

# An investor manual

Manish Chokhani

FLAME Investment Lab - June 2023

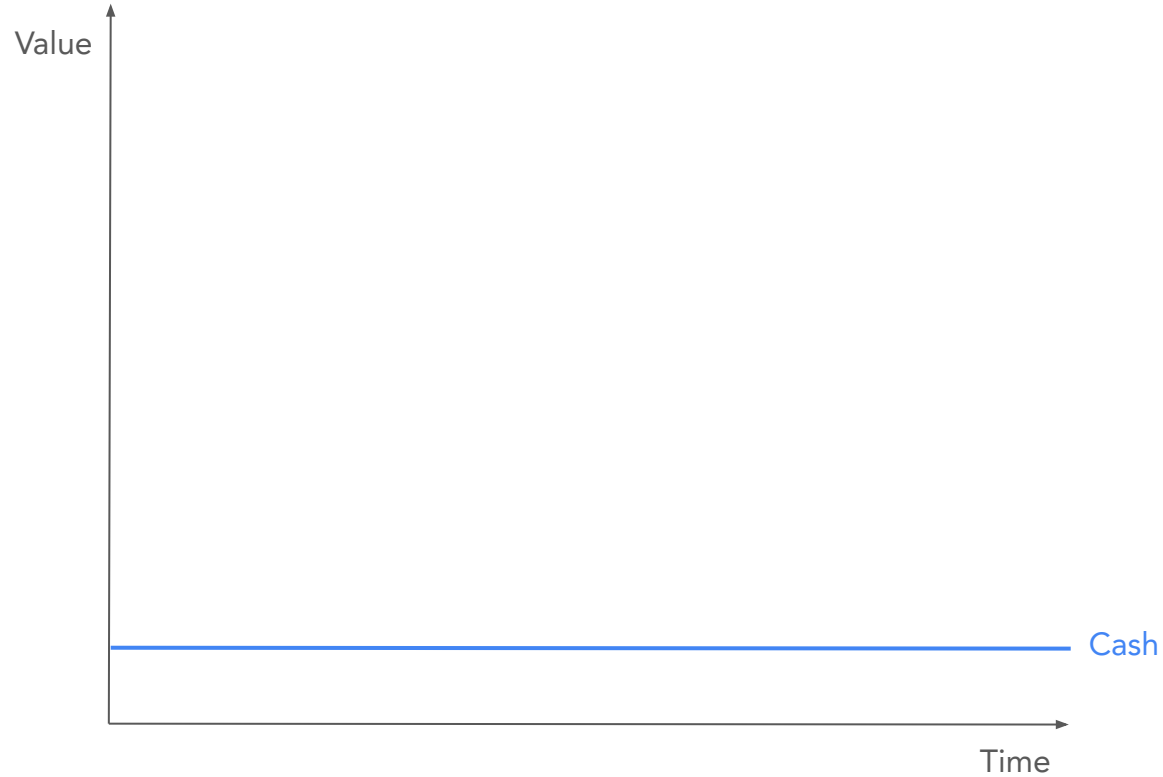
# Summary

- Investing is the ultimate profession: requires total immersion, complete awareness and alertness. Learning is cumulative.
  
- Valuation/Investing is an interplay of:
  - Micro business drivers
  - Management ability & intent
  - Macro developments – incl economics, geopolitics, technology
  - Market cycles
  - Your own psyche/temperament as an investor
  
- Investment principles never change
  - Margin of safety, circle of competence, self awareness

# Current investment landscape

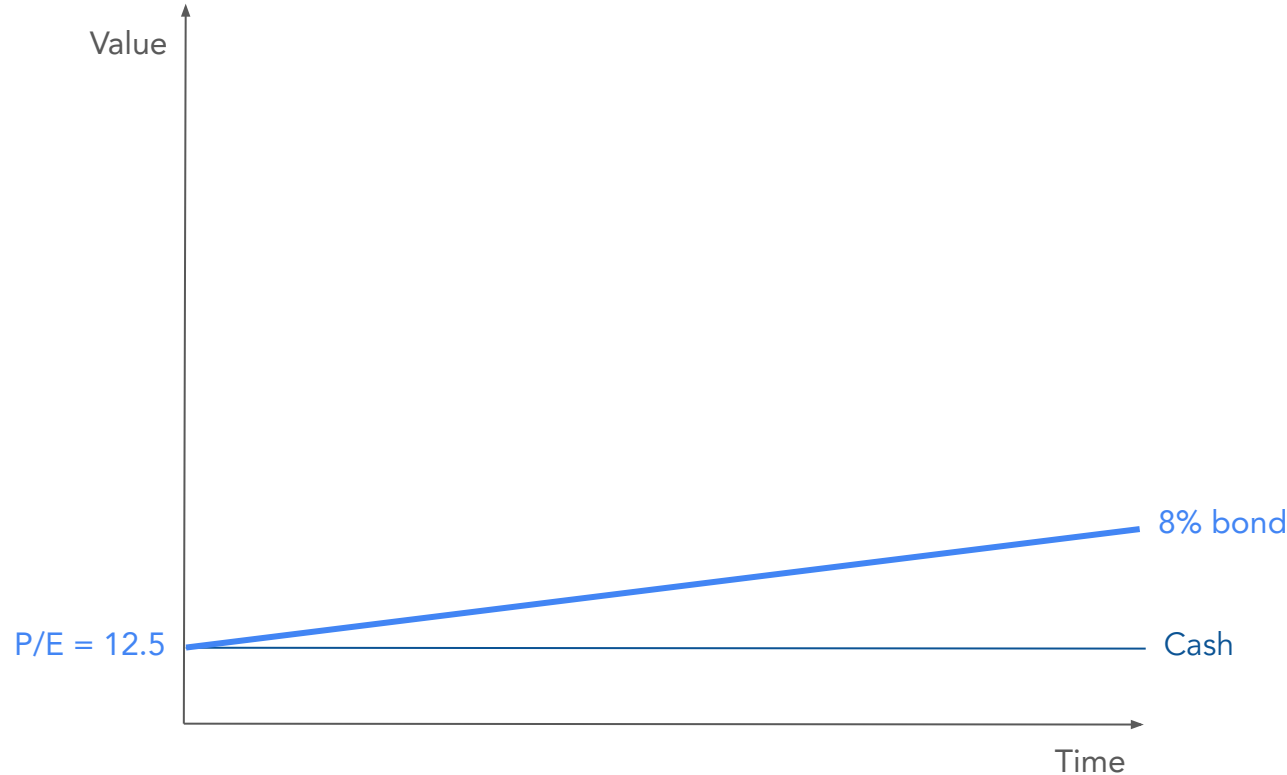
- G-7 in a mess. Debt/inflation & technological disruption
  - OECD consumed ahead of income & governments freely printed money.
    - Aging population + over indebtedness = demand shrinkage
    - Currency wars and inflation making a comeback
  - China also printed/built excessive debt and capacities
    - Cold War II and “common prosperity” reset that signals a sharp leftist turn
  - Tectonic shifts in technology disrupting every industry
  
- India is undergoing a generational shift, poised for leadership
  - Demographic dividend; entrepreneurship
  - Strong leadership in an improving system
  
- Think about management/leadership and their motivations
  - Leaders emerge in every cycle
  - Are YOU able to weather the coming tempests; survive and thrive?

# How do we value? 1.01





# How do we value? 1.02

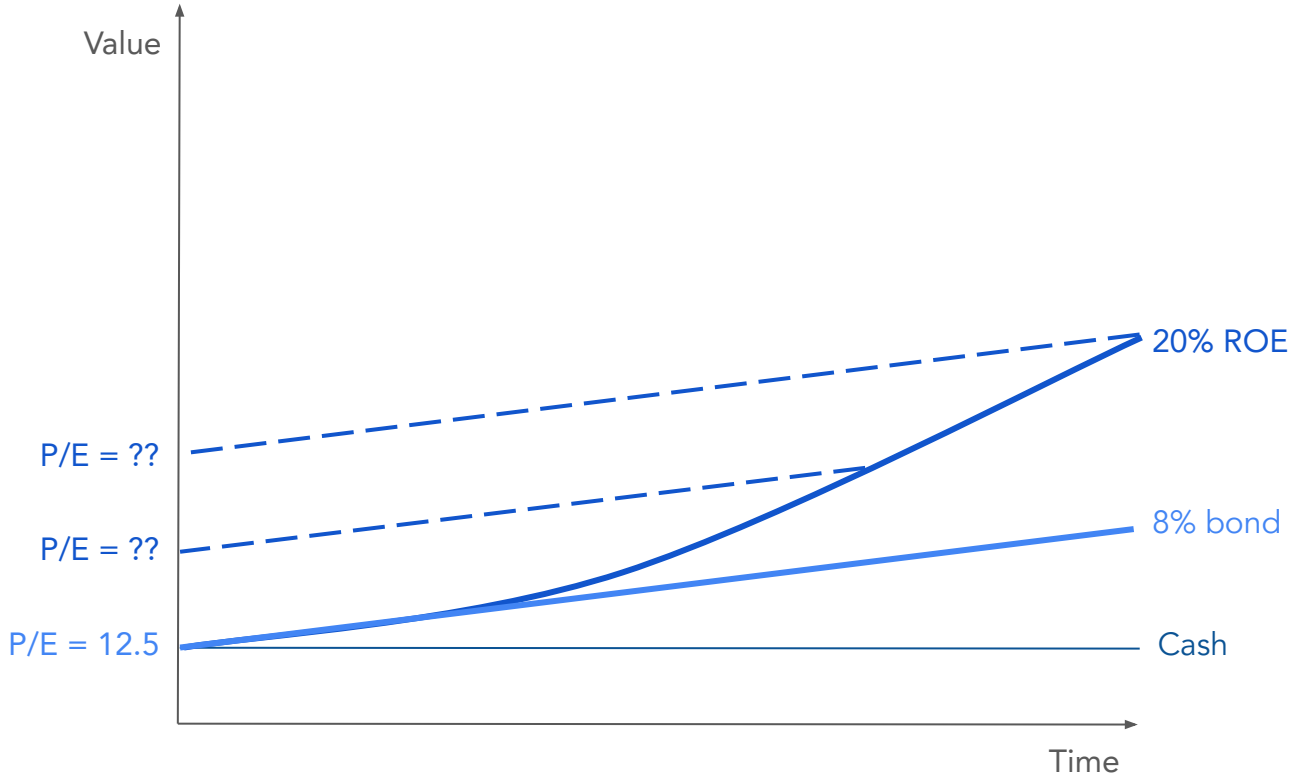


Normally the G-Sec is the force of gravity for valuation...

Historically we have seen our markets bottoming out at 12.5x PE (8% G-sec) and they top out at ~20x trailing PE (5% G-sec)

Q: How do you value in a world awash with continuous money printing?

# How is value built or lost? 1.03



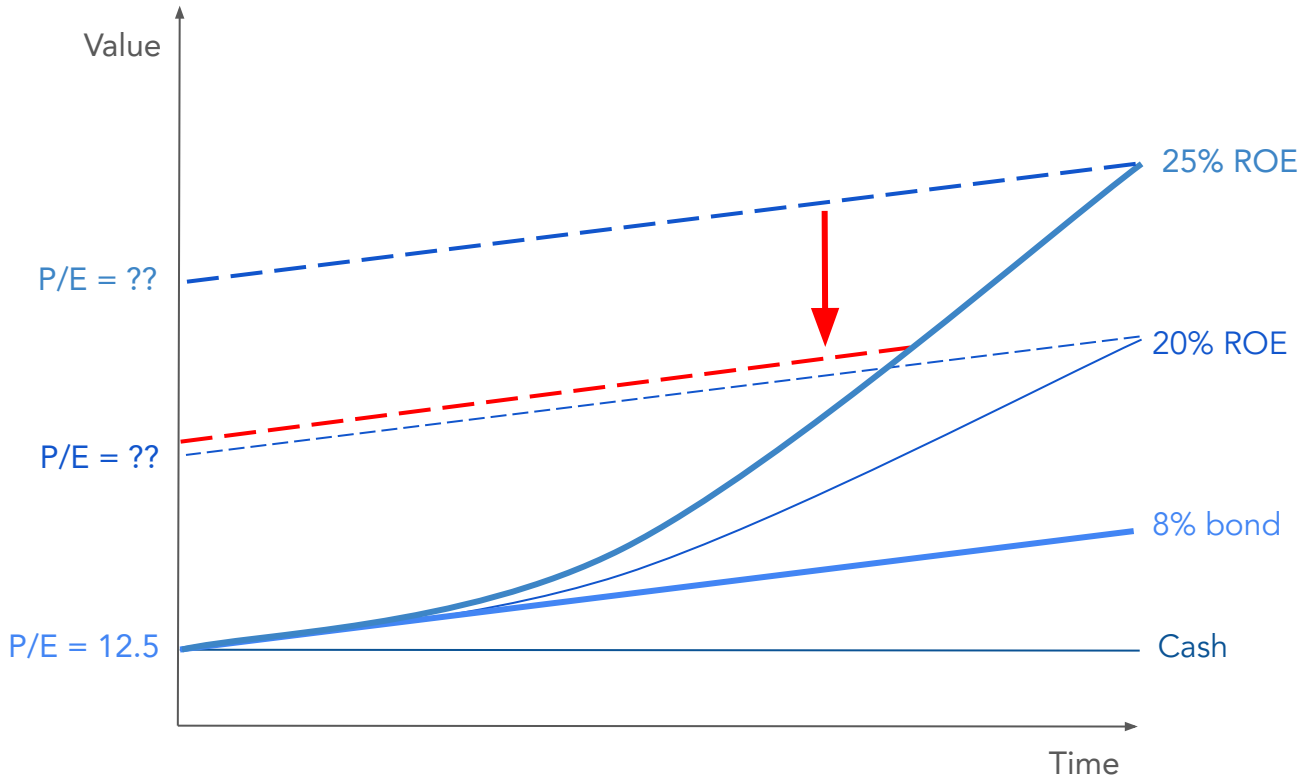
Use bond yield reciprocal:  
 $100/8 = 12.5x$  as benchmark

Multiple is based on:

- Predictability
- Sustainability
- Scalability

- DURATION
- GRADIENT
- VOLATILITY

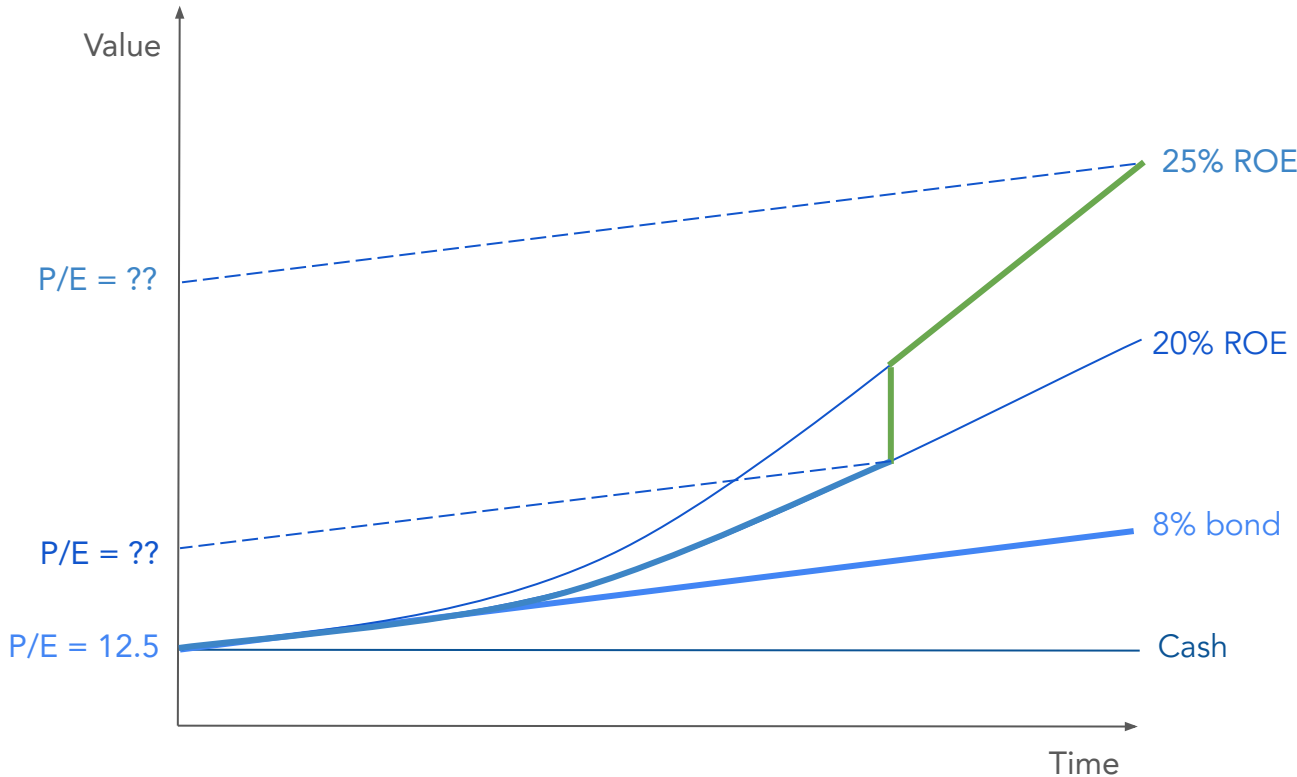
# How is value built or lost? 1.04



Higher the ROE and “PSS”, the greater the terminal value we are willing to pay

Volatility / cyclicalty shortens our discounting horizon period

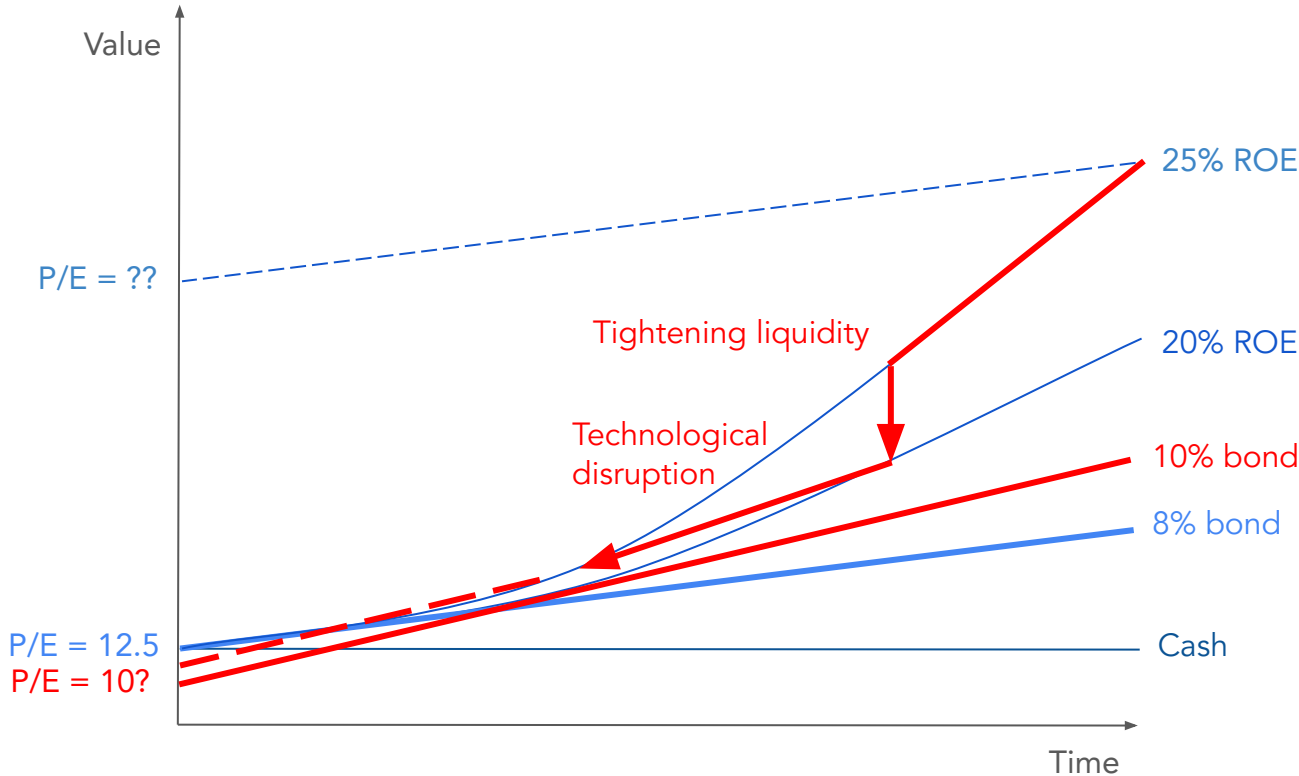
# How is value built or lost? 1.05



Small earnings surprises can cause massive valuation shifts since our assumptions on duration and gradient change.

A number of things can affect our assumptions: macro, micro, psychology, technology, geopolitics, etc.

# How do you value this?

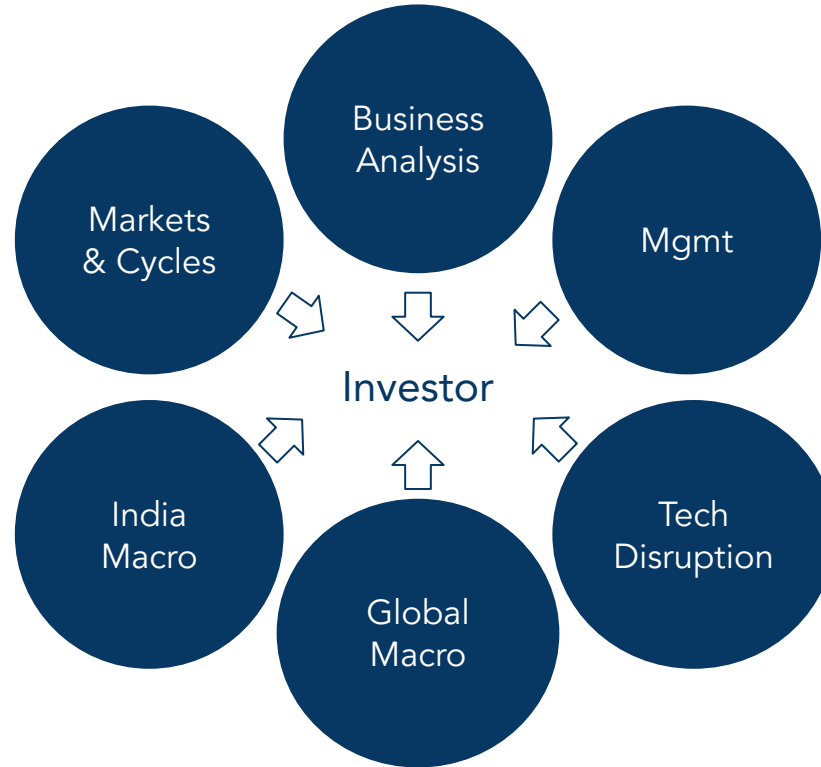


Tightening money pushing down valuations from historic highs.

Technological disruptions threaten to erode terminal values and thereby depress valuations.

Markets behaving like schizophrenics... greed and fear alternate every 6 months!

So valuation is really an interplay of:



Remember Charlie Munger's "Latticework of Mental Models" across subjects?

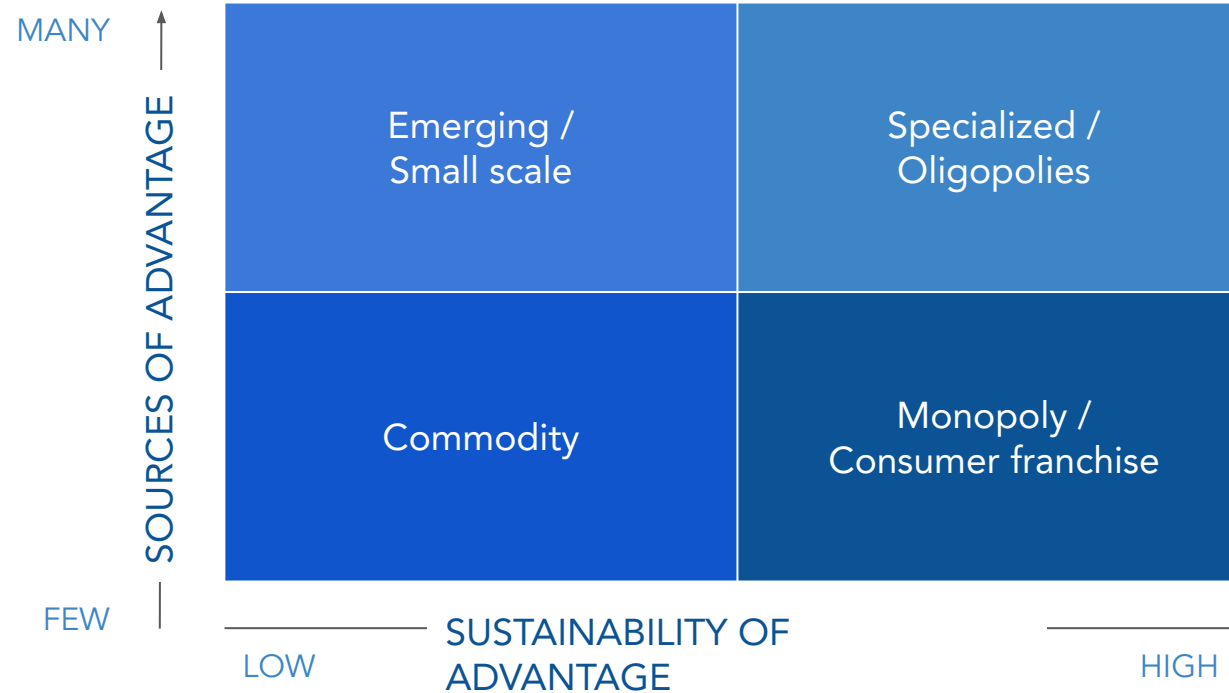
# Business analysis

# Business analysis

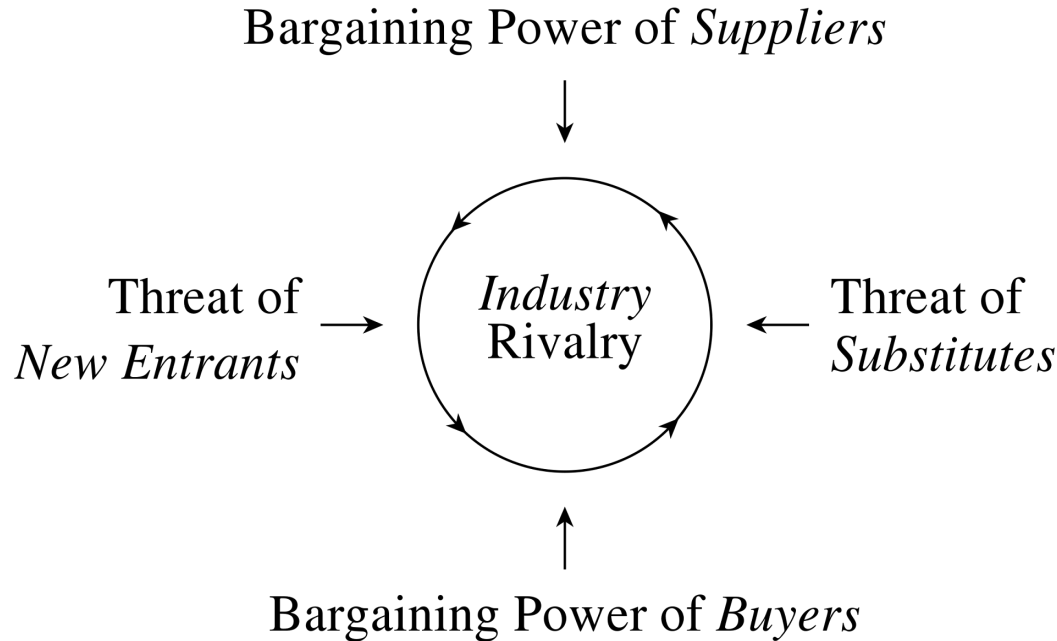
- Size of addressable markets, current and future competition
- Think about sustainability and sources of advantage
- Think about external pressures on profitability (including regulation!)
- Where does this business fit on a profitability distribution
- The financial litmus tests
- Think long and hard about cycles
  - Seasonality, business cycle, company life cycle, technology cycle
- Think about management and the majority partner



# BCG industry structure analysis



# Porter's 5 Forces and its evolution



The world is moving away from traditional value chains to platforms and network effect marketplaces.

