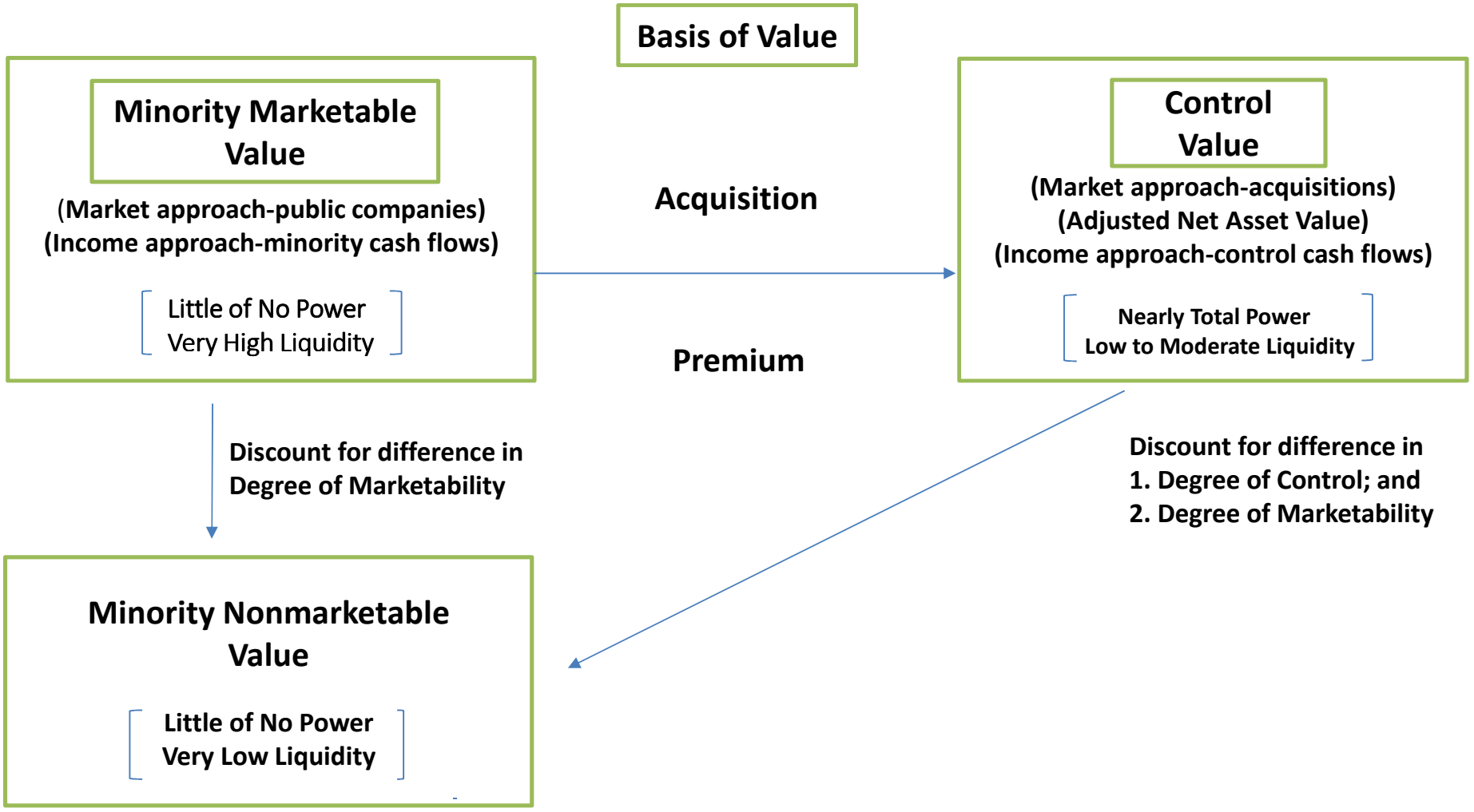
Grant Sherman
Appraisal 中證評估

Weighted Voting Rights — Impact on Valuation

Basis of Value Chart



Source: American Society of Appraisers, adapted from chart created by Michael J. Bolotsky.

