MONEY FOR NOTHING - THE MAKING & UNMAKING OF MODERN FINANCE

Professor Thomas Levenson, Professor of Science Writing and Author, Massachusetts Institute of Technology

Webinar

Monday, 1 March 2021, 15:00 GMT

A Word From Today's Chairman

Professor Michael Mainelli

Executive Chairman

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Today's Agenda

FS Club

- 15:00 – 15:05 Chairman's Introduction
- 15:05 – 15:25 Keynote Address
- 15:25 – 15:45 Questions & Answers

First Poll – Are you smarter than Isaac Newton

FS Club

A. Yes, of course!
B. No, he was the greatest thinker of all time
C. Maybe
D. Just not smarter than him in mathematics

Today's Speakers

FS Club

Professor Thomas Levenson

Professor of Science Writing and Author

Massachusetts Institute of Technology

Money for Nothing…

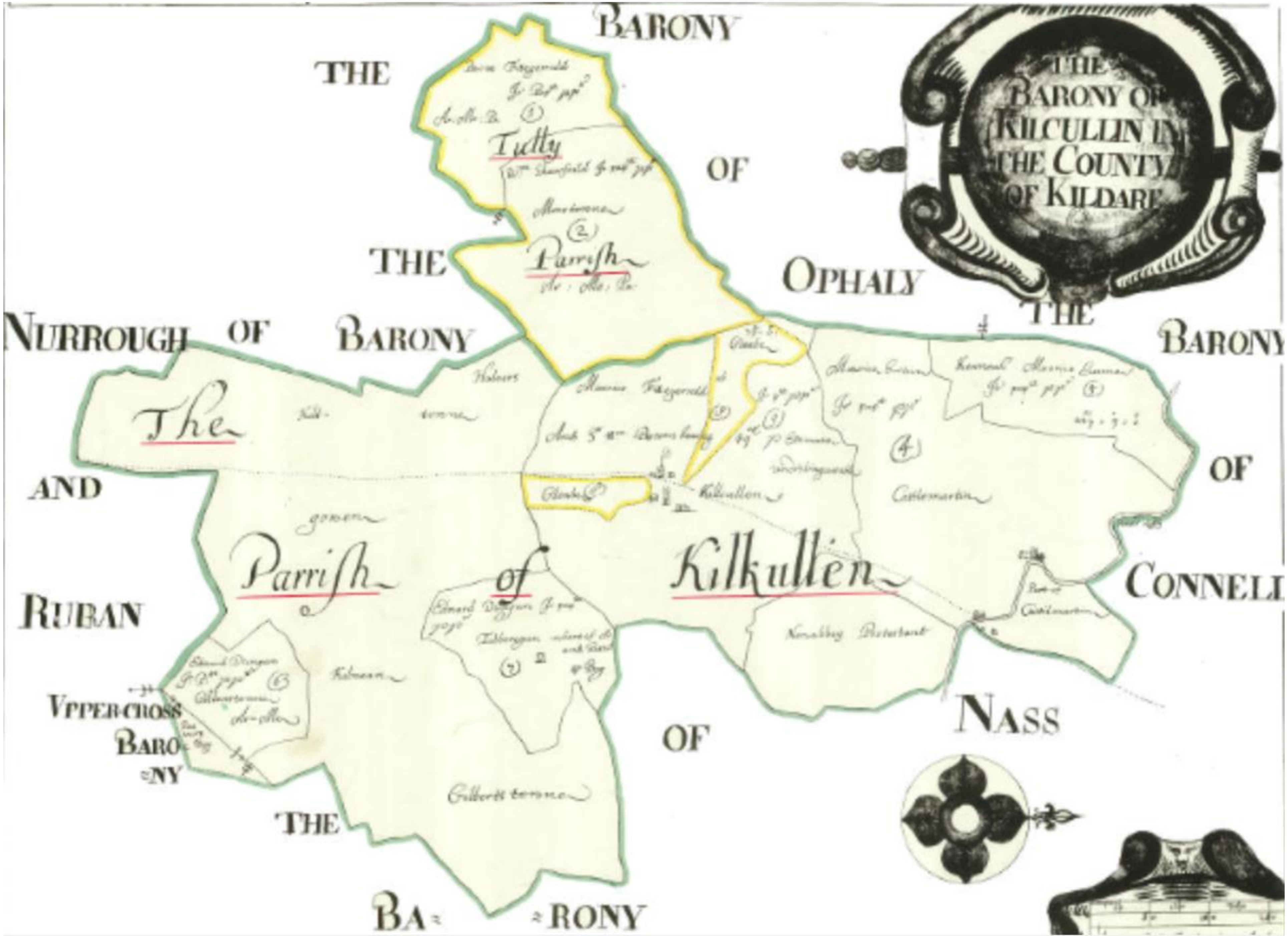
A Cautionary Tale


dIRE sTRAITS
money for nothing

Rather…

“How goes the Stock, becomes the gen’ral Cry.
Rather than fail we’ll at Nine Hundred Buy.
Instead of Scandal, how goes Stock’s the Tone,
Ev’n Wit and Beauty are quite useless grown:
No Ships unload, no Looms at Work we see,
But all are swallow’d by the damn’d South Sea.”

--Alexander Pope, 1721


THE BARONY OF KILCULLIN IN THE COUNTY OF KILDARE
BARONY
THE
OF
THE
OPHALY
NURROUGH OF BARONY
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BARONY
OF
AND
CONNELL
RUBAN
VPPER-CROSS BARO-NY
NASS
OF
THE
BA- -RONY
The Parrish of Kilkullen
Tully Parrish
Kilkullen
Castlemartin
Gilbertstowne

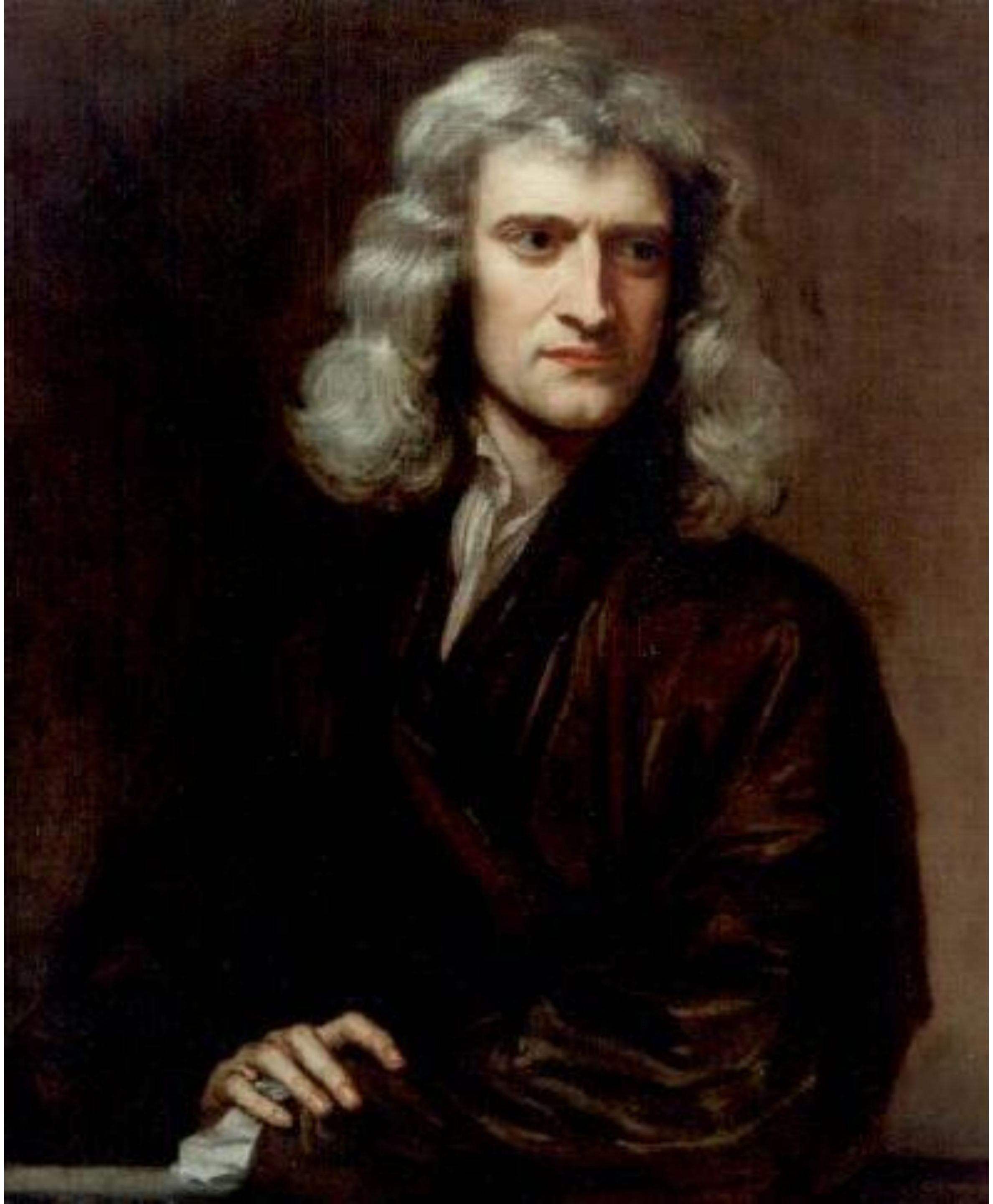
What was revolutionary in the scientific revolution?*

