

Class 11: Secrets

Pitch decks: due Wednesday at 11:59pm

Pitch deck feedback emailed next week

Assignment 4 posted Wednesday night

outline

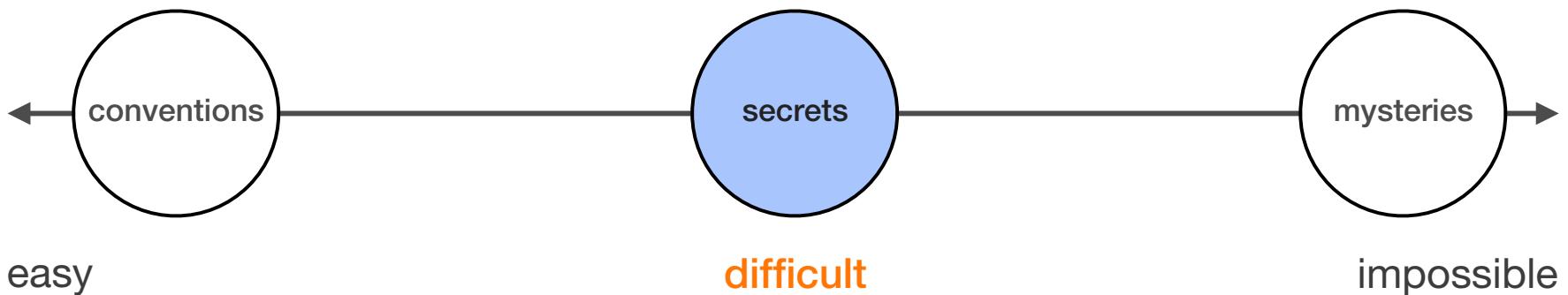
1. secrets
2. the next secret
3. the case against secrets
4. the case against the case against secrets
5. the case for secrets
6. how to find secrets
7. what to do with secrets

the key question

What important truth do very few people agree with you on?

hard to discover

how hard is the truth to obtain?



types of secrets

small

big

silly

esoteric

outline

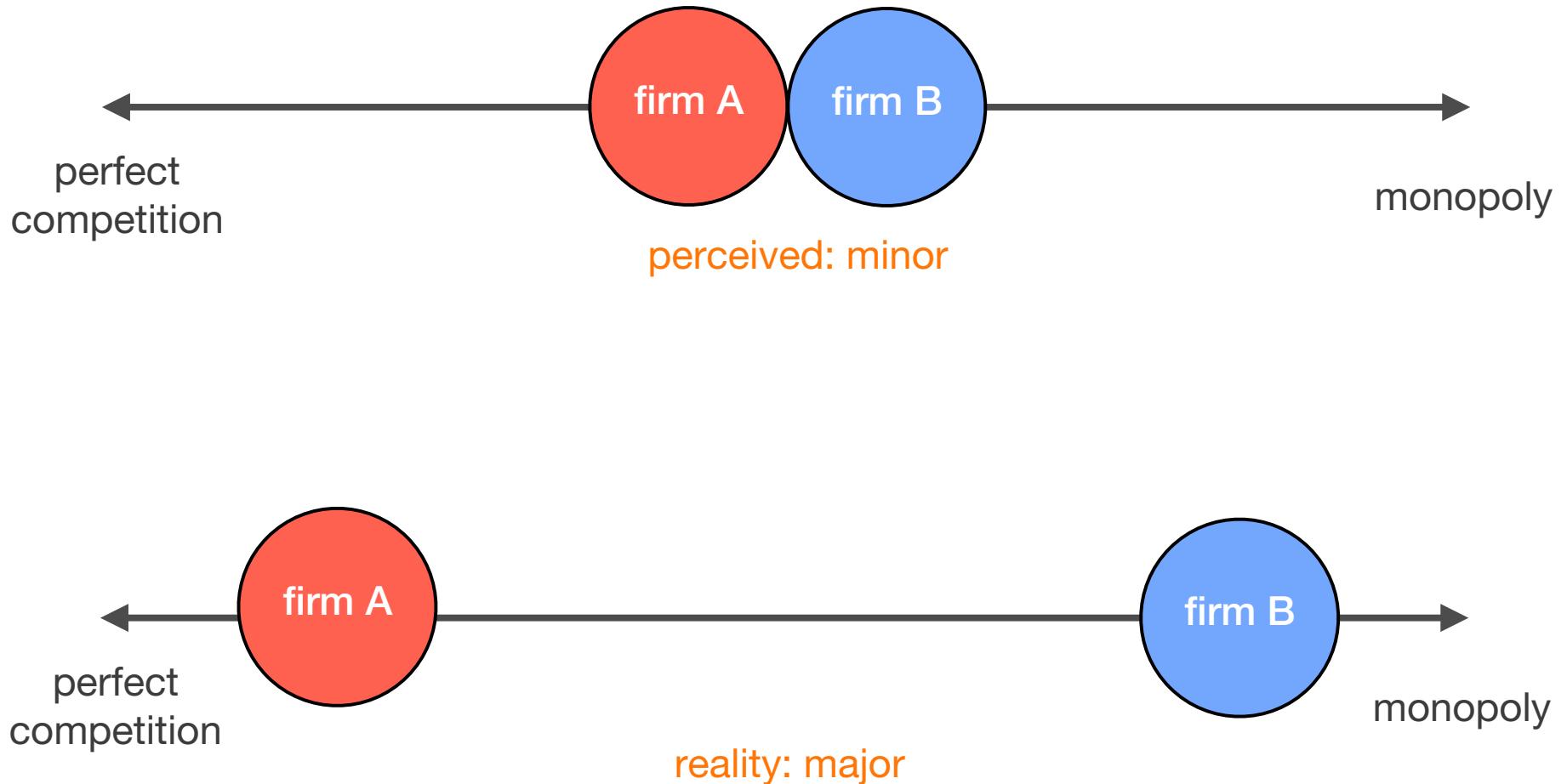
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monopoly

