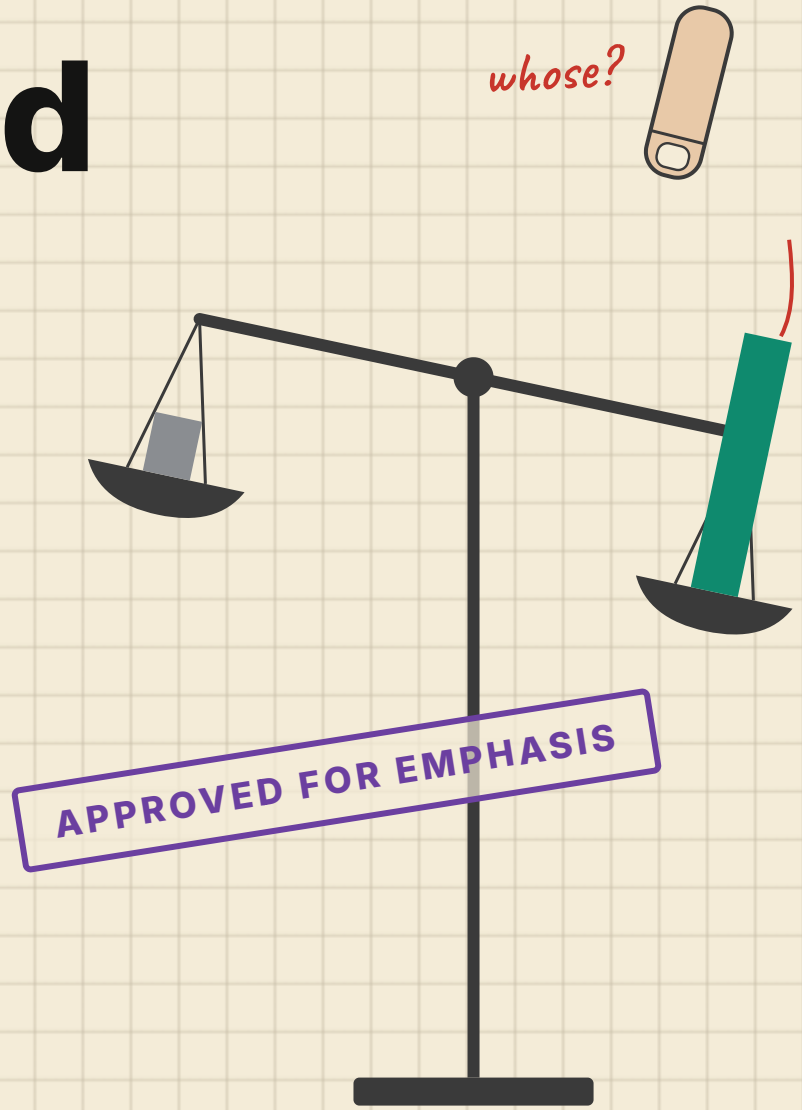
ANTHERRA

A VISUAL BOOK

Whose Hand Is on the Scale?

The Number Is Technically Correct. That's the Whole Trick.



DATA LITERACY · SYSTEMIC SATIRE
CULTURAL LITERACY · CIVIC & GOVERNANCE

Chris A. Piazza

CONCORDANCE BUREAU
OFFICE OF EMPHASIS

MEMO File 000
TO The Reader
FROM The Concordance Bureau, Office of Emphasis
RE Your concerns

Thank you for your interest in the numbers. The numbers are fine. The numbers have always been fine. Any gap between the numbers and your life has been noted and will be recontextualized. [redacted]. Please enjoy the charts.

APPROVED

“The numbers are fine. The numbers have always been fine.”

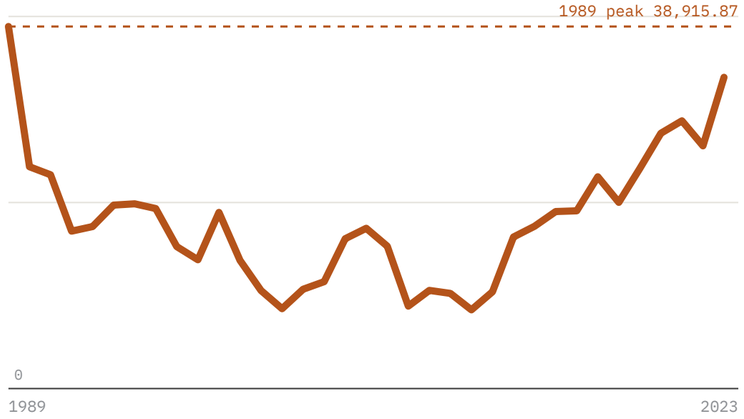
— THE CONCORDANCE BUREAU

REAL DATA · NIKKEI 225 YEAR-END CLOSES · SOURCE: NIKKEI INC., VIA WIKIPEDIA ANNUAL TABLE

One number, three charts

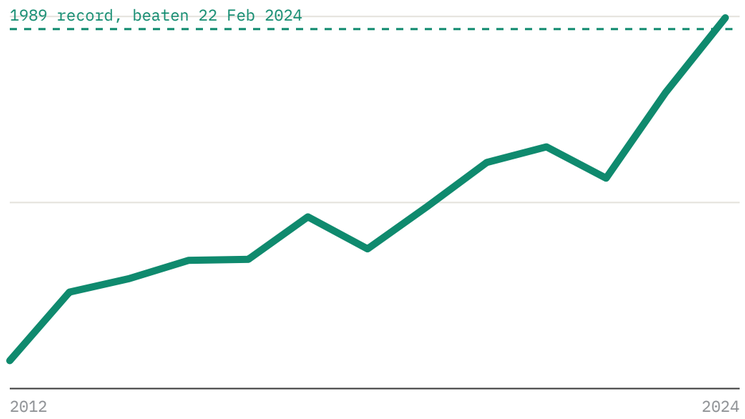
Thirty-four lost years

1989–2023 · linear axis from 0



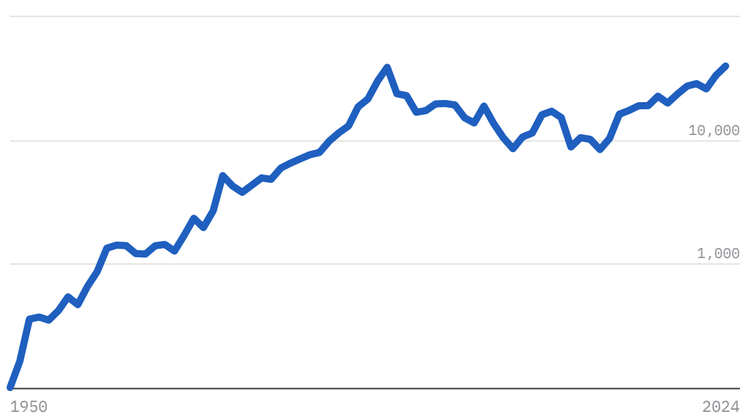
Japan is back

2012–2024 · axis starts at 8,000



Steady as she goes

1950–2024 · log scale

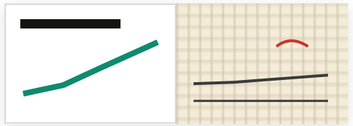


Japan's Nikkei 225 closed at 38,915.87 on the last trading day of 1989. It didn't close higher until 22 February 2024. Every point on these three lines is real. Only the start date and the axis change. Pick the one you'd put on a slide.

Our hand: Closing prices, not adjusted for inflation. That's a choice too.

All three are true. Pick one.

How to read this book



Left page: the Concordance Bureau.
Right page: you, the Auditor.

Every left page belongs to the Concordance Bureau: polished, confident, persuasive. Every right page is yours: graph paper, a pencil, the full axis. When we change a chart, a note marked "Our hand" says what we changed. Numbers tagged Illustrative are invented to show a trick. Everything else is real and sourced at the back.

AP/R As Presented / Redrawn

D/D The Dashboard / The Door

ILLUSTRATIVE DATA invented to show a trick

U/R The Unit / What It Replaced

M Bureau Memo · **B** Breather

Our hand: what we changed

THE DENOMINATOR TEST

CARD 1 OF 1

Fill it in as you go.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

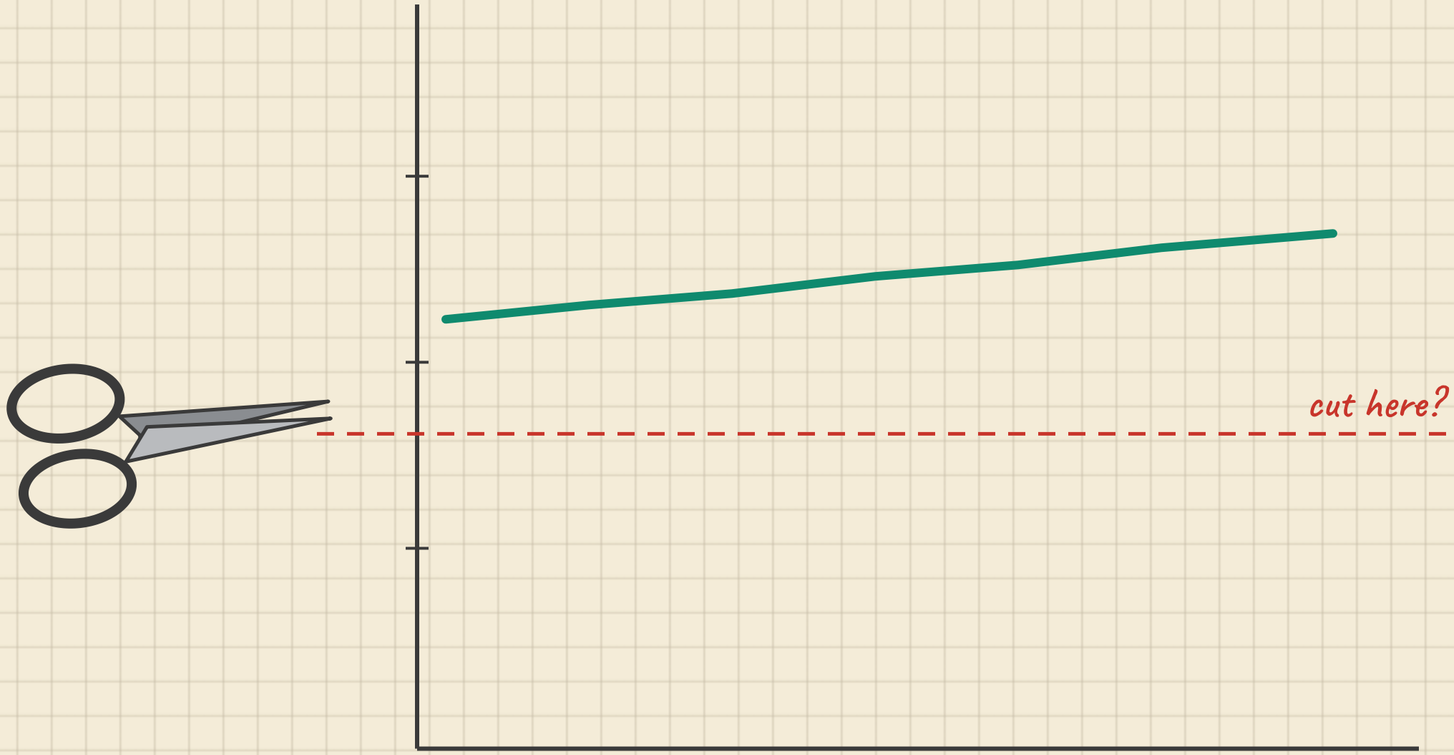
A FULL COPY LIVES ON THE BACK ENDPAPER

Every chart in this book is a choice, including ours. We'll show you where we put our hand.

PART I

The Chart

Nothing in Part I is false. The axes are real, the dates are real, the dots are real. What changes is where someone chose to start, stop, divide and zoom. Learn to see the scissors.



CH. 1 THE FRAME · CH. 2 THE DENOMINATOR · CH. 3 THE SHAPE · CH. 4 THE SUMMARY

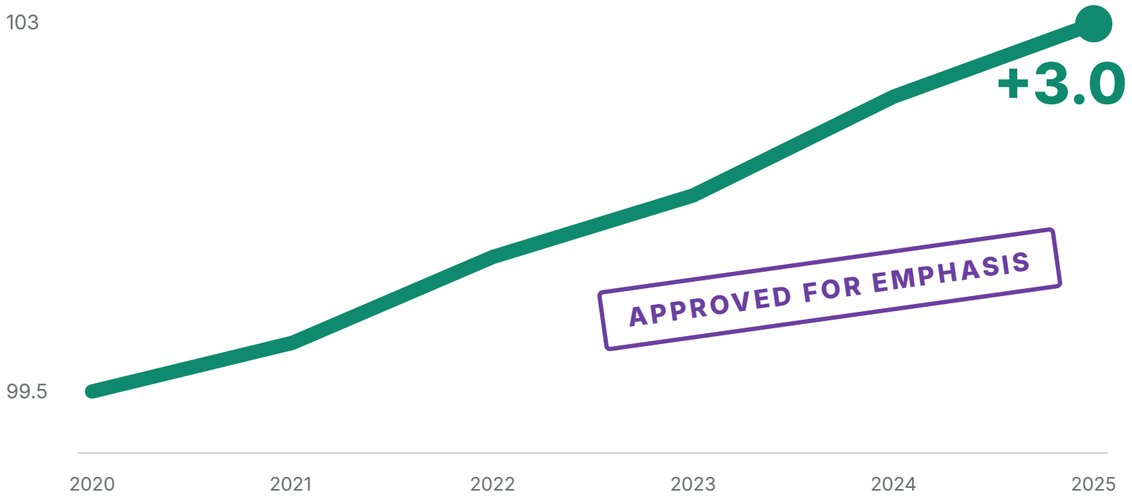
Every chart begins with a decision about where to cut.