1. "Number, weight [and] measure."– William Perry

Formalized empiricism…applied to questions of natural philosophy…

2: 2. "to reason nimbly and judiciously about figure, force and motion…"—Isaac Newton

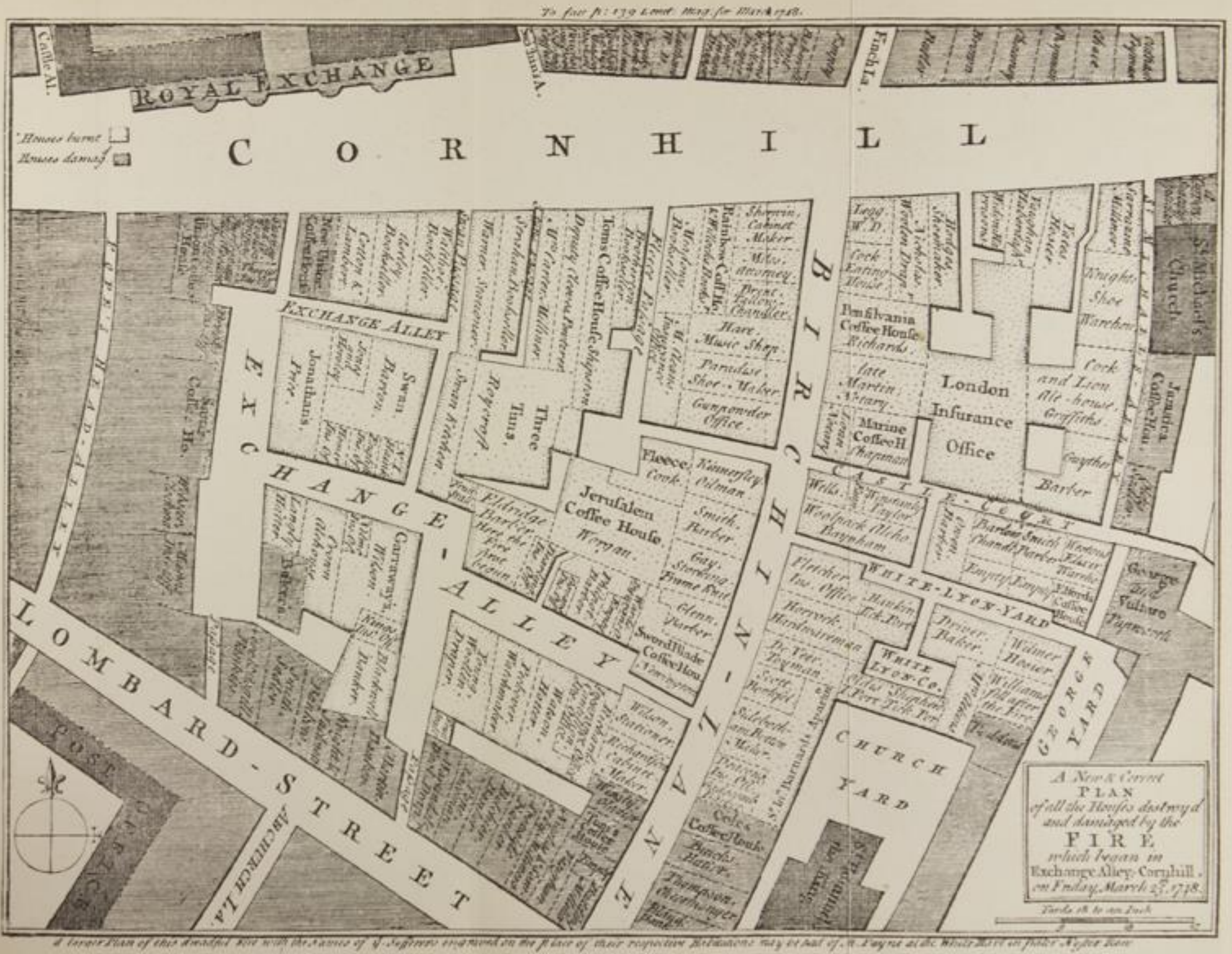
*Not a term used then or for ~two hundred years to come