How could digitization and new architectures like India Stack, ONDC, blockchain, Web 3.0, etc. change how industries are organized?

Regulatory changes often enable or destroy business opportunities.

# Typical evolution of business value drivers

## 1. Volume

- Most loved consumer focused unit volume growth stories
  - Eg smartphones, retail banking, or platform plays

## 2. Price

- Most loved pricing power stories: brands, oligopolies
- Commodity cycles

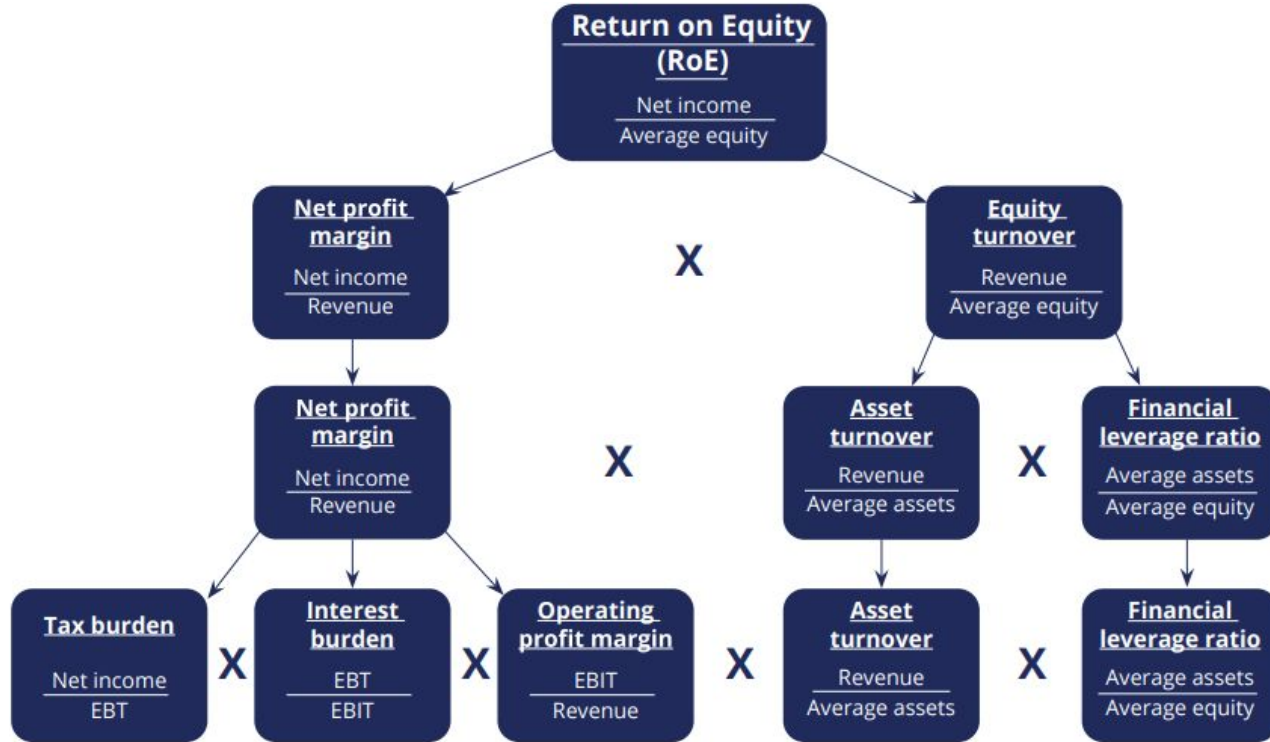
## 3. Efficiency or improving asset utilization

- Usually cyclicals: autos, engineering due to operating leverage
- Working capital turns: HUL, Amazon

## 4. Restructuring

- Catalysts such as privatization, M&A, divestitures, buybacks, etc

# Understand the business value drivers: DuPont analysis



What's the source of profit: margins, asset turns, or leverage?

# Think of cycles!

Nature is cyclical, not linear!

- Seasonality
- Business cycles / boom-bust
- Market cycles
- Life cycles
- Innovation / Schumpeter



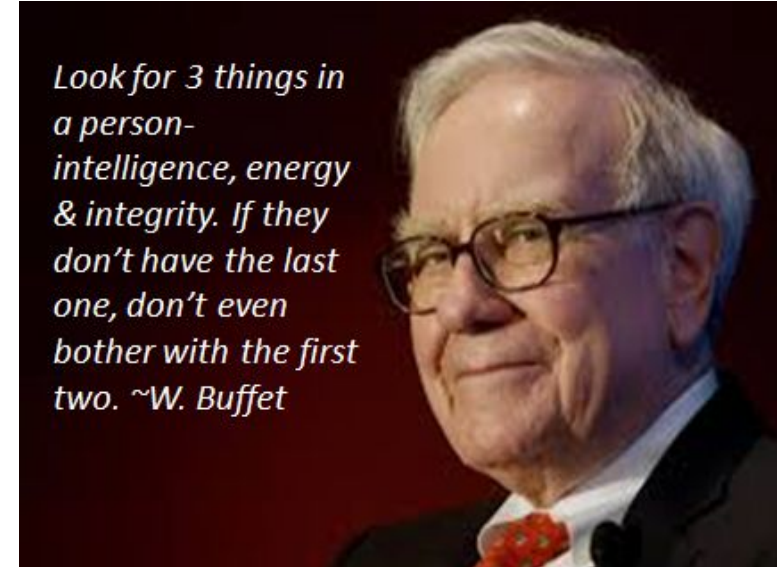
# Management

# Leadership matters more than macro advantages

- Japan vs UK post WWII
- Korea and India had the same GDP per capita in 1950
- Singapore!
  
- Private vs public sector
  - JSW vs NMDC/AIL
- Entrepreneur vs MNC
  - Infosys vs IBM
  - Sun Pharma vs Pfizer India
- Hunger vs “advantaged”
  - Hero Honda vs Kinetic Honda
  - Bajaj Finance vs Reliance Capital

# Choosing “business partners”

- Integrity / track record
  - Tata, HDFC, Infosys are the benchmark
- Ability (not just luck)
  - Can the entrepreneur be the next Ambani / Adani?
- Understanding of key business drivers
  - 360° view vs functional expert
- Ambition tempered by reality
  - Shree Cement, Motherson Sumi, etc
- Commonality of objectives / aspirations
  - MNC subsidiaries, conglomerates, PSUs?
- Orientation towards minority shareholders
  - Value creators vs empire builders





# Understand the values and value drivers

- How is product or service quality?
  - Germany/Japan vs China/India
- How is cost and capital efficiency?
  - Frugal owner mindset vs “professionally managed”
- What are their value systems?
  - Giver vs taker
- How is their service to the customer?
  - The “goodwill” earned

# Understand the organization

- How is the company managed?
  - Lifetime employment?
  - How does it hire? Train? Retrain? Fire?
  - How does it build skills? Leaders?
  - Are they commandos? Soldiers? Mercenaries?
- Succession plans?
- Empowerment?

“Culture eats strategy for breakfast” - Peter Drucker

# Watch out for hidden bombs

- Conflict of interest structures
  - Private businesses, business “groups”
  - Related party transactions
  - Split ownerships
  - Stock based compensation
- Misuse of balance sheet
  - Loans and advances, guarantees
  - Inexplicable capex / acquisitions
  - Bloated working capital
- Off balance sheet liabilities
  - Unfunded pensions
  - Litigations
  - Family settlements

... and many more creative reasons why CAVEAT EMPTOR

# Observation: Aspiration/age of CEOs seem to matter

Decade 1991-2001

Company	Promoter	Age in '91	Decade performance (x)		Sales (₹B)		
			'91-'01	'01-'11	Mar-92	Mar-00	Mar-10
Wipro	Azim Premji	46	687	1	2.2	23	272
Infosys	Murthy Nilekani	45 36	560	4	0.1	8.8	227
Zee	Subhash Chandra	41	32	1	0.0	3	22
ITC	YC Deveshwar	44	25	5	14.2	38.4	182
HDFC	Deepak Parekh	47	16	13	0.9	6	43
HDFC Bank	Aditya Puri	41	5	9	1.1	4.3	124

Source: Bloomberg | Note: Considered aggregate market cap and financials

# Observation: Aspiration/age of CEOs seem to matter

Decade 2001-2011

Company	Promoter	Age in '01	Decade performance (x)		Sales (₹B)		
			'01-'11	'11-'21	Mar-00	Mar-10	Mar-20
Future Retail / Enterprises	Kishore Biyani	40	87	0	3	91	54
Titan	Bhaskar Bhat	46	59	8	6	48	211
Kotak Mahindra Bank	Uday Kotak	42	57	8	0	19	335
Vedanta	Anil Agarwal	47	44	1	11	245	835
Motherson Sumi	Vivek Chaand Sehgal	45	31	7	2	68	603
M&M	Anand Mahindra	46	20	2	35	300	754
Sun Pharma	Dilip Shanghvi	45	19	3	4	40	328
Bharti Airtel	Sunil Mittal	44	15	2	340	418	847
JSW Steel	Sajjan Jindal	42	8	5	8	189	729
Reliance Industries	Mukesh Ambani	44	7	4	134	2,034	5,975

# Observation: Aspiration/age of CEOs seem to matter

Decade 2011-2021

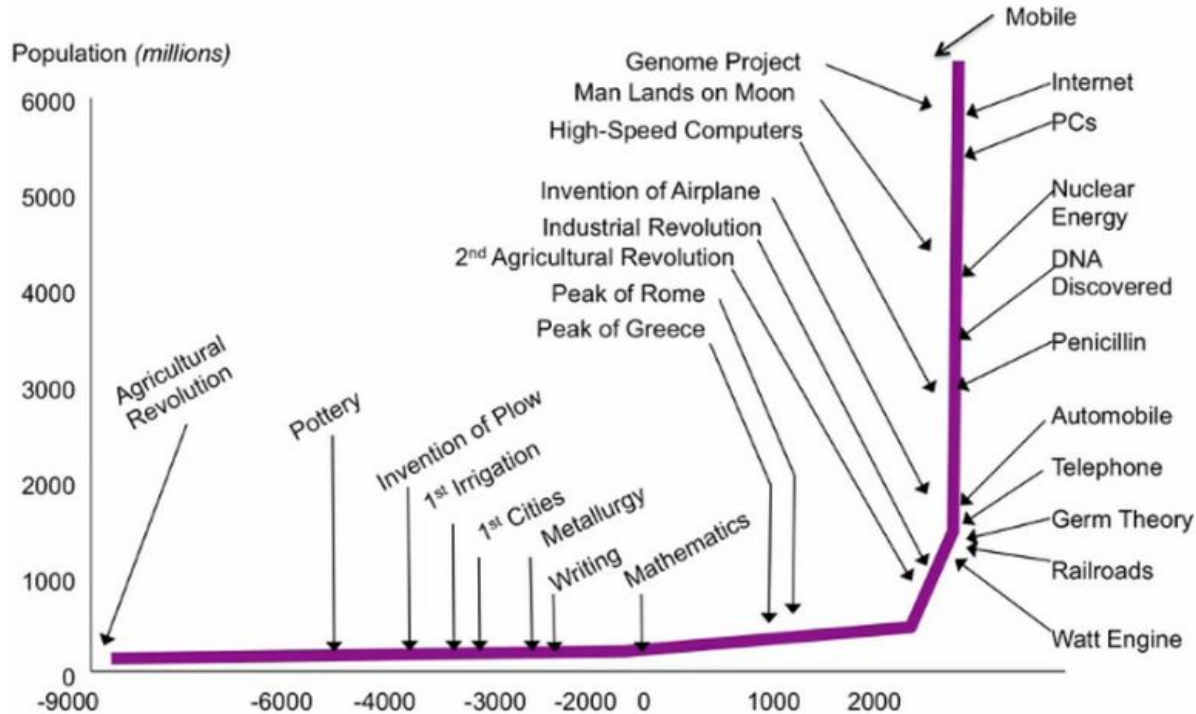
Company	Promoter / CEO	Age in '11	Decade performance (x)		Sales (₹B)		
			'01-'11	'11-'21	Mar-10	Mar-20	Mar-23
Bajaj Finance	Sanjiv Bajaj / Rajeev Jain	42 / 41	12	74	5	130	240
Navin Fluorine	Vishad Mafatlal	38	NA	54	4	10	21
PI Industries	Mayank Singhal	36	NA	38	5	33	66
Berger Paints	Abhijit Roy	46	12	23	19	63	106
Britannia Industries	Varun Berry	48	3	20	38	114	160
Info Edge	Sanjeev Bikhchandani	48	NA	13	2	13	22

Source: Bloomberg | Note: Considered aggregate market cap and financials

Well directed energy & wisdom vs immature impatience vs fame-seeking

# Technology disruption

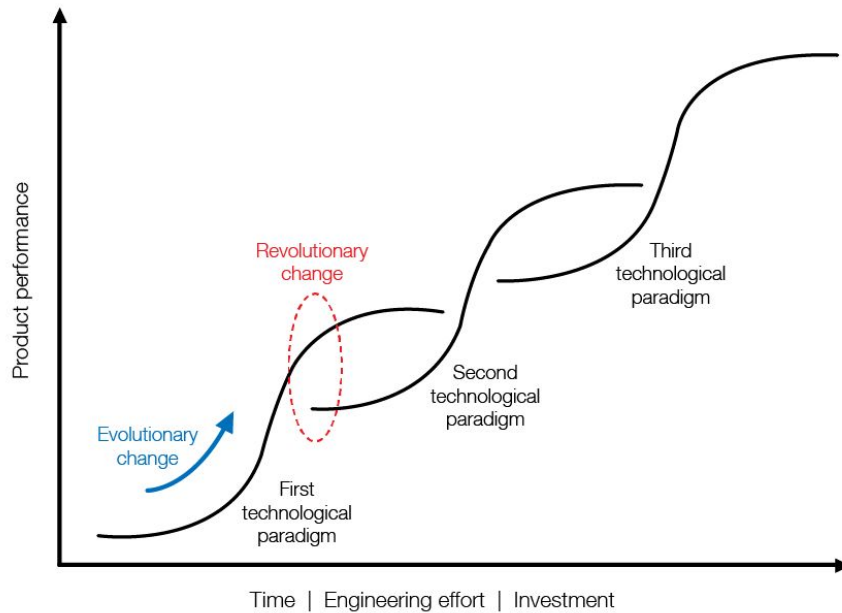
# Disruption has gone exponential



Source: Milken Institute, Robert Fogel/University of Chicago



# Typical technological disruption



# The iPhone moment

- Jan 2007: Steve Jobs unveils the iPhone
- 2008: the iPhone overtook Nokia in sales

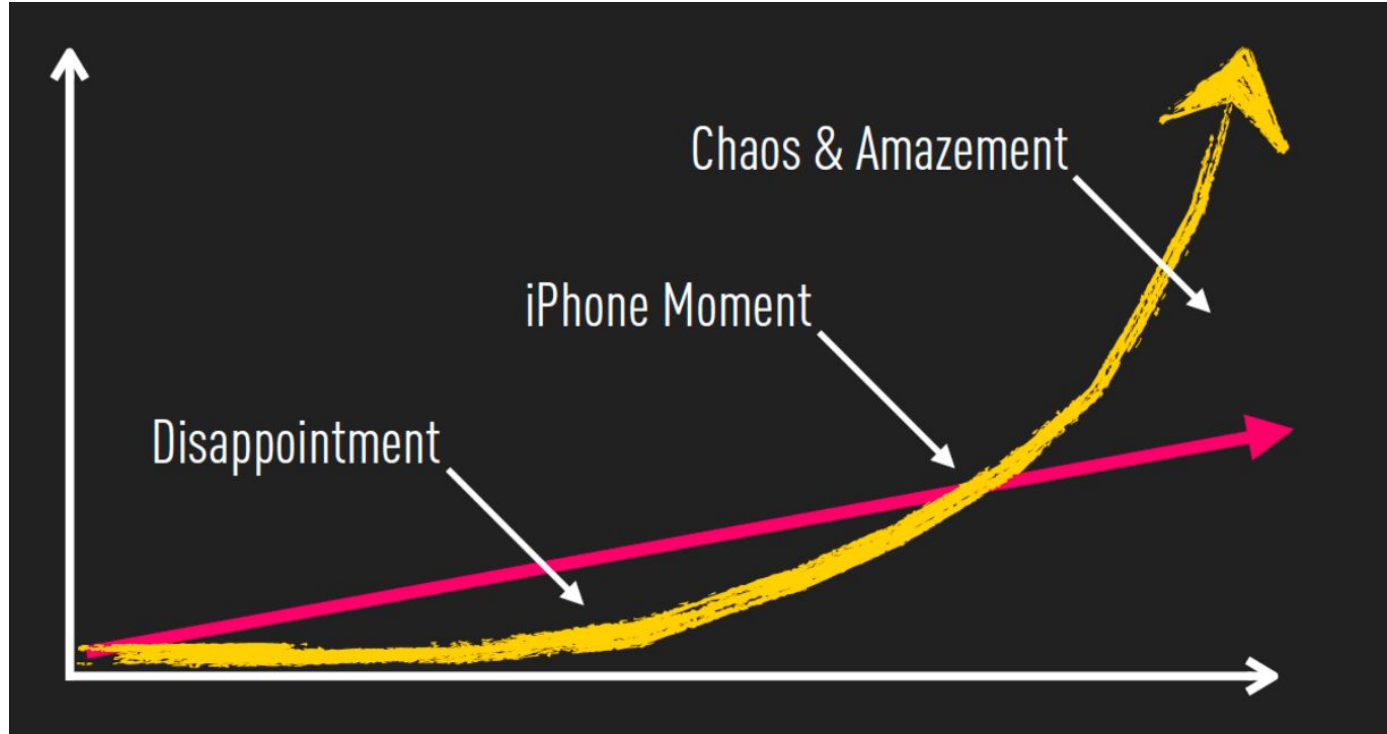


- Nokia launched its first touchscreen smartphone in November 2004
- Nokia had 50% market share in 2007
- Nokia's market cap in 2007 peaked at \$150B
- It was acquired by Microsoft in 2014 for \$6B



*"We didn't do anything wrong, but somehow we lost..." - Stephen Elop, Nokia's CEO*

# What is technological disruption?

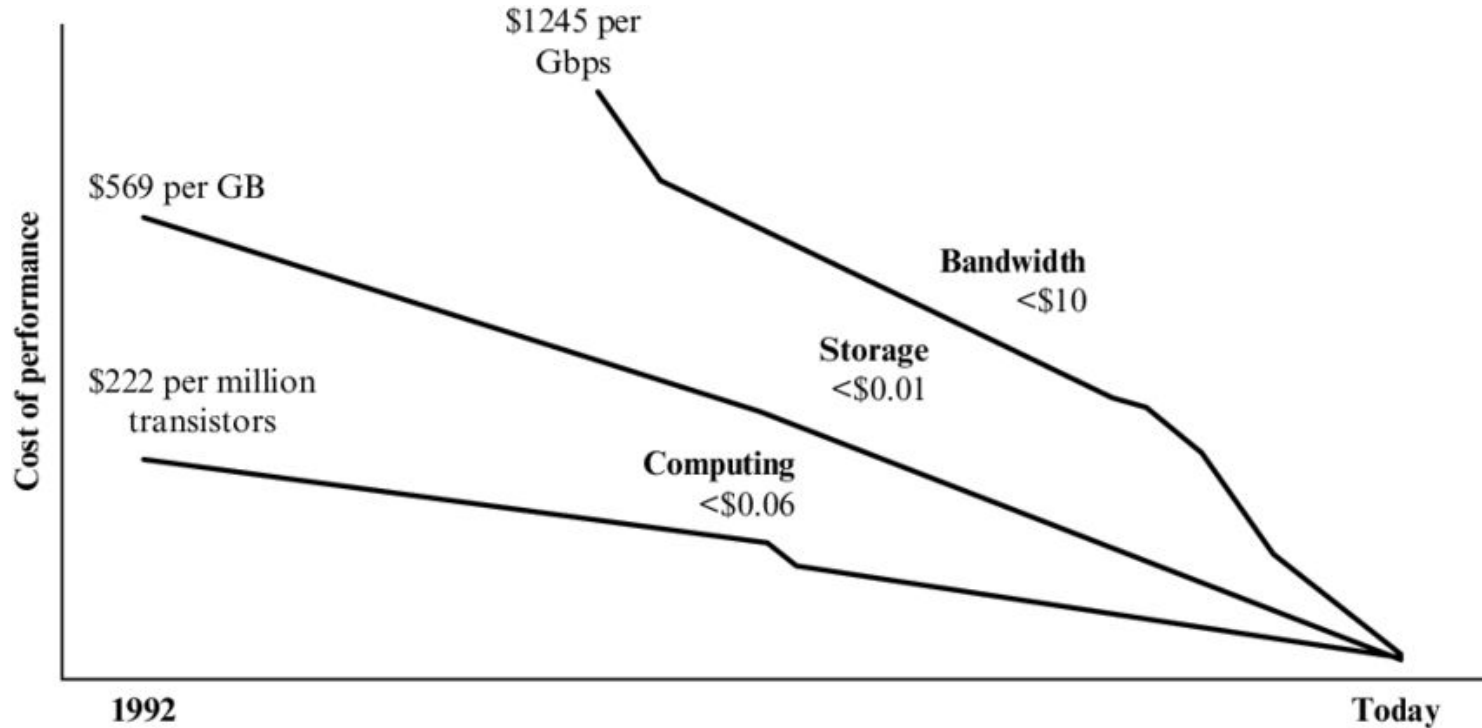


# Technological change is exponential



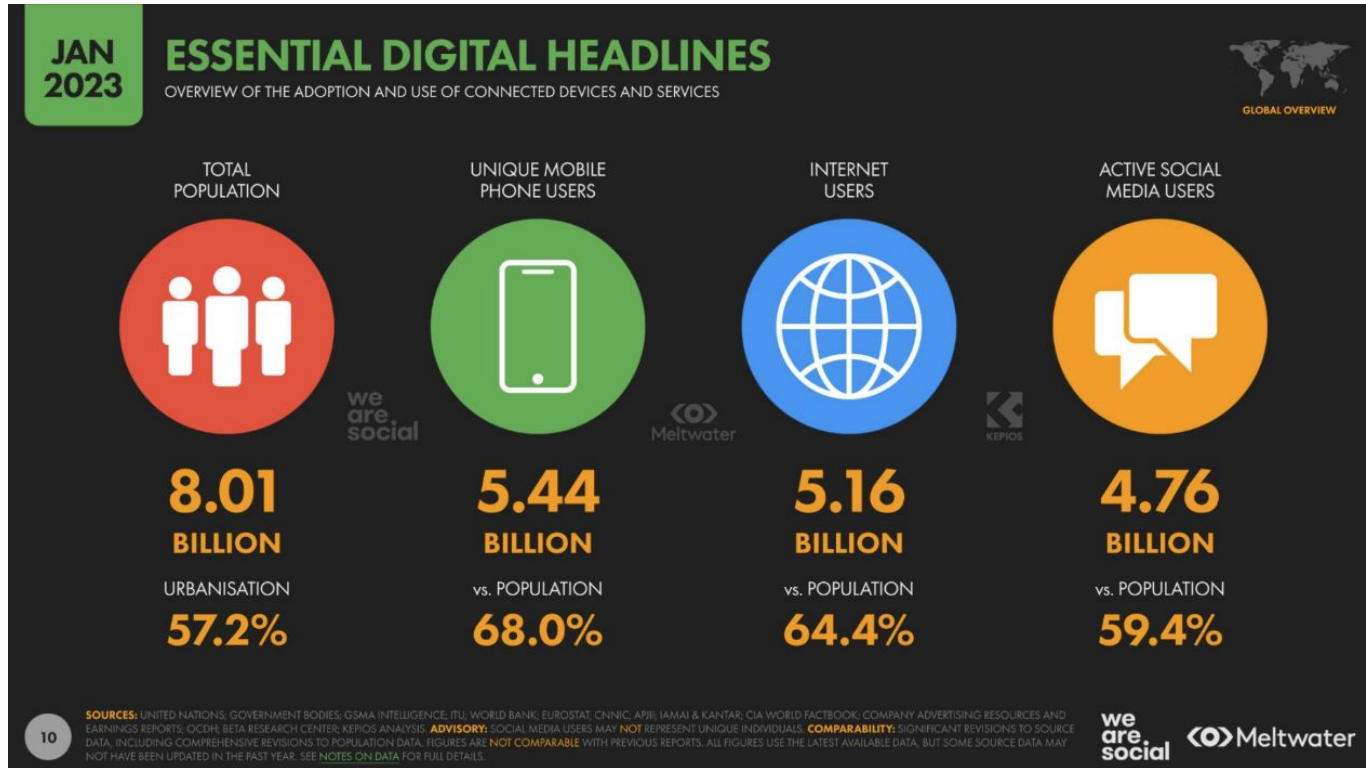
We all know about the magic of compounding - apply this on a LOG scale

# Collapse in data processing, storage & transmission costs



A rural Sub-Saharan child with a smartphone today has access to as much information as POTUS 20 years ago!

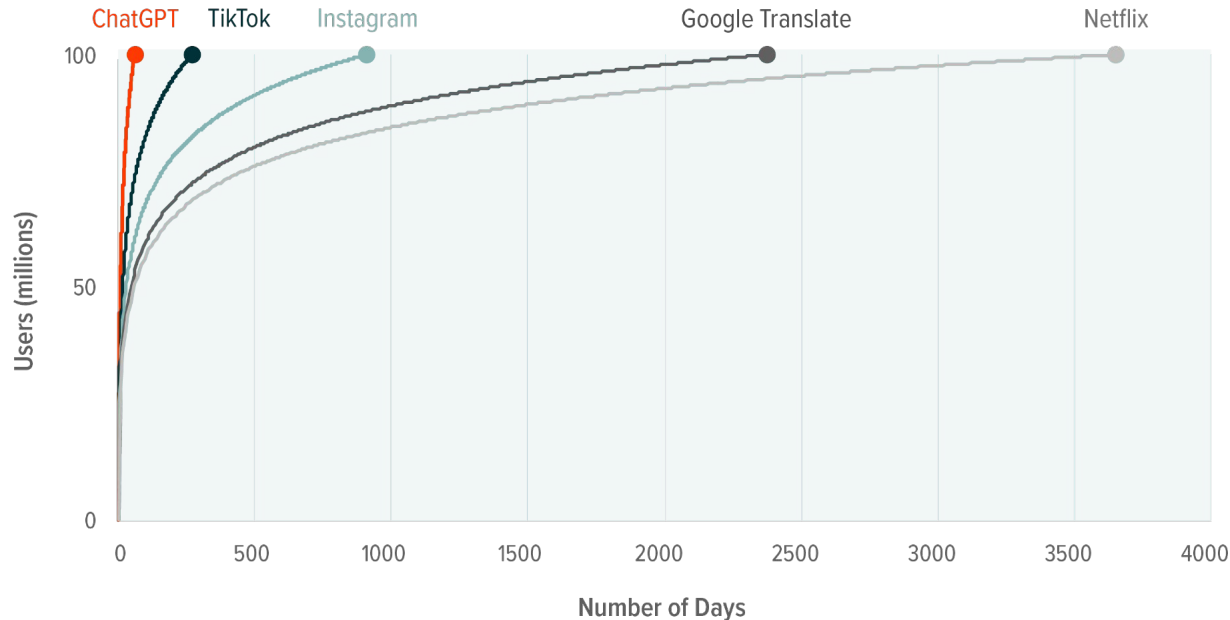
# Digitization has transformed the world...