AS PRESENTED

FIG. 5

Satisfaction soars

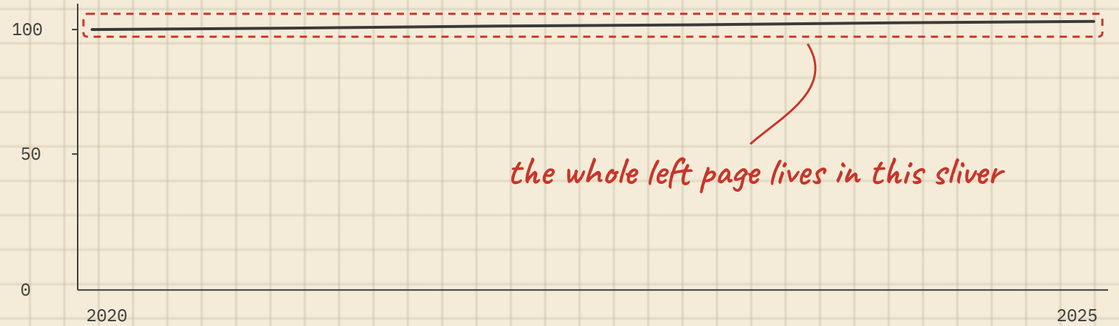
Citizen satisfaction index, 2020–2025



REDRAWN

ILLUSTRATIVE DATA

Same data, from zero



The index rose from 100 to 103 in six years. Start the axis at 99.5 and three points fill the page like a moon landing. Start it at zero and the line barely lifts off the paper. Neither chart is false. One of them was built to make you feel something.

Our hand: We started the axis at zero. A narrower range can be fair for an index, if it's labeled and the change is stated in plain numbers.

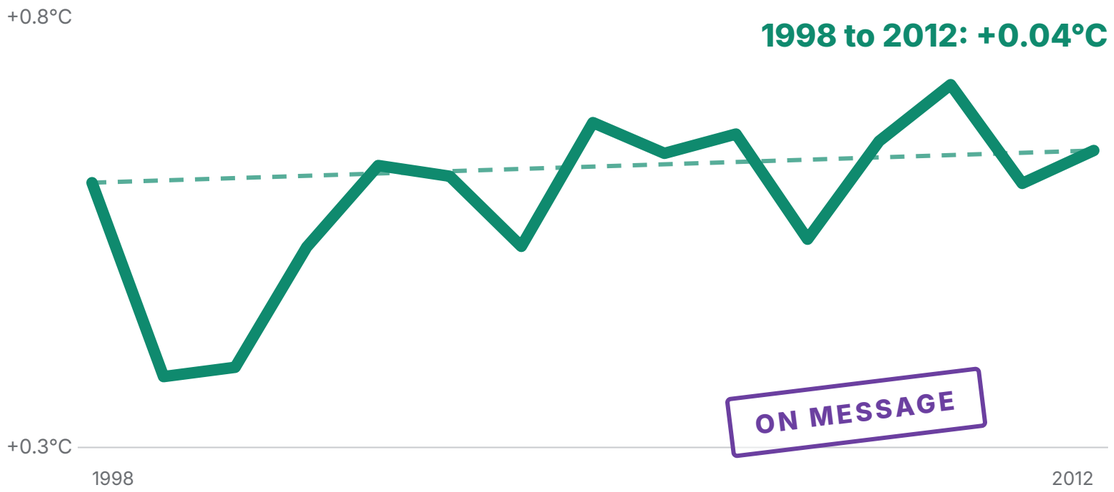
The line is real. The cliff is drawn.

AS PRESENTED

FIG. 6

Global temperatures: flat for fifteen years

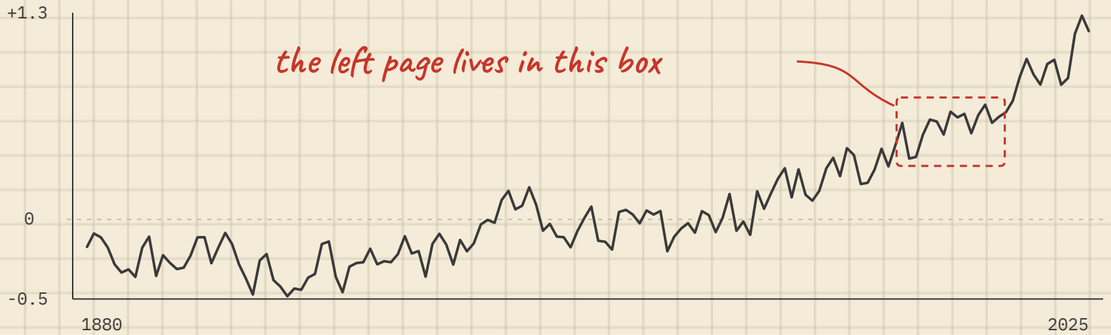
1998–2012, annual average, °C above 1951–1980



REDRAWN

REAL DATA · NASA GISTEMP V4 ANNUAL MEANS, VIA DATAHUB.IO MIRROR

Same thermometer, whole record



1998 was a record-hot El Niño year. Start a chart there and the next fifteen years look like a plateau. Start in 1880 and the plateau becomes one step on a staircase. The temperatures are identical on both pages. Only the first year changed. Always ask why a chart starts when it starts.

Our hand: Annual averages from one dataset. The IPCC put the 1998–2012 trend at 0.05°C a decade, against 0.12°C since 1951: slower, not flat. Filling gaps in the Arctic data closes most of the difference.

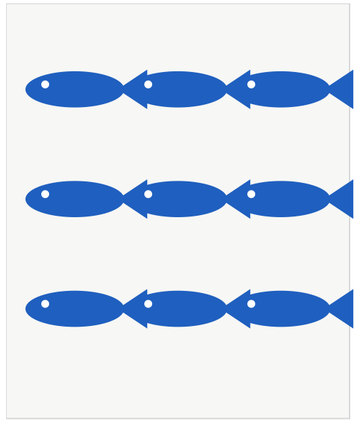
Start the clock at the peak and anything looks like a decline.

AS REMEMBERED

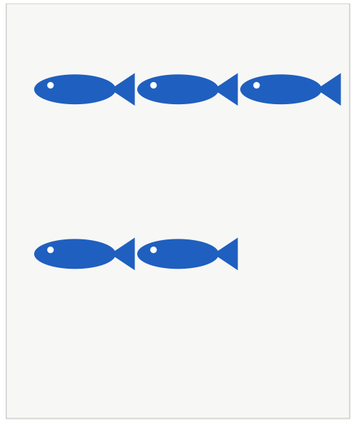
FIG. 7

A normal catch

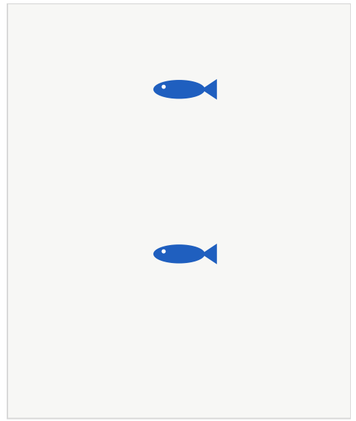
Three generations, one harbour



Grandfather, 1950s
“a normal catch”



Mother, 1980s
“a normal catch”

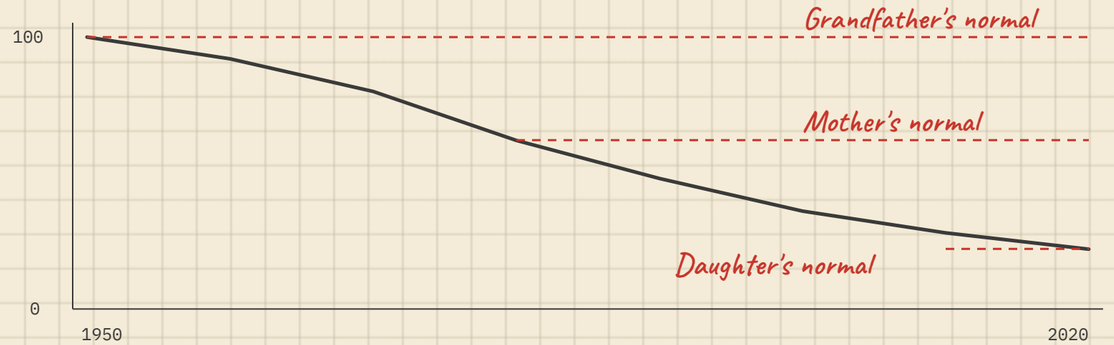


Daughter, 2020s
“a normal catch”

AS MEASURED

ILLUSTRATIVE DATA

Three normals, one decline



In 1995 the fisheries scientist Daniel Pauly named a trick nobody plays on purpose: each generation treats the world it first saw as the baseline. Losses before your time don't feel like losses. They feel like normal. No chart required, just a short memory and a long decline.

Our hand: The fish are illustrative. The syndrome is real.

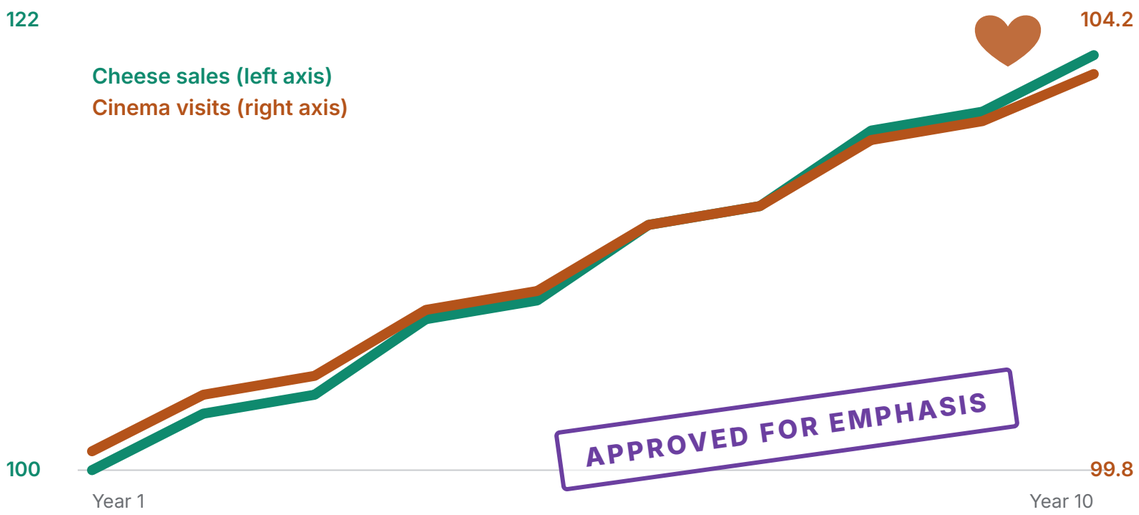
Every generation's normal is the last one's loss.

AS PRESENTED

FIG. 8

Cheese and cinema: inseparable

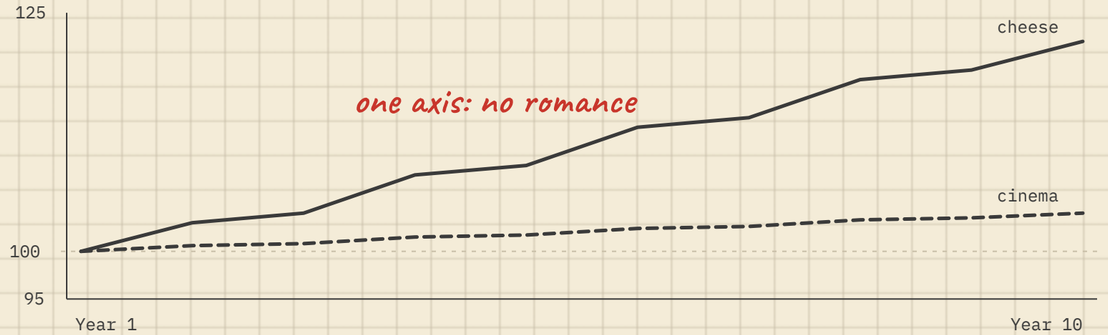
Cheese sales (left axis), cinema visits (right axis)



REDRAWN

ILLUSTRATIVE DATA

One axis, and they're strangers again



Two y-axes give you two dials to turn. Stretch one, squash the other, and any two lines will rise, fall and cross on cue. The romance on the left was made in the settings menu. Put both series on one indexed axis and they go back to ignoring each other.

Our hand: Both series are invented. We indexed each to 100 in the first year.

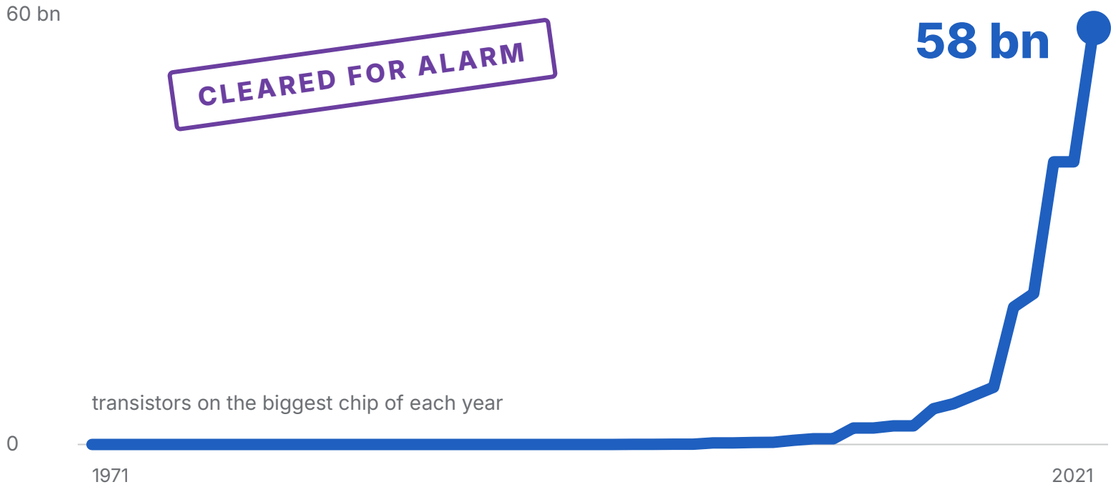
With two y-axes, any two lines can fall in love.