Age. Curt.	Per-sons.	Age. Curt.	Per-sons	Age. Curt.	Per-sons	Age. Curt.	Per-sons	Age. Curt.	Per-sons	Age. Curt.	Per-sons
1	1000	8	680	15	628	22	586	29	539	36	481
2	855	9	670	16	622	23	579	30	531	37	472
3	798	10	661	17	616	24	573	31	523	38	463
4	760	11	653	18	610	25	567	32	515	39	454
5	732	12	646	19	604	26	560	33	507	40	445
6	710	13	640	20	598	27	553	34	499	41	436
7	692	14	634	21	592	28	546	35	490	42	427

Age Curt.	Per-sons.	Age. Curt.	Per-sons	Age. Curt.	Per-sons	Age. Curt.	Per-sons	Age. Curt.	Per-sons	Age. Curt.	Per-sons
43	417	50	346	57	272	64	202	71	131	78	58
44	407	51	335	58	262	65	192	72	120	79	49
45	397	52	324	59	252	66	182	73	109	80	41
46	387	53	313	60	242	67	172	74	98	81	34
47	377	54	302	61	232	68	162	75	88	82	28
48	367	55	292	62	222	69	152	76	78	83	23
49	357	56	282	63	212	70	142	77	68	84	20

Age.	Persons.
7	5547
14	4584
21	4270
28	3964
35	3604
42	3178
49	2709
56	2194
63	1694
70	1204
77	692
84	253
100	107
	34000
	Sum Total.


ROYAL EXCHANGE
CORNHILL
EXCHANGE ALLEY
BIRCHIN-LANE
LOMBARD-STREET
CASTLE-COURT
WHITE-LYON-YARD
GEORGE YARD
CHURCH YARD
POST OFFICE
Jerusalem Coffee House
London Insurance Office
Three Tuns
Marine Coffee H.
Jamaica Coffee Hou.
St. Michael's Church
Swordblade Coffee Hou.
Houses burnt
Houses damag'd
A New & Correct PLAN of all the Houses destroy'd and damaged by the FIRE which began in Exchange Alley, Cornhill, on Friday, March 25, 1748.


JONATHAN'S COFFEE HOUSE or an Analysis of CHANGE ALLEY
With a Group of Characters from the Life - Inscrib'd to Jacob Henriques.
Tis said that Old Satan (the that we must wink on)
On a Time took a peep o'er the City of Lincoln,
But lately, in truth, being Sick of the Gloom,
He to Jonathans hied and peep'd into the Room.
"Ah ha! quoth the Devil - what good Master Scrip!
"I thought I should have you sometime on the Hip:
"My Friend master Bull too, in shape of a Quaker,
"With his Croney the Bear who was lately a Baker.
"Old Transfer I spy in the form of a Jew,
"I've a special apartment preparing for you:
"With Consol and Omnium both in debate,
"As if they were settling the Business of State;
"Lame Ducks too and fro in abundance are Stradling,
"While others Disgrac'd from the Alley are Waddling,
"Come on cries Old Nick and along with me, Go,
"There's room for you all in the Regions below;
"For sure tis a Shame that such Vile occupations,
"Shou'd suck the best Blood from the best of all Nations