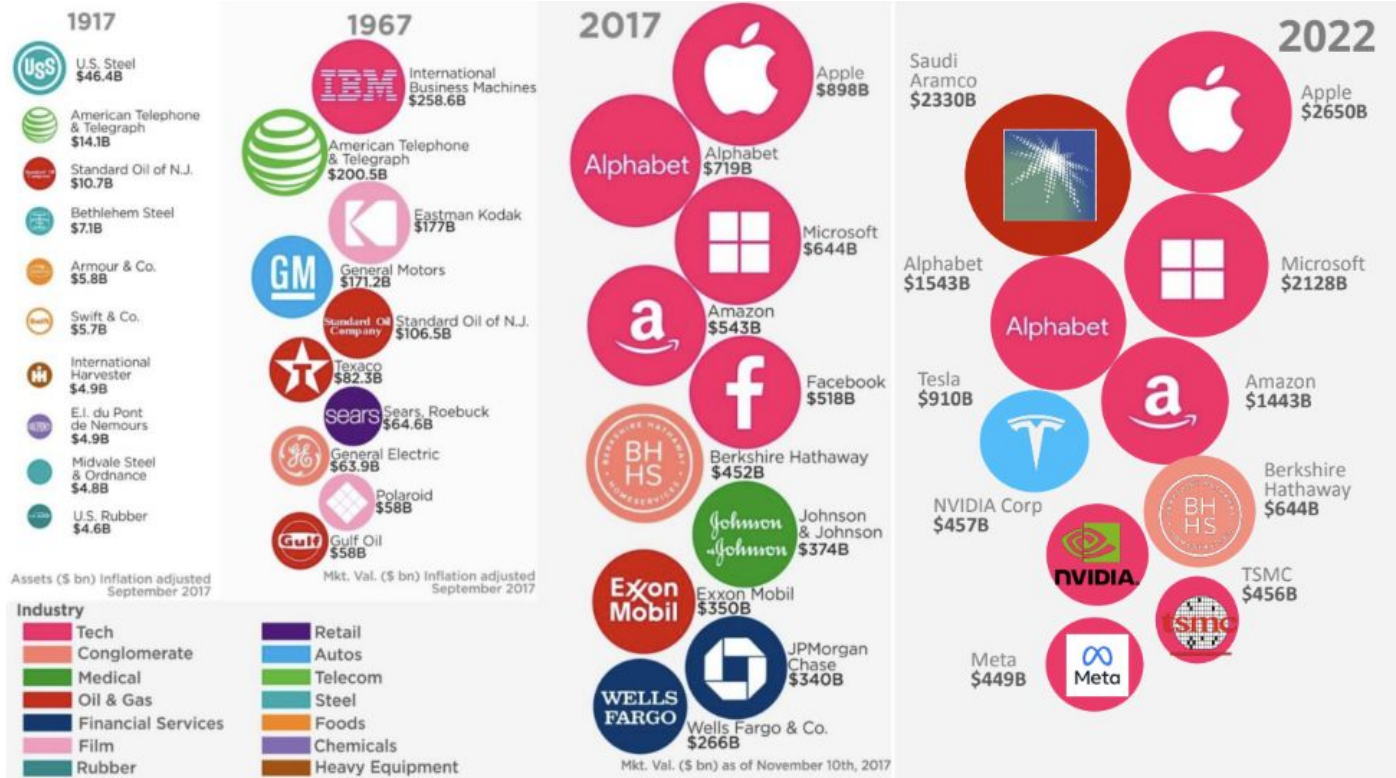
# ... exponentially speeding up the pace of disruption

## TIME IT TOOK COMPANIES TO REACH 100 MILLION USERS

Sources: Global X ETFs with information derived from: BBC News. (2018, January 23). Netflix's history: From DVD rentals to streaming success; Cerullo, M. (2023, February 1). ChatGPT user base is growing faster than TikTok. CBS News.



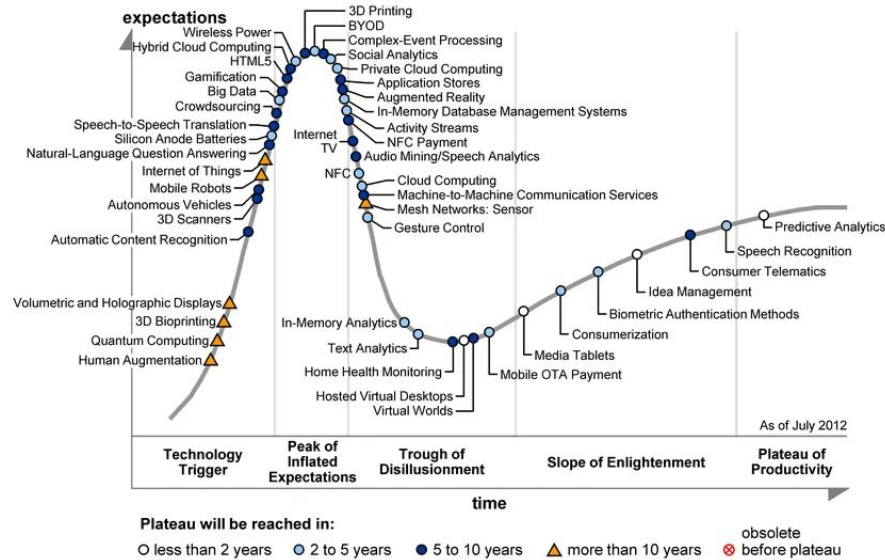
# Disruption constantly churns leadership. And it's faster now.



Source: a16z, Visual Capitalist, TV Mohandas Pai

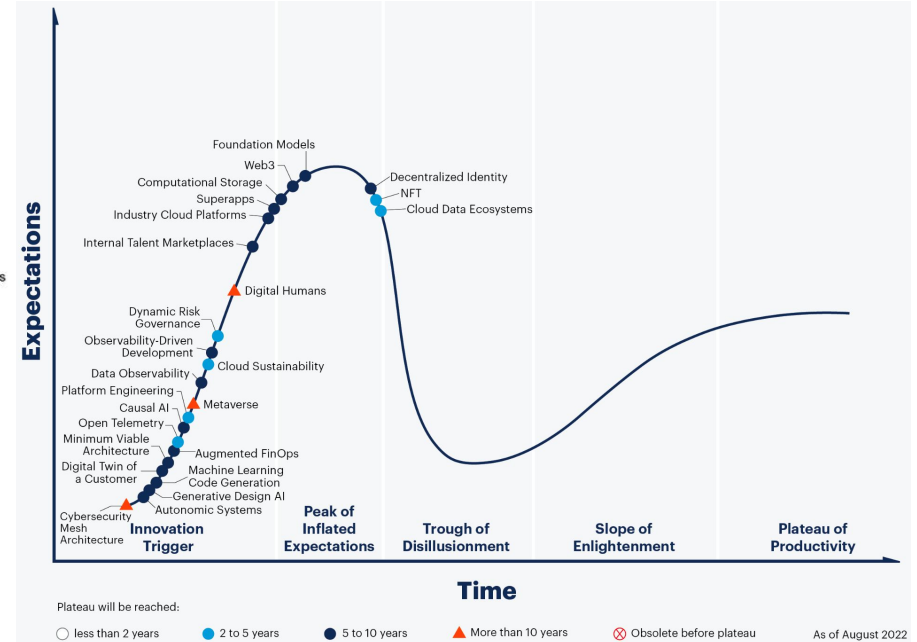


# Tech predictions 10 years ago and today

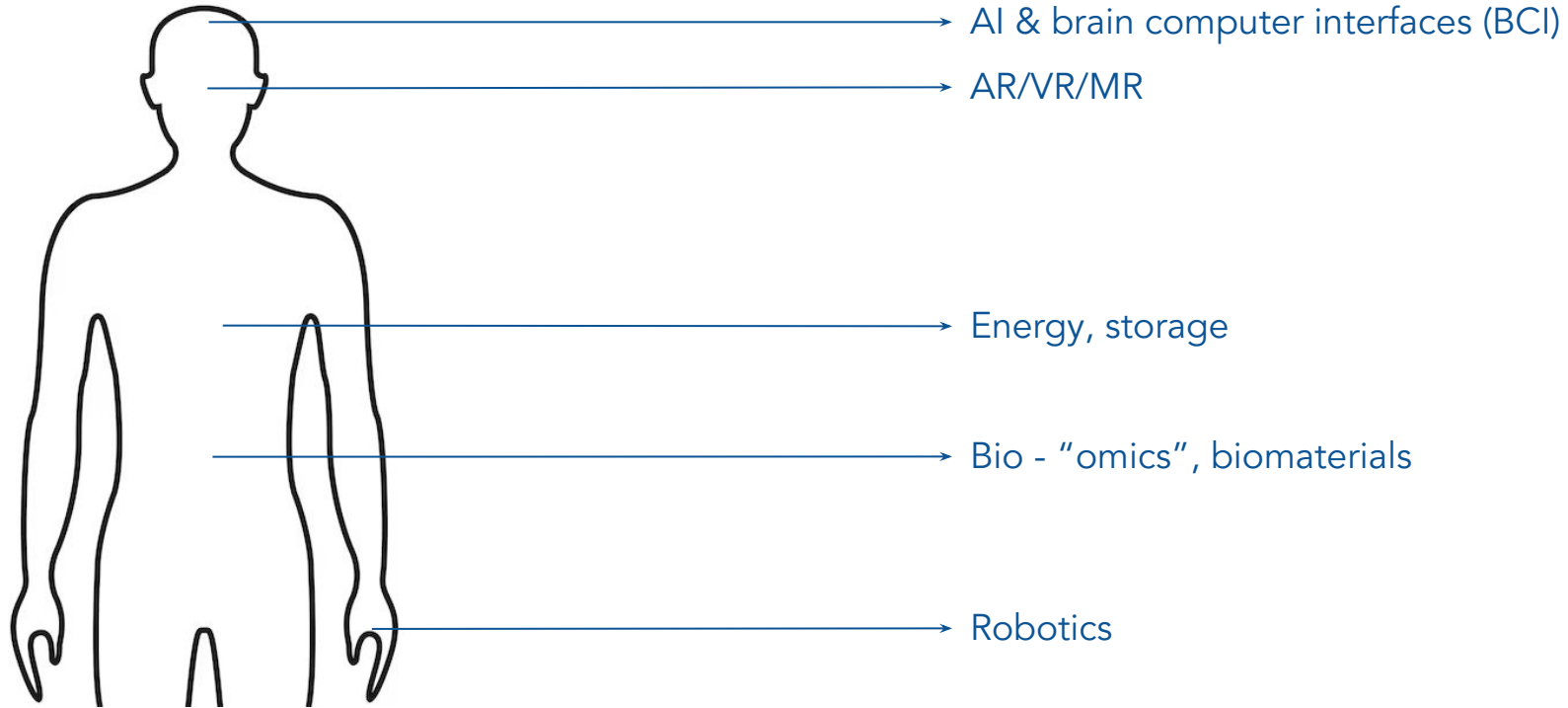


Source: Gartner hype cycles 2012 & 2022

Pay attention but don't blindly buy the hype



# A framework to think about converging technologies



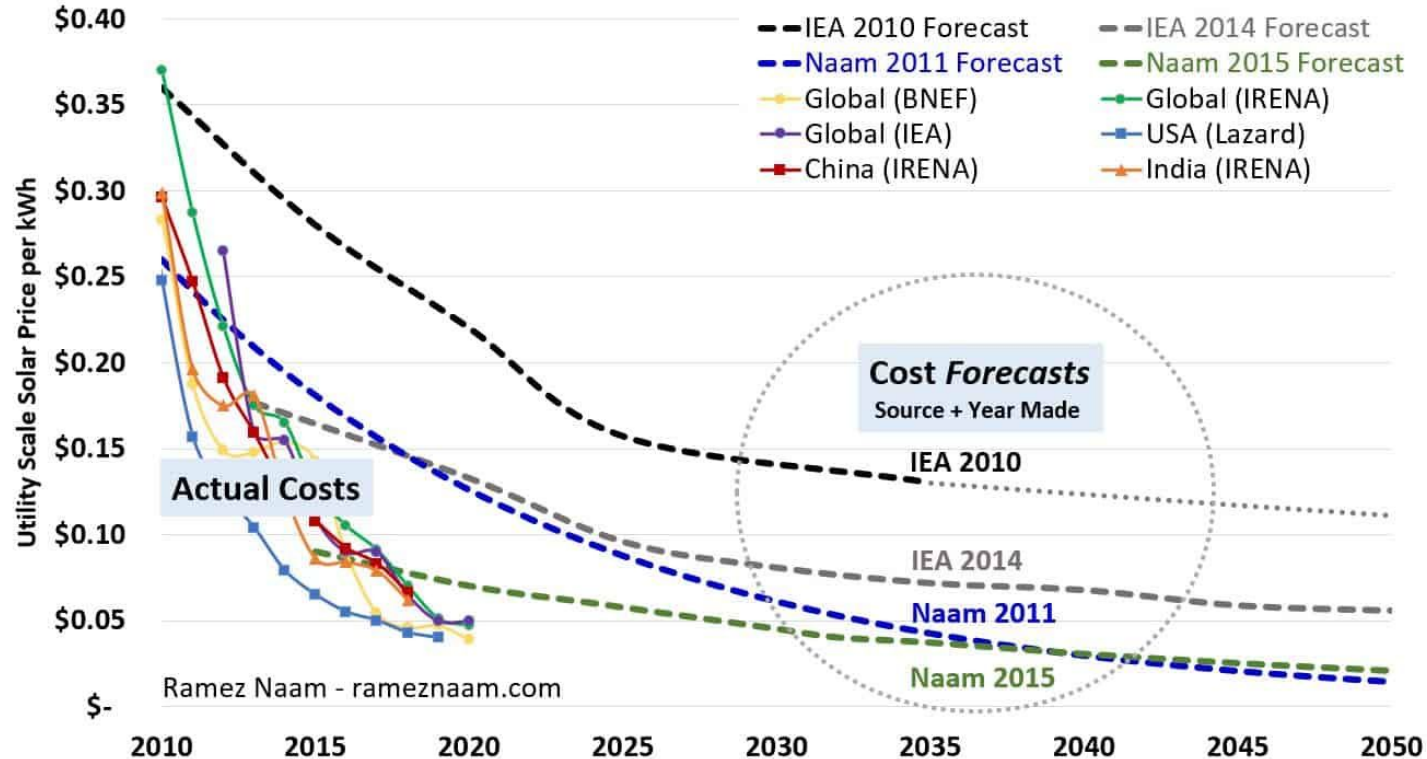
These technologies are giving us superhuman capabilities

# The energy crisis is nearing a solution

1 day of humanity's energy use = 10 seconds of sunlight

1 year of humanity's energy use = 1 hour of sunlight

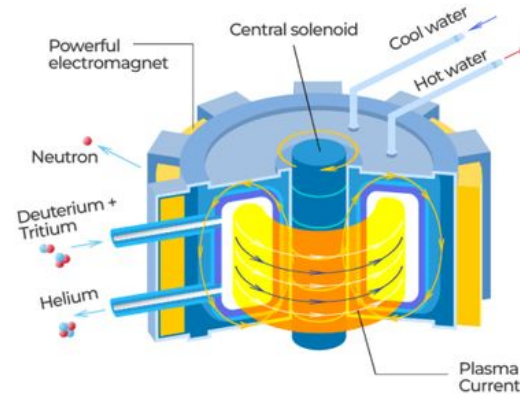
# Solar costs are decades ahead of forecasts



# What happens if and when fusion becomes viable at scale?

## Nuclear fusion breakthrough

A step closer to limitless, carbon-free energy? Scientists at the National Ignition Facility (NIF) in California, US, say they've achieved net energy gain in a fusion experiment for the first time.



### What is nuclear fusion?

**Nuclear fusion** combines atoms, at temperatures hotter than the sun, to generate energy.

**Nuclear fission**, which nuclear power plants use, splits atoms for energy.



NIF claimed power output:  
**2.5MJ from 2.1MJ** to heat the fuel

Basic technical proof of concept achieved.  
Commercial scale-up is now imaginable.

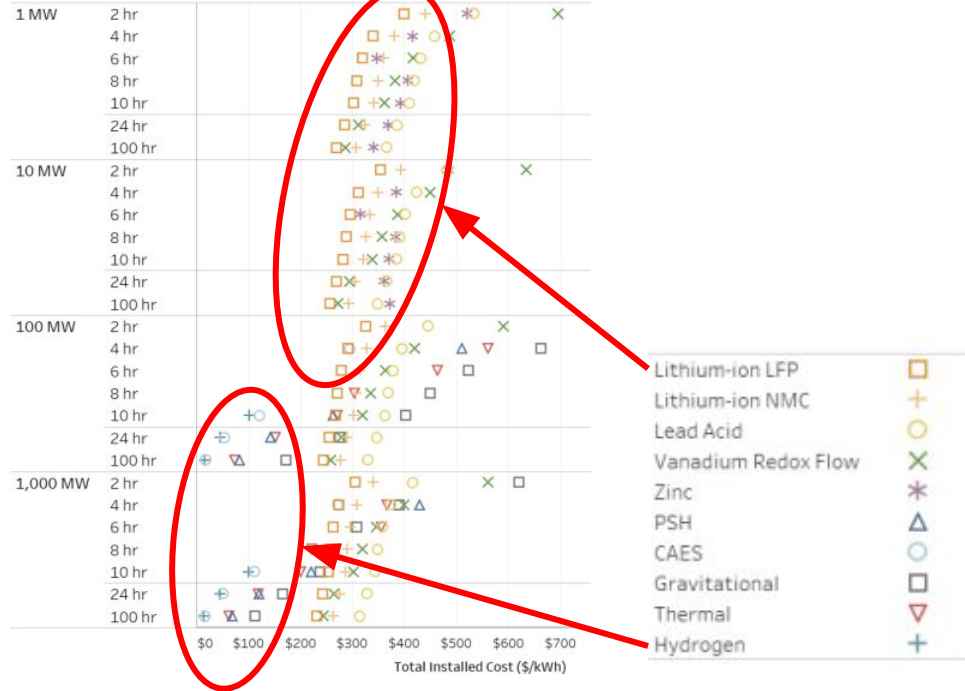
This creates our own "sun", implying net zero energy cost.

# The storage problem is nearing a solution using lithium ion for low power loads & hydrogen for high power loads

2021 Total Installed Cost Comparison, \$/kWh



2030 Total Installed Cost Comparison, \$/kWh



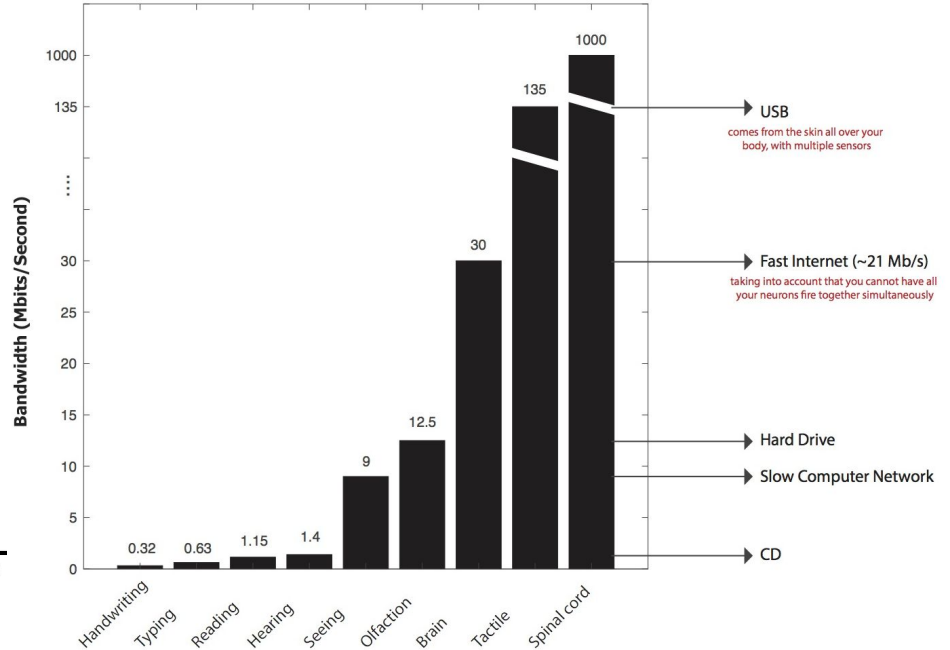
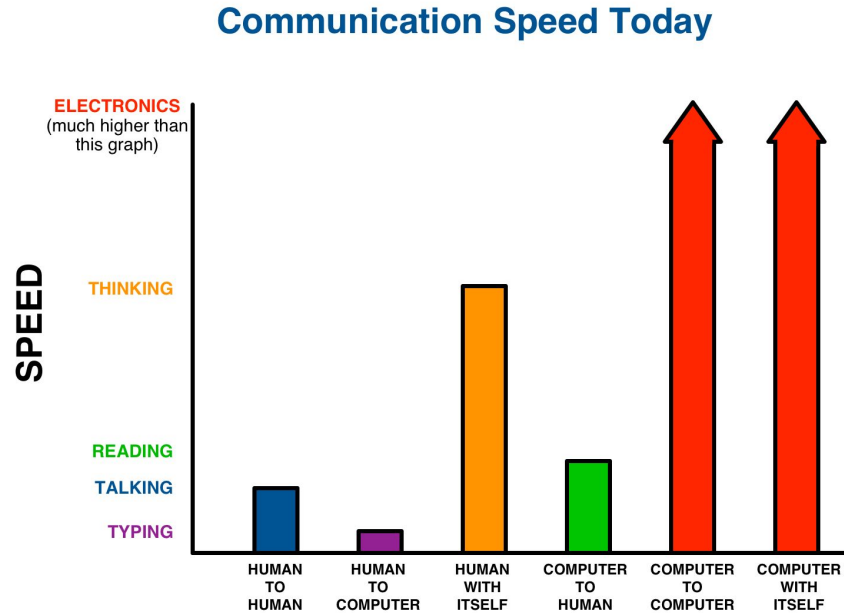
Source: US Department of Energy

# Explosion of data generated, consumed and shared

- 120 ZB of data consumption in 2023 (1 ZB = 1 billion TB)
- 50% of data expected to be stored on the cloud by 2025
- 1 billion GB of data created everyday
- 400k hours of Netflix video streamed every minute
- 40 million WhatsApp messages sent every minute
- 2 trillion Google searches in 2021
- 15 billion IoT devices, set to double by 2030

Source: Statista, Domo, IDC, Cybersecurity Ventures

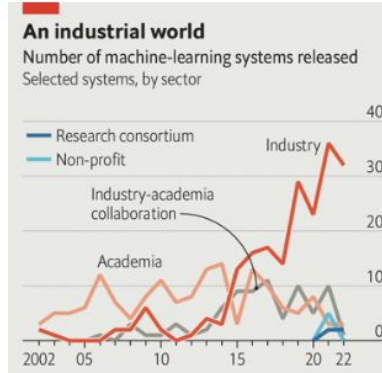
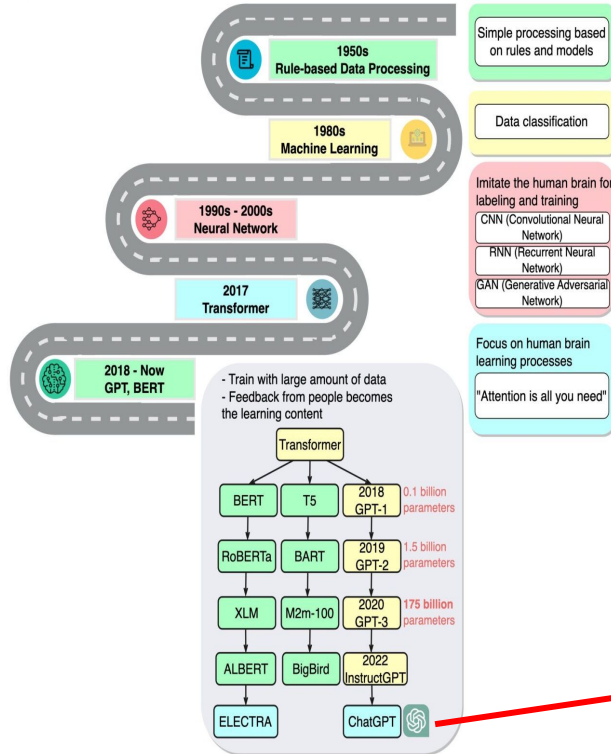
# It's *humanly* impossible to process so much data...



Source: Wait But Why



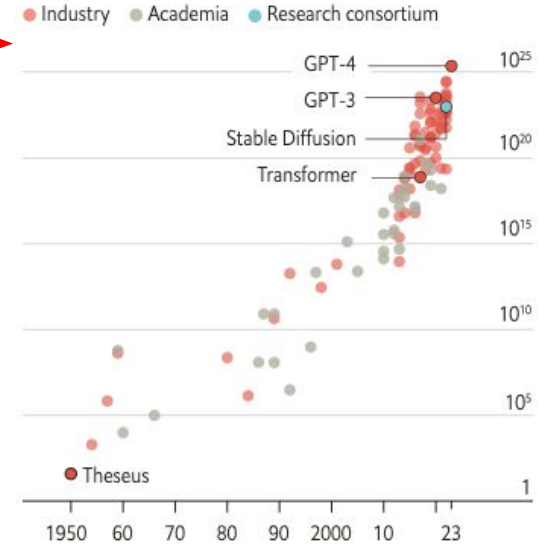
# ... software/AI are keeping pace on our behalf...



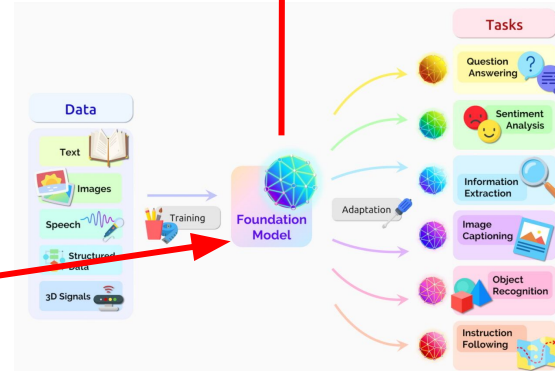
## Faster, higher, more calculations

### Computing power used in training AI systems

Selected systems, floating-point operations, log scale



Sources: Sevilla et al, 2023; Our World in Data



Source: Nvidia, Economist

... and maybe humans will eventually catch up



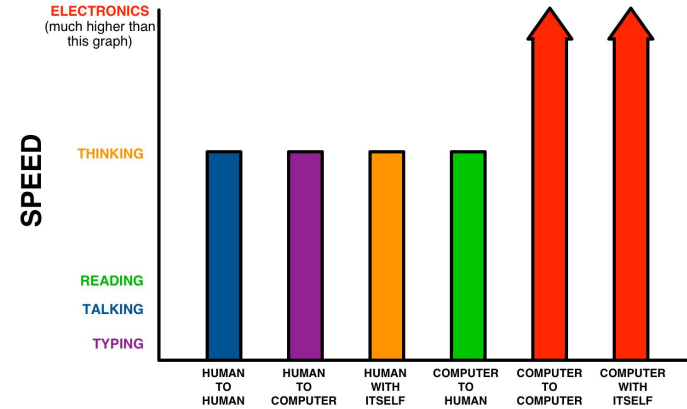
# Elon Musk's Neuralink wins FDA approval for human study of brain implants

May 27, 2023



Source: Neuralink, Wait But Why, Delveinsight

## Communication Speed in the Digital Brain Era



## Key Companies in the Brain-computer Interfacing Market



# The future of medical diagnostics is here



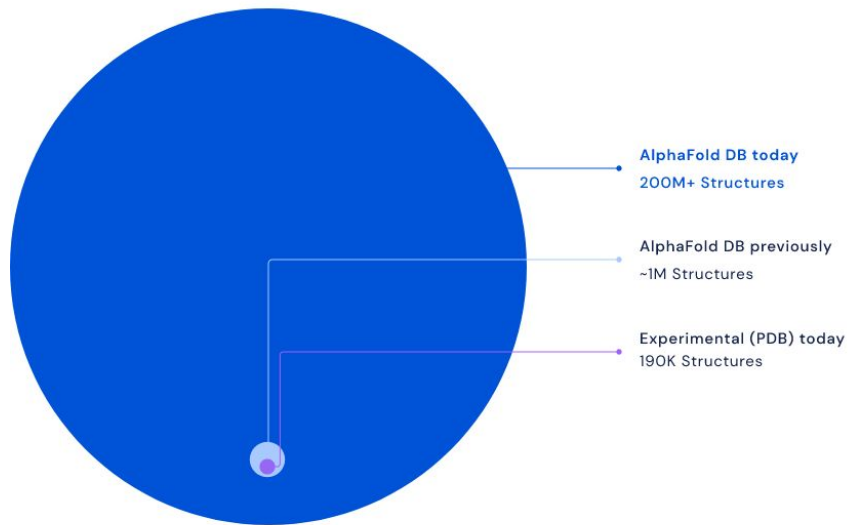
Source: [Google I/O 2018](#)

Retinal scans already predicting risk of heart attacks, strokes, and blindness

# AI & biotech are making drug discovery more efficient

190k protein structures have been manually tested by PhDs.  
Amazingly, Google recently released a database of all the possible 200 mn protein structures!