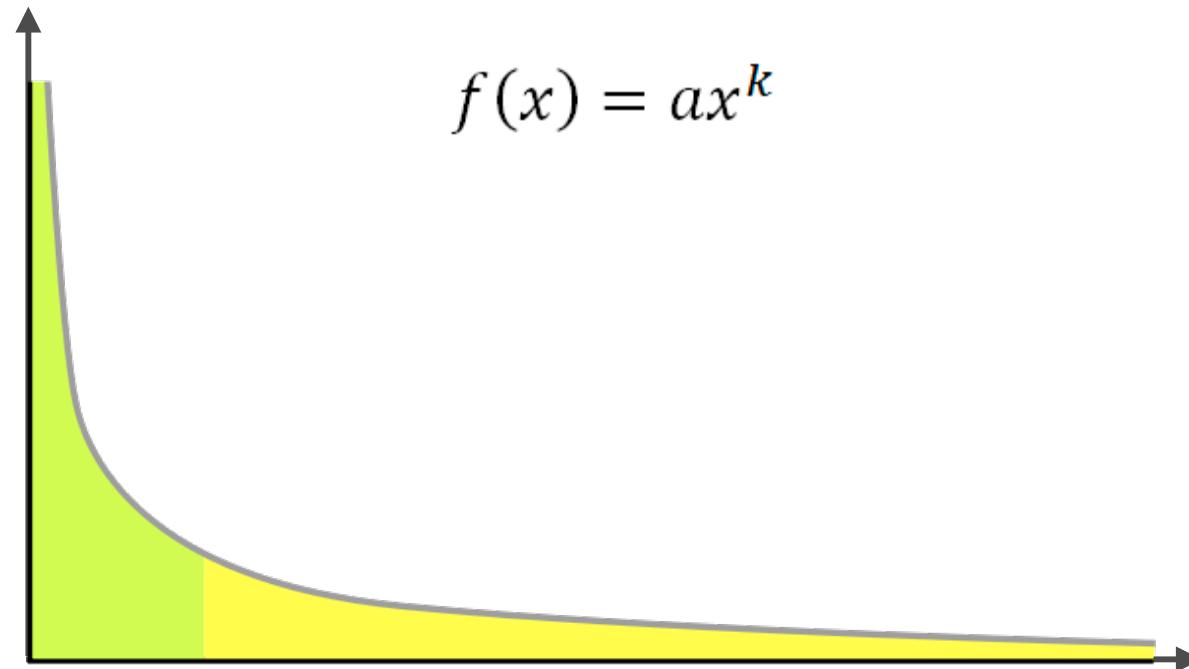
power law

distribution

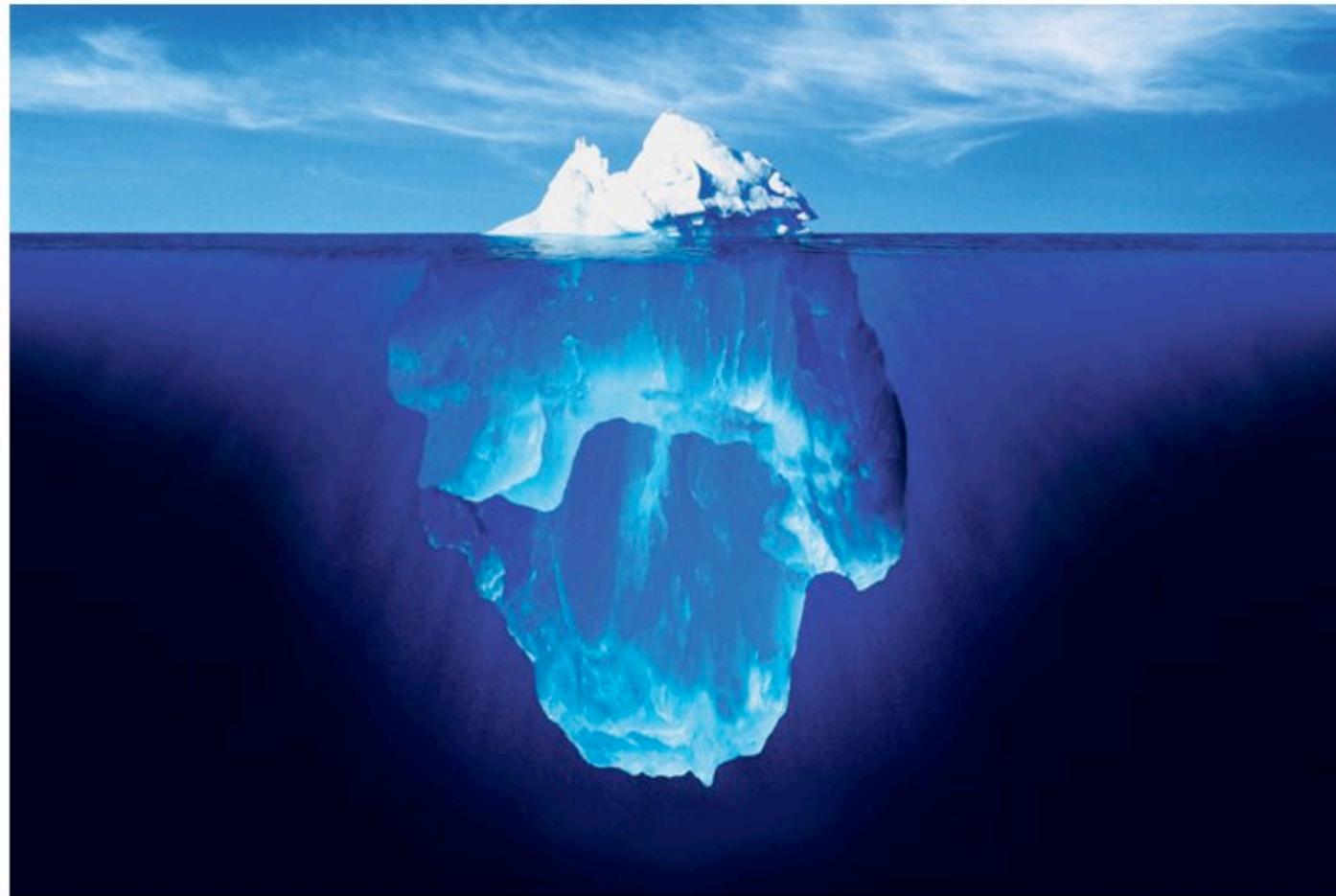
monopoly



power law



distribution



monopoly

distribution

power law

many important secrets left

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the Unabomber



the Unabomber manifesto