Valuing Control Premiums in Acquisitions

- If there is value from potential synergy in a merger it will be in addition to the value of control
- The value of control will vary across firms
- There can be no rule of thumb on control premium
- The control premium should vary depending upon why a firm is performing badly
- The control premium should be a function of the ease for making management changes

Expected value per share = Status Quo Value + probability of control changing * (Optimal Value – Status Quo Value)

Listing Rules Chapter 8A

8A.08

An issuer must not seek a listing of a class of shares carrying WVR.

8A.17

The beneficiary's WVR in a listed issuer must cease if, at any time after listing, the beneficiary is:

- deceased;
- no longer a member of the issuer's board of directors;
- deemed by the Exchange to be incapacitated for the purpose of performing his or her duties as a director; or
- deemed by the Exchange to no longer meet the requirements of a director set out in these rules.

Listing Rules Chapter 8A

8A.18 (1)

The WVR attached to a beneficiary's share must cease upon transfer to another person of the beneficial ownership of, or economic interest in, those shares or the control over the voting rights attached to them (through voting proxies or otherwise).

8A.21

Any conversion of shares with WVR into ordinary shares must occur on a one to one ratio.

Listing Rules Chapter 8A

8A.24

Any WVR attached to any class of shares in a listed issuer must be disregarded and must not entitle the beneficiary to more than one vote per share on any resolution to approve the following matters:

- changes to the listed issuer's constitutional documents, however framed;
- variation of rights attached to any class of shares;
- the appointment or removal of an independent non-executive director;
- the appointment or removal of auditors; and
- the voluntary winding-up of the listed issuer.

Voting and non-voting shares

- If both classes of shares are tradable, the voting shares will trade at a premium that reflects the expected value of control

- "Golden shares" owned by the government that allow it to retain some or a great deal of control over how the firm is run. While golden shares are not traded, they will affect the values of shares that are traded by reducing the expected value of control

Voting and non-voting shares (con'd)

- Empirical Evidence on premium:
  - United States: small premium, 5-10%
  - United Kingdom and Canada: 5-10%
  - Latin America: 50-100%
  - Israel: 75%
  - Italy: 80%

Valuation of
High Growth Companies

Relevant facts

- Due diligence of existing assets and fundamentals
- Track record
- Market potential
- Business model
- Business risks
- Economy
- **Robustness of technology or advantages**
- **Basis for conversion of technology or advantages (e.g. user-base) into future cash flow generation**

Valuation Approaches

Income Approach

01. Risk-adjusted NPV

02. Decision Tree Analysis

Market Approach

01. Recent transactions in the Target

02. M&A transaction/public multiples

Income Approach

01. Discounted Cash Flow

- Intrinsic value
- Prospective Financial Information (“PFI”)
  - **Availability and quality of basis**
  - **Viable business model**
- Discount rate
  - **Comparable public companies (systematic risk)**
  - **Survival risk & other specific risks**
- Issue
  - **High terminal value**
  - **Garbage in garbage out**