AS PRESENTED

FIG. 9

The transistor explosion

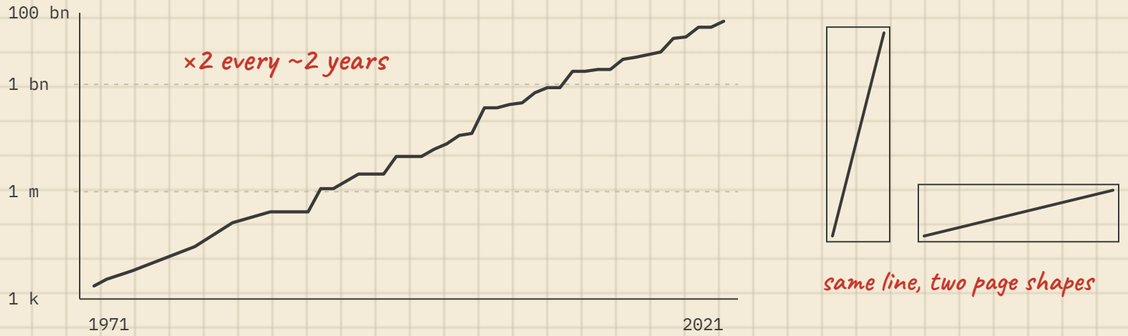
Transistors per microprocessor, 1971–2021



REDRAWN

REAL DATA · OUR WORLD IN DATA, TRANSISTORS PER MICROPROCESSOR

Same chips, log scale



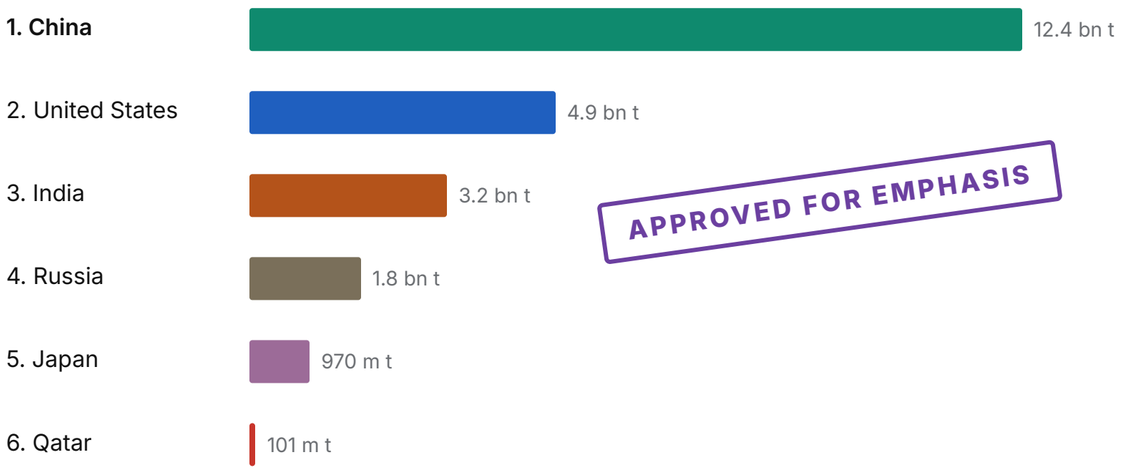
Transistors per chip have doubled roughly every two years for half a century. On a linear axis, decades of steady doubling lie flat against the floor, then shoot up a cliff. On a log axis, the same data is a calm ramp. Linear answers "how much?" Log answers "how fast?" Check which question the chart picked.

Our hand: We show both scales. The honest one is the one that's labeled.

Linear shows you the panic. Log shows you the pace.

The world's biggest emitter

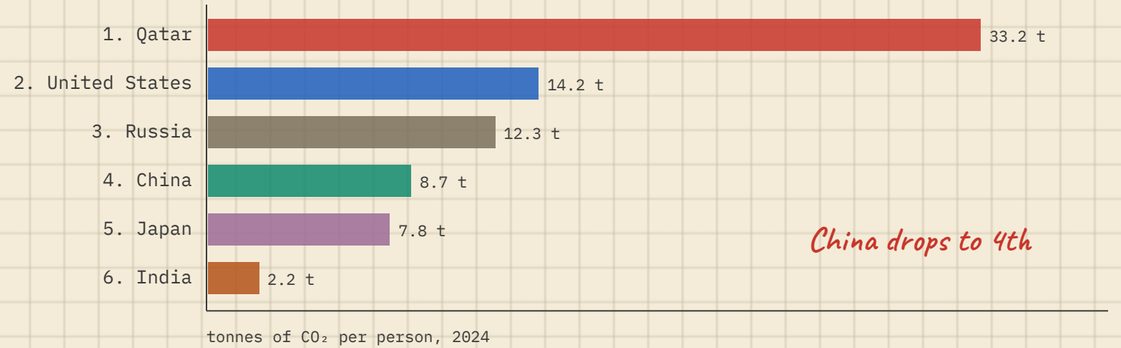
Total emissions by country, 2024



APPROVED FOR EMPHASIS

Fossil CO_2 including cement, 2024, tonnes

Same emissions, per person



Total emissions rank countries by size and smoke together. Emissions per person rank them by habit. China tops the first list; a handful of small oil-producing states, led by Qatar, top the second. Both lists are true, and every side of the climate argument quotes the one that flatters it. Ask what the number was divided by.

Our hand: We show both rankings, with each country in the same color on both pages.

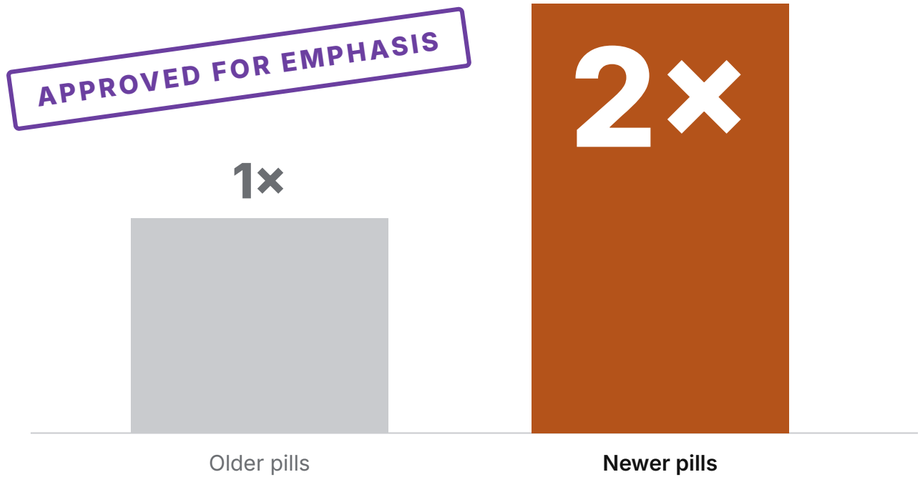
Biggest is a fact about size. Worst is a claim about rate.

AS PRESENTED

FIG. 11

Pill doubles clot risk!

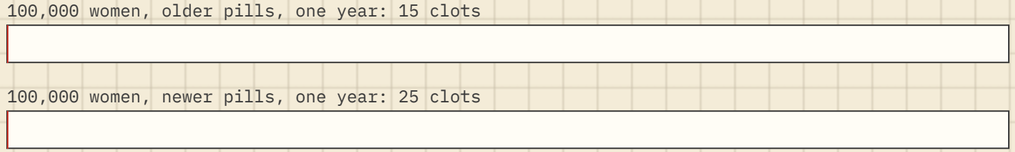
UK regulators' warning, October 1995



REDRAWN

REAL DATA · BRITISH NATIONAL FORMULARY FIGURES · 1995 UK PILL SCARE

Per 100,000 women, per year



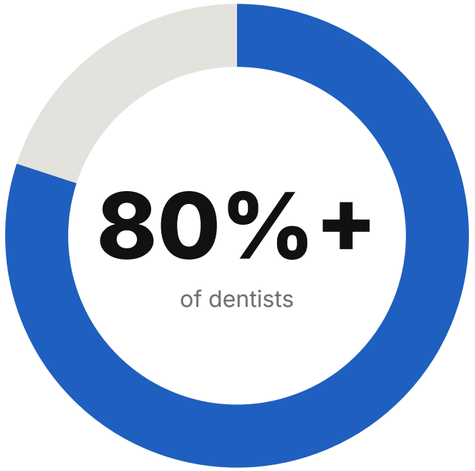
In October 1995, UK regulators warned that newer contraceptive pills carried twice the clot risk of older ones. That was the relative risk: roughly 25 cases per 100,000 women a year instead of 15. Many switched or stopped contraception altogether, and 1996 brought about 13,600 more abortions. "Twice" is a ratio. Ten in 100,000 is a decision.

Our hand: We used the British National Formulary's figures. Later studies disputed even the doubling.

Twice the risk. Ten more cases per 100,000 women a year.

More than 80% of dentists recommend Brand X

An invented brand, a real survey method





Recommended by dentists.

APPROVED FOR EMPHASIS

The question they were actually asked

DENTIST SURVEY · Q7

Which toothpaste brands would you recommend? Tick all that apply.

- [x] Brand X
- [x] Brand Y
- [x] Brand Z
- [x] Store brand
- [ ] Other

one dentist, four "recommendations"

80% ticked X. Most ticked rivals too.

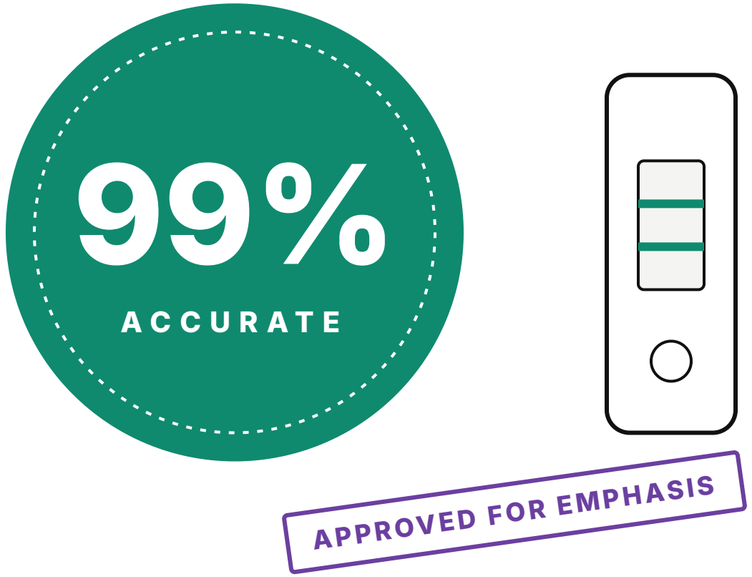
In January 2007, Britain's advertising regulator ruled a Colgate claim misleading. The survey behind "80% of dentists recommend" had let dentists name several brands, so the same dentists were recommending rivals too. The number was real. The impression, that most dentists preferred one brand, was not. Ask how many were asked, and what answers were allowed.

Our hand: Our survey form reconstructs the method. It isn't the original document.

Ask how many were asked, and what they were allowed to answer.

99% accurate!

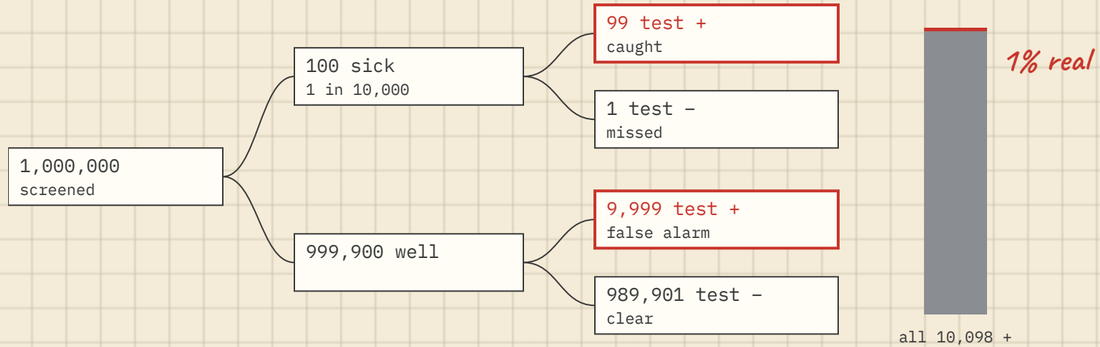
Home screening test, as advertised



Positive.

Two lines. Be sure.

Out of 1,000,000 people

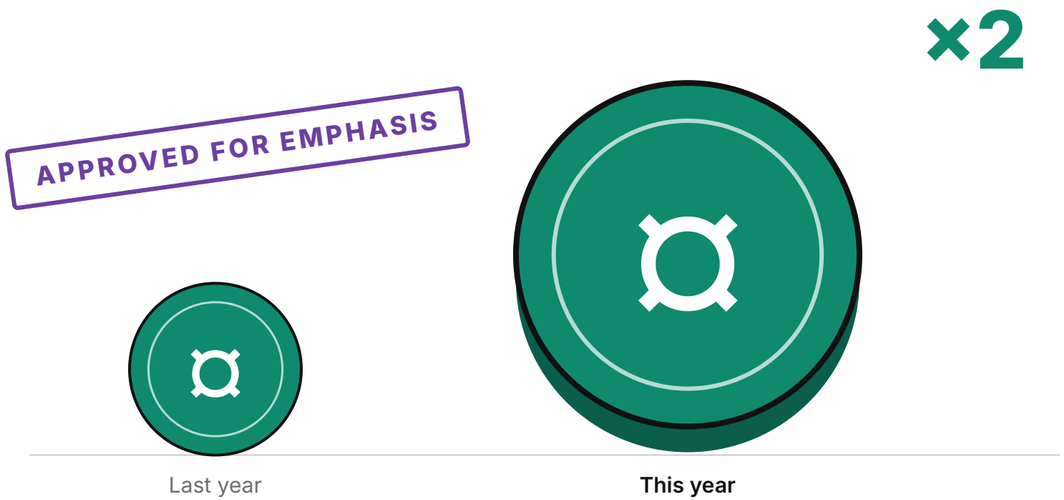


Take a condition 1 in 10,000 people have, and a test that's right 99% of the time either way. Screen a million people: 100 are sick, and the test catches 99 of them. It also flags 9,999 healthy people. So a positive result is right about 1% of the time. Accuracy describes the test. Your odds depend on the crowd.

99% accurate. Right about 1% of the time it says yes.

Our budget doubled!

