that meets the rules of the game.
- With legal valuations, these rules are determined by what the legal system values the most, which are
  - Precedence: When given a choice between doing things differently (and better) and staying with the way things have always, been done, the latter will win out.
  - The Adversarial System: The nature of the legal system is that the valuations are done for one side of the dispute or the other, and each has a preference on outcome.
- With fairness valuations, the truth is that accounting fair value has never been about value, but about price. Put simply, pricing drives accounting fair value judgements, albeit with lags.

When bad practices become entrenched: The Small Cap Premium (or non-Premium)

Figure 4: Small Firm Premium over time- 1927 -2022



And Price ≠ Value



FAS 157 asks you estimate "*the price in an* *orderly transaction between market participants* *to sell the asset or transfer … The transaction to sell the asset or transfer the liability is a hypothetical transaction at the measurement date, considered from the* *perspective of a market participant that holds the asset or owes the liability*"

B. Transaction-driven valuations

1. Private to private transactions: You can value a private business for sale by one individual to another.
2. Private to public transactions: You can value a private firm for sale to a publicly traded firm.
3. Private to IPO: You can value a private firm for an initial public offering.
4. Private to VC/PE to Public: You can value a private firm that is expected to raise venture capital along the way on its path to going public.

B1. Private to Private transaction

- In private-to-private transactions, a private business is sold by one individual to another. There are three key issues that we need to confront in such transactions:
  - Neither the buyer nor the seller is diversified. Consequently, risk and return models that focus on just the risk that cannot be diversified away will seriously underestimate the discount rates.
  - The investment is illiquid. Consequently, the buyer of the business will have to factor in an "illiquidity discount" to estimate the value of the business.
  - Key person value: There may be a significant personal component to the value. In other words, the revenues and operating profit of the business reflect not just the potential of the business but the presence of the current owner.
  - Business life: The life of a business that is built around a person or even a family can be constrained.

B1.1: Risk and Diversification

- Risk and return models are built on the presumption that the marginal investor in the business being valued is diversified.
- That assumption allows us to focus only on the risk that cannot be diversified away, and every measure of risk in use (beta in CAPM, multiple betas in other models) measure on that risk. The expected return (or discount rate) is then derived from this measure.
- When the buyer of a business is not diversified, he or she will demand a higher rate of return to compensate for some or all of the non-diversifiable risk.

The Build-up Approach

- In the build-up approach, analysts and appraisers start with a standard market model (used for public companies) to estimate a discount rate and proceed to add premiums for private companies:
  - A ”small cap” premium
  - An “illiquidity” premium
  - A ”company-specific risk premium
- Each of these premiums is supposedly based on research studies, but these studies are
  - Dated (The small cap premium has not existed since 1981)
  - Stand alone (not meant to be used together, since you can double count risks….)
- The allure of the build-up approach is that it allows for the use of any discount rate an appraiser wants, reflecting the bias of the appraiser to get a higher or lower value.

A Data-driven View on Adjusting for Non-Diversification

Completely Undiversified

As investors become less diversified, they will demand returns to cover some or all of this risk

Diversified investors demand an expected rerturn that covers this portion of risk

Diversifiable or firm-specific risk

Non-diversifiable Risk

A Market-Data Approach to estimating non-diviersifed discount rates

1. Start with the beta of the sector or business that the private business is in, by looking at public companies in the space.
2. From the same regressions that you get the beta from, you also extract the correlation of the stock with the market.
3. By combining the two, you are in effect getting the total standard deviation of the stock, which scaled to market's standard deviation:

Total Beta = Market Beta/ Correlation with the market.

B1.2: The Illiquidity Effect

- In private company valuation, illiquidity is a constant theme. All the talk, though, seems to lead to a rule of thumb. The illiquidity discount for a private firm is between 20-30% and does not vary across private firms.
- But illiquidity should vary across:
  - Companies: Healthier and larger companies, with more liquid assets, should have smaller discounts than money-losing smaller businesses with more illiquid assets.
  - Time: Liquidity is worth more when the economy is doing badly and credit is tough to come by than when markets are booming.
  - Buyers: Liquidity is worth more to buyers who have shorter time horizons and greater cash needs than for longer term investors who don't need the cash and are willing to hold the investment.

The Status-Quo

- An Illiquidity Bludgeon: Appraisers value company, and then routinely knock of a significance portion of that value for illiquidity, with little or no differentiation across businesses.
- With Double Counting: Appraisers who use build-up approach to discount rates often incorporate adjustments to these rates that already include illiquidity effects. Applying an additional discount to value is double counting.
- A dependence on questionable research: The illiquidity discounts are justified by studies of restricted stock or IPOs. These studies invariably:
  - Have small samples
  - With significant sampling bias
  - Have results that are not credibile

Alternatives for dealing with illiquidity

1. Extrapolate from public company illiquidity discounts: The notion that private companies are illiquid and that public companies are liquid is simplistic and false.
   - There is an illiquidity discount at every publicly traded company, in the form of a bid-ask spread, and its effect can vary widely across companies.
   - Looking at why bid-ask spreads vary across public companies can help us estimate a synthetic spread (illiquidity discount) at private businesses.
2. Liquidity as a put option: Liquidity can be viewed as a put option, giving the owners of liquid assets, to right to sell these assets at the prevailing market price.

