The financial context of petroleum exploration and discovery

- **Very generalized estimate of pre-tax cost and gross return ($US)**
  - $10 Trillion
  - $1 Trillion
  - $100 Billion
  - $1 Billion
  - $10 Billion
  - $100 Million
  - $10 Million
  - $1 Million
  - $100,000
  - $10,000

- **Time in the progression of development of a potential source of oil**

All of the costs shown on this plot are estimates!

The most striking inference from this plot is that the economic return from discovering a giant field exceeds any possible cost.

- 80 billion barrel field (e.g. Ghawar, the world's largest conventional oil field) at $100/barrel
- 10 billion barrel field (of which at least 30 exist) at $100/barrel
- 3 billion barrel field (e.g. BP Tiber discovery) at $100/barrel
- 1 billion barrel field (of which at least 120 exist) at $100/barrel
- 500 million barrel field (giant oil field) (of which about 900 exist) at $100/barrel
- 100 barrel one-well shallow field at $100/barrel
- BP Deepwater Horizon spill response fund
- Fine levied by Ecuador on Chevron for Amazon Basin pollution
- Disputed fine levied by Nigeria on Shell for Bonga offshore spill
- Cost to Exxon of Exxon Valdez spill
- Fines paid by Exxon for Yellowstone River spill
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Completion of a well already drilled is a function not of the cost of drilling the well, which is a sunk cost, but of the cost of completion.