Programme funding, last year and this year



Twice the money, twice the coins



The left page, measured:
height ×2 · area ×4 · in 3D, volume ×8

Draw a number as a picture, then double the picture's height to show the number doubling. The width doubles too, and the eye reads area, so the new coin looks four times bigger. Draw it in 3D and it looks eight. Otto Neurath's Isotype pictograms solved this in the 1920s: show more by drawing more symbols, not bigger ones.

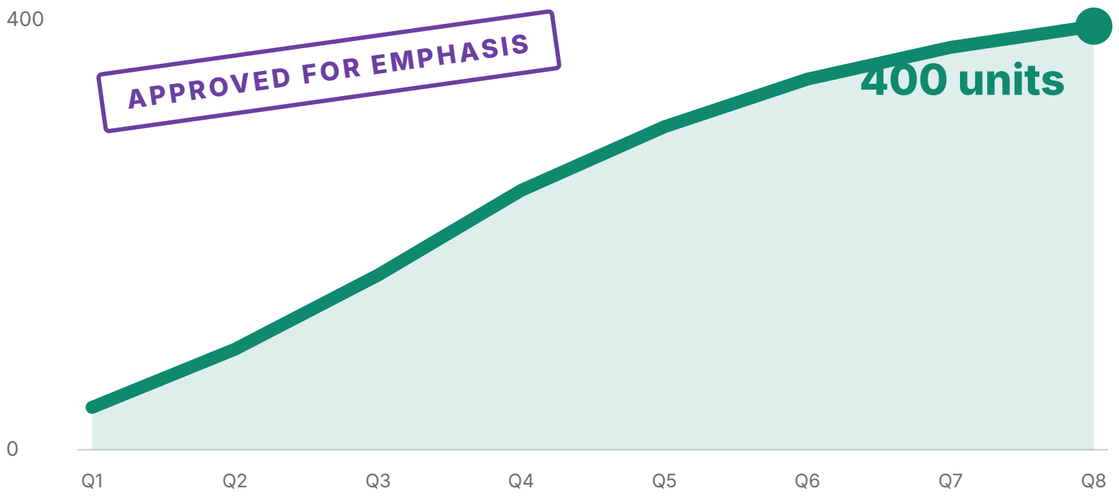
Double the number, quadruple the picture.

AS PRESENTED

FIG. 15

Units sold: up and to the right

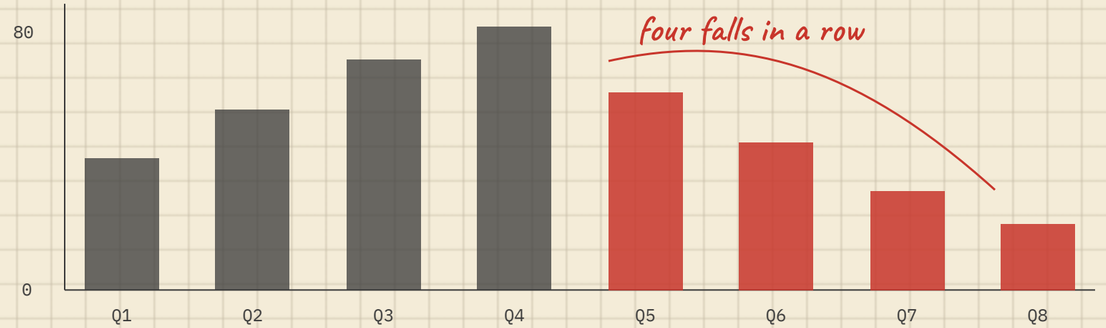
Cumulative units sold since launch



REDRAWN

ILLUSTRATIVE DATA

Same sales, quarter by quarter

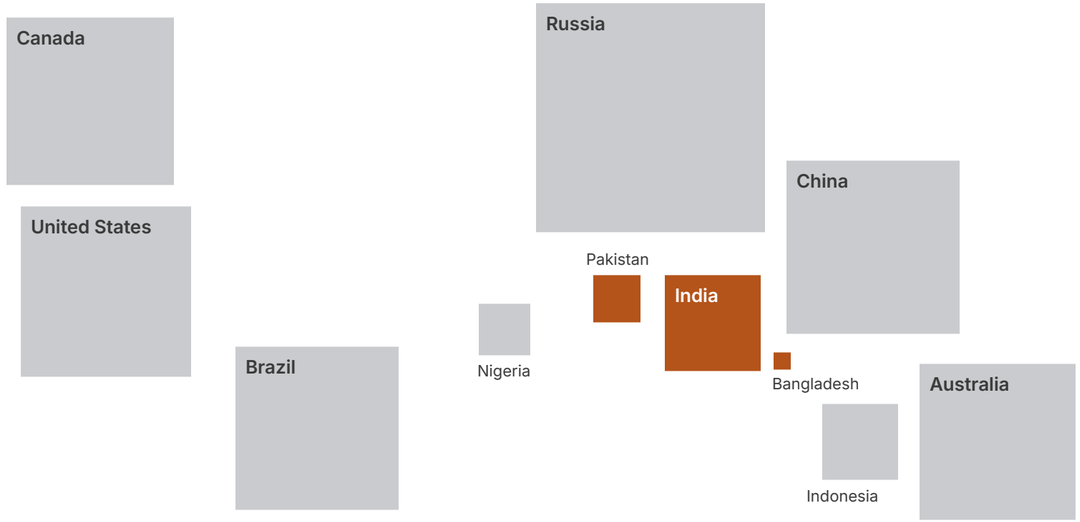


A cumulative chart adds each quarter to everything before it. Sales can collapse and the line still climbs, only a little less steeply. That's why it turns up at launch events when the quarterly numbers are bad. If a line can only go up, it can't tell you whether things are going up.

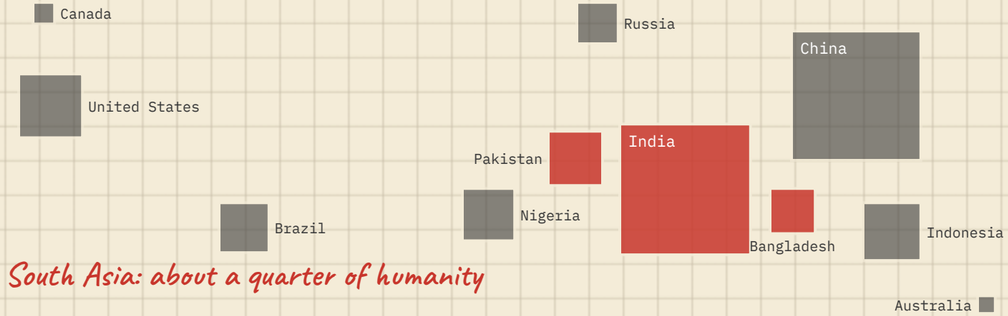
A running total can't go down. That's why it's on the slide.

Where the world is

Eleven countries, one square each, sized by land area



Where the people are



A standard world map gives Russia and Canada far more ink than South Asia, where about a quarter of humanity lives. Resize every country by population and India and China swell while Siberia shrinks to a sliver. Shaded maps answer questions about land. When the question is about people, draw the map in people.

Our hand: Our cartogram keeps each country's rough position and shape so you can still find it.

The map shows dirt. The question was about people.

AS PRESENTED

FIG. 17

Average wealth in this bar: $2 billion

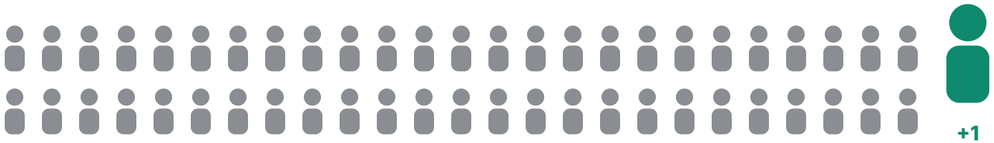
The Rose & Crown, Friday night

$2,000,000,000

Average wealth, after he walked in

Average wealth, before: about $200,000 (this sliver)

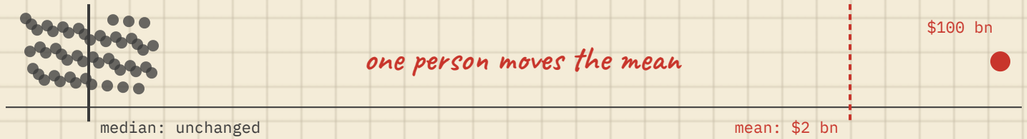
APPROVED FOR EMPHASIS



REDRAWN

ILLUSTRATIVE DATA

Median wealth: unchanged



Poll: 51–49, margin of error ±3



Fifty regulars, a mortgage each. A billionaire walks in, and the average wealth in the room jumps into the billions. The median, the person in the middle, hasn't moved. Below: a poll at 51–49 with a margin of error of 3 points. Draw the error bands and the "lead" becomes two overlapping clouds.

The average has a longer rap sheet. See *The History of Normal*.

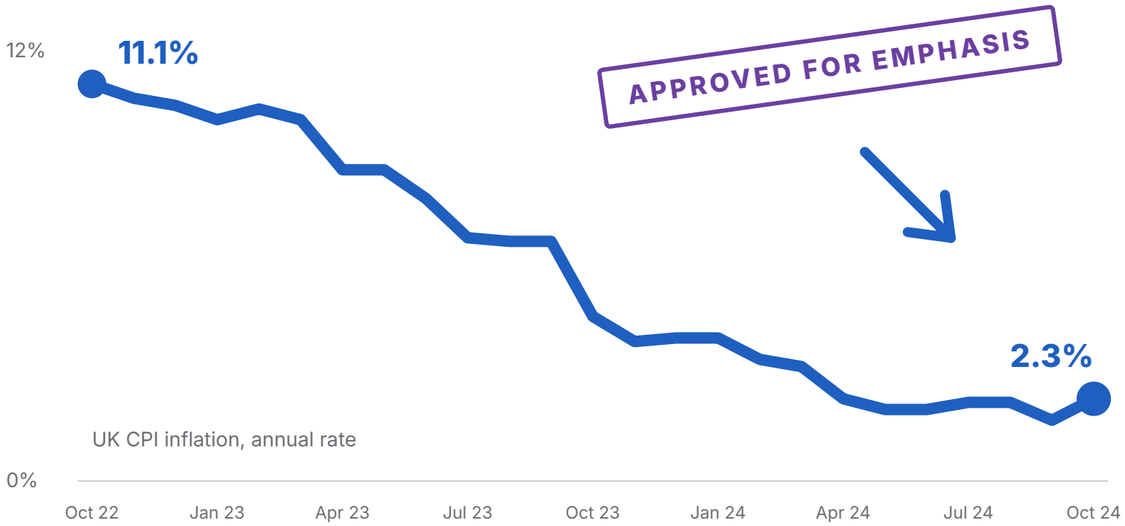
When one person walks in, the average gets rich.

AS PRESENTED

FIG. 18

Inflation is falling!

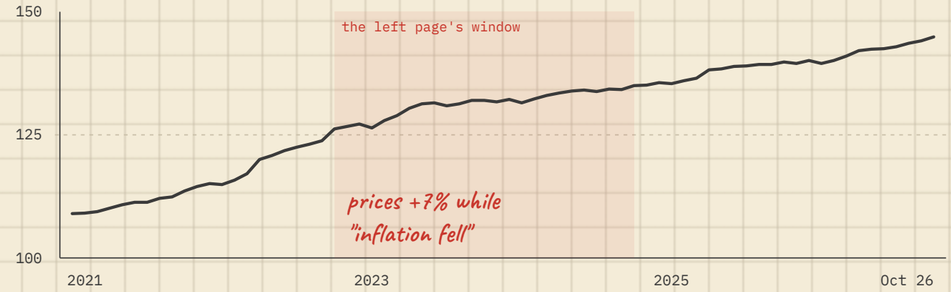
October 2022 to October 2024, ONS



REDRAWN

REAL DATA · ONS CPI ANNUAL RATE (D7G7) AND INDEX, 2015=100 (D7BT), RELEASE OF 18 NOV 2026

Prices are still rising



Inflation is the speed at which prices rise, not the price. When inflation falls from, say, 9% to 3%, prices are still climbing, just more slowly. The bill at the checkout doesn't shrink; it only grows less. Governments of every stripe headline the rate when it falls, and their opponents headline the level. Both are quoting real numbers.

Our hand: The UK consumer price index, rate and level. In the shaded two years inflation fell from 11.1% to 2.3% while prices rose another 7%, under governments of two different parties.

Inflation falling means prices rising more slowly. The bill didn't get the memo.

1. Write the headline first. The chart's job is to agree with it.
2. Choose the window. Every trend has a flattering start date.
3. Choose the denominator. Totals for size, rates for shame, as needed.
4. Crop the axis. White space is wasted emphasis.
5. One hero color. Everything inconvenient is gray.
6. Never show error bars. They look like doubt.
7. If it can only go up, make it cumulative.

Every rule on this page is legal. That's the point.

APPROVED

Approved, Office of Emphasis

THE DENOMINATOR TEST

4 OF 10 FILLED

1. Where does the axis start, and when does the clock start? *sp. 5–9*
2. What is it divided by? *sp. 10–13*
3. Is the picture as big as the number? *sp. 14–16*
4. What did the summary leave out? *sp. 17–18*

5. 6. 7.

8. 9. 10.

5–10 come in Parts II and III.

Whoever shapes the story of the data governs its consequences.

Part II

The Ruler

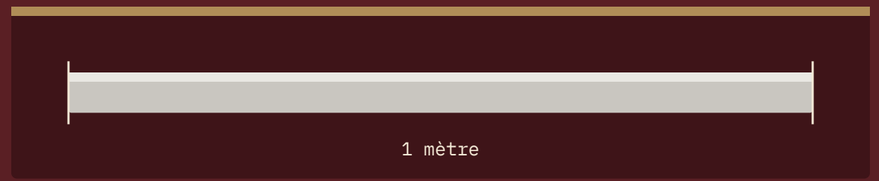


Exhibit 1

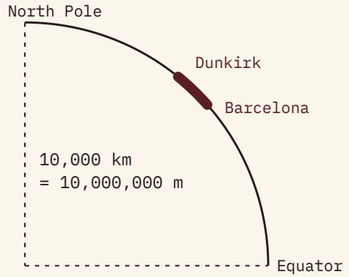
The Meter

Platinum · Paris · 1799

Real · survey 1792–1798 · shortfall exaggerated

The Meridian

In 1792, two astronomers set out to measure the earth, so that a meter could be one ten-millionth of the distance from the North Pole to the equator. In 1799 the result was cast in platinum. It came out about 0.2 mm short, because the earth wasn't the shape the definition assumed. The bar won anyway.