The First 5 Years of England’s National Debt

- 1: 26 Jan. 1693: “The Million Act.” £1,000,000 in a combination of a tontine loan and life annuities, at 14% interest.
-
- 2: 23 March 1694: “The Million Adventure.” £1,000,000 in £10 lottery tickets that after the drawing converted to 16 year annuities at 14%.
-
- 3: 24 April 1694: The Act establishing the Bank of England. £1,500,000, split between a redeemable loan and annuities for 1, 2, 3 lives at interest up to 14%
-
- 4: 16 April 1697: The Malt Lottery. £1,400,000 in £10 tickets, converting to annuities at 6.3%. The issue failed, leading to an early experiment in fiat currency.
-
- 5: 5 July 1698: The Act creating the New East India Company. £2,000,000
-
- Total: £6,900,000

English/British wars 1689-1720

- 1689-1698: The Nine Years War
- 1702-1713: The War of Spanish Succession
- 1718-1720: War of the Quadruple Alliance

That is: for 22 of the 30 years before the Bubble, British forces fought multiple opponents across two hemispheres.

That's…Expensive

Credit as a Weapon of War

“Foreigners had been heard to say…That there was no getting the better of *England* by Battle…That while we had thus an inexhaustible Storehouse of Money, no superiority in the Field could be a match for this superiority of Treasure.”…

“…[Britain’s] National Credit,” Defoe concluded was to “the Honor and Advantage of *England.*”

--Daniel Defoe, “The Chimera” 1720

British national debt 1700-1720

- 1704-1708: £8,003,778 in new long-term borrowing
- 1711-1712: £9,214,500 more…note the per/annum jump.

- Total British long-term debt at war's end (1714): £40,357,011
- In 1719, less than two years into the next war: £49,902,762

  - Source: P.G.M. Dickson *The Financial Revolution in England,* tables 3, 4, 7, and 9

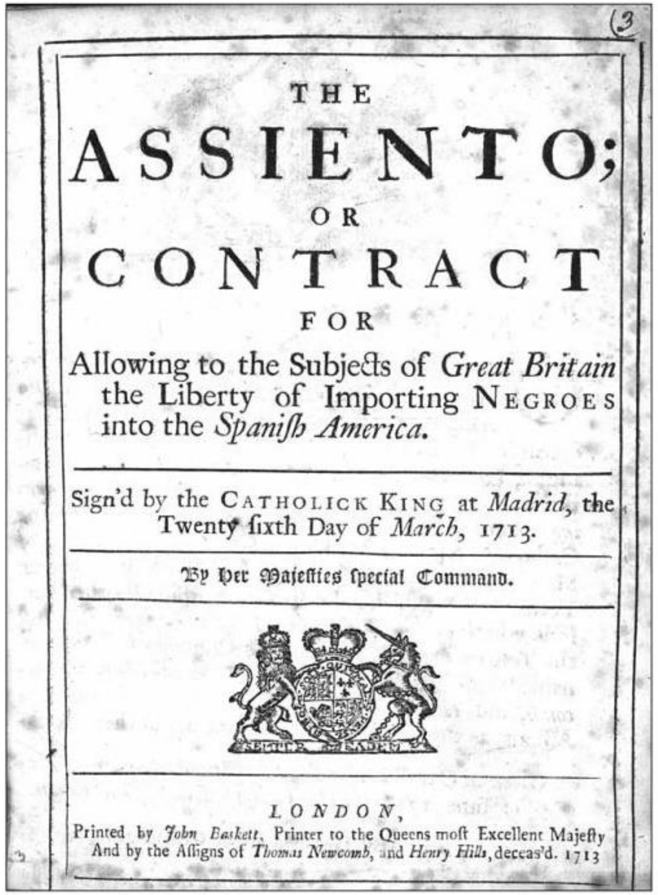
And so…the problem.

- Interest due on the national debt, 1714: £2,519,800
  - (plus in excess of £300,000 on Exchequer bills and other floating debt)
- National revenue, 1714: £8,248,561.

Debt service = at least 31% of revenue (in peace time).

Comparison: March 2020 www.gov.uk budget policy paper anticipated £56B interest payment, or roughly 7% of £873B in anticipated revenue.

Enter the South Sea Company



THE

ASSIENTO;

OR

CONTRACT

FOR

Allowing to the Subjects of *Great Britain* the Liberty of Importing NEGROES into the *Spanish America*.

Sign'd by the CATHOLICK KING at *Madrid*, the Twenty sixth Day of *March*, 1713.

By Her Majesties special Command.