We divide human drives into three groups:

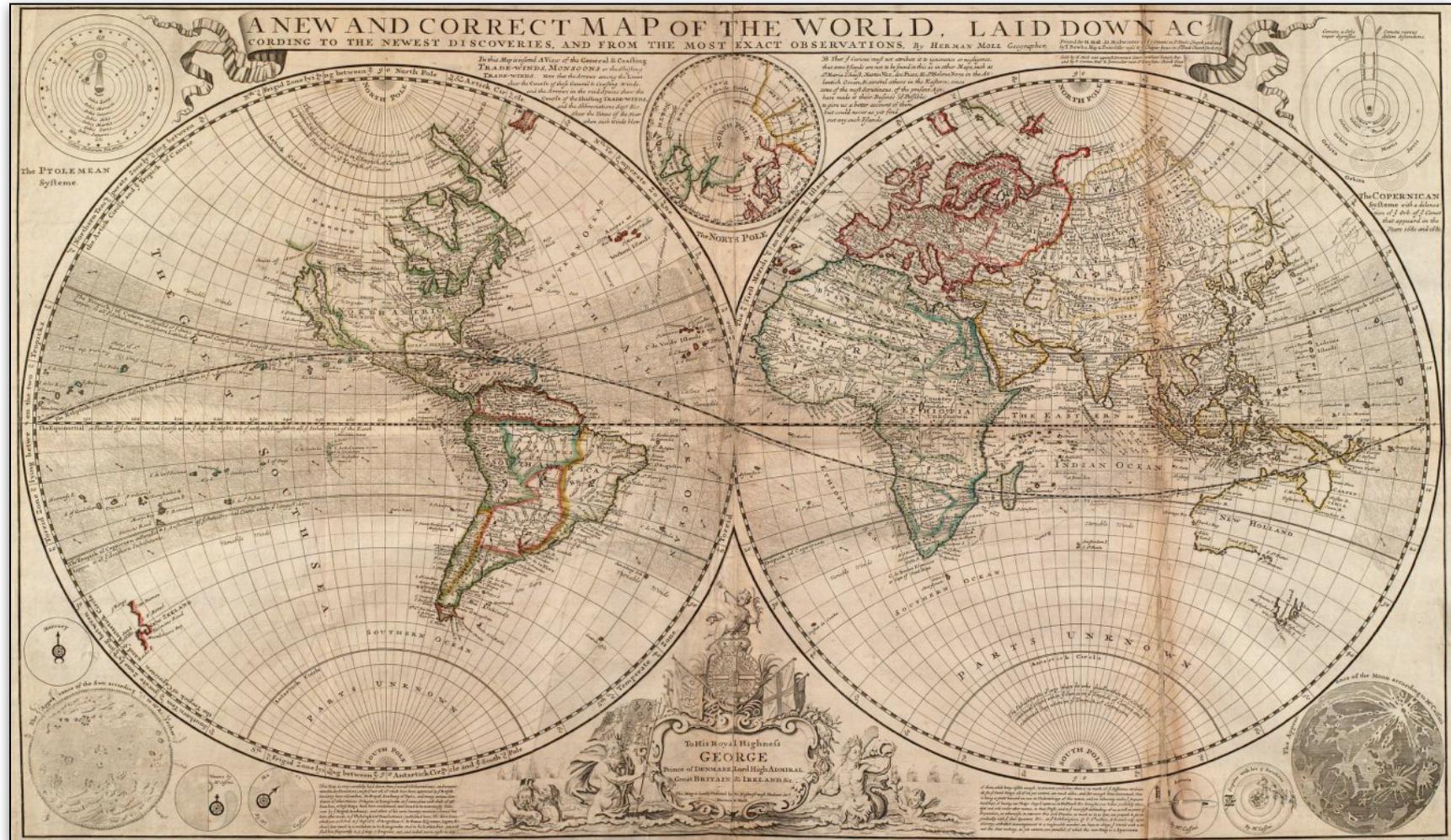
- (1) those drives that can be satisfied with minimal effort
- (2) those that can be satisfied but only at the cost of serious effort
- (3) those that cannot be adequately satisfied no matter how much effort one makes.