Our hand: Méchain did hide a discrepancy in his Barcelona readings. Modern analysis blames the earth's uneven gravity for most of the error, not him.

The meter was supposed to come from the earth. It came from a drawer.



Foot

varied by town



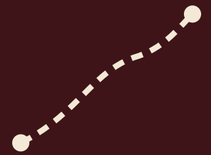
Cubit

elbow to fingertip



Shaku

Japan



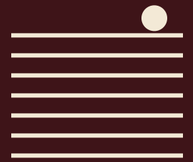
Li

China



Arshin

Russia



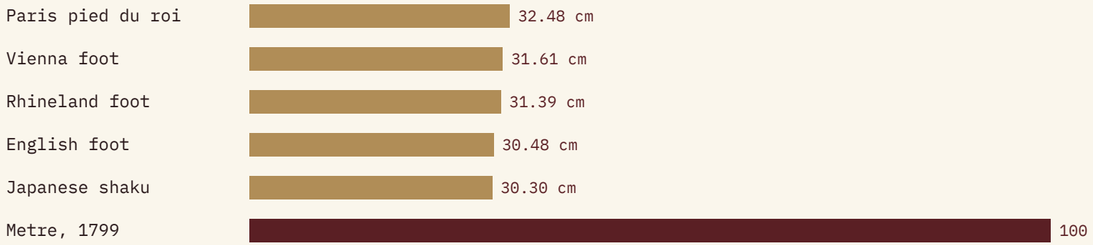
Morgen

a morning's ploughing

Real definitions · rounded to 0.01 cm

What the Meter Replaced

Before the meter, length and land were measured in things people knew: a foot, a forearm, a day's walk, a morning's ploughing. They varied from town to town, which suited the town and frustrated the tax collector. One standard made a whole country readable from the capital. Something was gained. Something local was lost.



Old units measured what a body could do. New ones measured what a state could tax.

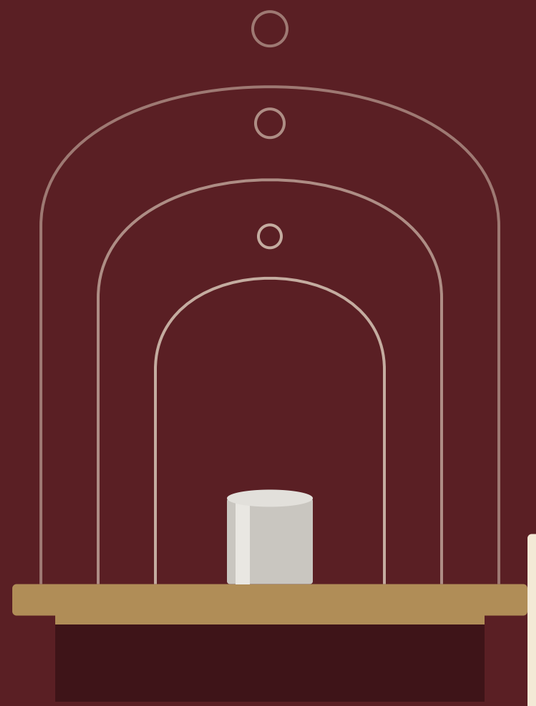


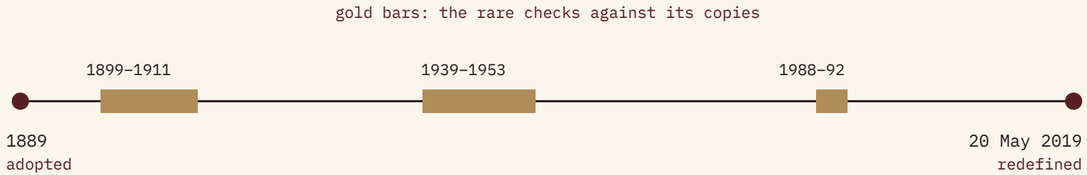
Exhibit 4

The International Prototype of the Kilogram

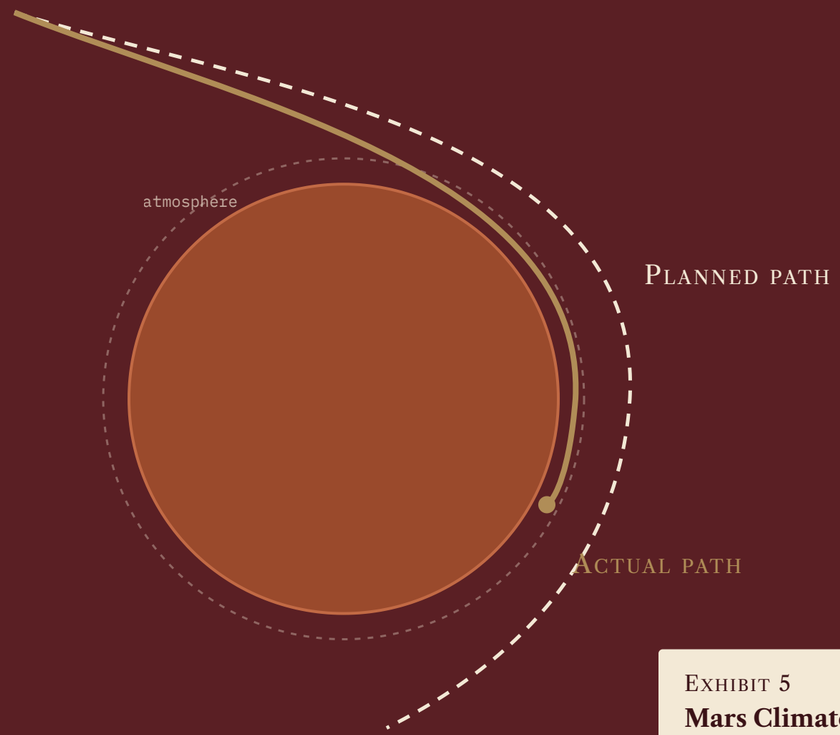
Platinum-iridium · cast 1879
Defined the kilogram 1889–2019

The Kilogram That Lost Weight

From 1889 to 2019, one kilogram was exactly the mass of one cylinder in a vault outside Paris. Weighed against its copies, it seemed to have lost about 50 micrograms, roughly the weight of a fingerprint. Either the copies gained weight or the kilogram lost it, and by definition the kilogram couldn't. Since 2019, a constant of nature defines it.



For 130 years, the kilogram was whatever one cylinder near Paris weighed.



altitudes exaggerated

Exhibit 5
Mars Climate Orbiter
Lost 23 September 1999

Real · NASA mishap report

Two Units, Zero Orbit

In September 1999, NASA's Mars Climate Orbiter reached Mars and vanished. Software on the ground reported thruster data in pound-force seconds; the navigation software expected newton-seconds, a difference of about 4.45 times. Months of small errors added up, and the probe arrived about 170 kilometers too low. Every number was correct. The units didn't match.

What the ground software sent

1 pound-force second

What the navigation software expected

= 4.45 newton-seconds

Same number on both screens. Read in the wrong unit, every thruster firing looked about 4.45 times weaker than it was.

One spacecraft, two rulers, no orbit.

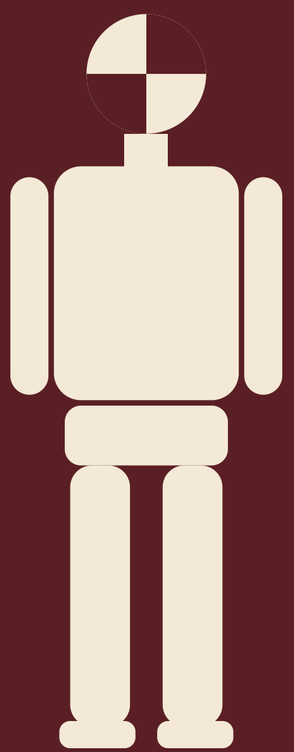




EXHIBIT 9

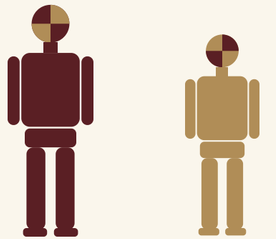
Hybrid III, 50th-percentile male

First used 1976 · 1.75 m · about 78 kg

Real · NHTSA; University of Virginia, 2019

The Unit of Safe

The standard crash-test dummy, first used in 1976, stands 5 ft 9 in and weighs about 78 kg: an average American man of its day. The "female" version is a scaled-down copy of the same male body. In a 2019 study, belted women had 73% greater odds of serious injury in frontal crashes. Safe, it turns out, had a size.



50th male 5th 'female'

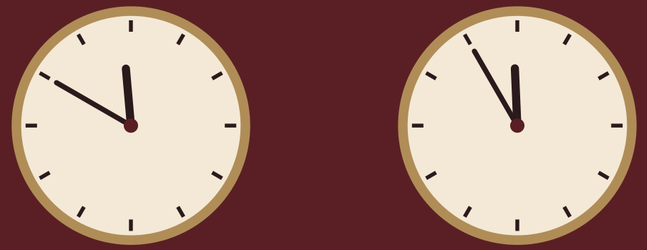
Hybrid III 50th-percentile male: 1.75 m, about 78 kg
Hybrid III 5th-percentile female: the same body scaled down to about 1.51 m and 49 kg

Odds of serious injury, belted, frontal crash (2019 study)



Our hand: The 73% figure controls for height, weight, age and crash severity.

The unit of safe was one man of average size.



Bristol
11:50 · 2°35′W

Oxford
11:55 · 1°15′W



Reading
11:56 · 0°58′W



London
12:00 · 0°07′W

Real · local mean time from each town's longitude

The Day of Two Noons

Before railways, noon was when the sun stood highest, so every town ran a few minutes apart. In 1840 Britain's Great Western Railway put its stations on London time; the law caught up in 1880. On 18 November 1883, North American railways switched to time zones, and some towns heard noon twice. The timetable came first. The nation followed.



Railway time: every station on London's noon



The nation didn't set the timetable. The timetable set the nation.



Exhibit 7
The Prime Meridian
Greenwich · fixed October 1884

Real · International Meridian Conference, 1884

Empire by Meridian

In October 1884, delegates from 25 nations met in Washington to decide where the world's longitude would begin. Greenwich won 22 to 1, with France and Brazil abstaining. France kept Paris time until 1911. About 72% of the world's shipping, by tonnage, already used charts that began at Greenwich. Zero went where the maps already were.



22 for Greenwich
1 against: San Domingo
2 abstained: France, Brazil

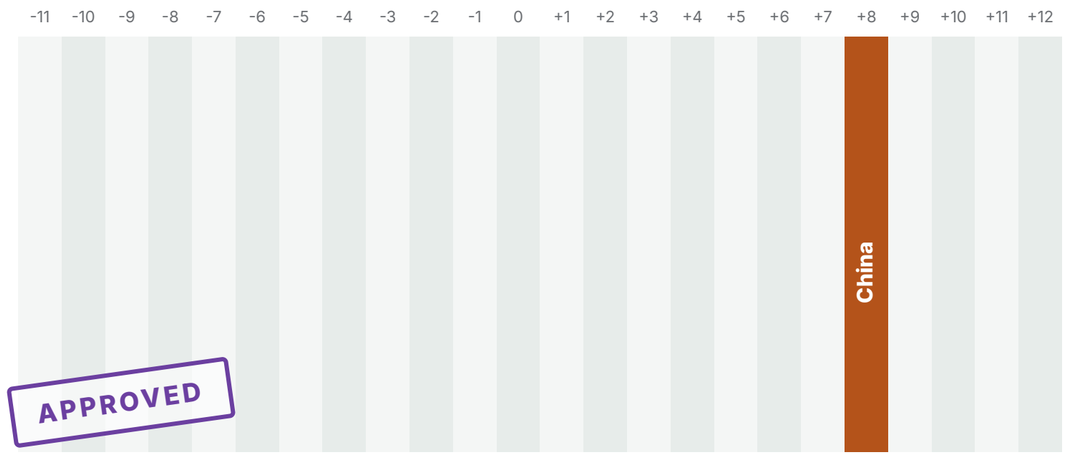
World shipping tonnage already using Greenwich charts, 1884



Zero had to be somewhere. They put it in London.

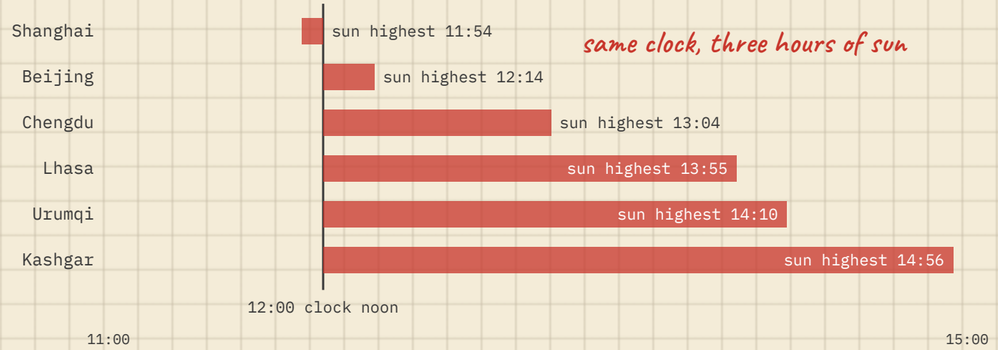
World time zones

Coordinated, tidy, one hour apart



Hours from UTC, one neat band per hour

Clock time minus sun time



China spans about five solar time zones and uses one clock. In Kashgar, the sun can reach its highest point at ten past three in the afternoon, so many residents keep unofficial Xinjiang time, two hours behind Beijing. Nepal runs 5 hours 45 minutes ahead of UTC. Samoa deleted Friday, 30 December 2011. Clocks follow capitals, not the sun.