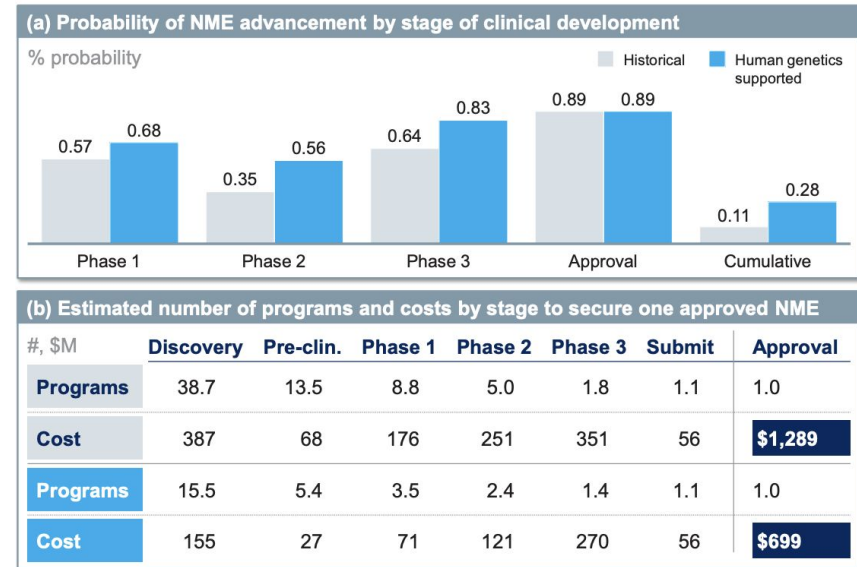
Number of Protein Structures



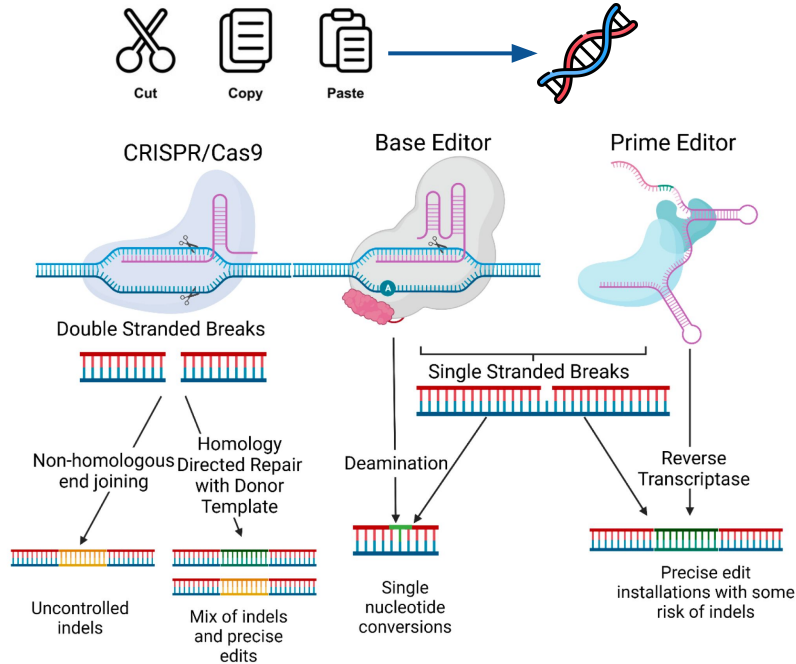
Source: Google DeepMind, McKinsey

24 June 2023

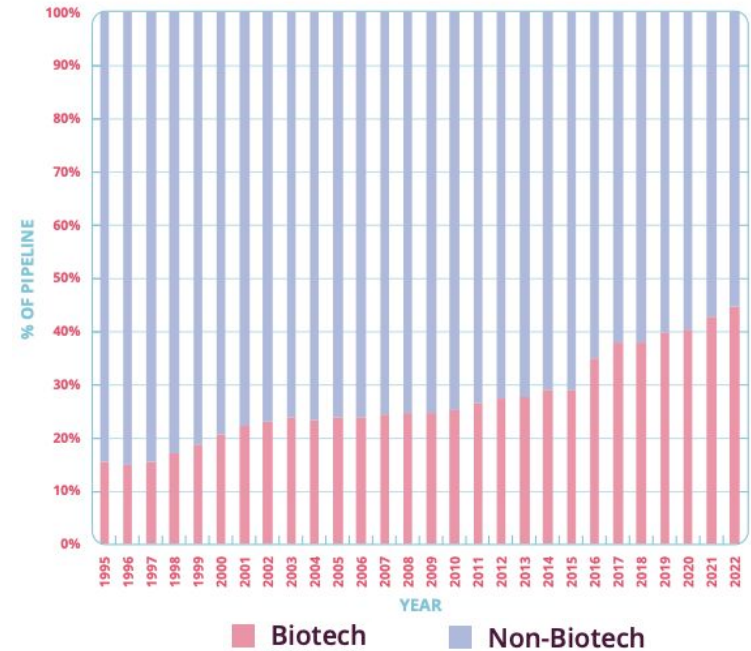
Impact of human genetics on biopharma R&D productivity



# CRISPR & newer gene editing technologies are allowing us to digitally alter DNA

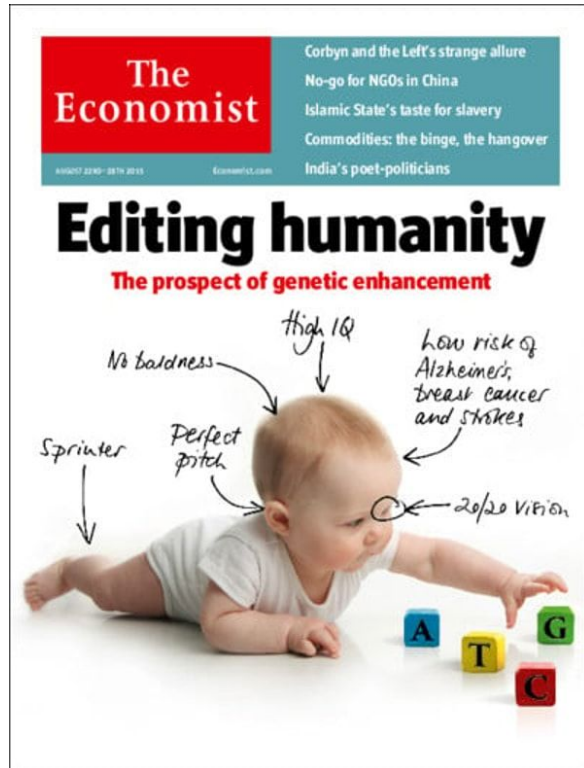


Biological vs non-bio drugs as a % of pipeline



Source: International Journal of Molecular Sciences, Citeline Pharmaprojects

# Designer babies are here whether we like it or not



## China jails 'gene-edited babies' scientist for three years

30 December 2019 **BBC**

## The creator of the CRISPR babies has been released from a Chinese prison

He Jiankui created the first gene-edited children. The price was his career. And his freedom.

MIT Technology Review

By Antonio Regalado

April 4, 2022

His baby gene editing shocked ethicists. Now he's in the lab again

June 8, 2023 - 7:31 AM ET

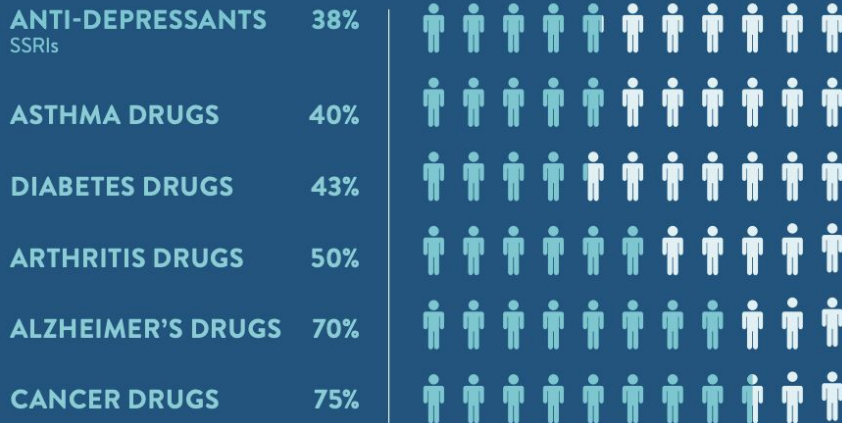
**npr**



# The era of personalized medicine is here

## FIGURE 1: ONE SIZE DOES NOT FIT ALL

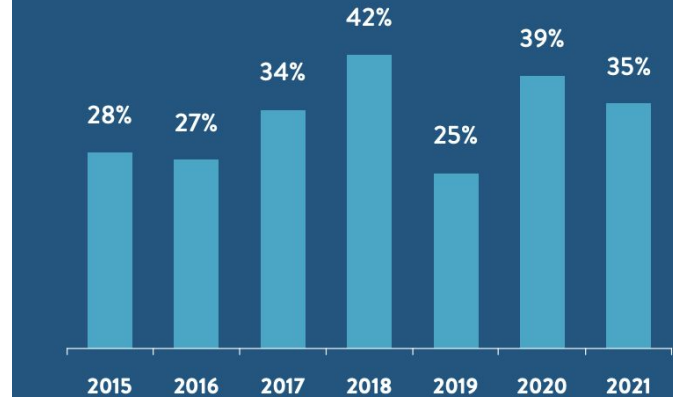
Percentage of the patient population for which a particular drug in a class is ineffective, on average.



Reproduced with permission from: Spear, BB, Heath-Chiozzi, M, Huff, J. Clinical application of pharmacogenetics. *Trends in Molecular Medicine*. 2001;7(5): 201-204.

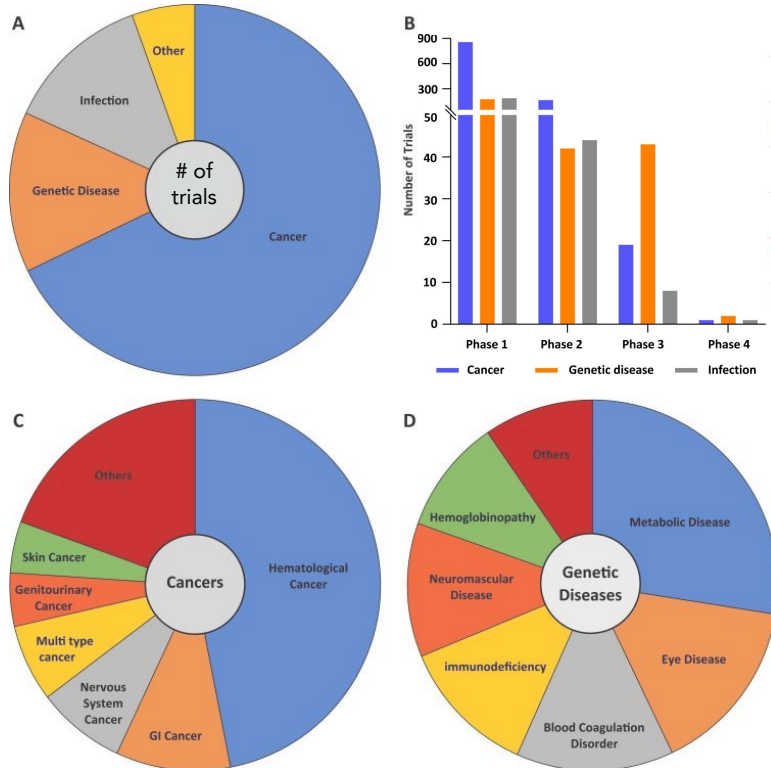
Source: Personalized Medicine Coalition

## Personalized Medicines Accounted for More Than 25% of FDA Approvals for Each of the Last Seven Years



Methodology: When evaluating new molecular entities, PMC categorizes personalized medicines as those therapeutic products for which the label includes reference to specific biological markers, often identified by diagnostic tools, that help guide decisions and/or procedures for their use in individual patients.

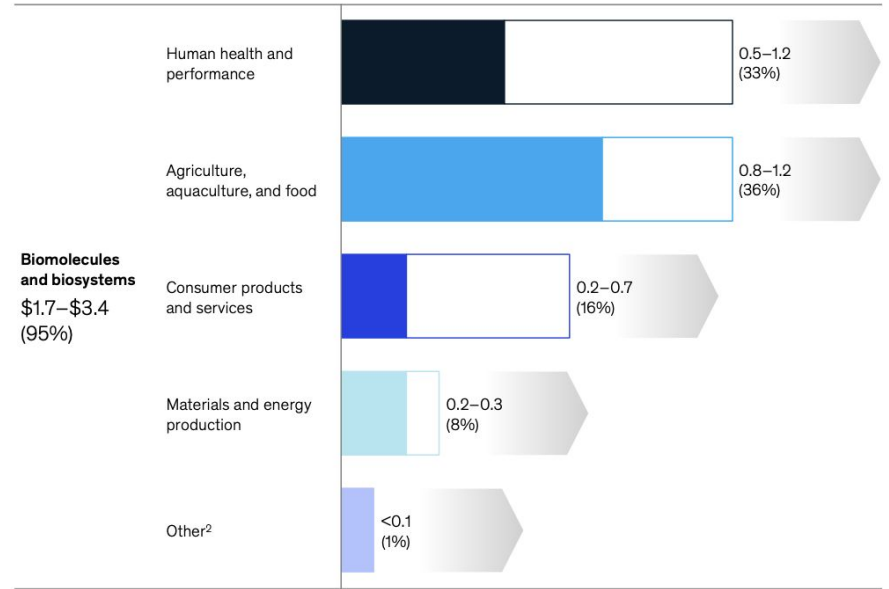
# Genetics will transform pharma & beyond



More than half of the impact from the visible pipeline of applications is outside of healthcare—in agriculture, consumer, and other areas.

Partial estimate of range of annual potential direct economic impact by domain, 2030–40  
\$ trillion (%)

■ Low □ High ▒ Impact not assessed<sup>1</sup>



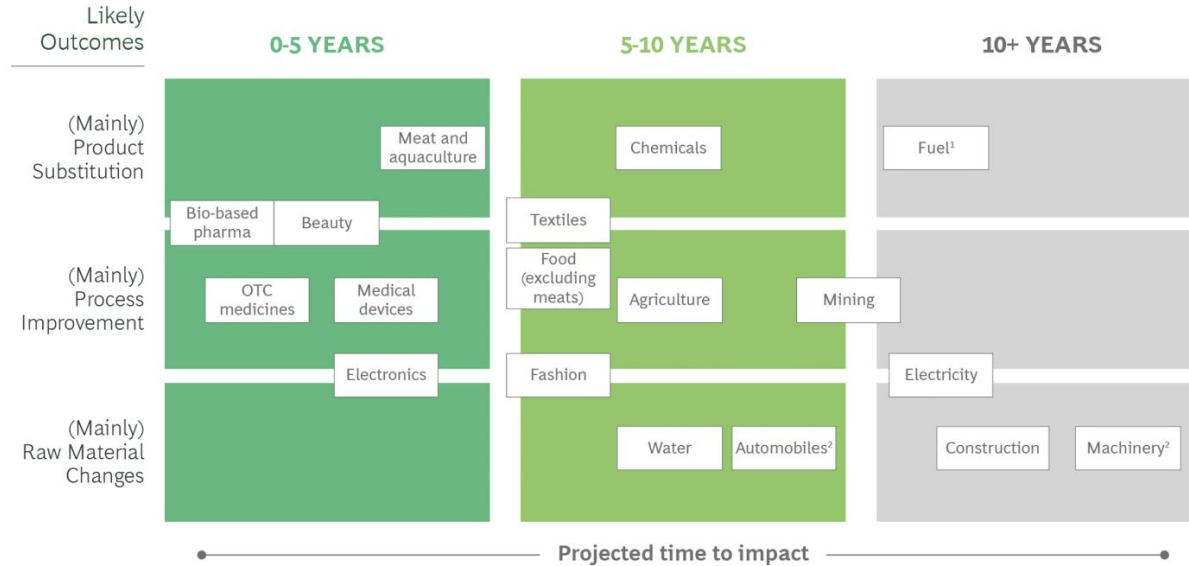
Source: ScienceDirect, McKinsey



# Synthetic biology will disrupt several industries

## Exhibit 1 - The Disruptive Impact of Synthetic Biology

When, and how, the technology will affect your industry



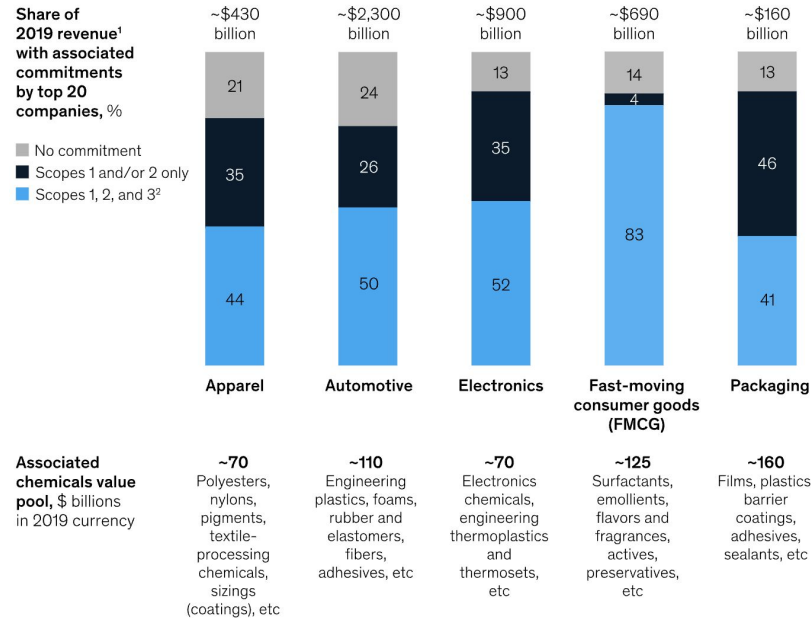
Source: BCG interviews and research.

<sup>1</sup>Without considering the development of electric machinery and automobiles.

<sup>2</sup>Abstracting from the manufacture and use of electric machinery and automobiles.

# Regulators forcing changes due to environmental impact

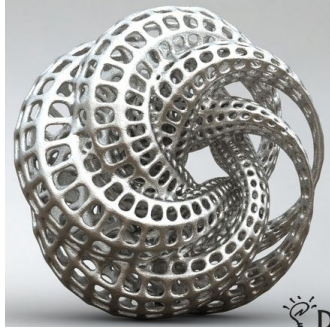
Approximately \$500 billion of spending on chemicals and materials is under scrutiny.



Source: McKinsey

Biotech can offer solutions for all of these

# 3D printing is completely disrupting manufacturing



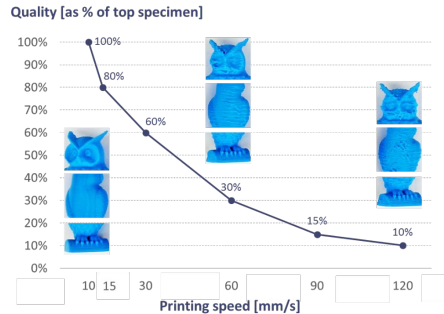
Infinite complexity



Zero assembly



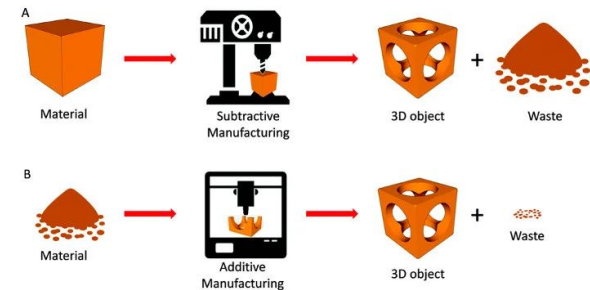
Variety is free



Zero lead time

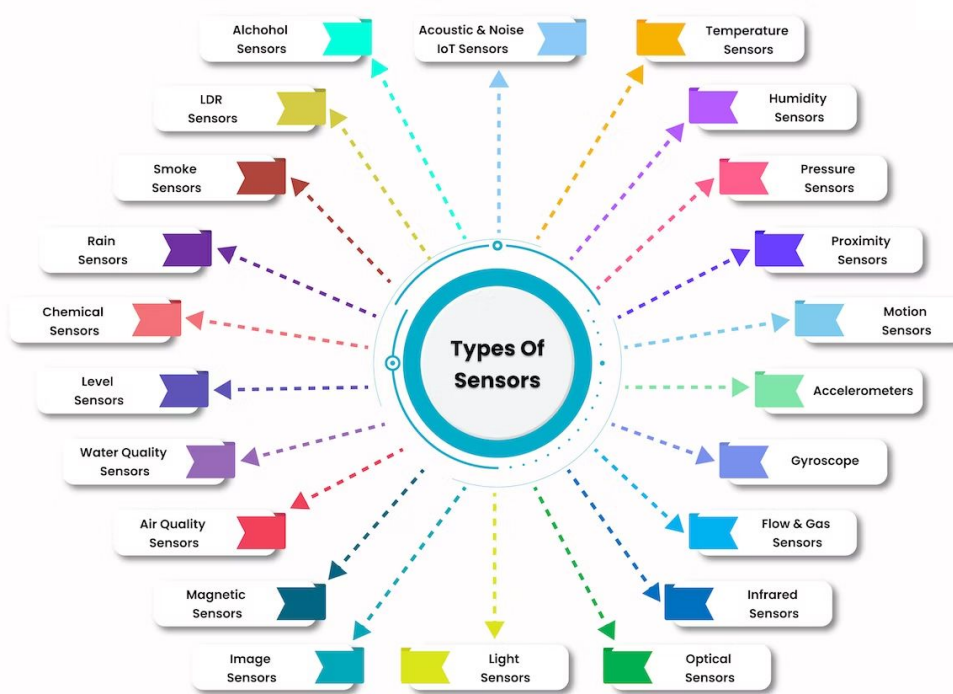


Zero skills & compact



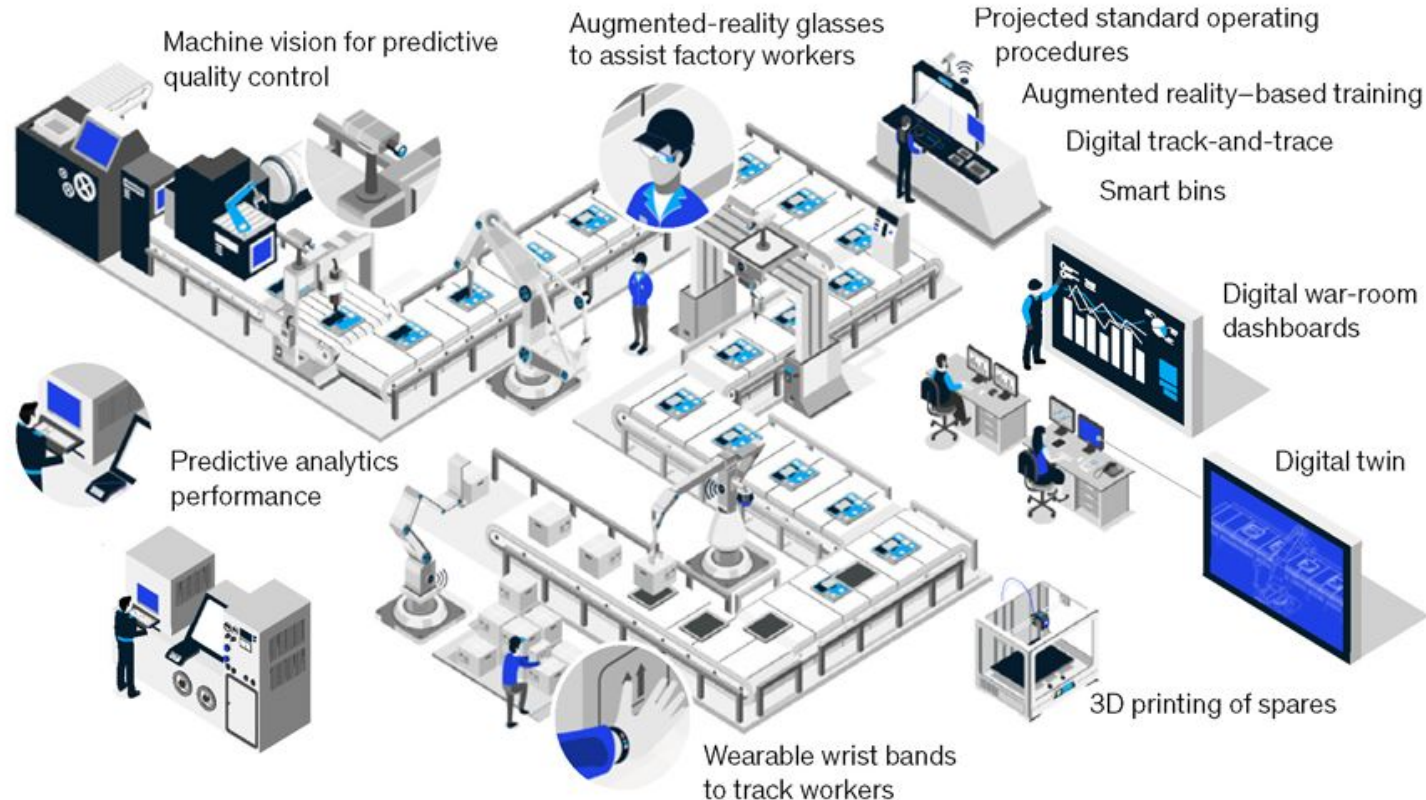
Negligible waste

# Explosion of sensors have made the Internet of Things a reality



Sensors are cheap & ubiquitous - everything everywhere is seamlessly connected all the time