LONDON,

Printed by *John Baskett*, Printer to the Queens most Excellent Majesty And by the Assigns of *Thomas Newcomb*, and *Henry Hills*, deceas'd. 1713

The Solution

- A debt for equity swap on an unprecedented scale.

- Trial run in 1719: the Treasury proposed a deal to exchange a tranche of long-term debt for South Sea Company stock.

  - Debt holders exchanged debt at 11.5 years purchase for South Sea stock at par*
  - The South Sea Company’s capital and issuable shares increased in proportion
  - The Treasury received a further loan from the Company.

- It worked great! This success set the stage for its sequel, to come in early 1720

*Remember this fact.

SSC gets:
1. Government securities/interest stream
2. Enormous increase in capital stock*

South Sea Company

SSC gives:
1. Dividends to shareholders
2. £7m payment for the right to do the swap
3. Rate cut to the Treasury

*One key detail left open: the price of South Sea shares to be exchanged.

Debt holders get:
1. Shares at up to 20 x purchase*
2. Liquidity (access to a secondary market)
1. Equity in a trading monopoly/possible capital growth.
4. Dividends (at SSC discretion)
5. Risk

Debt holders

Treasury

Treasury gets:
1. SSC fee
2. Interest rate cut
3. Fiscal control: irredeemable obligations become redeemable.

Poll Two:

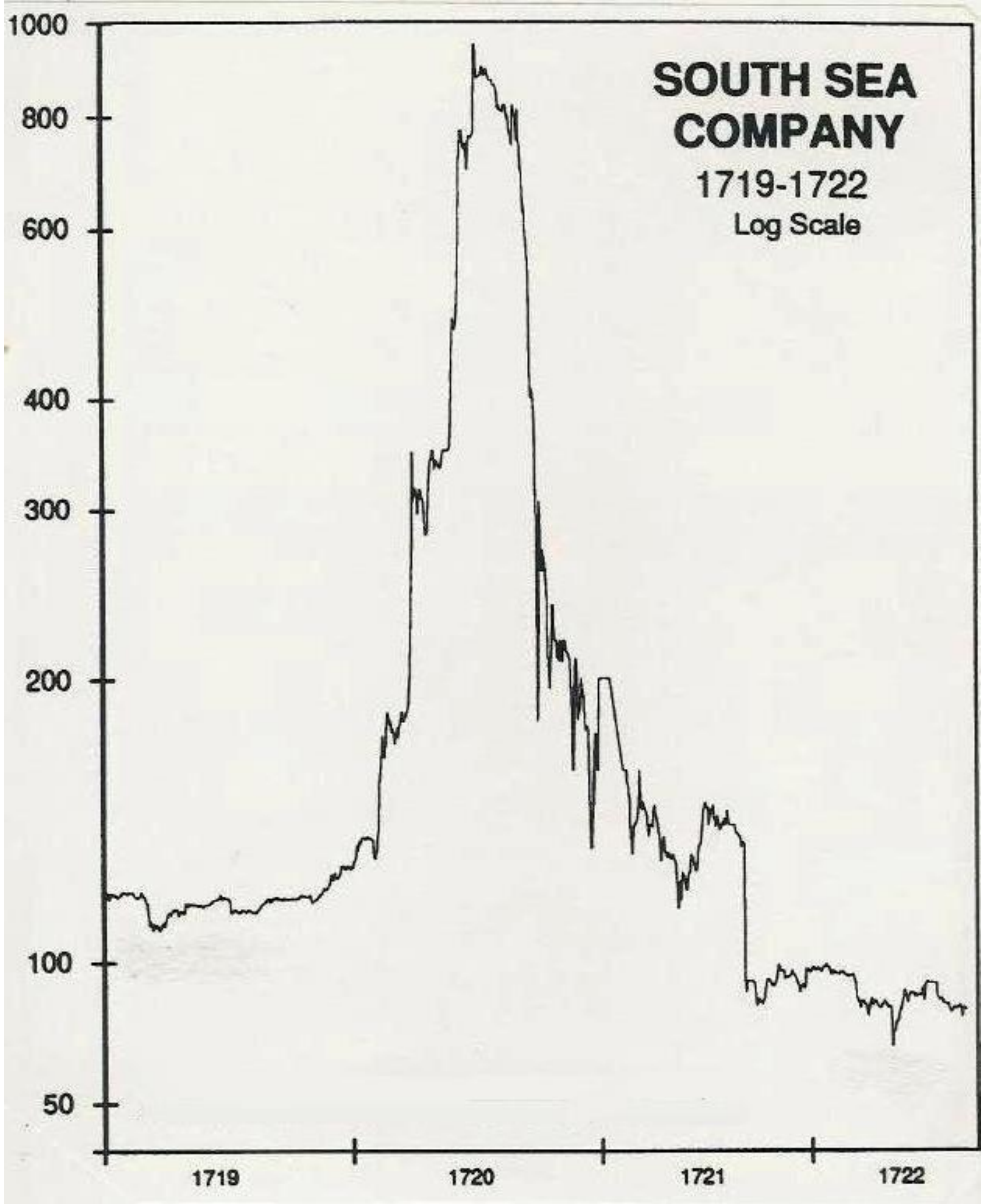
If I was around in the time of the South Sea Bubble, I would have…