-Ted Kaczynski

fashionable Luddites



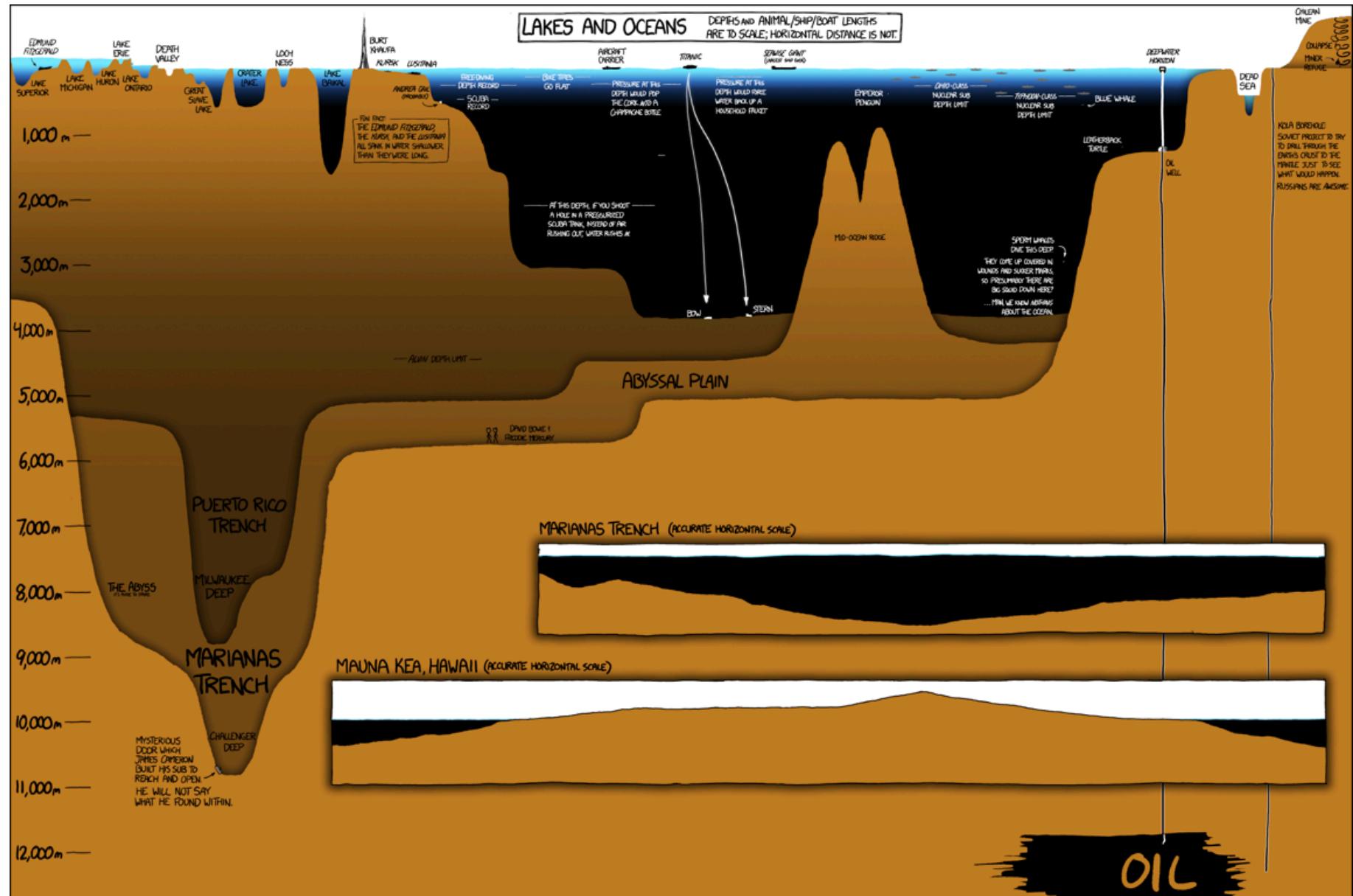
nowhere left to go



the last tribes



the unexplored



nothing left to find?

The Periodic Table of the Elements

1 H Hydrogen 1.00794																	2 He Helium 4.003
3 Li Lithium 6.941	4 Be Beryllium 9.012182																
11 Na Sodium 22.989770	12 Mg Magnesium 24.3050																
19 K Potassium 39.0983	20 Ca Calcium 40.078	21 Sc Scandium 44.955910	22 Ti Titanium 47.867	23 V Vanadium 50.9415	24 Cr Chromium 51.9961	25 Mn Manganese 54.938049	26 Fe Iron 55.845	27 Co Cobalt 58.933200	28 Ni Nickel 58.6934	29 Cu Copper 63.546	30 Zn Zinc 65.39	31 Ga Gallium 69.723	32 Ge Germanium 72.61	33 As Arsenic 74.92160	34 Se Selenium 78.96	35 Br Bromine 79.904	36 Kr Krypton 83.80
37 Rb Rubidium 85.4678	38 Sr Strontium 87.62	39 Y Yttrium 88.90585	40 Zr Zirconium 91.224	41 Nb Niobium 92.90638	42 Mo Molybdenum 95.94	43 Tc Technetium (98)	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.90550	46 Pd Palladium 106.42	47 Ag Silver 107.8682	48 Cd Cadmium 112.411	49 In Indium 114.818	50 Sn Tin 118.710	51 Sb Antimony 121.760	52 Te Tellurium 127.60	53 I Iodine 126.90447	54 Xe Xenon 131.29
55 Cs Cesium 132.90545	56 Ba Barium 137.327	57 La Lanthanum 138.9055	72 Hf Hafnium 178.49	73 Ta Tantalum 180.9479	74 W Tungsten 183.84	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.217	78 Pt Platinum 195.078	79 Au Gold 196.96655	80 Hg Mercury 200.59	81 Tl Thallium 204.3833	82 Pb Lead 207.2	83 Bi Bismuth 208.98038	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium (226)	89 Ac Actinium (227)	104 Rf Rutherfordium (261)	105 Db Dubnium (262)	106 Sg Seaborgium (263)	107 Bh Bohrium (262)	108 Hs Hassium (265)	109 Mt Meitnerium (266)	110 (269)	111 (272)	112 (277)	113 (277)	114 (277)				