Our hand: We shaded the gap between clock noon and solar noon on an average day. It shifts with the seasons.

Ask the sun what time it is in Kashgar.



Exhibit 8

Republican decimal time

10 hours of 100 minutes
Nov 1793 – Apr 1795

Real · IERS leap-second list; CGPM Resolution 5, 2026

The Abolished Second

Revolutionary France tried a ten-hour day in 1793 and gave up in April 1795; people wouldn't give up their hours. Since 1972, timekeepers have added 27 leap seconds to keep atomic clocks in step with the turning earth. In October 2026 they voted to stop from May 2027 and let the gap grow to an hour. The servers had complained.



After 2027 the gap between atomic time and the turning earth is allowed to grow, up to an hour.

In 2026, the world voted to let the clock drift up to an hour from the sun, because the servers couldn't keep up with it.

Now appearing

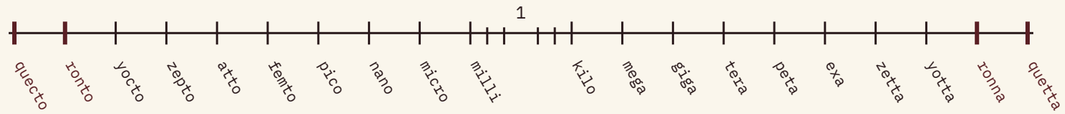
The Cast

Quecto	10^{-30}	*the New Kid*
Yocto	10^{-24}	*the Whisper*
Nano	10^{-9}	*the Spark*
Micro	10^{-6}	*the Observer*
Milli	10^{-3}	*the Empath*
Kilo	10^{3}	*the Architect*
Mega	10^{6}	*the Mythmaker*
Giga	10^{9}	*the Machine*
Tera	10^{12}	*the Archivist*
Yotta	10^{24}	*the God of Scale*
Quetta	10^{30}	*the Other New Kid*

Real · BIPM, CGPM 2022 Resolution 3

The Cast

The metric prefixes were invented to keep big and small numbers tidy. Then they escaped into everyday language, and each picked up a personality. Micro sounds trivial. Mega sounds important. Giga sounds like a machine. In 2022 the cast grew to 24 with ronna, quetta, ronto and quecto, the first new members since 1991.



centi, deci, deca, hecto
sit right beside 1

24 prefixes, 10^{-30} to 10^{30}. Red: the four added on 18 Nov 2022.

Our hand: The personalities are ours. The powers of ten are official.

Every prefix has a personality. That was our first mistake.

MEGA-MERGER

micro-loan

megachurch

micro-apartment

nano-influencer

UNICORN

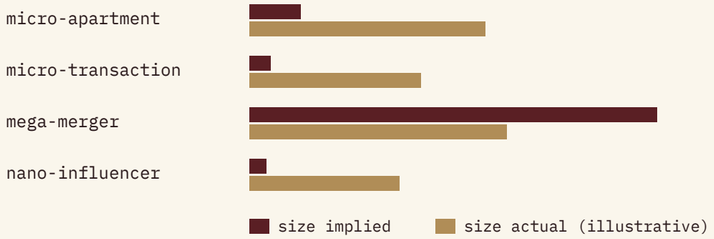
micro-transaction

hectocorn

Gauges illustrative · valuation tiers real

Micro-Apartment, Mega-Church

Prefixes don't measure the things they're attached to. A micro-apartment is a small flat with a better publicist. A micro-transaction is a charge you're meant not to notice. A mega-merger is meant to impress, and a unicorn is any private startup valued at $1 billion or more. The size word usually comes from whoever benefits from it.



Startup valuations

unicorn: $1 billion+

decacorn: $10 billion+

hectocorn: $100 billion+

Our hand: The gauges are illustrative. "Unicorn" was coined by the investor Aileen Lee in 2013, when there were 39 of them.

The prefix is never a measurement. It's a verdict on who should care.

CONCORDANCE BUREAU
OFFICE OF EMPHASIS · MAGNITUDE GUIDANCE · REVISION 7

TO All communications staff
FROM Office of Emphasis
RE Choosing the size of events
FILE MG-07 [redacted]

Effective immediately, staff will attach size prefixes as follows.

- Use **micro-** for: losses in outlying regions, wage stagnation, concerns raised by staff.
- Use **mega-** for: quarterly earnings, ribbon cuttings, any initiative with a logo.
- Use **nano-** for: protests, unless televised. If televised, see "unrest."
- Do not attach a prefix to grief. Kilo-grief is not a unit the Bureau recognizes.

Questions about magnitude should be [redacted] and filed with this office.

APPROVED

DISTRICT 4 · OUTLYING

micro-flooding

1,200 homes affected. Recovery ongoing.

DISTRICT 1 · CAPITAL

mega-storm

1,200 homes affected. National response launched.

Same flood, two prefixes, depending on whose district it hit.

Micro, the Observer · Mega, the Mythmaker · Nano, the Spark

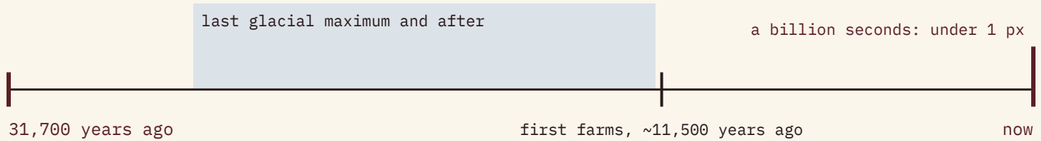
The grammar of who gets to be vast.



Arithmetic · dates approximate

A Million, a Billion, a Trillion Seconds

A million seconds is about 11.6 days: a holiday. A billion seconds is about 31.7 years: a career. A trillion seconds is about 31,700 years: back past the first farms, into the Ice Age. The words sound like neighbors. When a budget moves from millions to billions, the number didn't step up. It moved a thousand times farther.



One trillion seconds, drawn to scale. A billion would be a hair's width at the right edge; a million, nothing.

One letter apart. 31,700 years apart.



Bar and coffee illustrative · ONS figures real

The Unit Moves, Not the Price

Prices are sticky; packages aren't. Shrink the bar, keep the price, and the cost per gram rises without a new number on the shelf. Or shrink the time unit: "less than a coffee a day" sounds smaller than a yearly bill. Even the famous count of 2,529 shrunken products was really a count of price quotes.



Last year: 250 g for 2.50 → 1.00 per 100 g

This year: 200 g for 2.50 → 1.25 per 100 g

Shelf price unchanged. Price per gram up 25%.

Same price, 20% less bar. Ghost: last year's size.

UK ONS, 2017: 2,529 shrunken price quotes, 2012–2017.
Its later count of distinct products: 206 shrank, Sep 2015 to Jun 2017.

Our hand: The coffee and the chocolate bar are illustrative. The ONS figures are real.

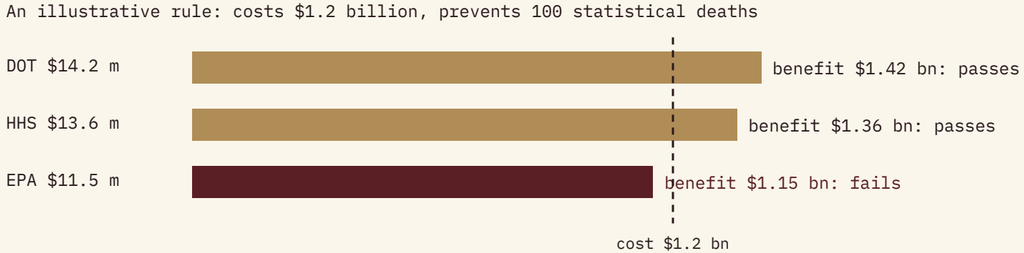
The price tag didn't change. The ruler did.



Agency values real · the rule illustrative · UK value to confirm

The Price of a Life

Governments that would never sell a life put a price on one every week. Regulators call it the value of a statistical life: what people would pay to reduce a small risk of death. The US Department of Transportation uses $14.2 million; Health and Human Services uses $13.6 million. Change the price and the same rule can pass or fail.



Our hand: These are willingness-to-pay estimates, not anyone's worth. Dollar years differ: DOT's figure is for 2025, HHS's is in 2024 dollars.

No one sells a life. Every government prices one.

Costs to industry		Health benefits fine particles and ozone
Monitoring	$41,200,000	
Controls	$318,750,000	
Compliance	$27,480,000	
Reporting	$9,115,000	
Retrofits	$152,300,000	
Total	$548,845,000	—

Figures invented for the drawing

Exhibit 13
A ledger, 2026
Drawing ours · figures invented

The Column Left Blank

In January 2026, the US Environmental Protection Agency said it would stop putting a dollar value on the health benefits of its fine-particle and ozone rules, citing too much uncertainty. It kept counting the costs to industry. The agency says not monetizing doesn't mean not valuing. Its critics say a blank column always loses to a full one.

THE DENOMINATOR TEST — 8 OF 10 FILLED

5. What did this unit replace, and who was it sized for?
6. What does the size word want me to feel?
7. What does this equal in things I can picture?
8. What was left uncounted?

Our hand: We set the agency's stated reason beside its critics' in their own terms. The ledger drawing is ours.

Both columns were uncertain. Only one was left blank.

PART III

The Scoreboard

TARGETS	OUTCOMES
100	(pending)

CB

CONCORDANCE BUREAU

OFFICE OF EMPHASIS · STATUS NOTICE

Targets are being met. Outcomes are under review.

In 1975 the economist Charles Goodhart noticed that a number used to steer policy stopped behaving once people steered by it. The anthropologist Marilyn Strathern later put it in one sentence, quoted below. Part III is about what happens next: institutions that keep hitting their targets while missing the point.

“When a measure becomes a target, it ceases to be a good measure.”

Marilyn Strathern, 1997, after Charles Goodhart, 1975

Overweight or obese adults

Overweight or obese

97 million

55% of adults

Added overnight

29 million

↑ without gaining an ounce

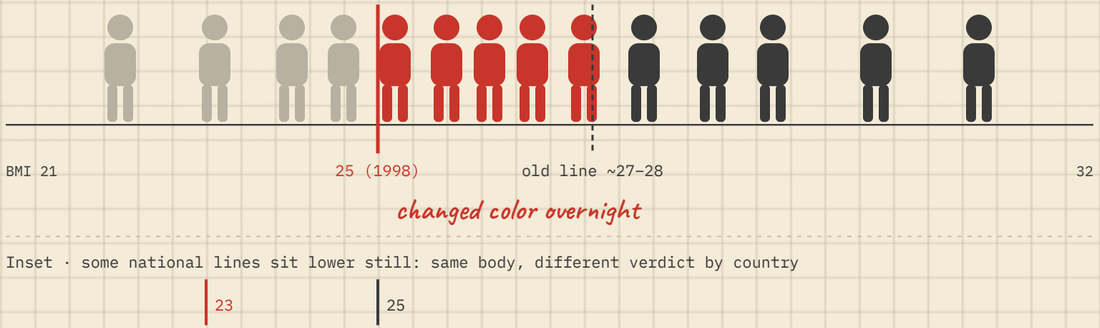
US adults under the new line

55% overweight or obese

One line moved from about 27–28 to 25. The bodies stayed put.

COUNT REVISED

Same bodies as yesterday.



In June 1998, the US National Institutes of Health set the line for "overweight" at a body mass index of 25. The old cutoffs had been about 27 for women and 28 for men. Overnight, 29 million more Americans became overweight without gaining an ounce. The line moved. The people stayed where they were.

Our hand: There is a medical case for the lower line. Our point is only that the count changed before anyone's weight did.

Nobody gained a pound. The line lost weight.

135/85

135/85
mmHg

United States, 2017 guideline

Stage 1 hypertension

135/85
mmHg

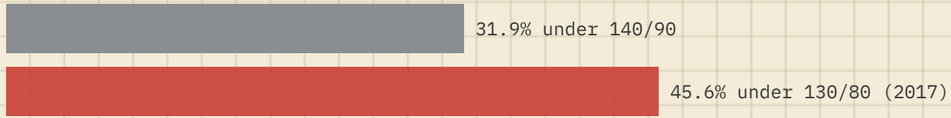
Europe, 2024 guideline

Elevated blood pressure

DIAGNOSIS ISSUED

Cross an ocean, change your diagnosis

US adults with hypertension, same survey data



Where 135/85 lands:

US 2017: ≥130/80 = stage 1 hypertension

Europe 2024: 120–139/70–89 = elevated

In 2017, two American heart associations lowered the threshold for high blood pressure from 140/90 to 130/80. On the same national survey data, the share of US adults with hypertension rose from about 32% to about 46%. Europe's 2024 guidelines still start hypertension at 140/90 and call a reading like 135/85 "elevated."

Our hand: Both guidelines cite evidence. We aren't ruling on medicine, only showing that the diagnosis lives in the line.

Cross an ocean and your diagnosis changes.

Extreme poor, 2022

Old line, $2.15 a day

713 m

2022 count

New line, $3.00 a day

838 m

↑ 125 million, same year

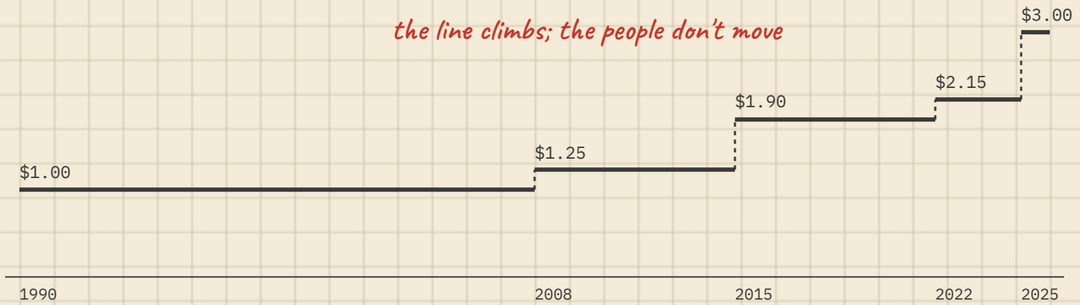
713 million

838 million

Same people, same year, same incomes. Only the line changed.