Income Approach

02. VC discount rate

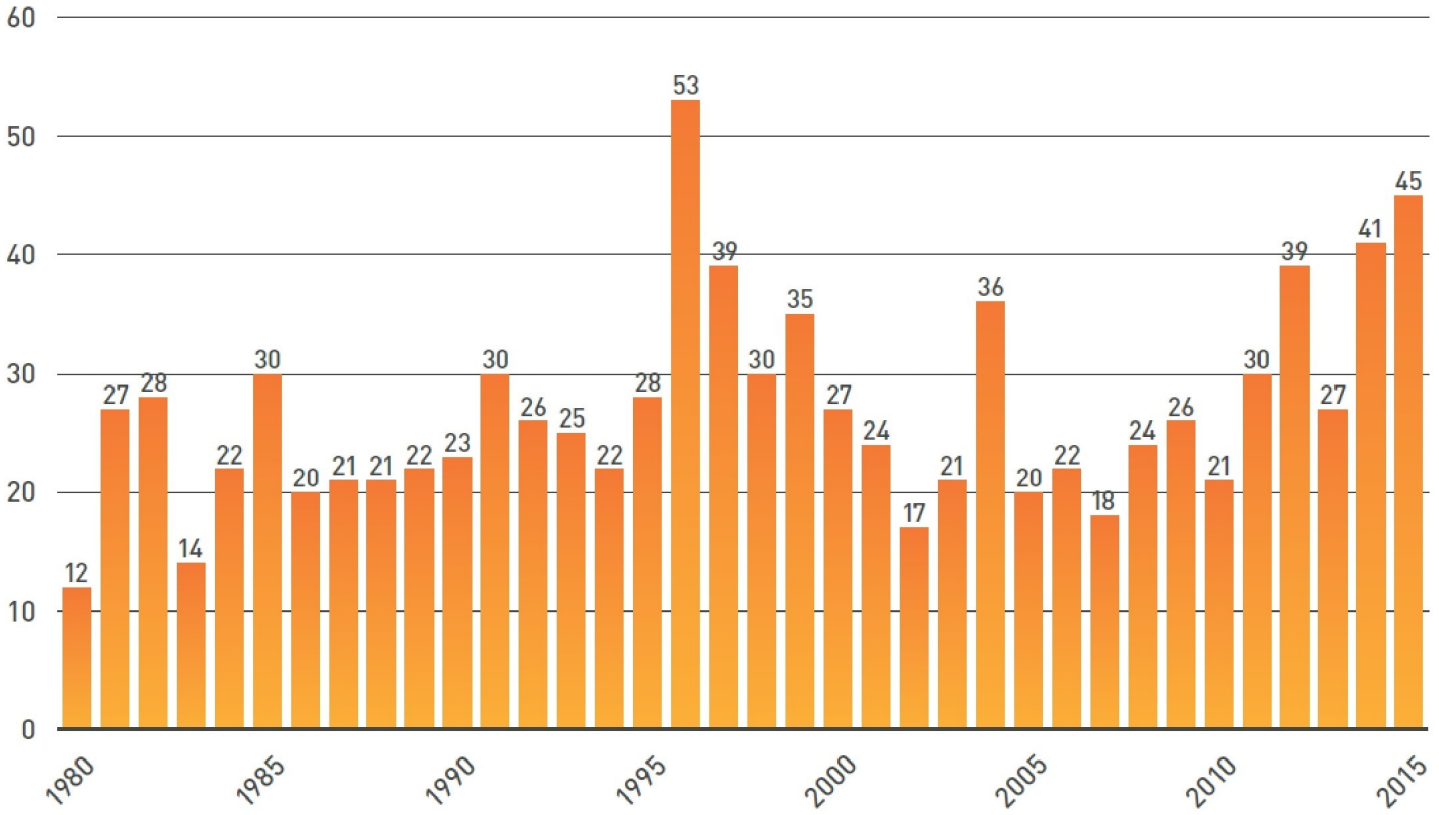
$p_A \rightarrow$ / $r_A \downarrow$	0.30	0.40	0.50	0.60	0.70
0.05	0.92	0.66	0.48	0.36	0.25
0.10	0.96	0.70	0.52	0.39	0.28
0.15	1.00	0.74	0.55	0.42	0.31
0.20	1.05	0.77	0.59	0.45	0.34
0.25	1.09	0.81	0.62	0.48	0.37

Notes: This table provides values of r_A^*, the discount rate used by VCs, where p_A is the probability of eventual success of the project, and r_A is the discount rate implied by the systematic risk of the project (given that it is successful); a risk-free rate of 5 percent is assumed

VC discount rate can be viewed as a combination of the systematic risk and probability of success