58 Ce Cerium 140.116	59 Pr Praseodymium 140.90765	60 Nd Neodymium 144.24	61 Pm Promethium (145)	62 Sm Samarium 150.36	63 Eu Europium 151.964	64 Gd Gadolinium 157.25	65 Tb Terbium 158.92534	66 Dy Dysprosium 162.50	67 Ho Holmium 164.93032	68 Er Erbium 167.26	69 Tm Thulium 168.93421	70 Yb Ytterbium 173.04	71 Lu Lutetium 174.967
90 Th Thorium 232.0381	91 Pa Protactinium 231.03588	92 U Uranium 238.0289	93 Np Neptunium (237)	94 Pu Plutonium (244)	95 Am Americium (243)	96 Cm Curium (247)	97 Bk Berkelium (247)	98 Cf Californium (251)	99 Es Einsteinium (252)	100 Fm Fermium (257)	101 Md Mendelevium (258)	102 No Nobelium (259)	103 Lr Lawrencium (262)

the anti-secrecy culture

incrementalism

risk aversion

complacency

egalitarianism

outline

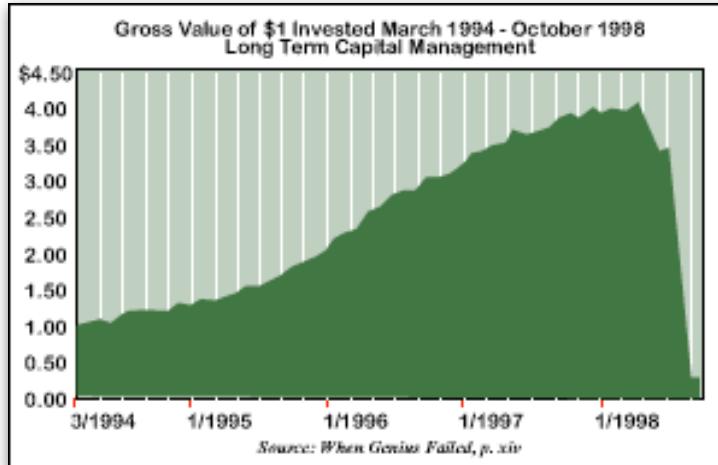
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the end of injustice?

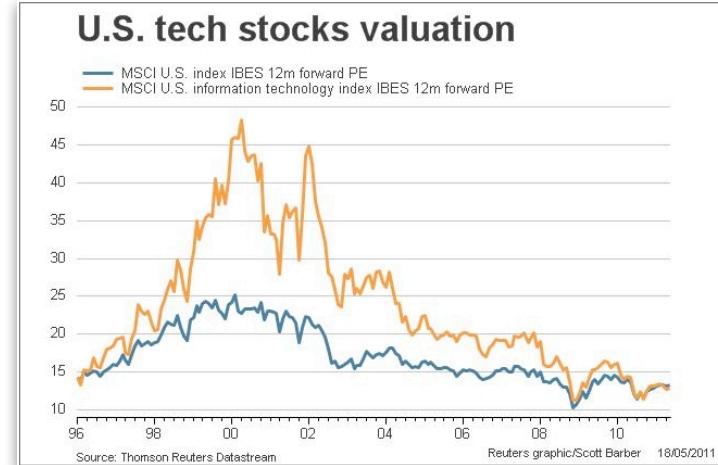


the end of inefficiency?

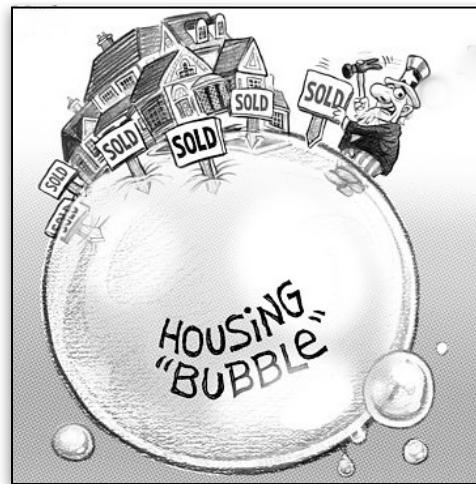
LTCM crisis



dot-com bubble



housing bubble



European debt crisis



the end of political dissent?