RECOUNTED

The line has moved five times



The World Bank's extreme poverty line was $1 a day in 1990. It has since moved to $1.25, $1.90, $2.15 and, in June 2025, $3.00, partly for inflation and partly because poor countries raised their own poverty lines. The last move added about 125 million people to the count. Nobody got poorer that day. The definition did.

Our hand: The new line arguably describes poverty better. That's the point: even a better measurement moves people on the chart.

Move the line and 125 million people move with it.

Guests love it

Guest favourite

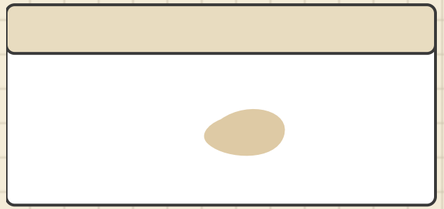
Sunny loft, steps from everything

4.9 ★

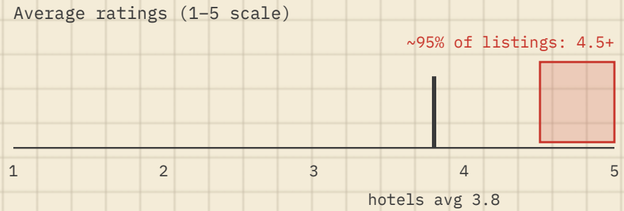
from 312 reviews · cleanliness 4.9 · accuracy 5.0

SUPERHOST APPROVED

A hotel bed. A stained sheet.



a stained sheet, rated 5



the scale shrank to its top notch

Researchers who studied millions of Airbnb listings found that nearly 95% averaged 4.5 stars or higher, and almost none fell below 3.5. Hotels on TripAdvisor averaged 3.8. When a 4 reads like an insult and reviews are reciprocal, the scale shrinks to its top notch. A rating everyone gets can't tell you much.

When everything is five stars, the stars become a tip.

Rats destroyed: rising

Bounty per tail

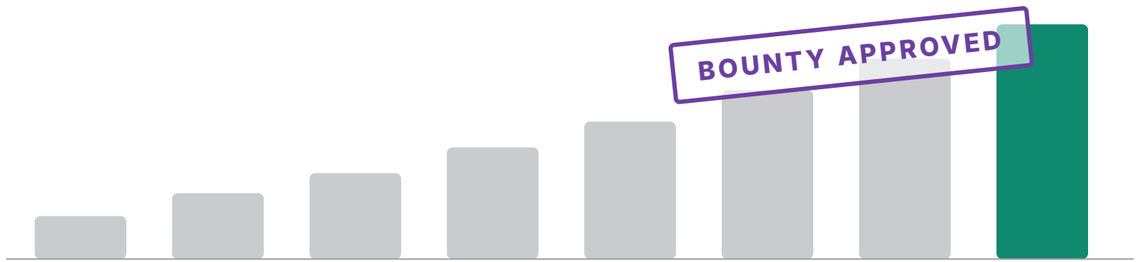
1 cent

paid on proof

Tails received

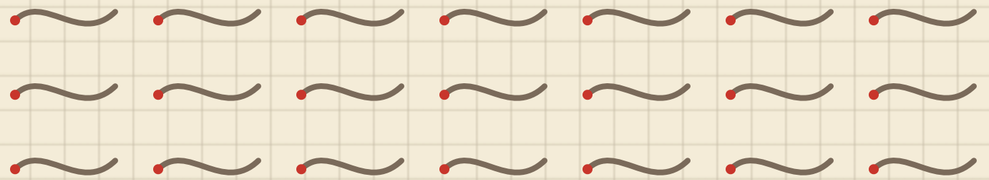
↑↑↑

every week



Tails handed in, by week (illustrative)

Rows of tails. Rats walking free.



free, breeding, tail-less



In 1902, with plague spreading, colonial Hanoi paid 1 cent for every rat tail handed in. Officials soon noticed rats running around without tails. Hunters were cutting off the tails and releasing the rats to breed more. The city had paid for proof of a dead rat, and it got exactly that: proof.

The famous Delhi cobra version of this story can't be documented. This one can.

Pay for tails and you'll get tails.

TARGETS 100 · OUTCOMES (pending) · TAILS ↑ · RATS (not counted) · SCORE CONFIRMED BY OFFICE OF EMPHASIS

Enemy killed this week: ↑

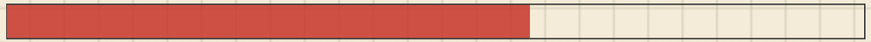


Weekly count, rising (illustrative)

Tally marks, and a map that didn't change



1974 survey of Army generals who commanded in Vietnam

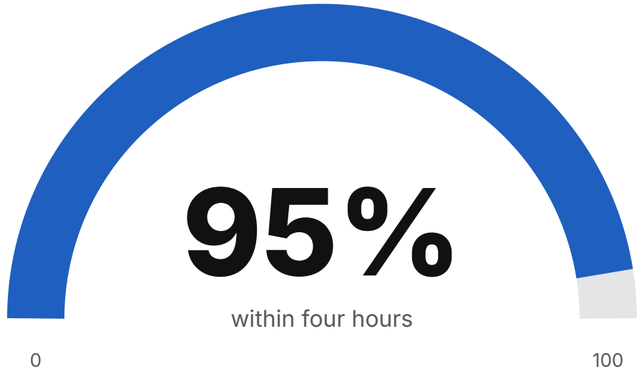


In Vietnam, the US measured progress by enemy dead. Commanders were judged on the count, so the count rose. In 1974 a retired general surveyed the Army generals who had commanded there; 61% of those who answered said body counts were often inflated. The chart kept climbing. The war didn't turn. What you reward is what you get.

Our hand: This trap has a name: the McNamara fallacy, after the defense secretary who ran the war by the numbers.

What you count becomes what you do.

95% seen within four hours



TARGET MET

How long patients actually stayed



Shape illustrative. In a 2004 study, 12.3% of admitted patients left in the final 20 minutes.

From 2005, England's emergency departments had to finish with 98% of patients within four hours; in 2010 the bar dropped to 95%. Plot actual stays and a spike appears just before 240 minutes: in one 2004 study, 12.3% of admitted patients left in the final 20 minutes. The target also cut average waits. Both are true. That's the trap.

Our hand: Research from the Institute for Fiscal Studies credits the target with shorter waits and lives saved. We show the spike and the gains on the same page.

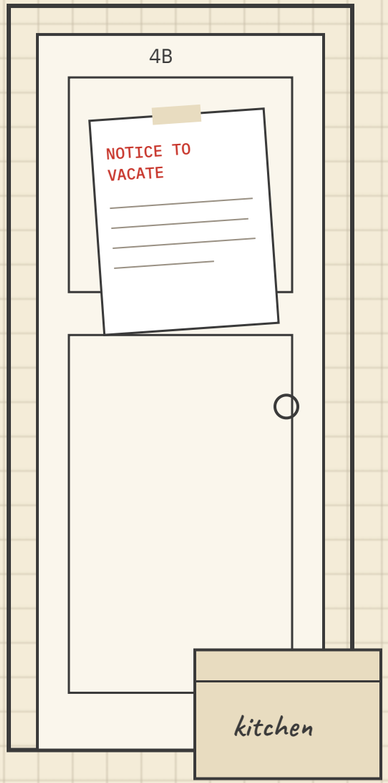
The patients didn't heal faster. The clock got watched harder.

Housing is working

Permits issued	Units delivered	Median days to permit
4,120	**2,860**	**41**
↑ 40% on last year	↑ 18% on last year	↓ 35% faster

Permits by quarter





THE DOOR

Who moved in? Who moved out? What did the rent do?

Our model city's housing dashboard glows: permits up 40%, units delivered up, time to permit down. All true. None of the tiles counts who moved in, who moved out, or what happened to the rent. A dashboard can only celebrate what it measures, and it was built by the people who wanted something to celebrate.

not tracked · not tracked · not tracked

Our hand: The city is invented. Building more housing isn't the problem; counting only the building is.

The dashboard counts what was built. The door counts who left.

TARGETS 100 · OUTCOMES (pending) · PERMITS ↑ 40% · WHO MOVED IN (not tracked) · WHO MOVED OUT (not tracked) · RENT (not tracked) · SCORE CONFIRMED BY OFFICE OF EMPHASIS

Everything is up

- **Procedures** ↑
- **Test scores** ↑
- **Aid dollars disbursed** ↑
- **Arrests** ↑
- **Permits** ↑

TARGETS EXCEEDED

The step nobody counts

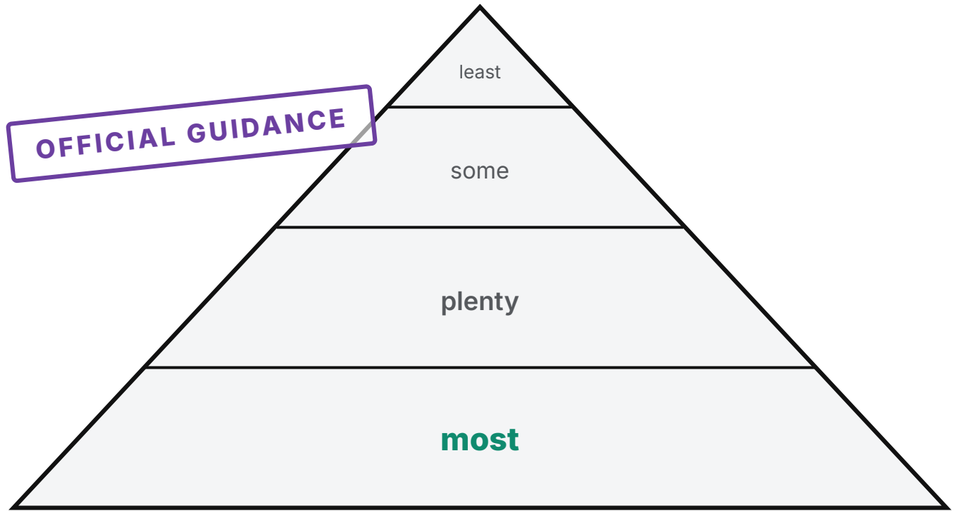
Procedures →	Health	one step away
Test scores →	Learning	one step away
Aid dollars disbursed →	Lives improved	one step away
Arrests →	Safety	one step away
Permits →	Homes	one step away

Hospitals count procedures. Schools count test scores. Aid agencies count dollars disbursed, police count arrests, cities count permits. Each number is easy to collect and easy to raise. Each sits one step away from what anyone actually wanted. That single step is where the gaming happens.

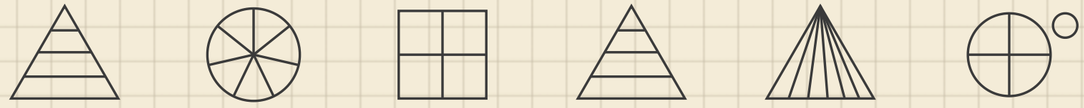
Outputs are easy to count. That's the whole problem.

TARGETS 100 · OUTCOMES (pending) · OUTPUTS ↑ · OUTCOMES (not collected) · SCORE CONFIRMED BY OFFICE OF EMPHASIS

Eat like this



Same advice, eleven shapes



Sweden, 1974 · US Basic 7, 1943 · US Basic Four, 1956 · US Pyramid, 1992 · US MyPyramid, 2005 · US MyPlate, 2011

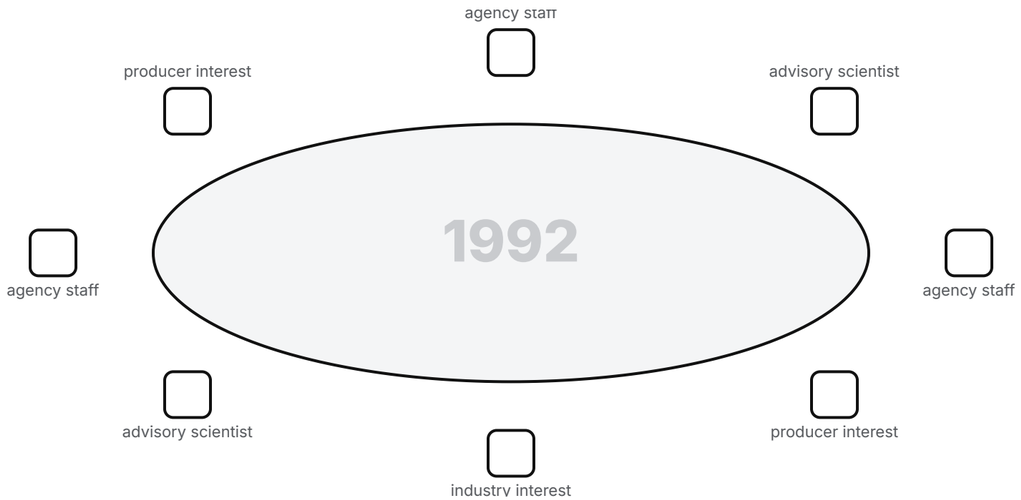


US inverted, 2026 · Japan's top, 2005 · China's pagoda, 1997 · UK Eatwell, 2016 · Canada's plate, 2019

A food guide tells you what to eat with its shape. A pyramid's base says "most" and its tip says "least." A plate says "divide." Since Sweden drew the first food pyramid in 1974, governments have turned the same advice into wheels, plates, pagodas, a spinning top and, in 2026, an upside-down pyramid. The shape is the argument.

Every picture of health is a chart with an author.

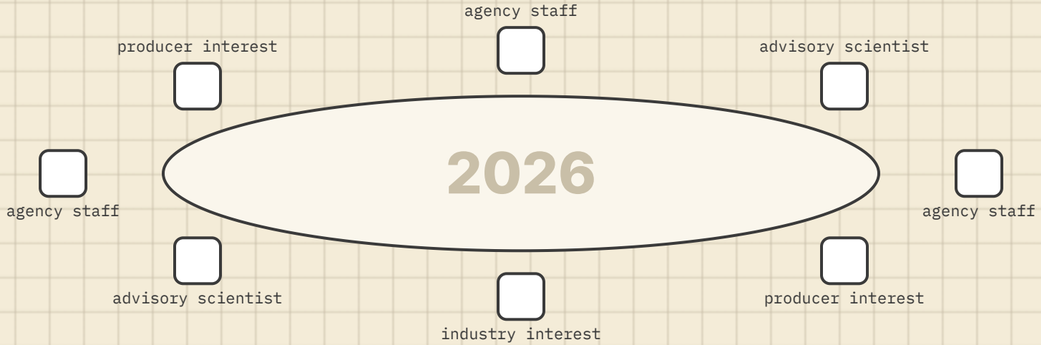
The table, 1992



Who drafted it? Who revised it? Who signed it?