# Manufacturing economics & value chains can change



Source: Future-IQ

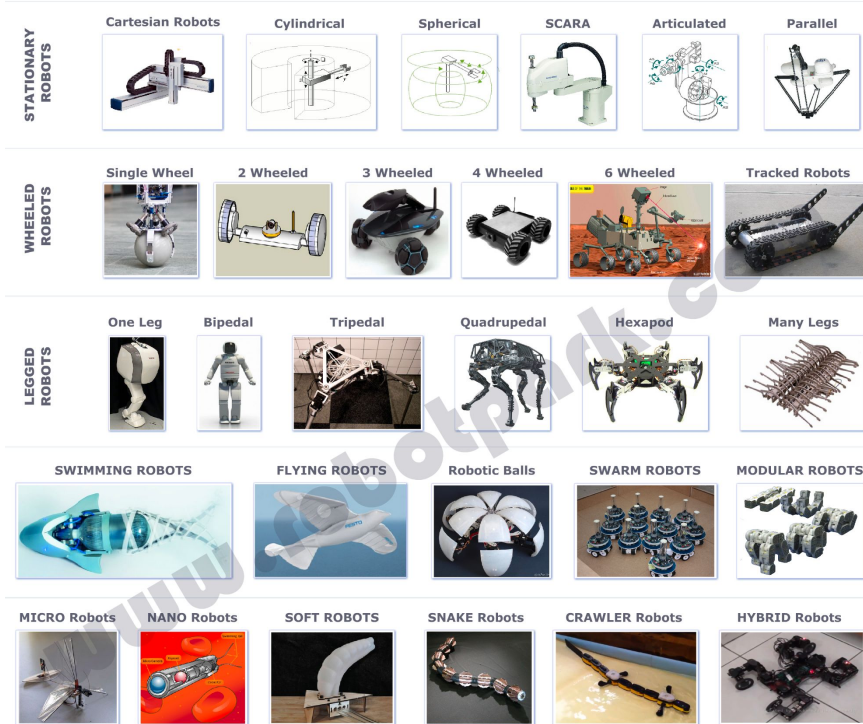


# Factories are increasingly automated



# Robots can do more than humans, for less

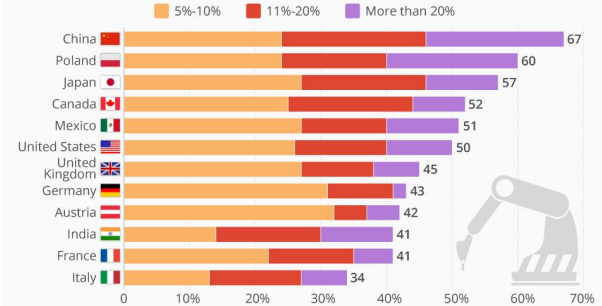
## All Types of Robots by Locomotion



Source: Robotpark, Statista, BCG

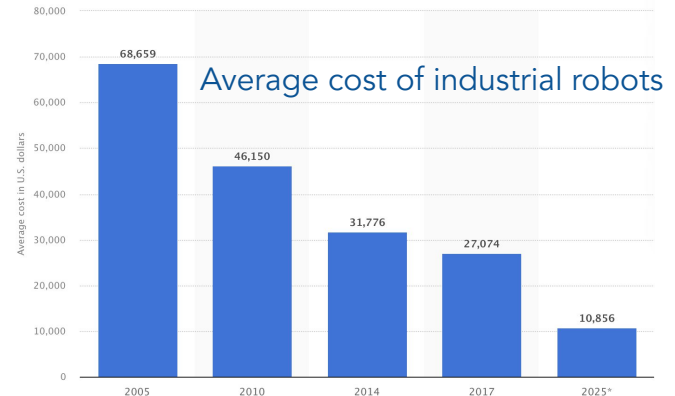
## How Advanced Robotics Will Impact Job Markets

Share of companies expecting a reduction in the number of employees



n= Executives and managers from 1,314 global companies (Jan-Feb 2019)  
Source: Boston Consulting Group

statista



# Soft robots open up service applications



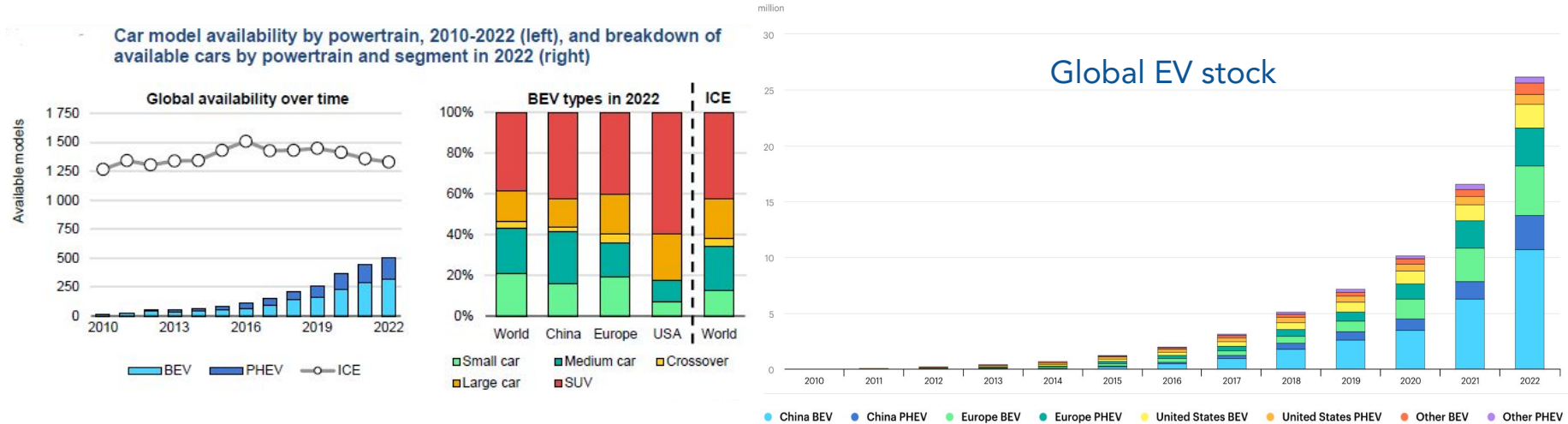


# Drones are just flying robots...



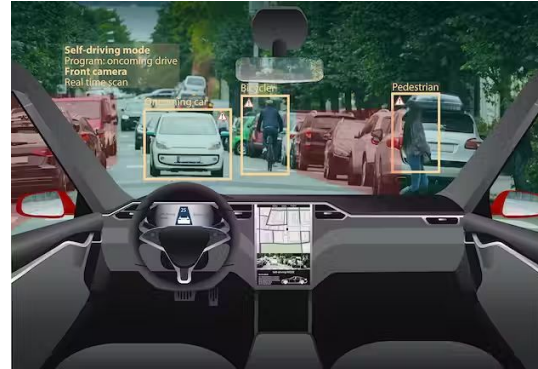
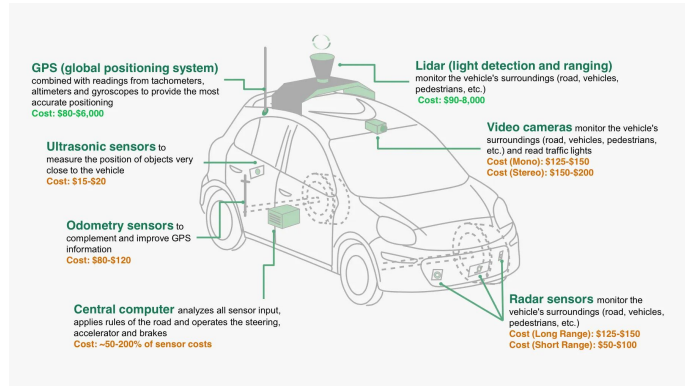
... that can deliver anything from packages to people to missiles!

# EVs are already computers on wheels...



Source: IEA

# ... and autonomous vehicles are on the way



















Cameras + sensors + AI = autonomous

# The unimaginable is already a reality

## The Self-Driving Car Companies Going The Distance

Number of autonomous test miles and miles per disengagement (Dec 2019-Nov 2020)\*

			Miles	Miles per disengagement
Waymo (Alphabet)			628,839	29,945
Cruise (GM)			770,049	28,520
AutoX			40,734	20,367
Pony.AI			225,496	10,738
Argo.AI (Ford, VW)			21,037	10,519
WeRide			13,014	6,507
DiDi Chuxing			10,401	5,201
Nuro			55,370	5,034



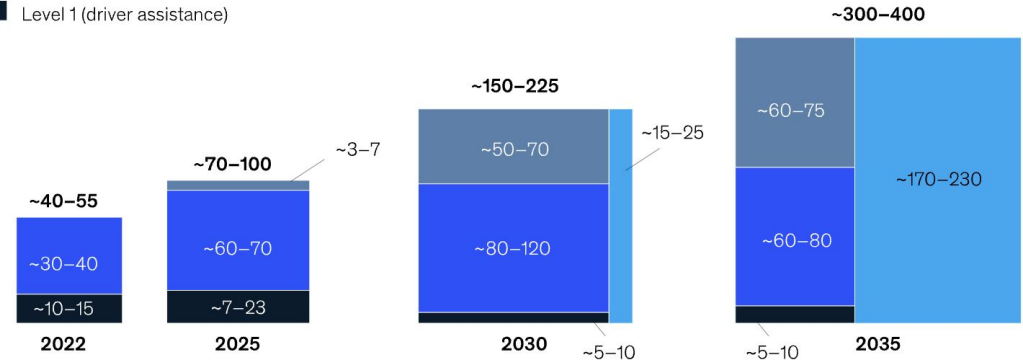
\* Cases where a car's software detects a failure or a driver perceived a failure, resulting in control being seized by the driver.

Source: Statista, McKinsey

Passenger car advanced driver-assistance systems and autonomous-driving systems could create \$300 billion to \$400 billion in revenues by 2035.

Advanced driver-assistance systems (ADAS) and autonomous-driving (AD) revenues, \$ billion

- Level 4 (high driving automation)
- Level 3 (conditional driving automation)
- Level 2 (partial driving automation)
- Level 1 (driver assistance)

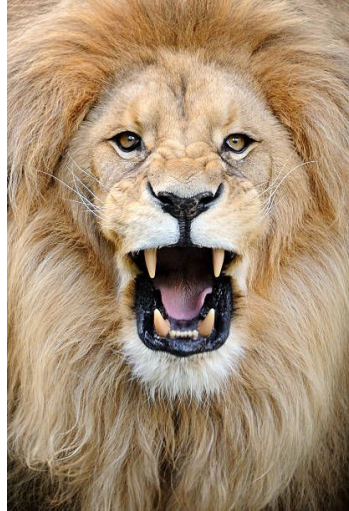


Cameras + sensors + AI = autonomous

# How would you rather see a lion?



Zoo



VR



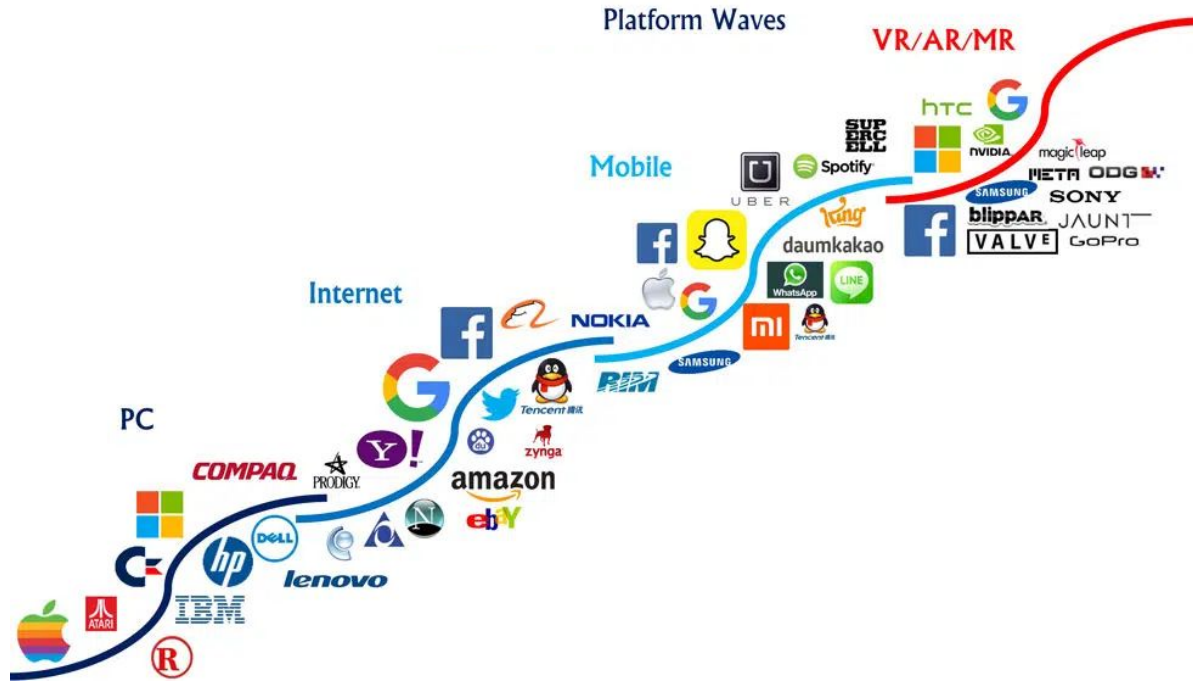
Safari



# Talk to your kids and relive memories in 3D



# The future of media is also personalized



Source: Digi-Capital



Apple Vision Pro



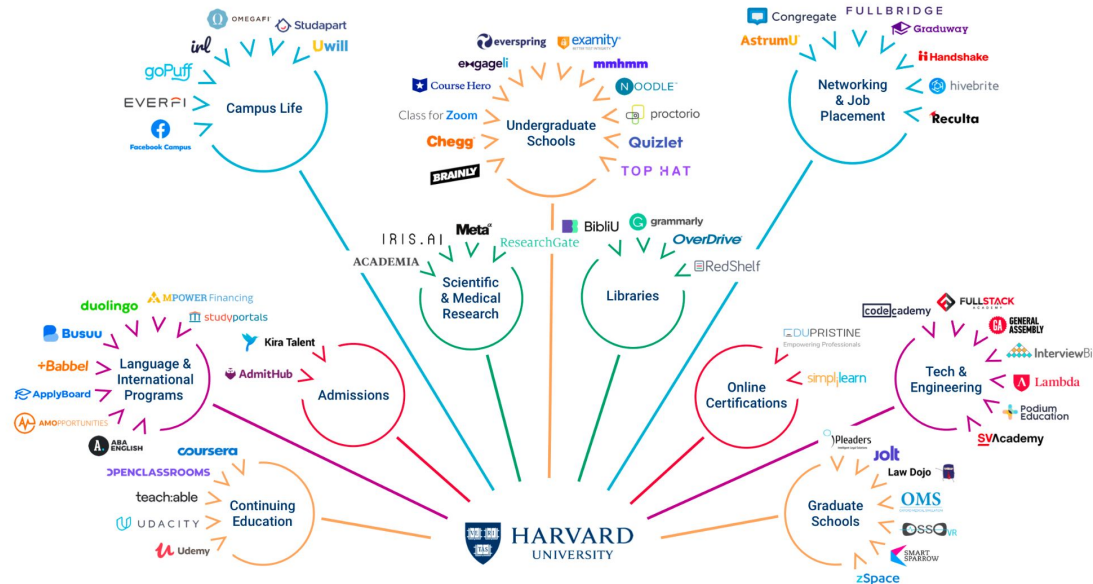
Living in a bubble

Over 90% of online content may be AI-generated by 2025

# Education is being disrupted

## UNBUNDLING HARVARD

Companies targeting the traditional university




Source: cbinsights.com

CBINSIGHTS



# AI in education is already here



This conversation is recorded and viewable by your parent and teacher.

Can you just tell me the answer?

It's important that you learn how to do this yourself! What do you think you need to do to multiply 2 by 5/12?


They need the same denominator.

That's a good thought, but in this case, you don't need to find a common denominator because you're multiplying, not adding or subtracting. What else could you try?

Type message (do NOT share any personal data)

Clear chat

Math



This conversation is recorded and viewable by your parent and teacher.

Tell me more about your character. What are her interests, talents, fears, and dreams?

She likes dogs. She's good at writing.


She's scared of the dark. She dreams about changing the world.

That's a great start! Now, let's think about what kind of story we want to tell. What kind of goal or problem might your character face?

Type message (do NOT share any personal data)

Clear chat

Writing



This conversation is recorded and viewable by your parent and teacher.

My code isn't working, what's wrong? This is it:

```
var animals = ["elephant", "orca", "sloth"];


var counter = 1;
while (counter < animals.length) {
  console.log(animals[counter]);
}
```

You're almost there! You just need to make sure to increment the counter variable inside the loop, otherwise it will get stuck in an infinite loop.

Type message (do NOT share any personal data)

Clear chat

Coding



This conversation is recorded and viewable by your parent and teacher.

Let's start by discussing some details about your class. What grade level and subject do you teach? And what's the topic you want to create a lesson for?

I teach sixth grade English Language Arts. I want a lesson to help students learn how to identify, summarize, or explain the main idea using supporting details in an expository text.

That's a great topic! Have your students had any previous lessons on identifying the main idea or summarizing expository texts?

No

Type message (do NOT share any personal data)

Clear chat

Teaching

From theatrical lectures to broadcasted MOOCs to personalized AI tutors

# What is the future of investing?

As investors, we basically:

1. Consume information
2. Analyze it
3. Make decisions



AI can:

1. Consume more information by orders of magnitude
2. Analyze better than us by orders of magnitude
3. Make and adapt decisions faster and more rationally

# The Economist

How to shore up America's banks

Can Turkey sack a strongman?

Battling superbugs with viruses

Coronation nation

MAY 6TH–12TH 2023

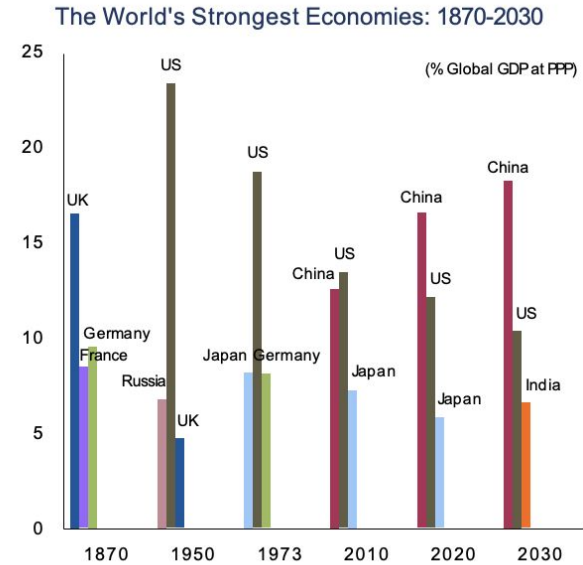
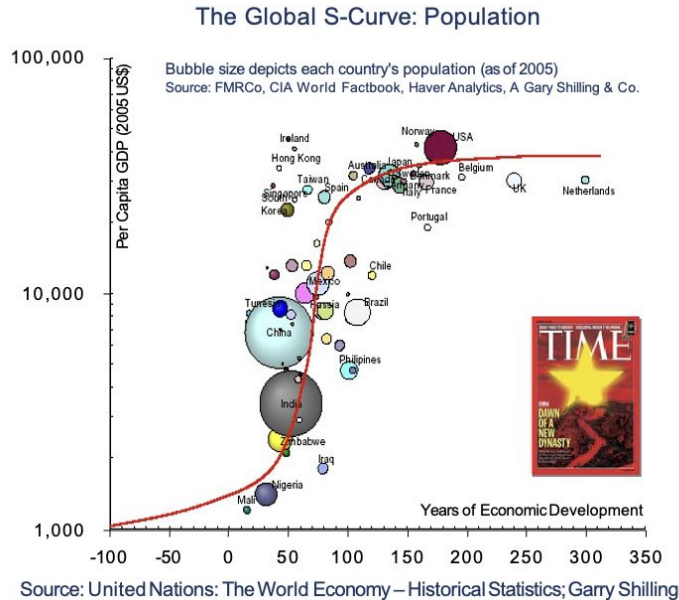
## FISCAL FANTASYLAND

When will politicians wake up?



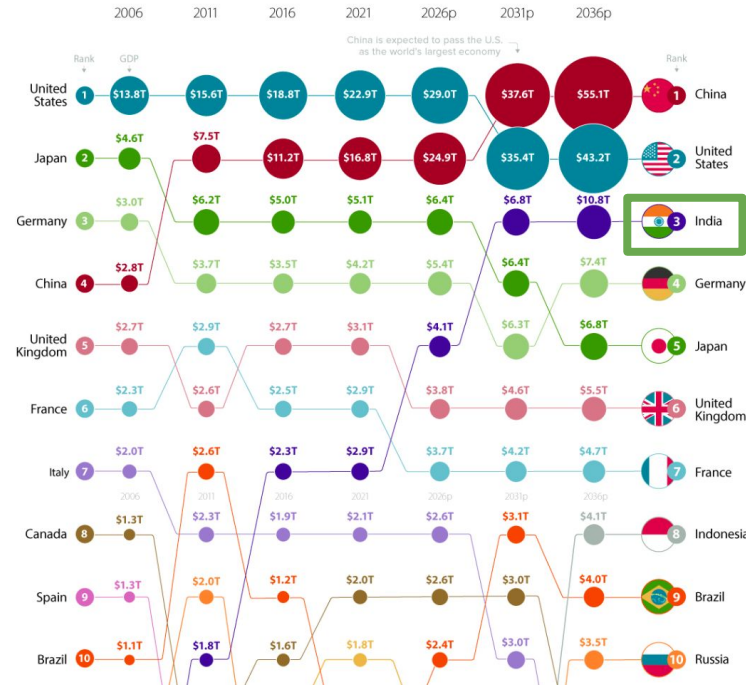
# Global macro

# Countries go through life cycles



The developed world is plateauing/declining. China & India regain their historical (pre-1870) eminence.

# The global economic shift (GDP rankings)

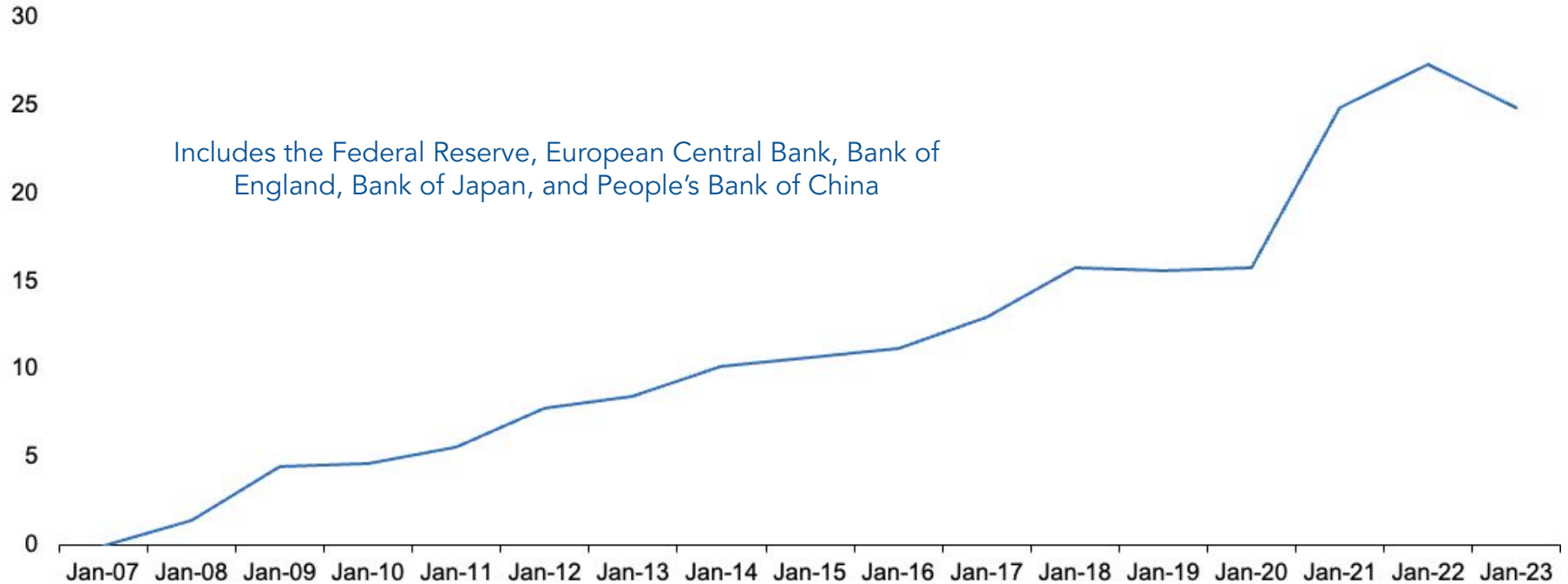


Source: Visual Capitalist

Global GDP has crossed \$100T and India is expected to rise to #3 by 2031

# Printing \$25 trillion couldn't create real incremental GDP

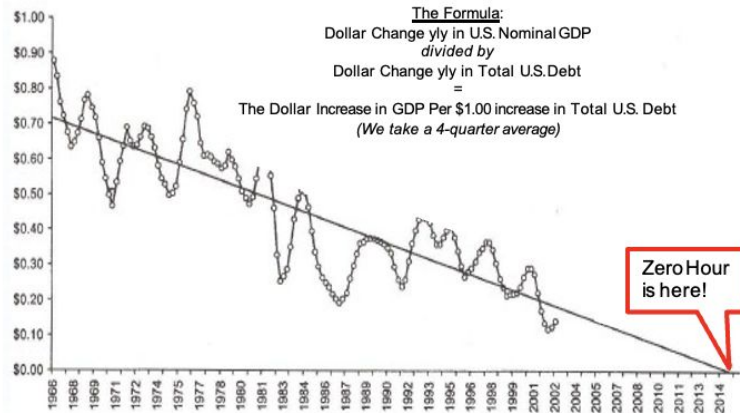
Change in central bank balance sheets since Jan 2007, \$ trillion



Source: Bloomberg

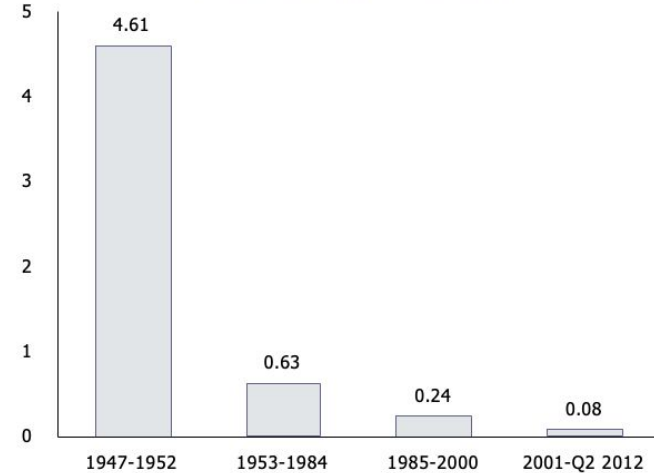
# "Printing" money did not yield a lasting solution

The Diminishing Impact of Debt growth on the Economy, 1966-2015  
(The Dollar Increase in Nominal GDP per \$1.00 Increase in Total U.S. Debt)  
The trend line intersects \$0 when new debt has zero effect on GDP



2000-2007: Nominal GDP Growth: +\$4.2 trillion  
Total Credit Market Debt: +\$21.3 trillion

United States Increase in Real GDP per Dollar of Incremental Debt



Source: Ned Davis Research; US Federal Reserve; Bloomberg.