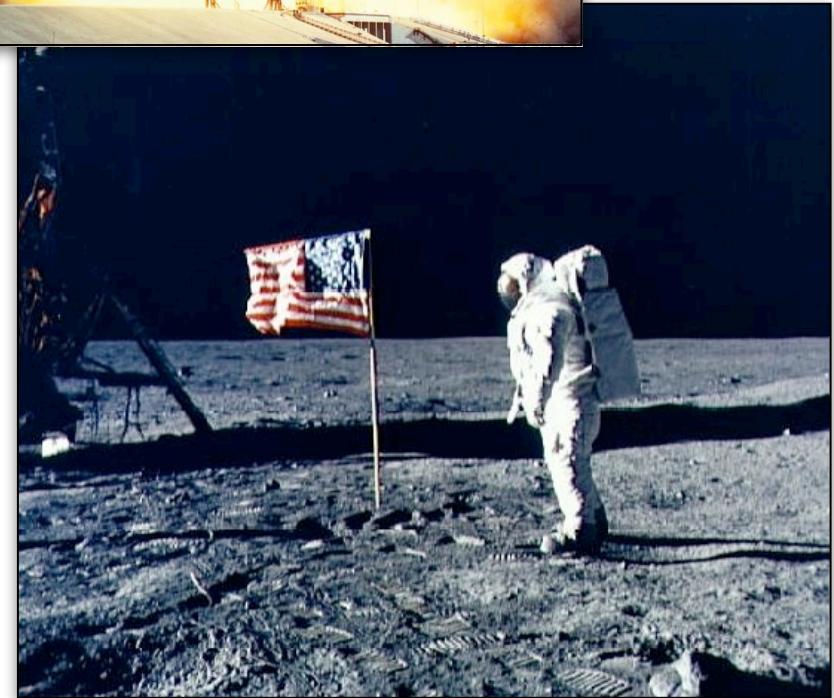
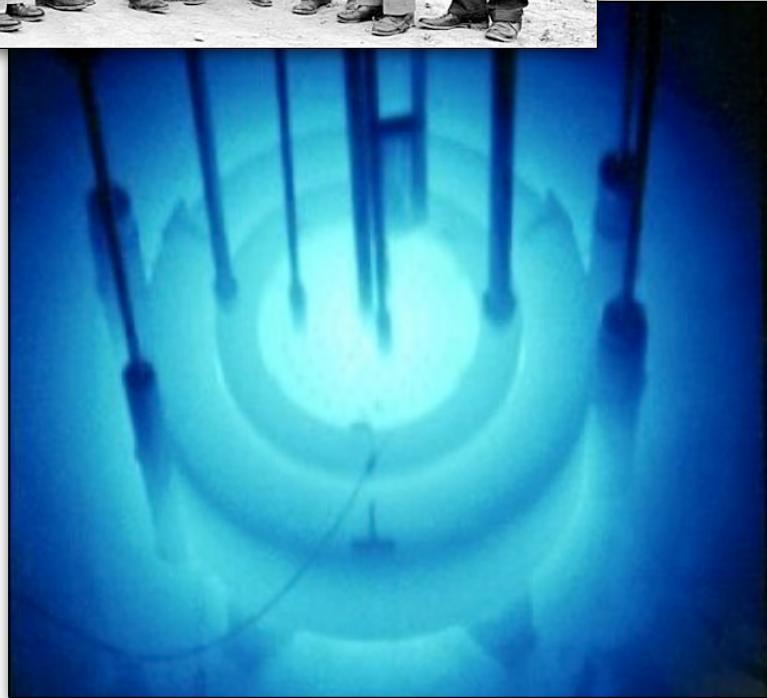
the end of substance?

"I followed the proper processes..."

Patricia Dunn
Chairman of the Board, Hewlett-Packard



the end of the future?



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the belief in secrets as an effective truth



Fermat's last theorem:

$$x^n + y^n = z^n$$

has no integer solutions for $n > 2$ and $x, y, z \neq 0$

many small secrets

twitter



many big secrets



outline

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important secrets

not small

not silly

not esoteric

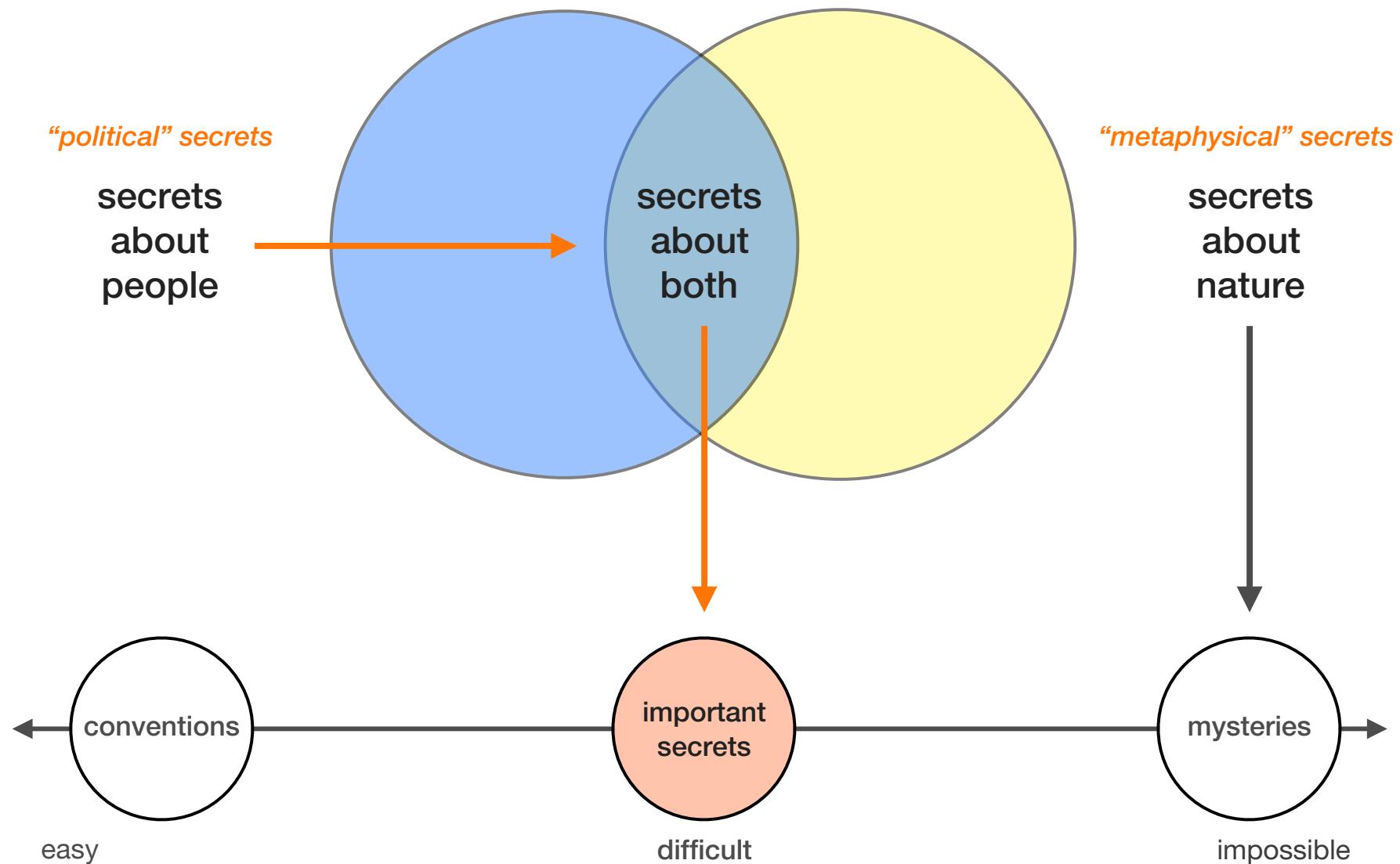
already discussed

monopoly

power law

distribution

two approaches



search space

the Manhattan Project for nutrition

killing stem cells to kill cancer

fashionable clean-tech

macro drivers

unsustainable trade deficits implies agricultural technology

unsustainable government implies technocracy

outline

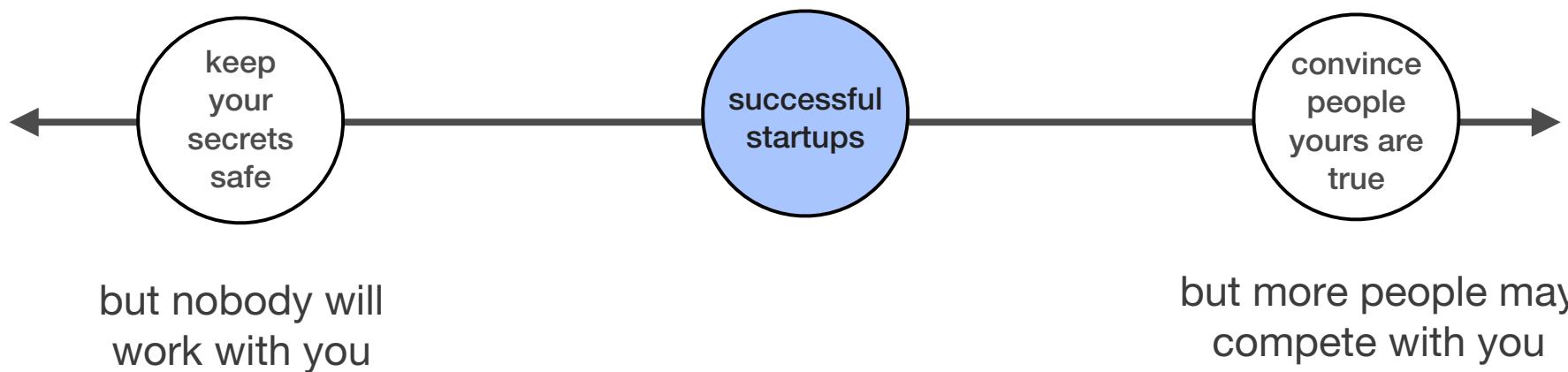
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the basic tension