Seating schematic illustrative

The table, 2026



Who drafted it? Who revised it? Who signed it?

The 1992 pyramid came from a department charged with both promoting America's farm products and advising people what to eat. A 1991 version was pulled and reissued a year later. A USDA nutritionist later said her team's draft had put fruit and vegetables at the base. The 2026 guidelines set aside several of their own advisory committee's recommendations.

Our hand: Luise Light's account is her own and has been disputed. We ask the same questions of both eras.

Ask who sat in the room, in 1992 and in 2026.

Your coordinates

THE BIRTH LOTTERY · CARD 1

Scratch to reveal your life expectancy at birth

Hong Kong

~85

years

Nigeria

~55

years

Real · UN World Population Prospects 2024

Nine miles, thirty years

THE BIRTH LOTTERY · CARD 2

Scratch to reveal your life expectancy at birth

Streeterville, Chicago

~90

years

Englewood, Chicago

~60

years

A baby born in Hong Kong can expect to live about 85 years. A baby born in Nigeria, about 55. Neither did anything to earn the difference. In Chicago, two neighborhoods nine miles apart are about 30 years apart. Before effort, talent or luck shows up, your coordinates have already set the odds.

The game was scored before you arrived.

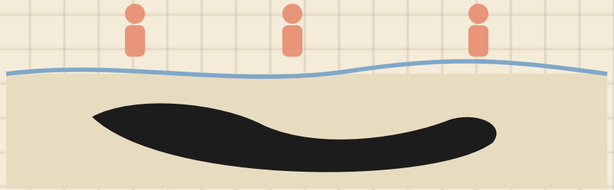
GDP ↑



Output, indexed (illustrative)

GROWTH CONFIRMED

An oil-black beach, a crew, an invoice



INVOICE · SHORELINE CLEANUP

Crews, booms, disposal

Wildlife rescue

TOTAL $1,000,000,000

counted as growth

GDP adds up spending. It doesn't ask what the spending was for. An oil spill that needs a billion-dollar cleanup adds a billion dollars of activity. The economist who built the first US national accounts warned Congress in 1934 that a nation's welfare could scarcely be read from them. We kept the number anyway, and made it the score.

"The welfare of a nation can scarcely be inferred from a measurement of national income." Simon Kuznets, 1934 · Some governments now publish other scores alongside it, such as Bhutan's Gross National Happiness and New Zealand's 2019 Wellbeing Budget.

The scoreboard went up when the beach went black.

FINAL SCORE

METRICS	MEANING
100	(no data)

Every chart in Part III was technically correct. Every target was hit somewhere. The scoreboard never lied about the score. It just never measured the game.

Illustrative (satire)

END OF PART III

TEST CARD

THE DENOMINATOR TEST

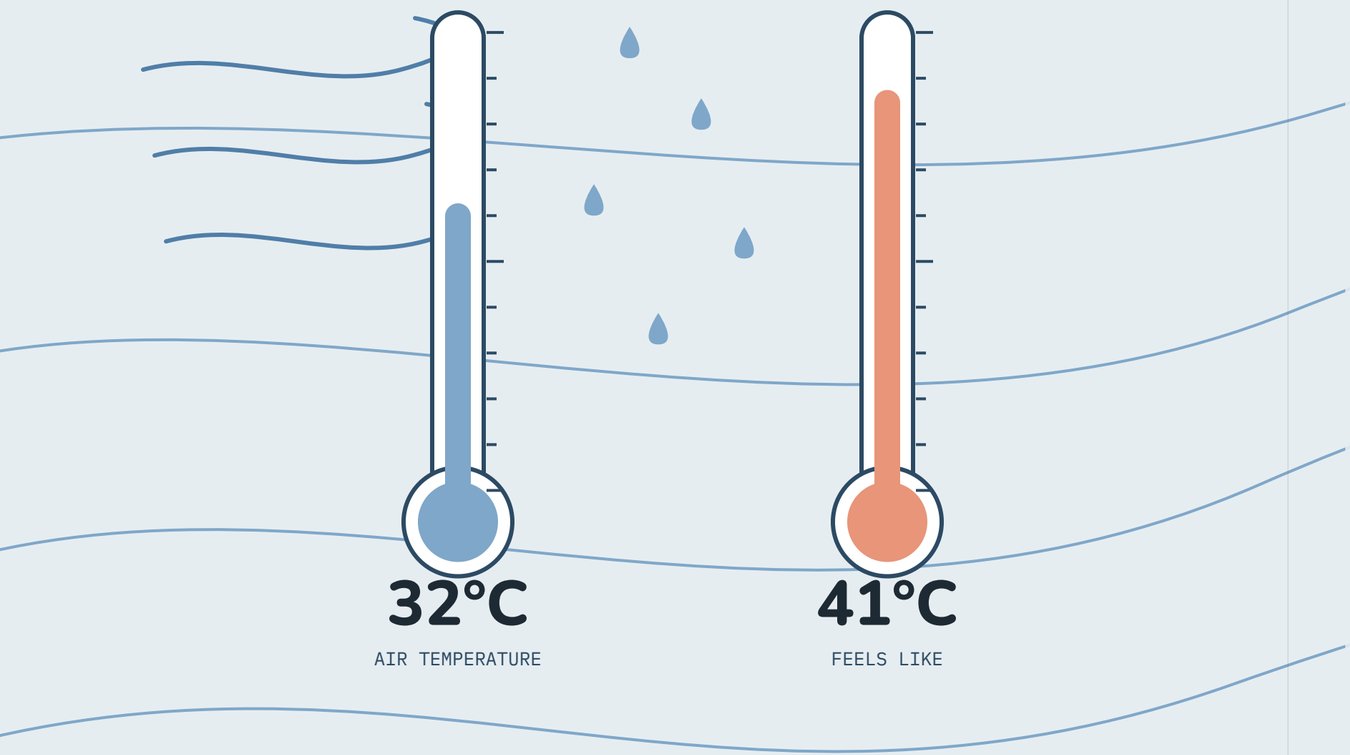
10 OF 10 FILLED

1. Where does the axis start, and when does the clock start?
2. What is it divided by?
3. Is the picture as big as the number?
4. What did the summary leave out?
5. What did this unit replace, and who was it sized for?
6. What does the size word want me to feel?
7. What does this equal in things I can picture?
8. What was left uncounted?
9. Who drew the line, and who's rewarded when the number moves?
10. Could this number even see things getting worse?

Card complete. Keep it: it's on the back endpaper.

Civilization didn't collapse. It just kept score while collapsing.

FINAL · METRICS 100 · MEANING (no data) · GAME (not measured) · SCORE CONFIRMED BY OFFICE OF EMPHASIS



Feels Like

The weather service has known for decades that the thermometer isn't the whole truth. In 1979 Robert Steadman worked out how hot, humid air feels to a human body. In 2001 the US and Canada rebuilt the wind chill index together. Officials publish a second number because the first one leaves out the person standing in it.

Our hand: Even "feels like" assumes a standard body: a set height, weight, clothing and walking pace. Remember the crash-test dummy.

Even the thermometer needed a second opinion.

The Global Feels-Like Index

This is the only index in the book that admits it was invented. It forecasts feelings, not temperatures, for the lives most charts average away. It can't be audited. It also can't be gamed, because nobody gets paid when it rises.

THE FARMER
Harvest, feels like:
gratitude with blisters

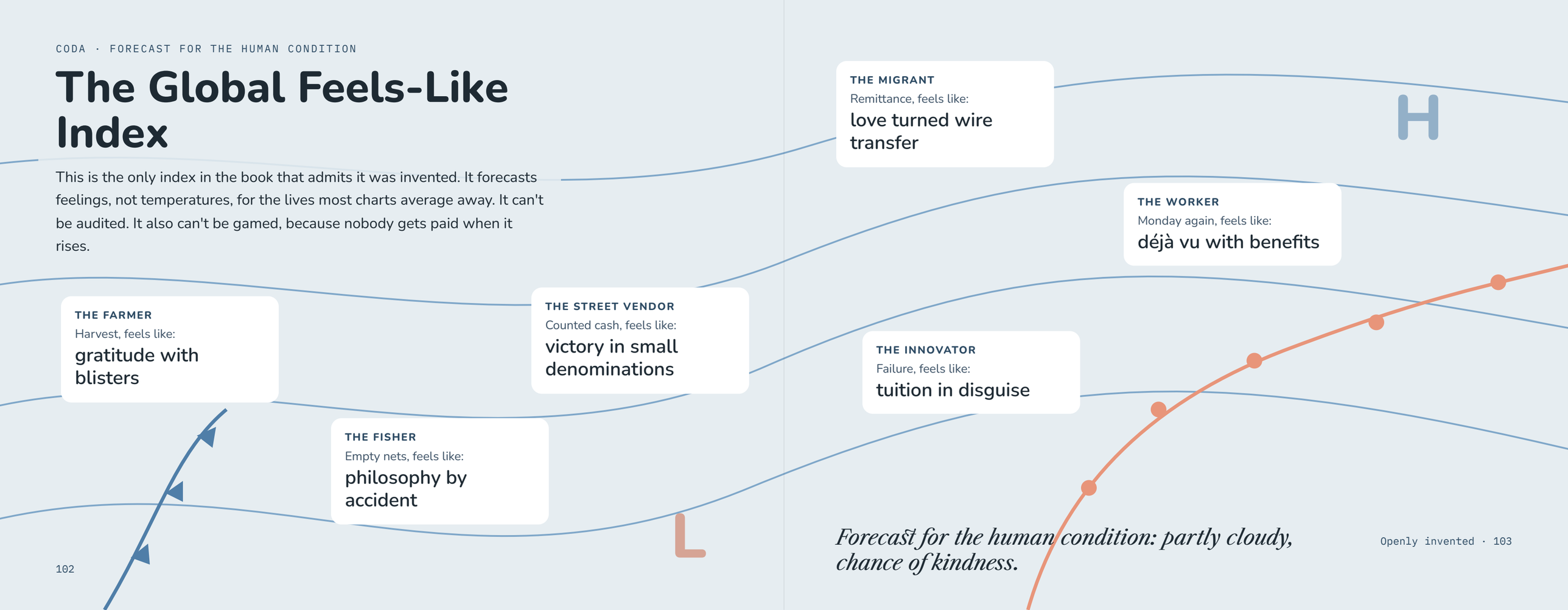
THE FISHER
Empty nets, feels like:
philosophy by accident

THE STREET VENDOR
Counted cash, feels like:
victory in small denominations

THE MIGRANT
Remittance, feels like:
love turned wire transfer

THE WORKER
Monday again, feels like:
déjà vu with benefits

THE INNOVATOR
Failure, feels like:
tuition in disguise



Forecast for the human condition: partly cloudy, chance of kindness.



Name your scale

What does 0 mean?

What does 10 mean?

Who benefits if it goes up?

Calibrated by

Hand on the scale mine.

Your Index

Every measure in this book began with someone deciding what to count, where to start and what to call it. Your turn. Pick something that matters to you and that nobody measures. Give it a scale and a name. Then turn to the back of the book and ask the last question on the Test card about yourself.

Make your own scale. Then sign it. That's the honest part.

CB

CONCORDANCE BUREAU

OFFICE OF EMPHASIS

MEMO File 054
TO The Reader
FROM The Concordance Bureau, Office of Emphasis
RE Your conduct

It has come to the Bureau's attention that you have been checking the axis. [redacted]. The Bureau reminds you that the numbers are fine.

RECONTEXTUALIZED

The numbers are fine.
You're the one who checked.

Notes and sources

By spread number. Pages not listed use illustrative data only. Checked 28 November 2026; draft list, to be confirmed against each primary document before print.

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12 UK Advertising Standards Authority ruling on Colgate, Jan 2007 (reported by Cosmetics Business).

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46 FAO food-based dietary guidelines (Sweden, UK, Japan, China, Canada); USDA guides 1943–2026.

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51 R. Steadman, 1979; US National Weather Service, wind chill index of 1 Nov 2001.

OUTRO

About this book

Every number in this book is either real or marked as invented. Pages tagged Illustrative use made-up figures to show a trick clearly. Everything else is a real figure from a named source, printed on the page and collected in the notes. Real series (stock indexes, temperatures, emissions, prices) are drawn from the published data, not traced from anyone's chart.

The book draws its own charts too, so every redrawn page says where we put our hand. If you think we leaned on the scale, use the card at the back on us first.

Charts and drawings
All original. No published chart, logo or official graphic is reproduced; food guides and devices are redrawn as plain outlines.

Typefaces
Inter, IBM Plex Mono, Libre Caslon Text, Caveat and Nunito.

The Concordance Bureau
Invented. Its memos are satire. Kappel City is invented too.

Data checked
28 November 2026. Figures can change after that date; the notes give each source.

ABOUT THE AUTHOR

Chris A. Piazza

Chris A. Piazza develops books from Antherra, his vault of original ideas.

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Who Gave The Universe A Paintbrush? A visual meditation on the art movements we invented, and how nature got there first

Technically Correct Ruining Famous Sayings with Science

The History of Normal The Normal Condition

Undercount The City They Subtracted

Dynamic Pricing Universe Capitalism on Shuffle

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hand on the scale: mine.

THE DENOMINATOR TEST

Ten questions to ask any number · Back endpaper

1	Where does the axis start, and when does the clock start?	THE CHART
2	What is it divided by?	THE CHART
3	Is the picture as big as the number?	THE CHART
4	What did the summary leave out?	THE CHART
5	What did this unit replace, and who was it sized for?	THE RULER
6	What does the size word want me to feel?	THE RULER
7	What does this equal in things I can picture?	THE RULER
8	What was left uncounted?	THE RULER
9	Who drew the line, and who's rewarded when the number moves?	THE SCOREBOARD
10	Could this number even see things getting worse?	THE SCOREBOARD

Whose hand is on the scale: theirs, nobody's, or mine?