"Zero hour" - when \$1 of new debt has no incremental positive effect on US GDP growth



# Heavy debt burden sits over the world

## Total debt/GDP by country

	3Q 2022
• Japan	<b>416%</b>
• France	340%
• Advanced Economies	256%
• UK	249%
• Euro Area	259%
• China	<b>296%</b>
• Italy	254%
• USA	257%
• All	237%
• Germany	193%
• EM	211%
• India	<b>170%</b>

## Private sector interest / income

	3Q 2022	Recorded Peak
Hong Kong	<b>32.7%</b>	<b>29.8%</b>
Norway	23.3%	30.0%
Netherlands	24.2%	30.7%
Canada	<b>22.4%</b>	<b>24.2%</b>
Sweden	<b>25.6%</b>	<b>25.5%</b>
Denmark	21.5%	31.6%
China	<b>20.6%</b>	<b>21.0%</b>
South Korea	<b>22.3%</b>	<b>24.1%</b>
Belgium	18.8%	22.4%
France	<b>20.5%</b>	<b>21.3%</b>
Australia	19.0%	24.4%
Switzerland	<b>20.4%</b>	<b>20.1%</b>
Brazil	25.1%	40.1%
Finland	16.2%	18.6%
United States	14.4%	18.3%
Japan	15.6%	21.0%

*bold show country currently at peak dsr*

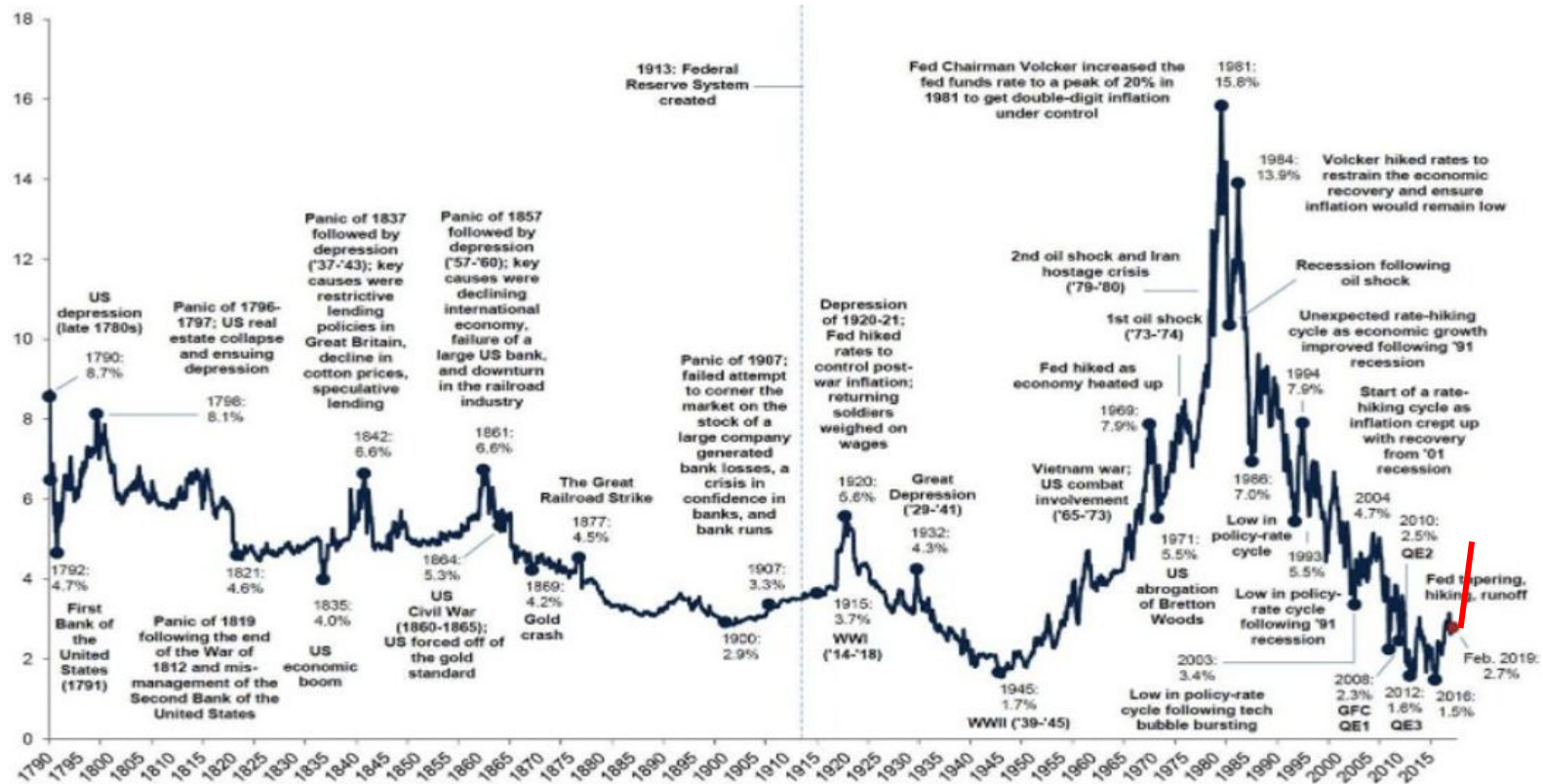
	3Q 2022	Recorded Peak
United Kingdom	13.5%	20.3%
Portugal	14.4%	21.2%
Malaysia	11.5%	20.9%
Spain	13.6%	24.1%
Turkey	19.6%	27.4%
Russia	12.5%	20.0%
Germany	11.2%	14.0%
Italy	10.1%	14.0%
Thailand	14.2%	23.3%
South Africa	7.1%	12.1%
Czech Republic	8.6%	13.8%
Hungary	11.9%	19.2%
India	<b>9.4%</b>	<b>9.0%</b>
Poland	7.0%	9.1%
Mexico	4.9%	9.6%
Indonesia	4.0%	25.7%

Thursday, 23 March 2023

Source: Orlock Advisors

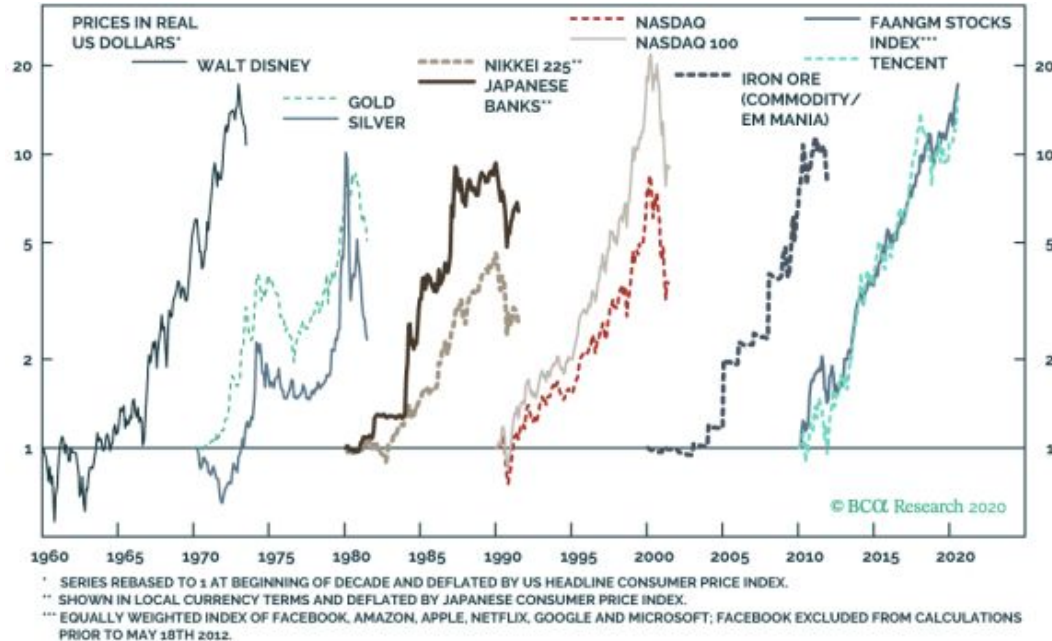


# Horrific implications when interest rates rise...



Source: Global Financial Data Inc, Federal Reserve Board, Haver Analytics, Goldman Sachs Global Investment Research

# Post Bretton Woods: Manias end in long bear markets



Source: BCA Research as of 7/31/2020



A decade of pain possibly lies ahead for developed economies and the tech sector

# Bursting bubbles are painful

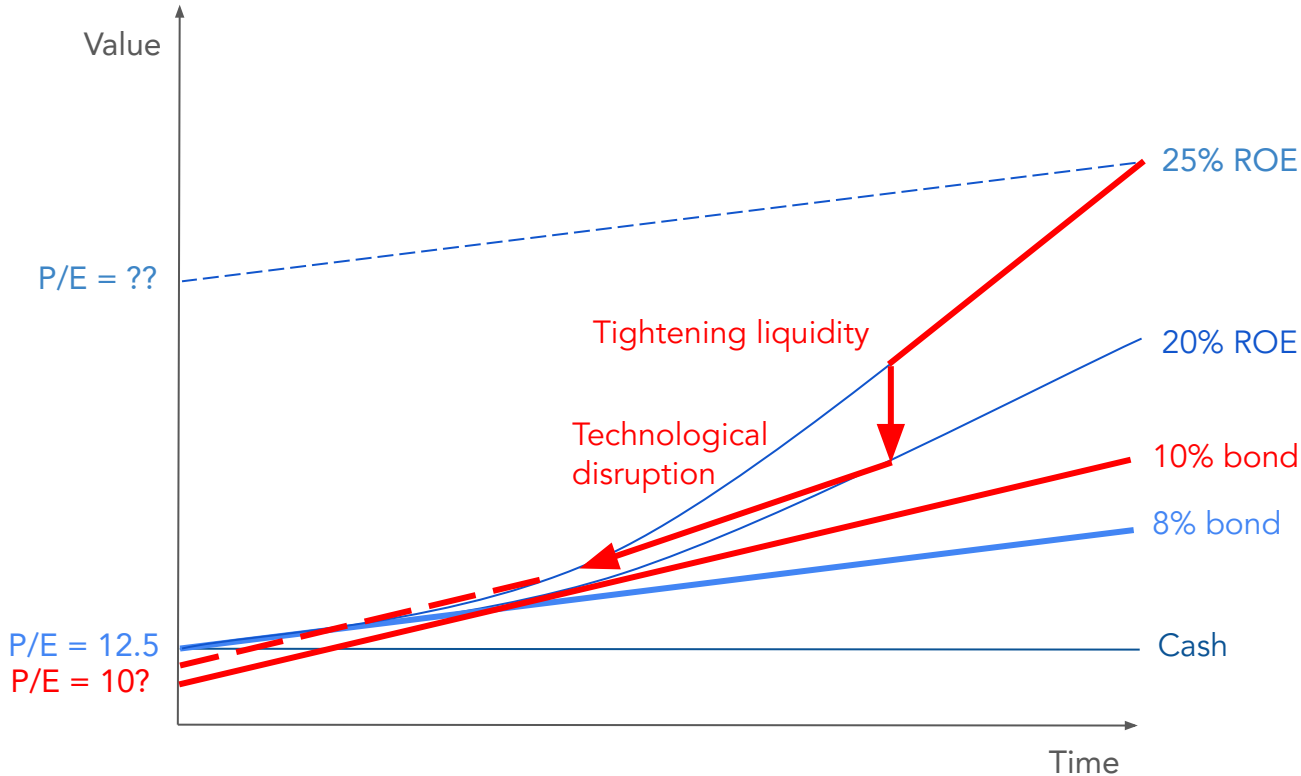
## Market bubbles of the past: Peaks and troughs

Bubble	Index	Peak	Rise	Decline	Valuation at peak (P/E)	Bond yield	Policy rate	Speed of rise
Mississippi Co.	CAC All-Tradeable	01/1720	2955%	-95%	n/a	↑	↑	73%
South Sea Co.	South Sea Co.	06/1720	707%	-89%	n/a	↓	↑	188%
Roaring 20s	DJ Industrial Average	8/30/1929	281%	-89%	19	↑	↑	9%
Black Monday	DJ Industrial Average	8/21/1987	103%	-34%	19	↑	↑	20%
Japan 1980s	Nikkei 225	12/29/1989	72%	-59%	67	↑	↑	10%
Nasdaq Dot-com	Nasdaq 100	3/10/2000	375%	-76%	205	↑	↑	52%
US Homebuilders	DJ US Select Builders	7/22/2005	155%	-83%	12	→	↑	29%
Saudi Arabia	Tadawul All-Share	2/28/2006	305%	-68%	123	↑	↑	22%
China	Shanghai Composite	10/1/2007	445%	-60%	49	↑	→	37%
EM Technology	EMQQ Emerging Markets	1/26/2018	11186%	-64%	100	↑	↑	23%
Big Tech	NYSE FANG	11/4/2021	211%	-49%	37	→	→	180%
Cryptocurrency	Bitcoin	11/9/2021	1281%	-77%	n/a	→	→	668%

Source: BofA Global Investment Strategy, Bloomberg, Global Financial Data, rise & decline measured approx. 2 years from peak

BofA GLOBAL RESEARCH

# A reminder of the problem



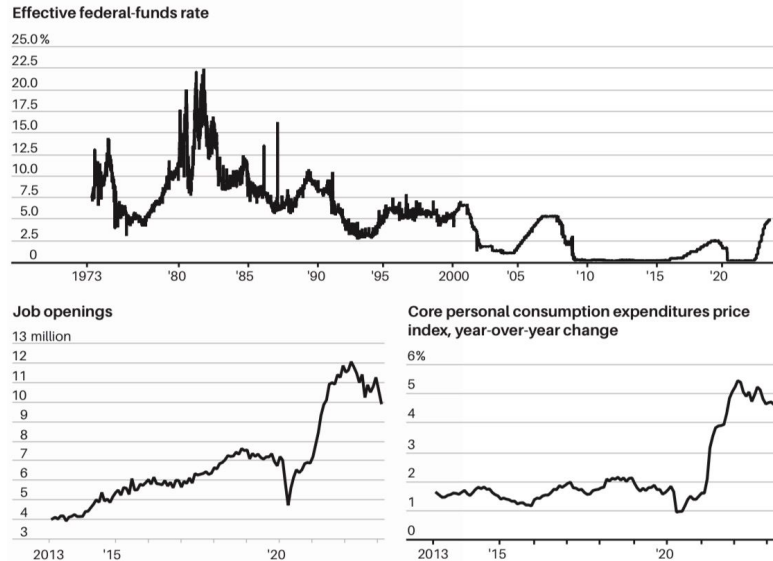
Tightening money pushing down valuations from historic highs.

Technological disruptions threaten to erode terminal values and thereby depress valuations.

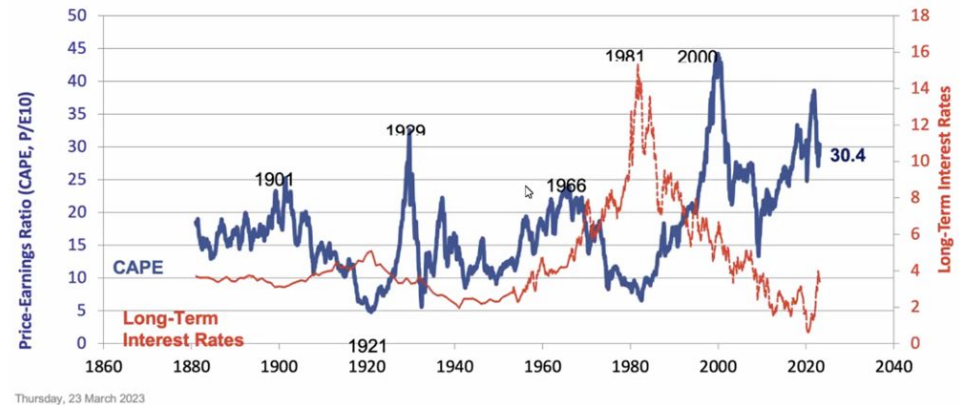
Markets behaving like schizophrenics... greed and fear alternate every 6 months!

# The Fed's predicament

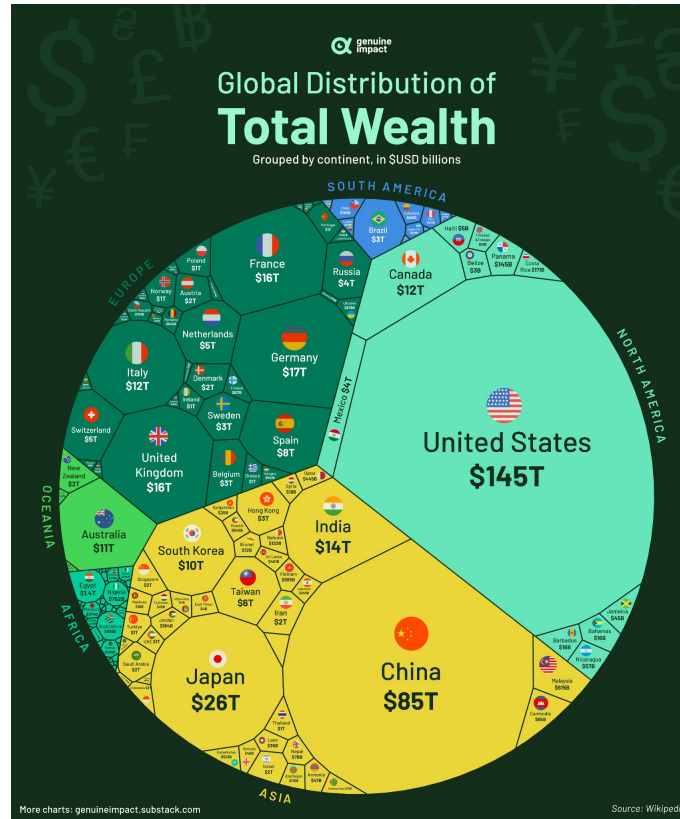
- Interest rate hikes historically put the brakes on consumption and inflation.
- However, a decade of money printing led to inflated asset values & an unprecedented wealth effect.
- Hence, the Fed is hoping that asset values correct moderately, as a drastic collapse may compel it to restart monetary easing, which was the root cause of the problem to begin with.



Sources: Bloomberg; Job Openings and Labor Turnover Survey from the Bureau of Labor Statistics



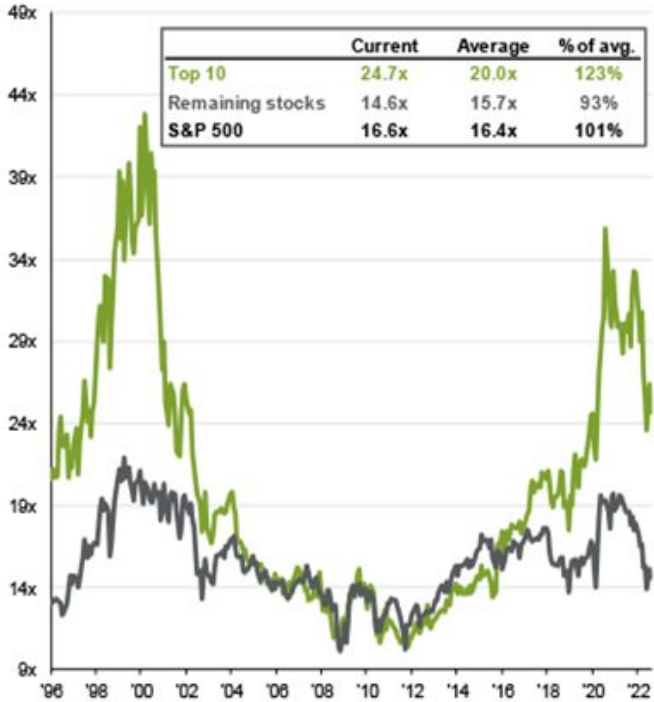
# Why the Fed cannot stop USA spending





# Broader markets sense trouble

P/E ratio of the top 10 and remaining stocks in the S&P 500  
Next 12 months



Source: SeekingAlpha

24 June 2023

Big tech stocks race ahead of the wider market

Year-to-date performance, % change



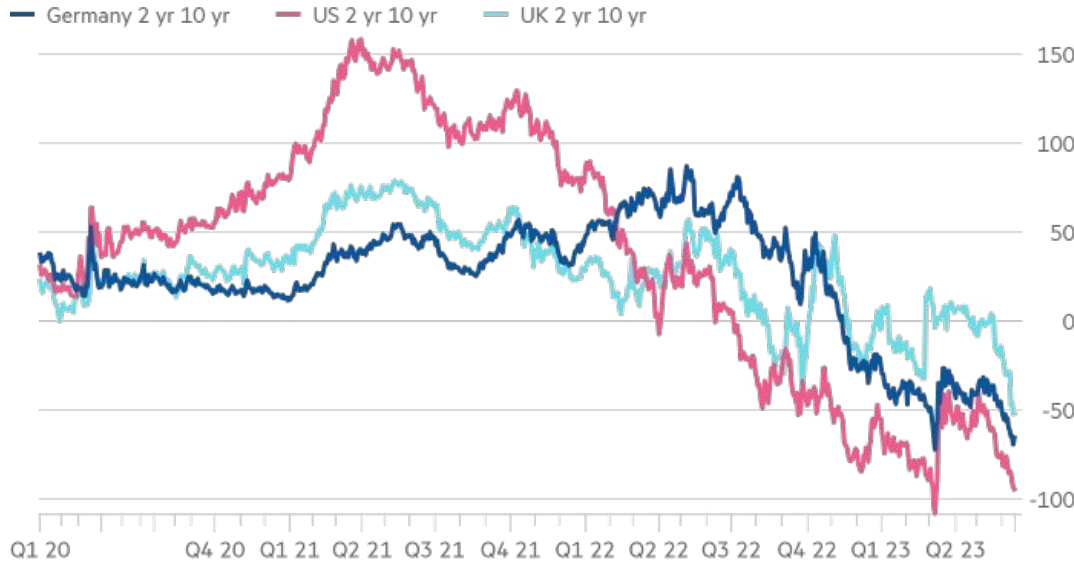
FINANCIAL TIMES

Source: Refinitiv

# Recession fears rising

## Market recession fears rise

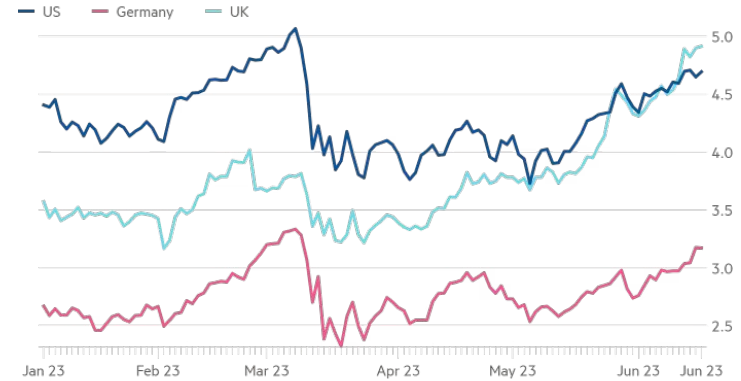
Yield spread inversion deepens on 2 year and 10 year government bonds (% pts)



Source: Refinitiv  
© FT

## Yields surge on higher rates expectations

Yields on 2 year government bonds (%)



Source: Refinitiv  
© FT

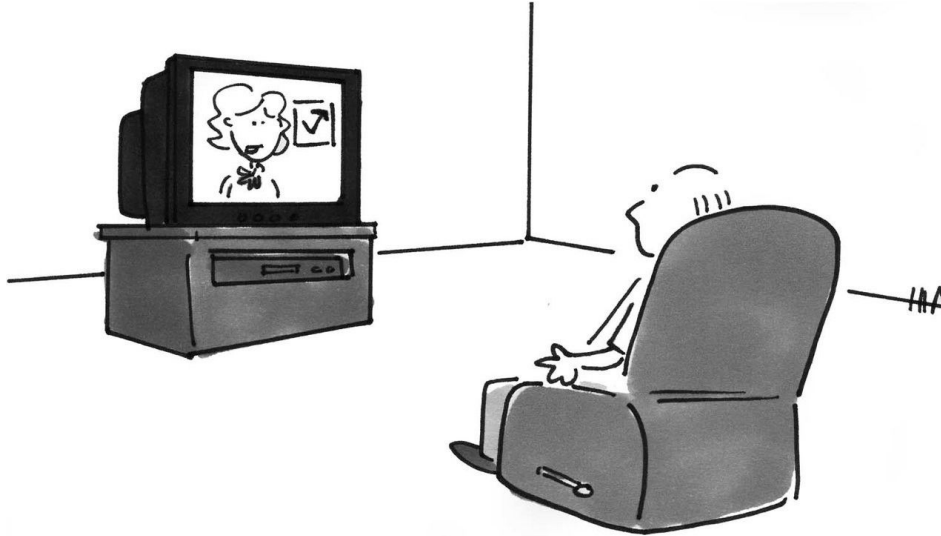
**FirstFT: Wall Street job cuts set to surpass 11,000 this year**

**Stock market scramble has left investors skittish despite rally**



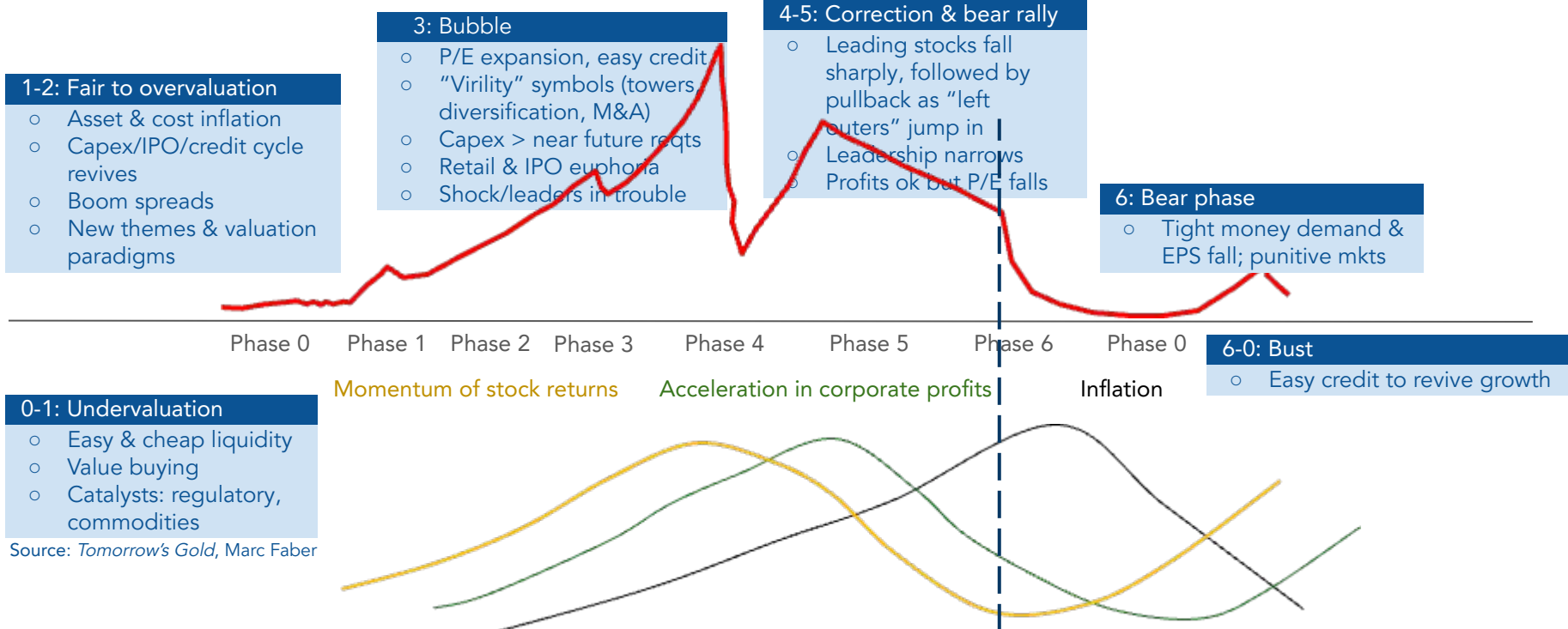
# "Nobody knows anything anymore"

© MARK ANDERSON, WWW.ANDERSTOONS.COM



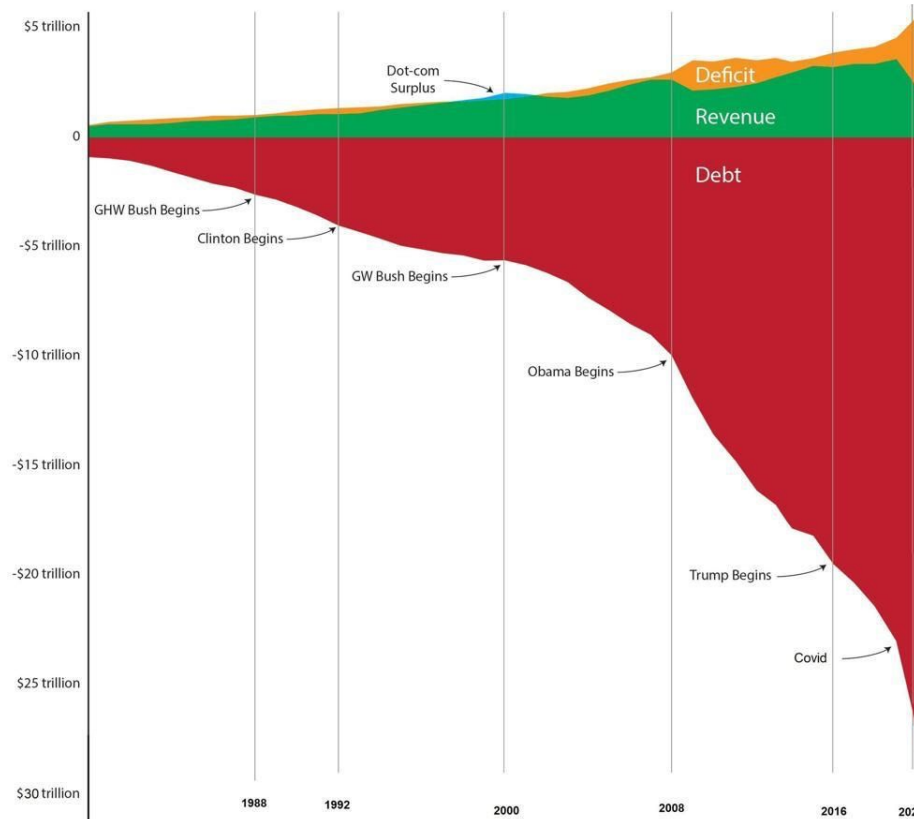
"Stocks rose slightly in early trading, then plummeted on news that stocks rose slightly in early trading."