A. Made money
B. Lost money
C. Stayed well away

The Money Machine

- Options for a swap price:
- A: Par (£100) for each £100 worth of debt.
- B: Shares at market on some agreed date.
- E.g. Jan 22, 1720: SSC shares closed at £135 1/8
- C: Shares priced at the directors discretion.

Which do you think the Company and its (well bribed) allies in government chose?


SOUTH SEA COMPANY
1719-1722
Log Scale
1000
800
600
400
300
200
100
50
1719
1720
1721
1722

Drivers of the rise

- 1: Market manipulation
  - South Sea directors pumped liquidity into the market with loans, options, margin sales, and delaying share transfers to constrain supply on Exchange Alley
- 2: Leverage
  - Still new, and hence unfamiliar trading tools, including margin sales, put and call options, and forward contracts
- 3: Folly

Calculating folly.

AN

ESTIMATE

OF THE

VALUE

OF

South-Sea STOCK.

WITH

Some REMARKS *Relating thereto.*

By a Member *of the* HOUSE *of* COMMONS.

Still…What about this guy?


Whol Ride
THE MONUMENT WAS ERECTED IN MEMORY OF THE DESTRUCTION OF THIS CITY BY THE SOUTH SEA IN 1720
W. Hogarth Invent. et Sculp.
See here y Causes why in London,
So many Men are made, & undone,
That Arts, & honest Trading drop,
To "Swarm about y Devils Shop,(A)
Who Cuts out (B) Fortunes Golden Haunches,
Trapping their Souls with Lotts & Chances,
Shareing em from Blue Garters down
To all Blue Aprons in the Town.
Here all Religions flock together,
Like Tame & Wild Fowl of a Feather;
Leaving their strife Religious bustle,
Kneel down to play at pitch & Hussle;(C)
Thus when the Sheepherds are at play,
Their flocks must surely go Astray;
The woeful Cause y in these Times,
(E) Honour, & (D) honesty, are Crimes,
That publickly are punish'd by
(G) Self Interest, and (F) Vilany;
So much for Monys magick power
Guess at the Rest you find out more
price 1 Shilling