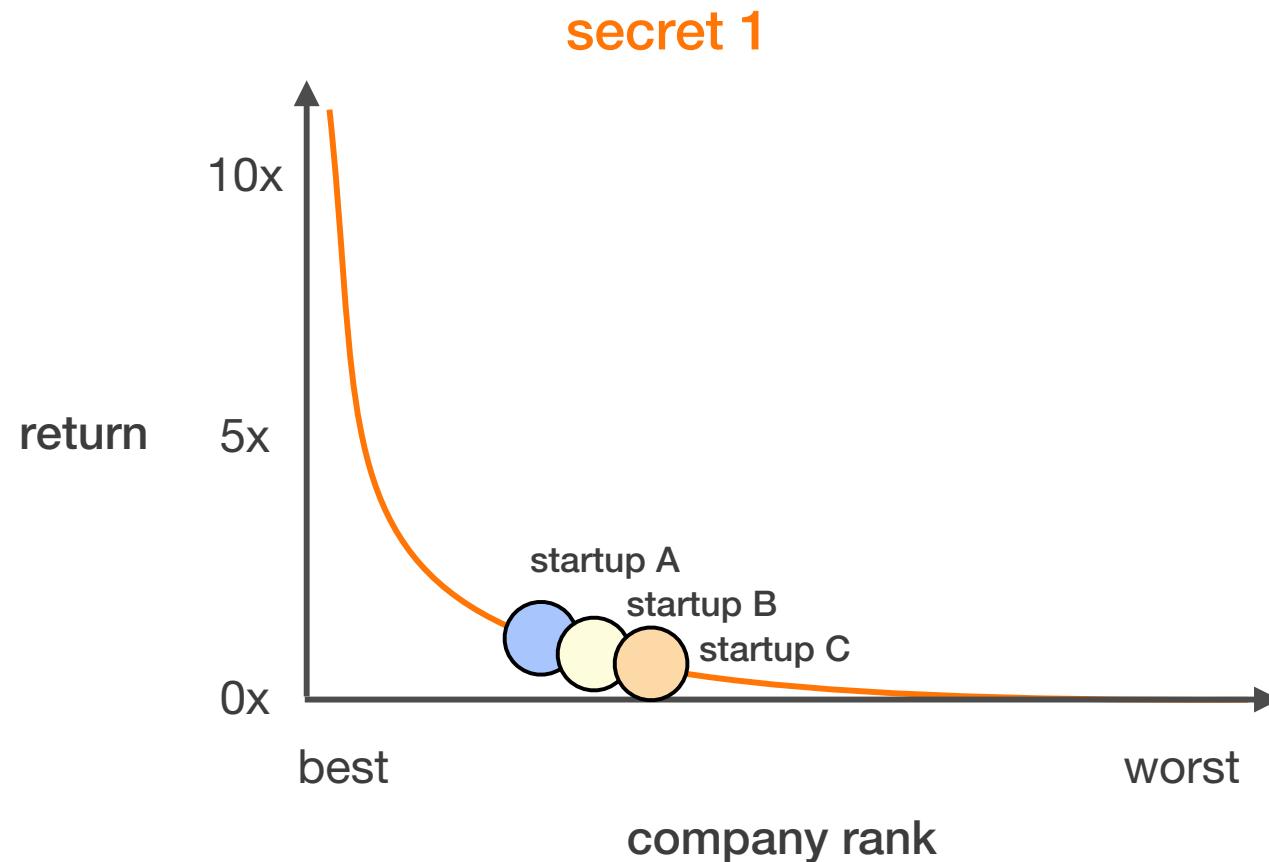


successful startups

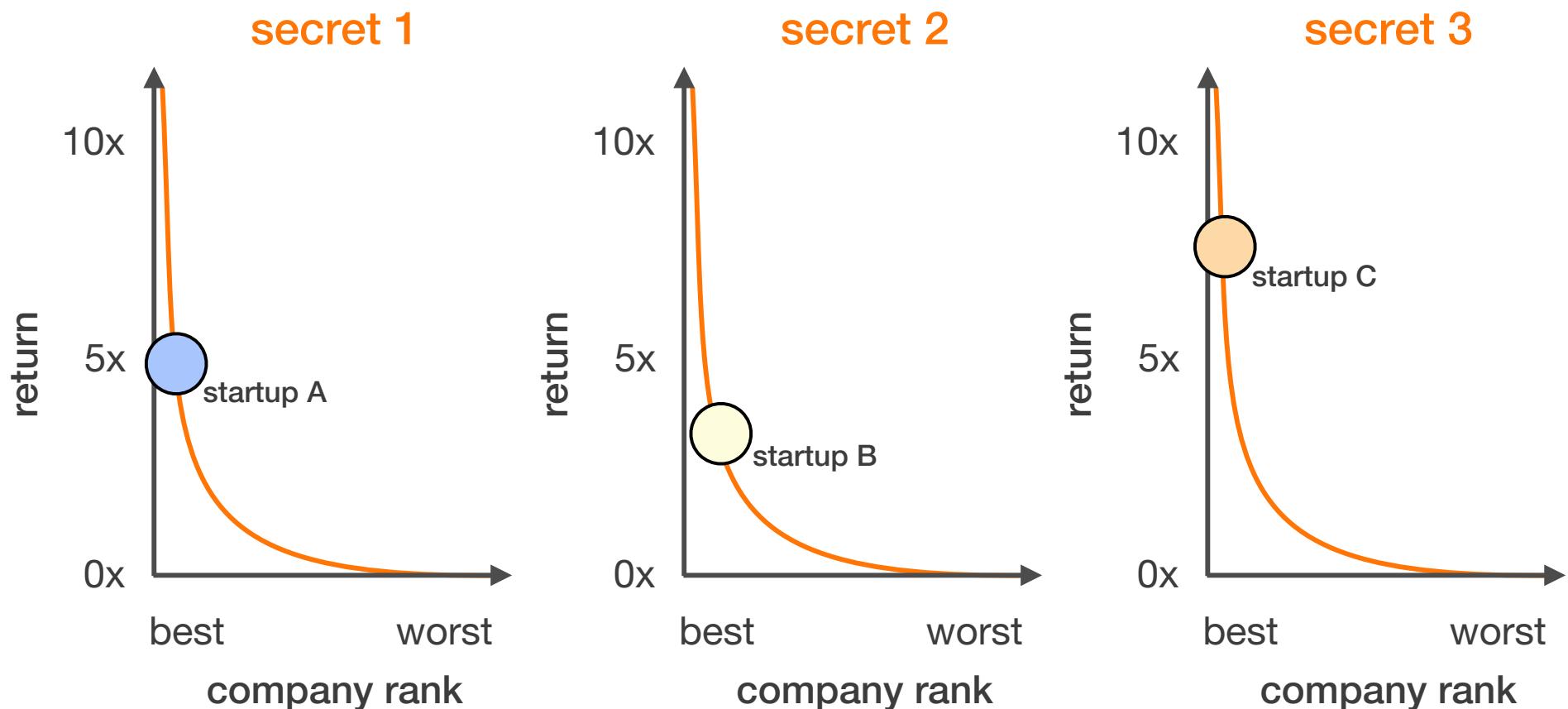
a secret, shared with just
the right number of people



fighting over a common secret



independent secrets



the two paths

*The Road goes ever on and on
Out from the door where it began.
Now far ahead the Road has gone,
 Let others follow it who can!
 Let them a journey new begin,
 But I at last with weary feet
 Will turn towards the lighted inn,
My evening-rest and sleep to meet.*



*The Road goes ever on and on
Out from the door where it began.
Still round the corner there may wait
 A new road or a secret gate,
And though we pass them by today,
 Tomorrow we may come this way
 And take the hidden paths that run
 Towards the Moon or to the Sun.*