# Typical market and economic cycle



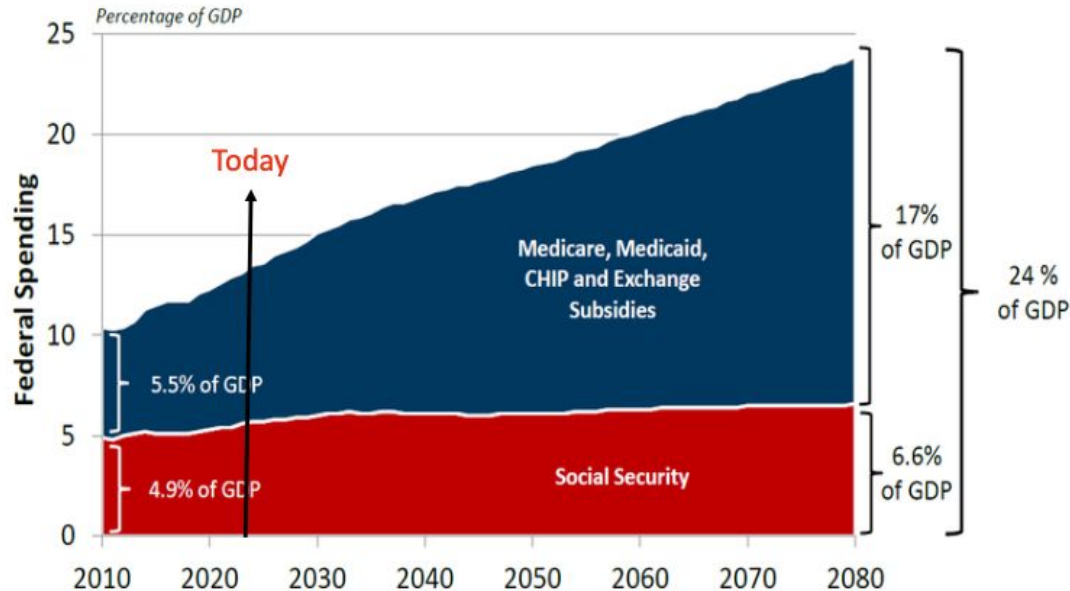
Western world is here: narrow leadership & rising rates set up for disappointment ahead. Non-tech leadership to drive markets?

# Why does USA still have a AAA rating?



# US social security & healthcare subsidies are unsustainable

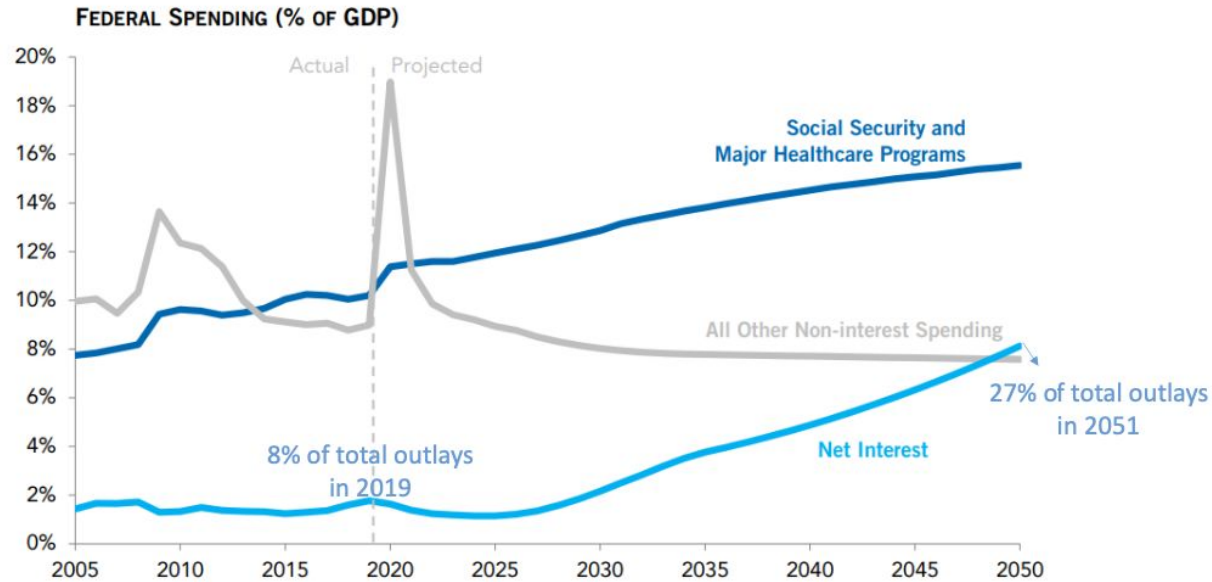
The demographic storm is just getting underway.  
USA is already spending almost 40% of all taxes on seniors.



Source: Stanley Druckenmiller

# US annual interest payments will equal COVID fiscal relief

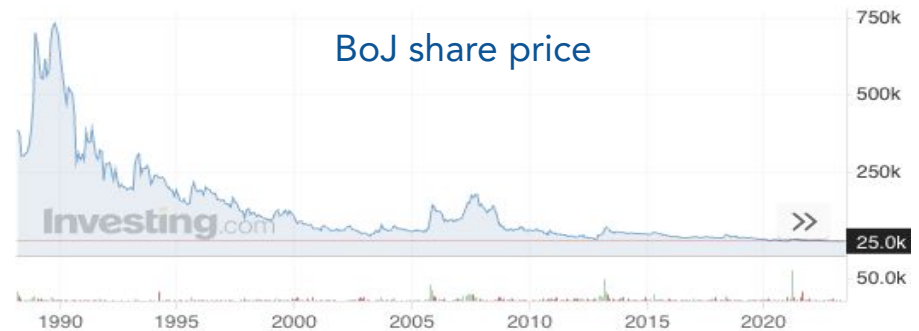
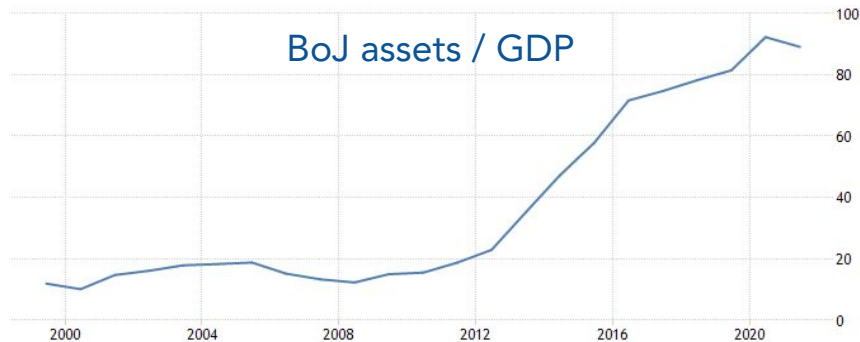
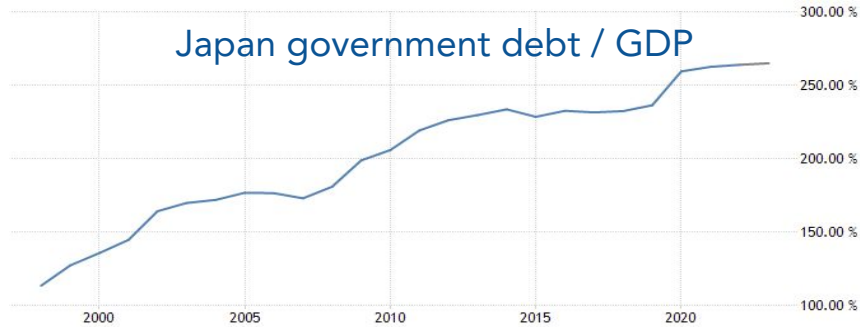
The Fed can't save us. A larger b/s temporarily hides and postpones the problem, making it an even worse nightmare once it happens. With 10y rates at 5%, interest payments EVERY YEAR will be as big as the COVID fiscal relief.



SOURCE: Congressional Budget Office, *The 2020 Long-Term Budget Outlook*, September 2020.

Source: Stanley Druckenmiller

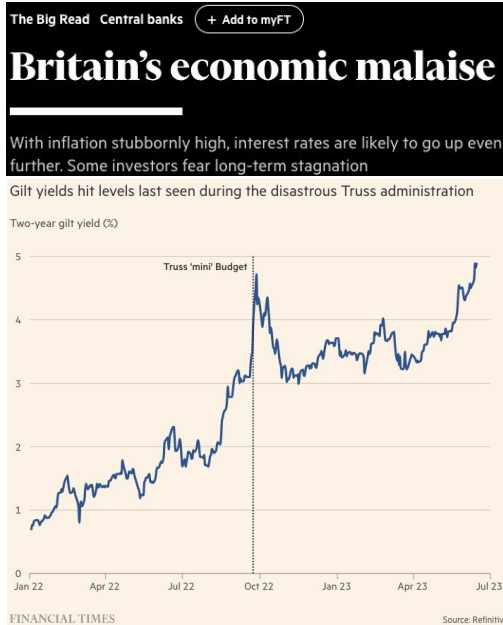
# Similarly, Japan: “A bug in search of a windshield”



Sources: Trading Economics, Japan MoF, World Bank, Investing.com, WSJ

Ultra loose monetary policy is creating the illusion of prosperity in the Nikkei

# The UK's long-term stagnation looks unsolvable



# What about Europe?



Source: [ClarkAndDawe originally aired on ABC Australia in 2010](#)



# Now, understand China

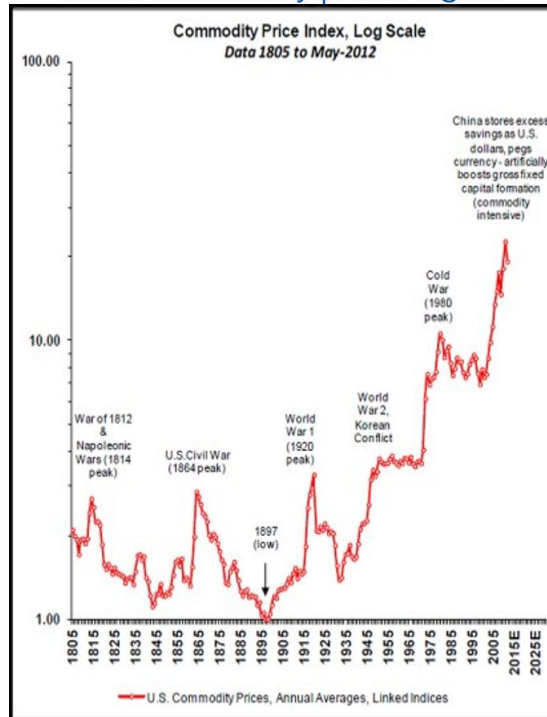
- China's GDP is broadly 40% consumption, 40% investments, 40% exports...
- Nobody questions a 40% savings/profit/surplus in an over-invested economy
  - 20% of GDP is construction - of which 12% is residential construction
  - Local govts depend on land sales for 70% of revenues, facilitating infra/realty "equity"
  - Infrastructure spend is 12% of GDP - financed by state owned banks
  - Banks constantly recapitalized to finance ghost cities / excessive infrastructure - where is the economic return on capital? Lending classified as quasi-sovereign, so no provisioning required!
  - Broad money > 4x of GDP + large shadow banking system
- Impressive physical infrastructure & industrial complexes, huge exports (yuan strength) & land sales (fiscal strength) are disguising lack of economic returns.
- Despite the economy and per capita income tripling since 2010, the market has given no returns

# China drove commodity mania

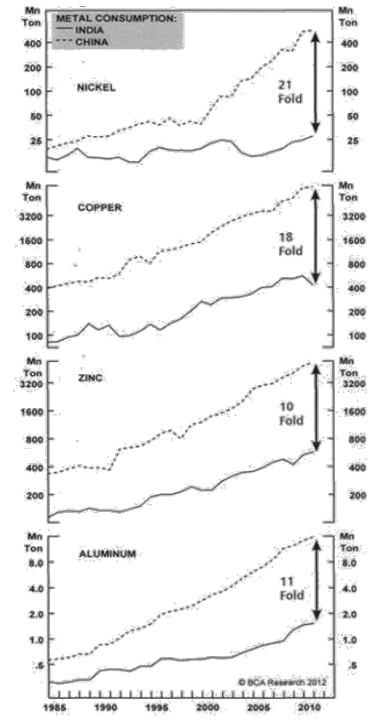
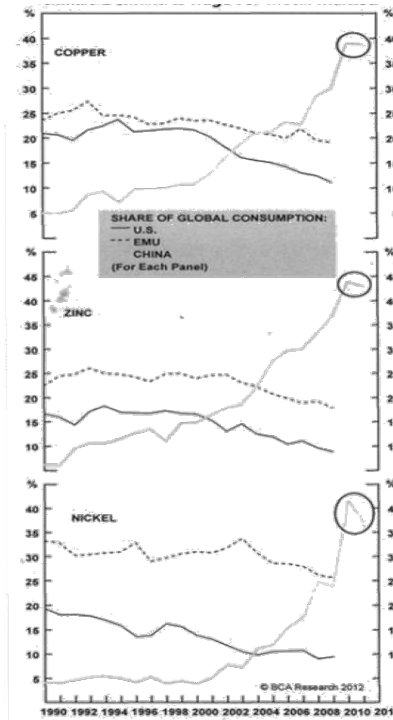
Incremental demand from China & expansionary monetary policies drove commodity prices higher

China's share of world commodity consumption

Chinese vs Indian demand



Commodity	China % of world
Cement	53.2
Iron ore	47.7
Coal	46.9
Pigs	46.4
Steel	45.4
Lead	44.6
Zinc	41.3
Aluminium	40.6
Copper	38.9
Eggs	37.2
Nickel	36.3
Rice	28.1
Soybeans	24.6
Wheat	16.6
Chickens	15.6
Oil	10.3
Cattle	9.5

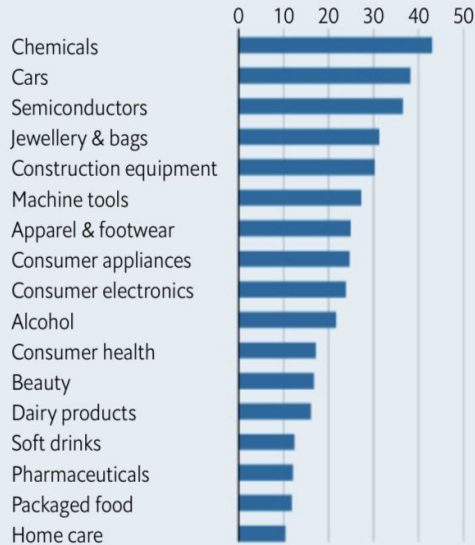


# China drove manufacturing, exports and consumption

## Not just the world's factory

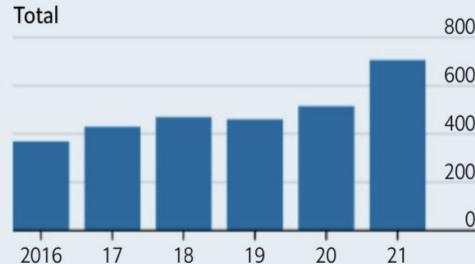
### China, share of world demand

By product category, 2021, %

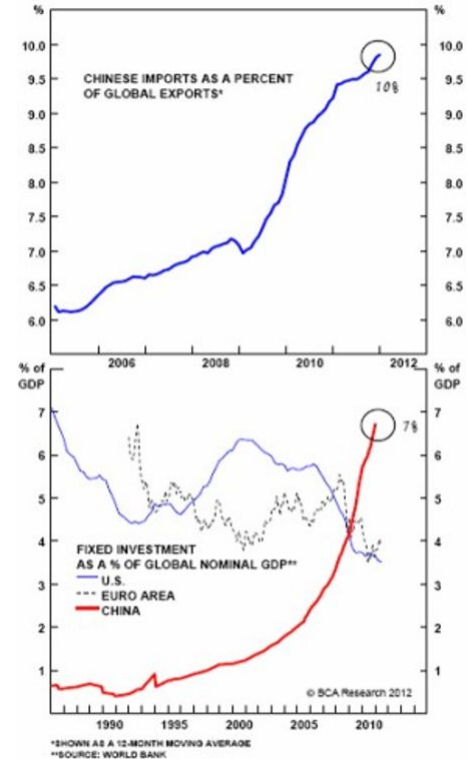
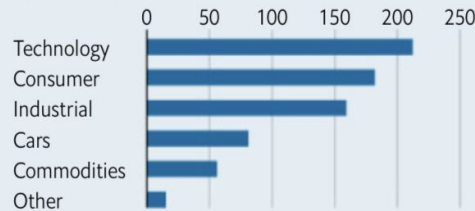


Sources: Euromonitor; Off-Highway Research; Daxue Consulting; Chemdata International; IC Insights; Bloomberg; *The Economist*

### European, Japanese and US companies, sales in China, top 200 that disclose sales, \$bn

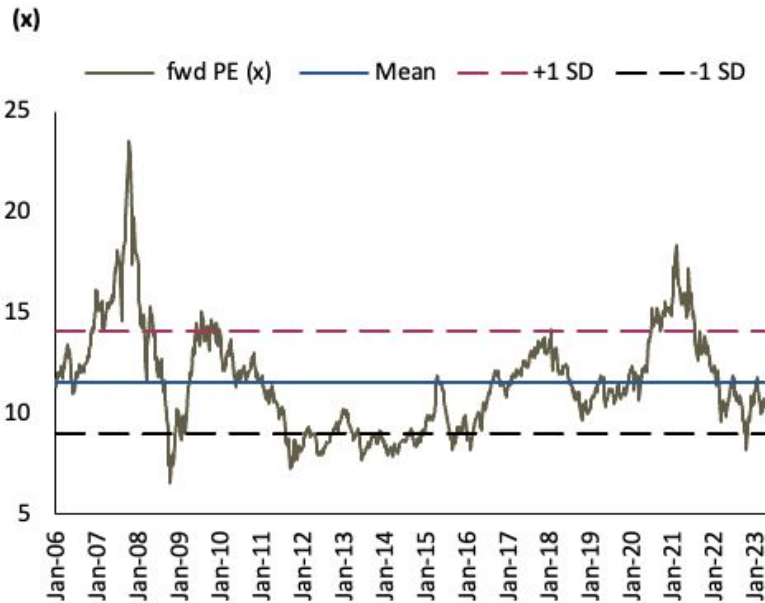


### By industry, 2021

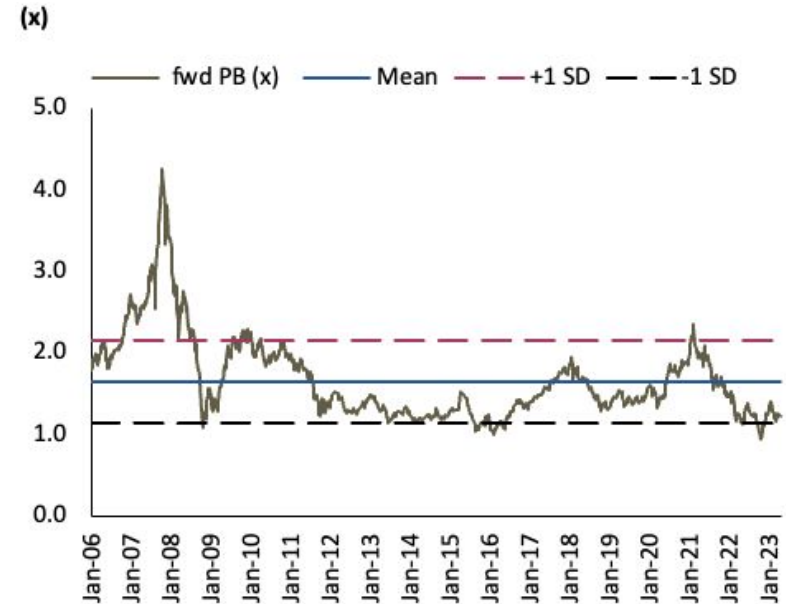


# Markets sense trouble

MSCI China 12-month forward P/E



MSCI China 12-month forward P/B



Source: Bloomberg, DAM Capital

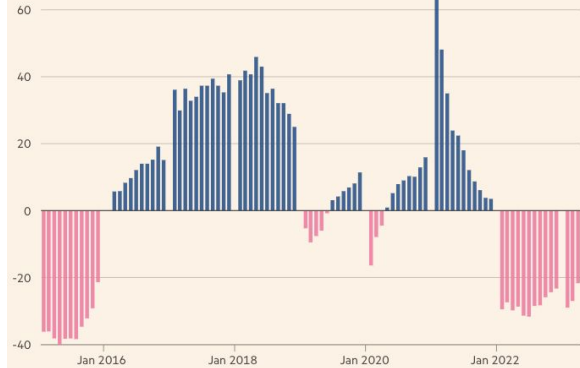
China will surprise us - causing extreme volatility in global trade & markets

FINANCIAL TIMES

# China's economic woes are just starting

Local government land sale income has plummeted, draining infrastructure budgets

Revenue from the sale of land-use rights, cumulative year-on-year change (%)

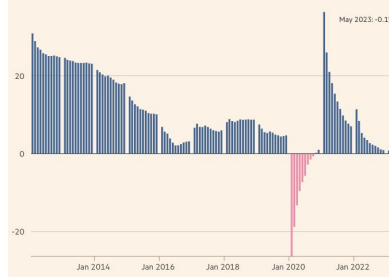


FINANCIAL TIMES

Source: Wind

Private investment returned to contraction after a post-lockdown surge

Private fixed-asset investment, cumulative year-on-year change (%)

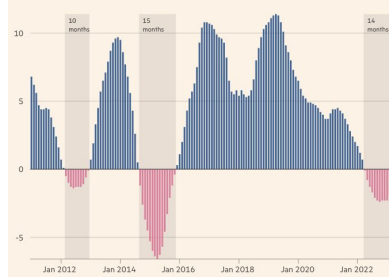


FINANCIAL TIMES

Source: National Bureau of Statistics

China's new home prices are poised for the longest losing streak since records began in 2011

New home prices in China's 70 largest cities, year-on-year change (%)



FINANCIAL TIMES

Source: Wind

China's exports reversed course in May amid weakening overseas demand

Exports in dollars, year-on-year growth (%)



FINANCIAL TIMES

Source: General Administration of Customs

Ailing property sector with contraction in investments and exports

# Global macro implications for Indian markets

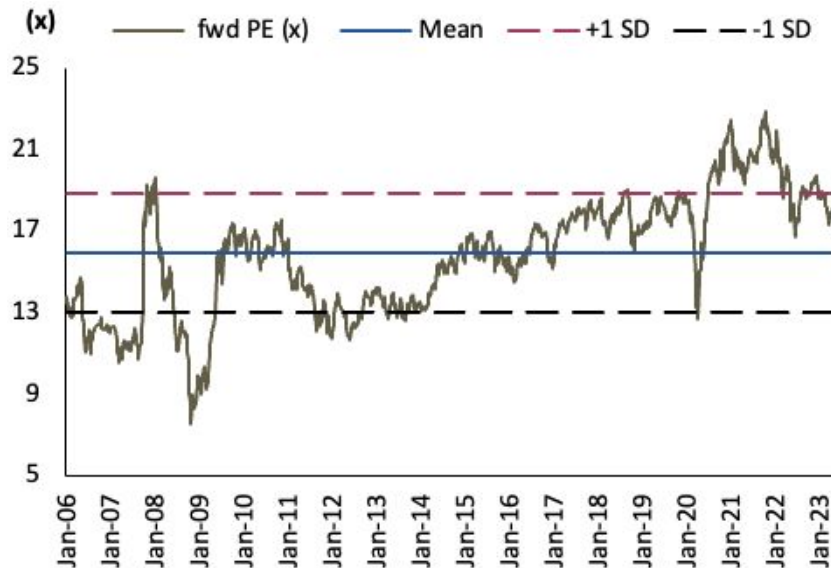
- The debt and demographic cliff facing the G7 will result in massive shifts in currency and bond rates
- Suspension of economic gravity has created a schizophrenic investment environment
  - Investors have been conditioned to rush into risk assets - growth countries (India? Currently Japan!!), sectors (AI, green energy), & “hard assets” (real estate, commodities)
  - Next reaction will be fear of inflation/currency wars
  - Alternate reaction will be of despair as structural issues remain unresolved
  - Weak fundamentals prevent a full blown bull market in any asset class; fear and greed alternate
- Unexpected events can cause cataclysmic sell offs
  - China is at the center of a trade war; commodity and asset markets are in turmoil
  - Bond auction failure in any G7 country or any policy accidents can affect markets and currencies
  - Geopolitical shocks - eg all eyes on Ukraine and Taiwan
- This risk on - risk off environment will continue to be a trying time for policymakers and investors
  - Inability to forecast currencies, interest rates, inflation, and commodity prices
  - Volatile asset markets - across equity, property, precious metals

“Europe’s a museum, Japan is a nursing home, China is a jail, and Bitcoin is an experiment” - Larry Summers, former US Treasury Secretary

# What is the Indian market signalling?

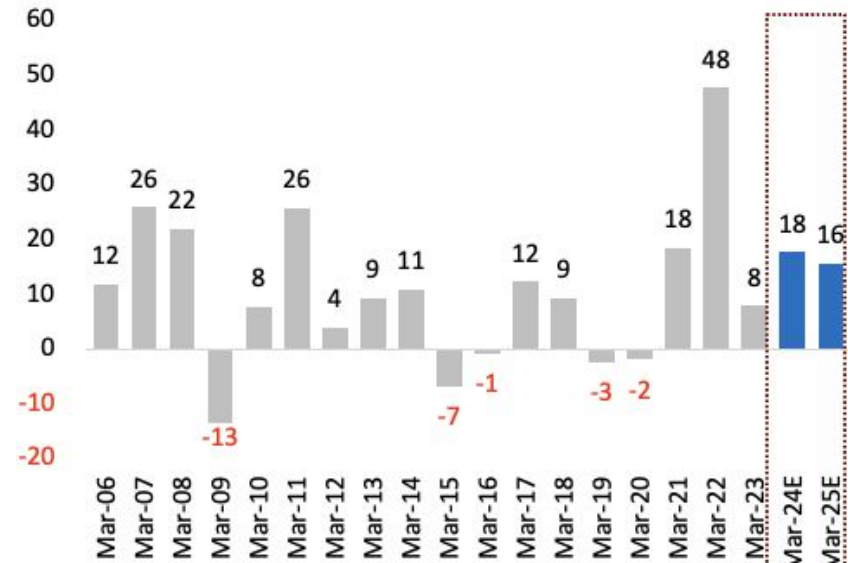
# Indian markets show strength

Nifty 12-month forward P/E



Source: Bloomberg

Nifty EPS growth YoY%



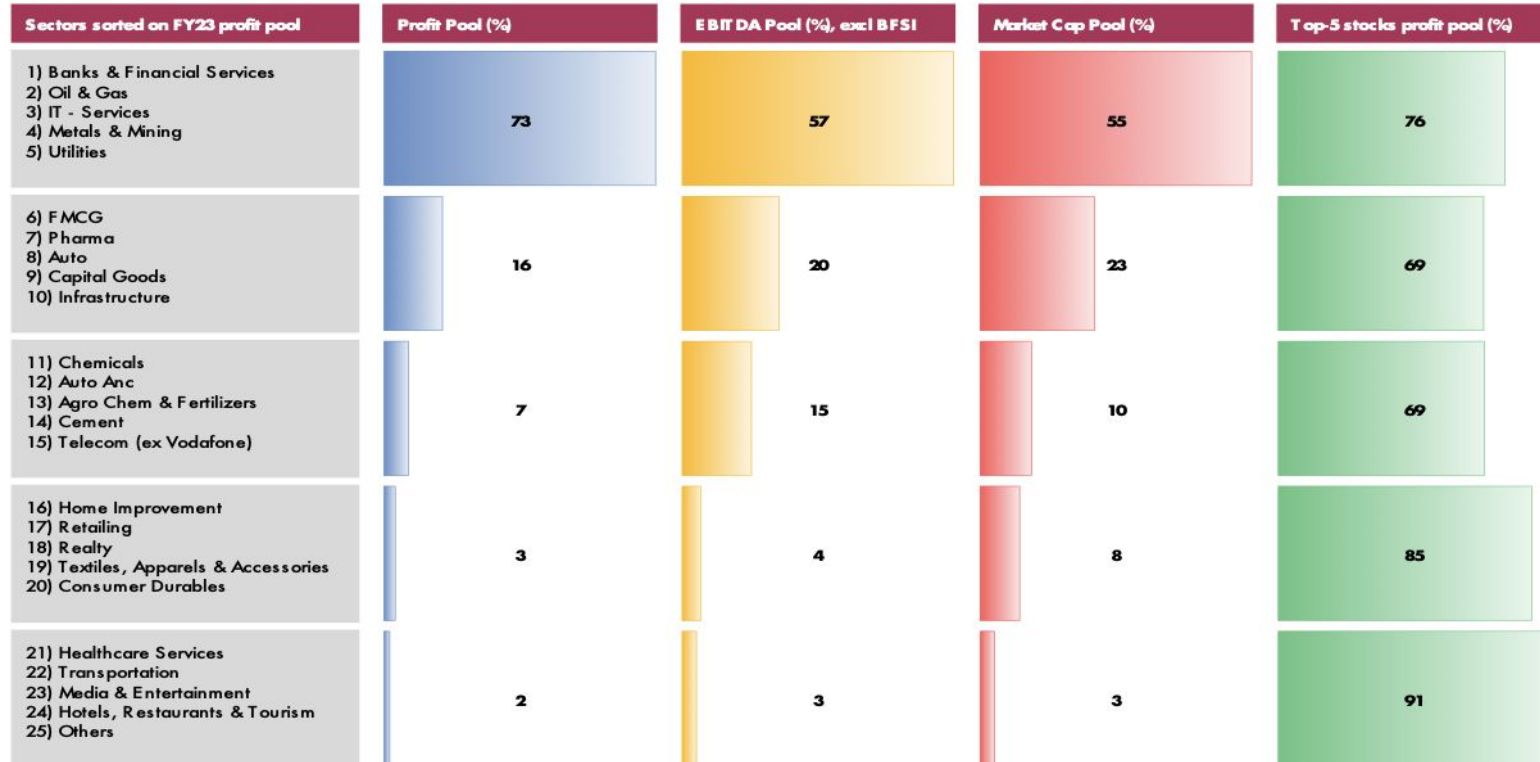
India faces global macro headwinds - must shape its own destiny proactively