Poll three

The South Sea Bubble was an example of…

A. A rational bubble
B. An irrational bubble
C. This question is nonsensical…

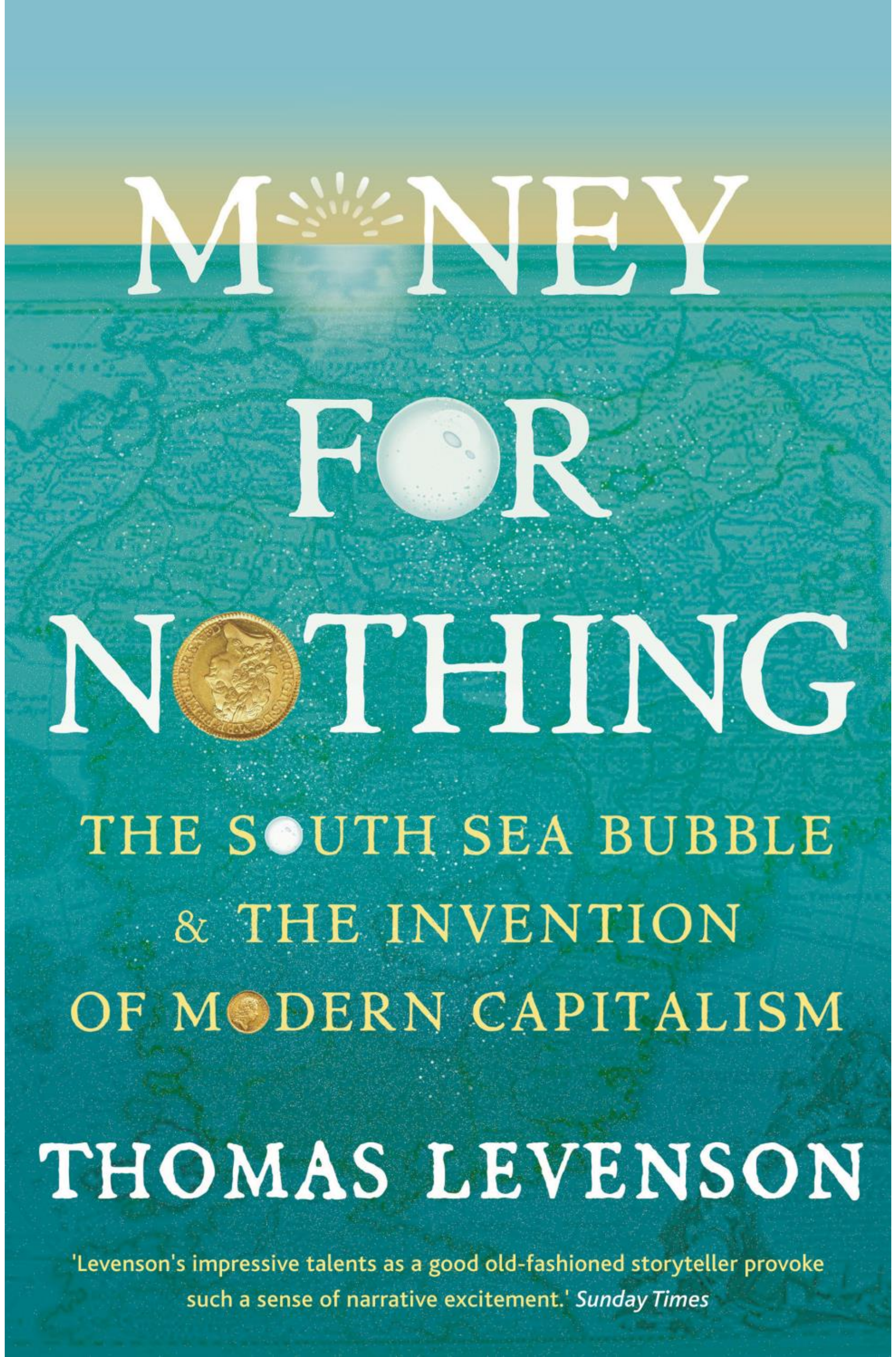
Disaster? Or Triumph?

- 1. In 1721, Parliament rejects appeals to undo the debt-equity swaps at the heart of the Bubble, thus converting much of the national debt into a uniform tradeable asset: South Sea shares.
- 2. Interest rates to drop from roughly 6% in the 1710s to 3% in the 1750s—through continued global war.
- 3. The remnants of the pre-1720 borrowing and other obligations get swept up into Consolidated bonds–Consols–in 1752, and a fully functional bond market emerged.
- This isn't emulated in France, or any other national power in Europe.

The result:

And yet…

DeTocqueville, observing America’ commercial life, with the early Republic’s history of financial disruption, wrote, **“I believe that the return of these commercial panics is an endemic disease of the democratic nations of our age…It may be rendered less dangerous, but it cannot be cured; because it does not originate in accidental circumstances, but in the temperament of these nations.”**



https://www.amazon.co.uk/Money-Nothing-Bubble-Invention-Capitalism/dp/1784973947

Questions And Answers

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Forthcoming Events

- Tue, 2 Mar (10:00-10:45) A Fresh Approach To Risk Management
- Thu, 4 Mar (10:00-10:45) Switzerland's Wealth Management Industry: Winning Or Losing Ground In Times Of Covid-19?
- Fri, 5 Mar (11:00-11:45) How To Be Happy
- Tue, 9 Mar (09:00 - 09:45) Achieving Sustainability In Developing Markets: A Case Study With Serious Shea & Cleo Organics

Visit https://fsclub.zyen.com/events/forthcoming-events/