Source: Sanjai Bhagat, 2014. *Journal of Risk Finance*

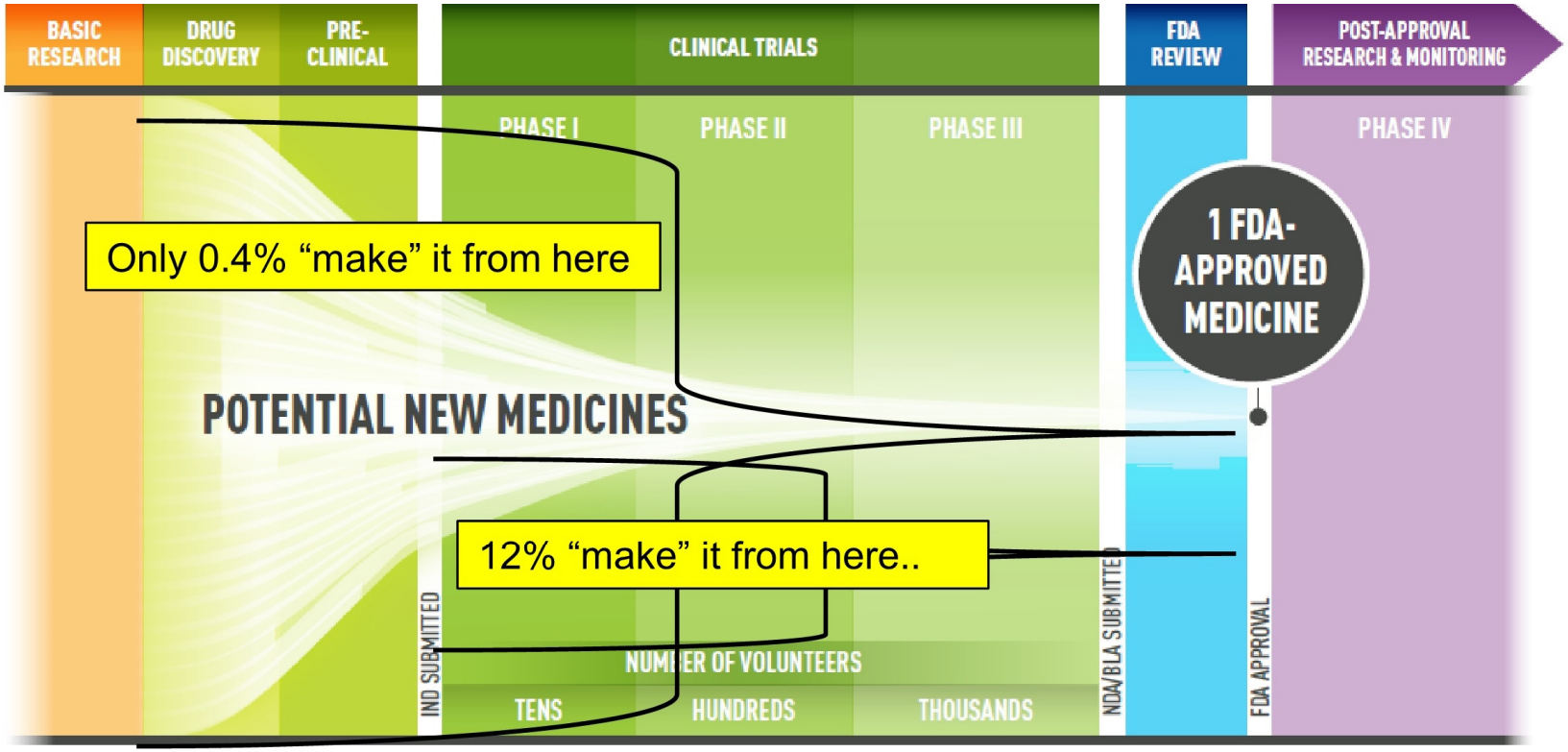
How many “medicines” are created each year?



*Medicines approved by the FDA's Center for Drug Evaluation and Research (CDER).

Sources: US Food and Drug Administration. Summary of NDA approvals and receipts, 1938 to the present. http://www.fda.gov/aboutfda/whatwedo/history/productregulation/summaryofndaapprovalsreceipts1938tothepresent/default.htm. Published January 18, 2013. Accessed March 2016; US Food and Drug Administration. New drugs at FDA: CDER's new molecular entities and new therapeutic biological products. http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DrugInnovation/ucm20025676.htm. Updated February 8, 2016. Accessed March 2016.

How many medicines “make” it?



Key: IND: Investigational New Drug Application, NDA: New Drug Application, BLA: Biologics License Application

* The average R&D cost required to bring a new, FDA-approved medicine to patients is estimated to be $2.6 billion over the past decade (in 2013 dollars), including the cost of the many potential medicines that do not make it through to FDA approval.

Sources: PhRMA adaptation based on DiMasi JA, Grabowski HG, Hansen RW. Innovation in the pharmaceutical industry: new estimates of R&D costs. *J Health Economics*. 2016;47:20-33; DiMasi JA, Grabowski HG, Hansen RW; Tufts Center for the Study of Drug Development. Innovation in the pharmaceutical industry: new estimates of R&D costs. In: Briefing: Cost of Developing a New Drug. http://csdd.tufts.edu/files/uploads/Tufts_CSDD_briefing_on_RD_cost_study_-_Nov_18,_2014..pdf. Published November 18, 2014. Accessed April 2016; US Food and Drug Administration. US Food and Drug Administration drug approval process. http://www.fda.gov/downloads/Drugs/ResourcesForYou/Consumers/UCM284393.pdf. Accessed April 2016.