B1.3: Key person and business life

- To the extent that the value of a private business is tied to the owner of the business, the value that you obtain will have to reflect his/her presence or absence.
  - This is the key person discount in value, and to be done right, you will have to value the business with and without the key person.
  - The way a sale is structured, with provisions on the key person staying on, even in an informal relationship, can affect the key person discount.
- If you believe that the life of a business is constrained, either because it is tied to the owner or legal/tax reasons, your valuation should reflect that reality:
  - Your terminal value should not be based upon the familiar perpetual growth model. Instead, you should consider using a growing annuity value or a liquidation value.
  - If owner age and health can affect cash flows, that too should be incorporated into value.

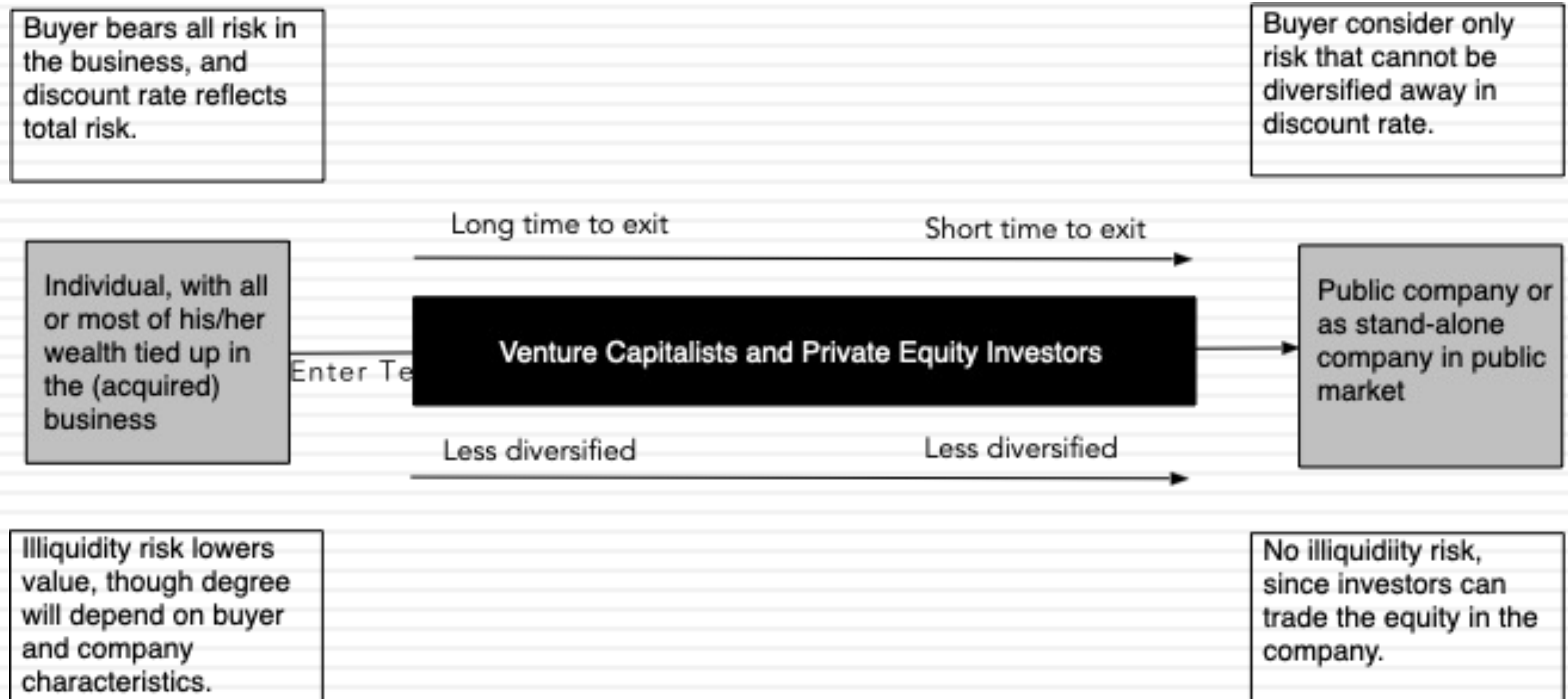
B2. Private company sold to publicly traded company

- The key difference between this scenario and the previous scenario is that the seller of the business is not diversified but the buyer is (or at least the investors in the buyer are). Consequently, they can look at the same firm and see very different amounts of risk in the business with the seller seeing more risk than the buyer.
- The cash flows may also be affected by the fact that the tax rates for publicly traded companies can diverge from those of private owners.
- Finally, there should be no illiquidity discount to a public buyer, since investors in the buyer can sell their holdings in a market.

B3. Private company for initial public offering

- In an initial public offering, the private business is opened up to investors who clearly are diversified (or at least have the option to be diversified).
- The reporting and information disclosure requirements shift to reflect a publicly traded firm.
- Valuation issues:
  - Use of the proceeds from the offering: The proceeds from the offering can be held as cash by the firm to cover future investment needs, paid to existing equity investors who want to cash out or used to pay down debt.
  - Warrants/ Special deals with prior equity investors: If venture capitalists and other equity investors from earlier iterations of fund raising have rights to buy or sell their equity at pre-specified prices, it can affect the value per share offered to the public.

B4. Private to VC/PE to Public



The Value of Control in PE