

M339N: September 4th, 2020.

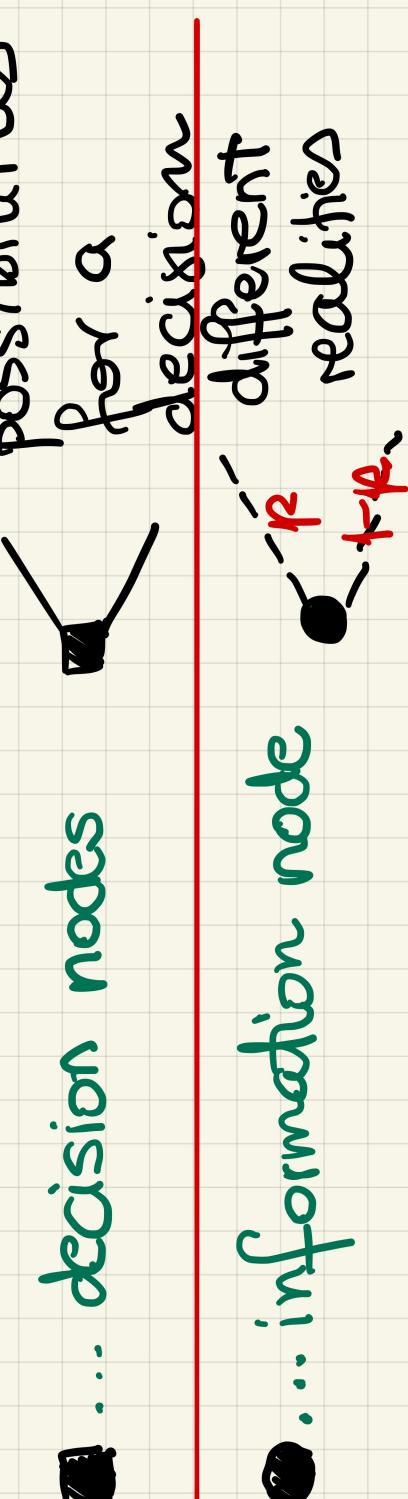
Real Options.

- A **real option** is a right to make a particular business decision.
- Examples.**
 - whether to renew a TV show for another season;
 - whether you want to commission a spin-off of a series of YA books;
 - whether to introduce a new product;
- Tariff** options on many a certain loyalty member of the

whether to marry a certain

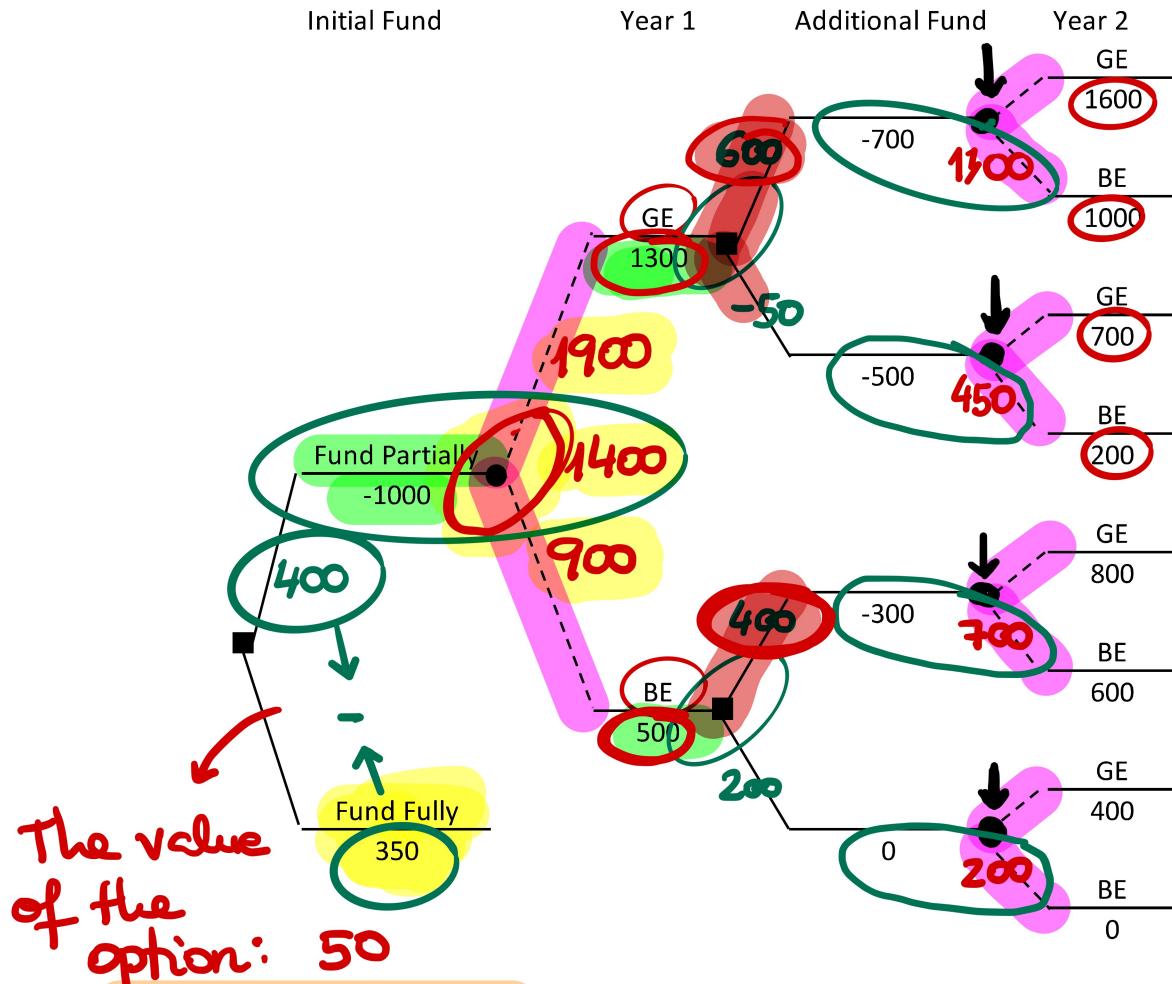
Real options are different from derivative securities we talked about so far because they do not have a tradeable underlying asset (so no straight forward replication) and they themselves are not often times traded.

There is a binomial-tree-like approach to real-options valuation. Here, we get a **binary tree** w/ two types of nodes:
■ ... decision nodes
and
● ... information node



for a decision
realities

- 28) Consider a two-year project that when fully funded at time 0 has a net present value of \$350. The decision tree below shows the cash flows of the project when partially funded at the beginning of the Year 1 (at $t = 0$) with an option to provide different amounts of funding at the beginning of Year 2 (at $t = 1$). This tree reflects two economic states (GE = good economy, BE = bad economy) in each of the two years. For a given year, each economic state has a 50% probability.



Calculate the value of the option at $t = 0$.

- (A) 0
- (B) 50**
- (C) 150
- (D) 200
- (E) 250