Market Approach

01. Guideline transaction in Target

- Previous/current rounds of funding
- Often rely on valuation determined by lead investors
  - **Inherently most relevant and specific**
  - **Information readily available**
- Definition
  - **Active market**
  - **Market participants**
  - **Arm's length**
- Issue
  - **Looping of implied value**
  - **Assumption of fair transaction**
  - **Acting in concert**
  - **Bypass scrutiny in the business itself**

Market Approach

02. Multiples

- M&A transactions and publicly traded comparable companies
- Common traditional multiples
- Popular specific parameters
  - Gross Merchandise Volume ("GMV")
  - Monthly Active Users ("MAU")
  - Daily Active Users ("DAU")
  - Page View
- Issues
  - Assumption of fair transaction for private transactions
  - Comparability
  - Lack of publicly available data of specific parameters

US PE & VC Index Return

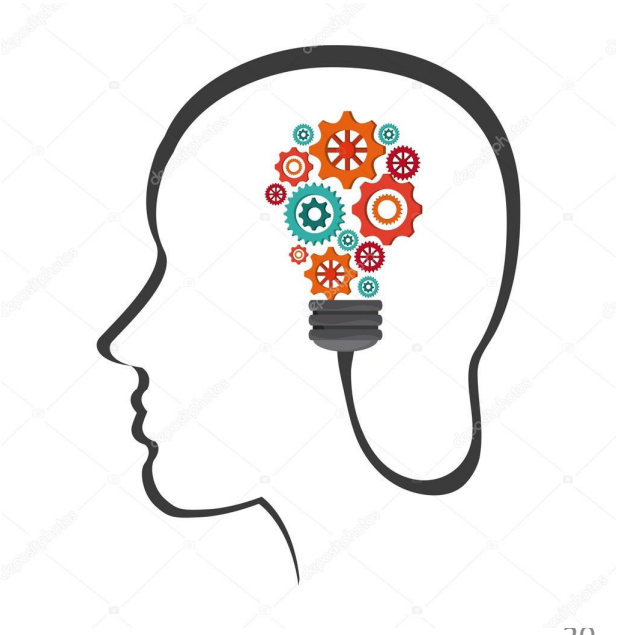
Sept 2017 (annualized %)

Index	Qtr	YTD	1 Yr	3 Yr	5 Yr	10 Yr	15 Yr	20 Yr	25 Yr
CA US Private Equity	3.9	11.7	16.9	10.2	13.6	9.7	13.6	12.2	13.5
Russell 2000® mPME	5.7	10.9	20.8	12.2	14.5	8.9	11.2	8.7	9.6
S&P 500 mPME	4.5	14.3	18.6	10.7	14.6	8.5	10.0	7.9	8.8
CA US Venture Capital	3.2	8.1	7.9	10.8	14.8	9.1	8.8	22.3	28.2
Nasdaq Constructed* mPME	6.1	21.7	23.6	14.2	17.5	10.9	12.8	9.3	11.4
Russell 2000® mPME	5.7	10.9	20.8	12.2	14.3	8.3	11.5	8.6	10.1
S&P 500 mPME	4.5	14.2	18.6	10.7	14.5	8.1	10.1	7.7	9.3
Nasdaq Composite** AACR	5.8	20.7	22.3	13.1	15.8	9.2	12.1	7.0	10.1
Russell 2000® AACR	5.7	10.9	20.7	12.2	13.8	7.8	11.4	7.5	10.0
S&P 500 AACR	4.5	14.2	18.6	10.8	14.2	7.4	10.0	7.0	9.6

Source: Cambridge Associates

Best practices

- VPO's standard?
- Regulator's guidelines?
  - ➢ Consistency
  - ➢ Documentation
  - ➢ Reproducibility
  - ➢ Disclosures
    - Basis
    - Assumptions
    - Due diligence performed



Q & A

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Thanks for listening!