# In the world of the blind, the one-eyed...

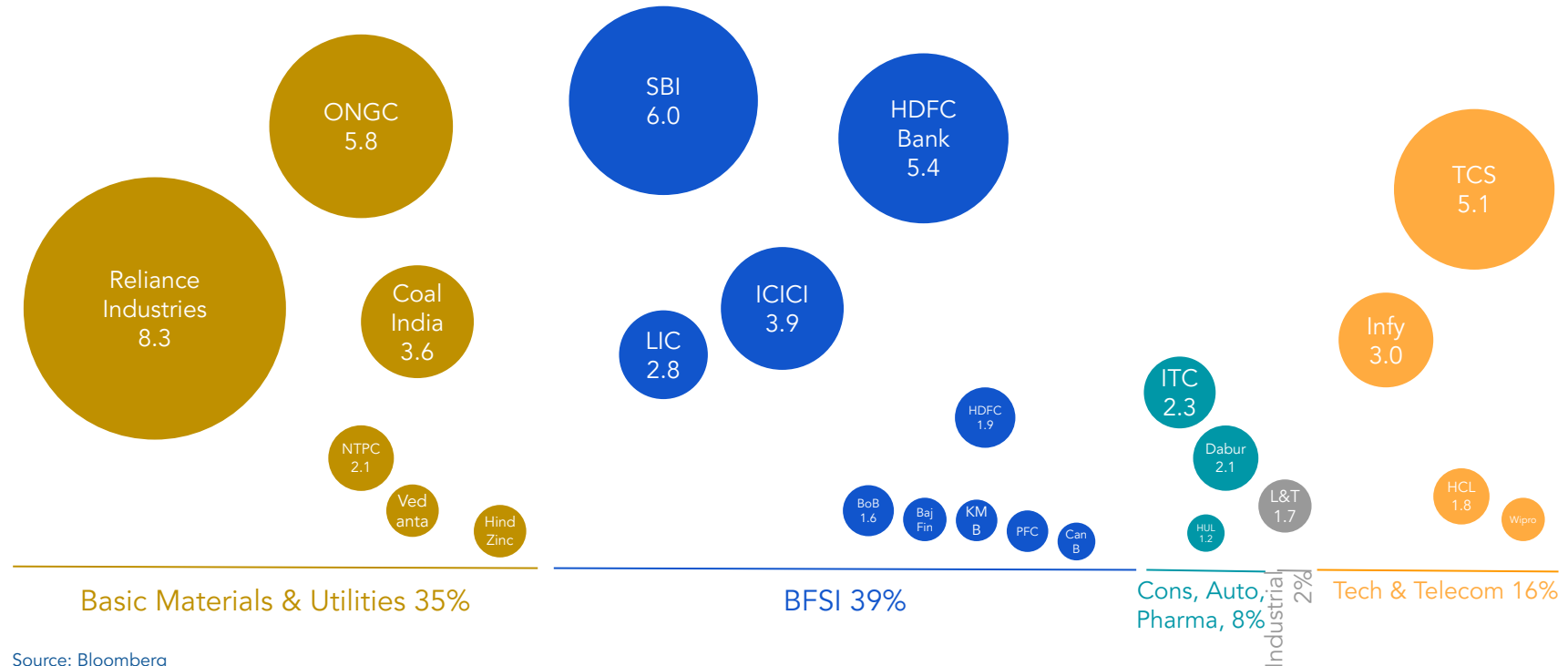
	Index	Index on 16 Jun 23	MCap \$ bn	MCap as % to world	Rank	GDP \$ tn	MCap / GDP	PE x	ROE %	GDP gwth YoY %
Developed world										
USA	Dow Jones	34,408	46,460	43.5	1	26.9	1.7	19	21	2.1
Japan	Nikkei 225	33,706	6,093	5.7	3	4.4	1.4	26	9	1.1
France	CAC 40	7,368	3,277	3.1	6	2.9	1.1	13	13	2.6
UK	FTSE 100	7,644	3,082	2.9	7	3.2	1.0	11	15	4.0
Canada	S&P/TSX Composite	20,813	2,796	2.6	8	2.1	1.3	14	12	3.4
Germany	DAX	16,365	2,459	2.3	9	4.3	0.6	11	12	1.8
Asia / Pacific										
Hong Kong	Hang Seng	20,040	5,320	5.0	4	0.4	14.8	10	11	(3.5)
South Korea	Kospi	2,626	1,904	1.8	10	1.7	1.1	16	6	2.6
BRICS										
China	Shanghai SE Comp	3,273	10,342	9.7	2	19.4	0.5	11	11	3.0
India	Nifty	18,826	3,439	3.2	5	3.7	0.9	19	15	6.8
Brazil	Bovespa	119,221	854	0.8	11	2.1	0.4	8	17	2.9
Russia	RTS	1,051	550	0.5	12	2.2	0.2	2	20	(2.1)
World			104,195	100		96,527	1.1			3.4

# 5 sectors = 73% of profits, and top 5 players in each sector account for 75% of sector profits



Source: Bloomberg, Capitaline, DAM Capital

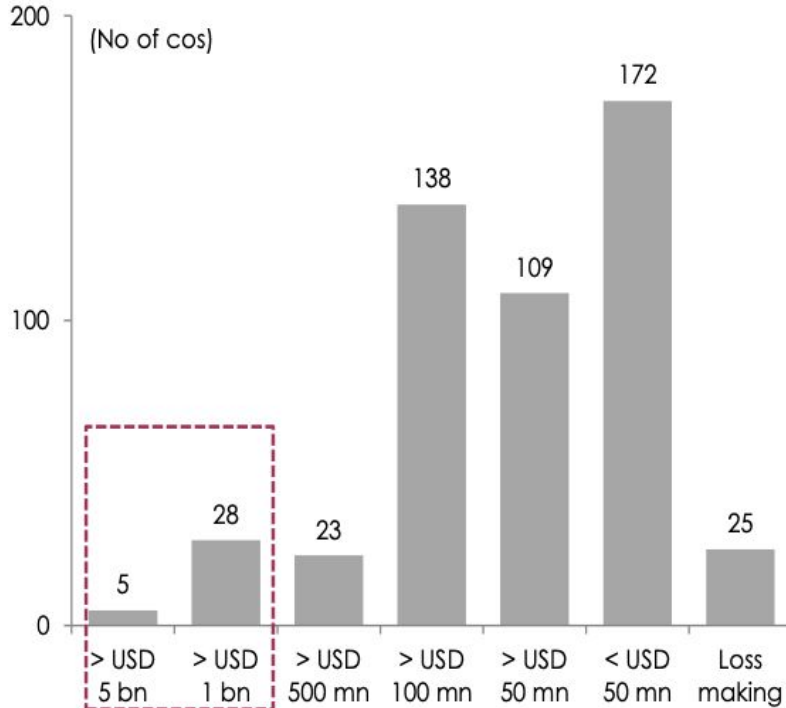
# Top 25 companies by PAT (US\$ B)



Materials, BFSI, and IT still dominant in cash flows and profits.

# Big getting bigger, organised sector gaining share

India Inc profit distribution: only 33 > \$1 billion

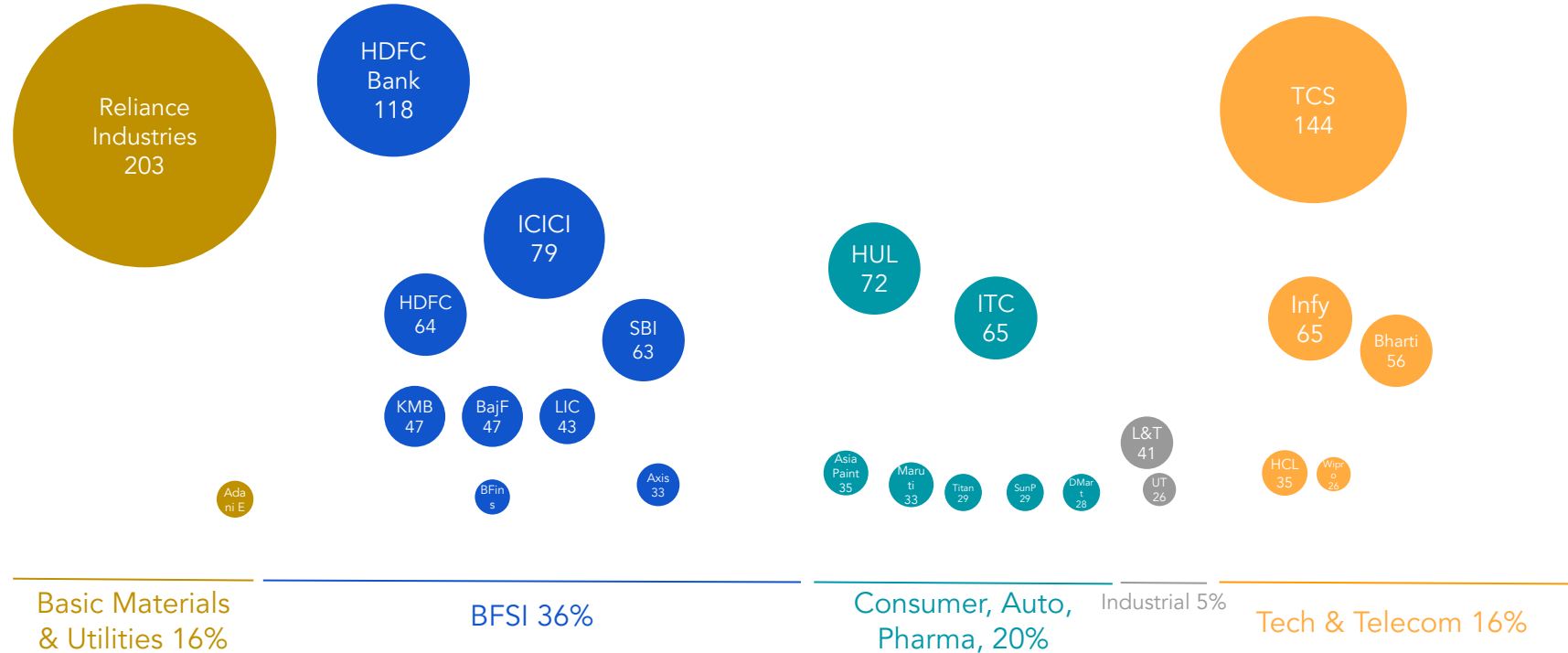


Source: Bloomberg, Capitaline, DAM Capital

Top 5 companies have ~75% of profit share

Sectors	Mcap (USD bn)	FY23 - EBITDA (USD bn)	FY23 - PAT (USD bn)	PAT pool of top-5 cos (%)
Banks	441	NM	27.1	67
Oil & Gas	267	35.1	14.9	106
IT - Services	362	20.3	14.4	83
NBFC	267	NM	14.4	50
Metals & Mining	152	25.1	11.2	74
Utilities	138	18.1	8.3	76
FMCG	286	9.2	6.6	68
Pharmaceuticals & Biotechnology	125	7.3	4.4	56
Insurance	96	NM	4.2	94
Automobiles	126	8.8	3.6	85
Capital Goods	119	4.4	3.1	49
Infrastructure	71	5.5	2.7	90
Chemicals	73	4.0	2.3	45
Auto Ancillary	76	4.1	1.7	43
Agro Chem & Fertilizers	28	3.1	1.6	73
Cement	80	3.5	1.6	90
Telecom (ex Vodafone)	72	10.7	1.5	108
Home Improvement	59	1.4	0.9	85
Retailing	104	2.1	0.9	105
Realty	40	1.4	0.9	79
Textiles, Apparels & Accessories	16	1.2	0.8	78
Consumer Durables	34	1.0	0.6	71
Healthcare Services	30	1.3	0.6	70
Transportation	22	1.8	0.6	101
Media & Entertainment	11	0.9	0.5	97
Hotels, Restaurants & Tourism	22	0.9	0.4	75
Others	10	0.6	0.3	123
<b>Total</b>	<b>3,129</b>	<b>172</b>	<b>130</b>	<b>75</b>

# Top 25 companies by market cap (US\$ B)



Source: Bloomberg

Consumer stocks have high market cap & low profits... materials/energy the opposite!

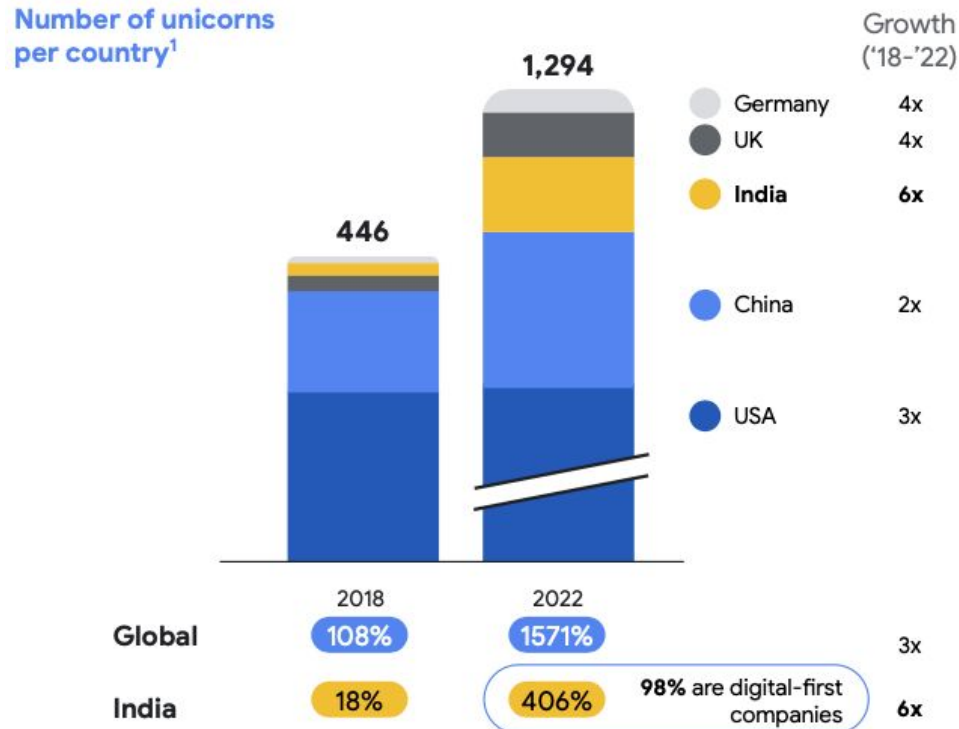
# Narrow leadership: 30 companies = 50% of mkt cap

Company name	Mcap (USD bn)	Price (Rs)		Upside (%)	Performance (%)		PE (x)		PB (x)		ROE (%)	
		CMP	TP		52w H	52w L	FY24e	FY25e	FY24e	FY25e	FY24e	FY25e
<b>Nifty Index</b>		<b>18,090</b>			<b>-4</b>	<b>19</b>						
<b>Quartile 1</b>	<b>737</b>						<b>22</b>	<b>19</b>	<b>3.4</b>	<b>3.1</b>	<b>16</b>	<b>17</b>
Reliance Industries Ltd	200	2,420	2,822	17	-14	11	21	19	1.8	1.6	9	9
Tata Consultancy Services Ltd	142	3,180	3,428	8	-11	11	25	22	11.3	10.1	48	48
HDFC Bank Ltd	115	1,693	1,990	18	-2	33	19	16	2.9	2.5	17	17
ICICI Bank Ltd	79	923	1,130	22	-4	38	18	16	2.8	2.4	17	17
Hindustan Unilever Ltd	71	2,486	2,850	15	-9	18	51	45	10.9	10.8	22	25
Infosys Ltd	64	1,269	1,475	16	-24	7	20	18	6.3	5.7	33	34
ITC Ltd	65	427	435	2	-0	71	25	23	7.6	7.2	31	33
<b>Quartile 2</b>	<b>772</b>						<b>19</b>	<b>16</b>	<b>3.1</b>	<b>2.7</b>	<b>18</b>	<b>18</b>
Housing Development Finance Corp L	62	2,788	3,078	10	-1	38	28	25	3.5	3.2	13	13
State Bank of India	62	571	720	26	-9	32	9	8	1.4	1.3	16	16
Bharti Airtel Ltd	55	779	905	16	-11	24	31	20	4.5	3.8	17	21
Kotak Mahindra Bank Ltd	47	1,931	2,151	11	-3	18	27	23	3.2	2.7	14	14
Bajaj Finance Ltd	46	6,180	7,080	15	-21	18	27	22	5.8	4.6	23	24
Life Insurance Corp of India	43	551	790	43	-40	4	20	18	7.6	5.5	46	35
Larsen & Toubro Ltd	40	2,356	2,540	8	-2	62	20	18	3.0	2.8	15	17
HCL Technologies Ltd	35	1,059	1,163	10	-8	21	18	16	4.2	4.0	24	26
Asian Paints Ltd	34	2,930	3,150	8	-18	14	57	50	15.8	14.1	29	30
Maruti Suzuki India Ltd	32	8,797	10,300	17	-10	25	25	21	4.0	3.5	17	19
Axis Bank Ltd	32	860	1,100	28	-11	39	11	10	1.8	1.5	17	17
Titan Co Ltd	29	2,654	2,870	8	-5	45	51	48	13.3	11.5	28	27
Sun Pharmaceutical Industries Ltd	28	964	1,189	23	-10	22	24	21	3.8	3.3	16	17
Avenue Supermarts Ltd	28	3,554	3,853	8	-23	12	75	60	12.1	10.3	17	18
UltraTech Cement Ltd	26	7,507	8,525	14	-4	46	30	25	3.6	3.2	12	13
Bajaj Finserv Ltd	26	1,347	1,563	16	-27	26	27	23	4.0	3.4	17	17
Wipro Ltd	26	385	383	-1	-24	9	17	15	2.7	2.4	16	17
Nestle India Ltd	26	21,876	22,125	1	-1	37	71	62	71.4	58.7	109	105
Adani Enterprises Ltd	26	1,839		-	-56	81	35	24	3.6	3.1	10	13
Oil & Natural Gas Corp Ltd	25	161	180	12	-4	35	4	4	0.6	0.6	16	15
JSW Steel Ltd	22	732	688	-6	-7	41	13	10	2.1	1.8	18	19
Tata Motors Ltd	21	484	540	12	-2	32	16	12	3.3	2.6	22	24
NTPC Ltd	21	176	202	15	-4	31	9	8	1.1	1.0	13	13

Source: Bloomberg, DAM Capital

New businesses and categories will have to emerge for India's market cap to triple

# India's 108 unicorns have created \$350B in value



Source: Bain, Google, Temasek

There will be 250+ unicorns in India by 2025

# India growing as a deep-tech hub



**3830+** AI startups

**glance**

Personalises content on smartphone lock screens

**kaleidofin**

Personalised financial solutions company



**1170+** IOT startups

**PINOTY**  
Connected Care

IoT based wearable healthcare monitoring device

**dozee**

Contactless health tracker and at-home step-down ICU



**190+** AR/VR startups

**shifu**

AR based ed-tech player for kids

**JADOOZ**

VR powered entertainment



**40+** Robotics startups



**UNBOX**

Robot enabled logistics solutions

**Invento**  
ROBOTICS

Service robots for banks, malls, events

Source: TV Mohandas Pai / 3one4 Capital, Tracxn

## India is being remade bottom-up



# Context on India's macro

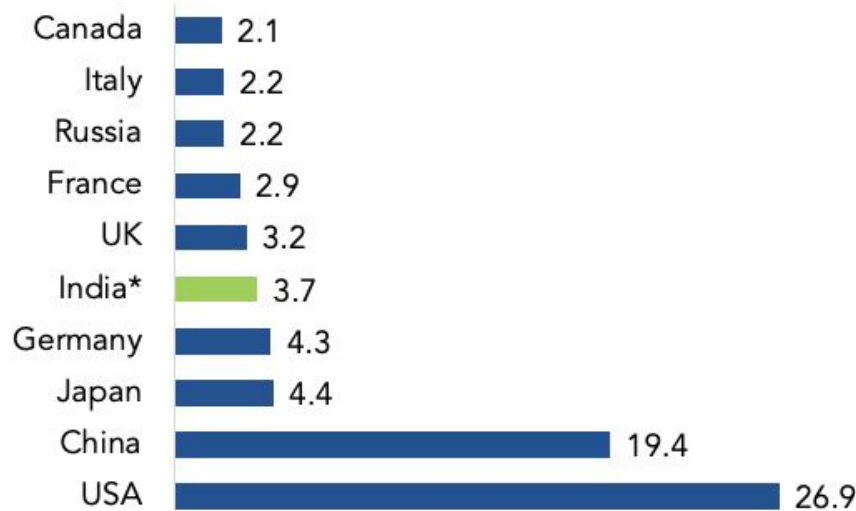
# Strong growth since liberalization in 1991

Indicators	1991	2023
Population (bn)	0.89	1.415
Life expectancy (years)	58.8	70.2
Literacy rate	52%	78%
GDP (\$B)	275	3,469
Country rank by GDP	16	5
GDP per capita (\$)	320	2,467
Exports (\$B)	18	763
Imports (\$B)	24	916
BSE 100 market cap (\$B)	45	2,100
Foreign exchange reserves (\$B)	6	579
FX reserves in weeks of imports	1	33
Gross national savings (% of GDP)	22%	30%
Total investment (% of GDP)	23%	31%

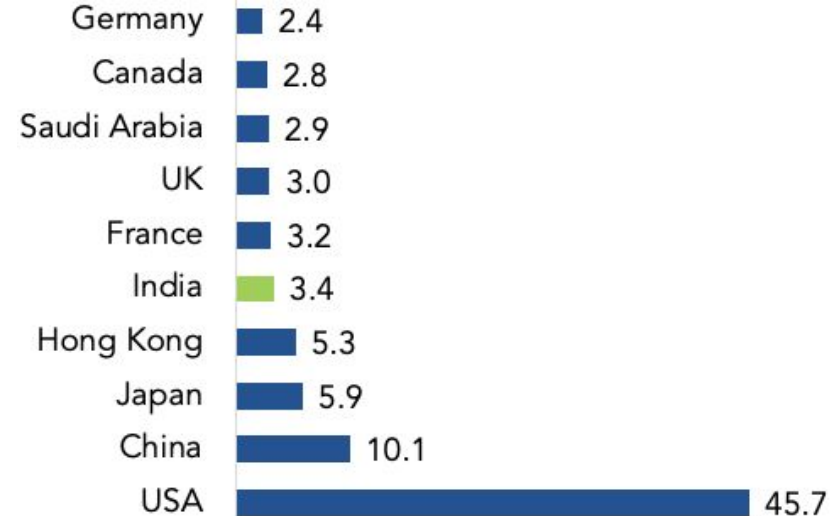
Sources: Enam Holdings, Bloomberg, Axis Capital, CapitaLine, TV Mohandas Pai / 3one4 Capital

# India is now seen as a growing, top 5 economy

Ranked 5th by Nominal GDP (US\$ tn), 2022



Ranked 5th by market cap (US\$ tn), June 2023



Source: Bloomberg, \*Note: India's GDP figures are FY23 estimates

On course to become the 3rd largest economy by 2030... and hopefully by market cap

# Strong agriculture base: 1st or 2nd globally



Food Grains Production (Mn tonnes)	Milk Production (Mn tonnes)	Cotton Production (Mn bales)	Horticulture Production (Mn tonnes)	Sugar Production (Mn tonnes)	Spices Exports (in USD Bn)	Cropland (Mn hectares)	Livestock Population (Mn)
<b>328</b> (2nd largest)	<b>210</b> (Largest)	<b>34.2</b> (Largest)	<b>342.3</b> (2nd largest)	<b>36.5</b> (2nd largest)	<b>4.2</b> (Largest)	<b>180.8</b> (Largest)	<b>537</b> (Largest)

- Major producer of agrochemicals, tea, cashew, jute, oilseeds, etc
- Largest exporter of cereal products, cotton, bovine meat, sugar, etc
- All 15 major climates in the world, 46 of the 60 soil types in the world
- Largest manufacturers of farm equipment
- Proximity to food importing nations

Source: TV Mohandas Pai / 3one4 Capital

# Large infrastructure base: top 4 globally











Coal	Iron Ore	Aviation	Railway	Roadway	Ports	Electricity	Textile
Production (Mn MT)	Production (Mn tonnes)	Passenger Traffic (Mn)	Network ('000 Kms)	Network (Mn Kms)	Cargo Traffic (Mn MT)	Production (Bn Units)	Production (Bn Sq. Mt.)
<b>780</b> (2nd largest)	<b>254</b> (4th largest)	<b>341</b> (3rd largest)	<b>67.9</b> (4th largest)	<b>6.37</b> (2nd largest)	<b>720.3</b>	<b>1459</b> (3rd largest)	<b>71.05</b> (2nd largest)

- Exports stood at USD 418 billion in 2021-22
- Ranked 44th in Logistics Performance Index (LPI) (last updated in 2018)
- Air passenger traffic is growing at 16.5%, to become 3rd largest by 2024
- Produces 95 minerals - 4 fuel-related, 10 metallic, 23 non-metallic, 3 atomic, and 55 others

Source: TV Mohandas Pai / 3one4 Capital

# Strong industrial base: top 5 globally

								
	Steel Production in Mn tonnes	Cement Capacity in Mn tonnes	Two Wheeler Production in Mn Units	Four Wheeler Production in Mn Units	Construction Bn Sq. ft.	ITeS Revenue in Bn\$	Electricity Production Bn Units	Wireless Phone Subscribers in Mn
INDIA	125 (2nd largest)	545 (2 <sup>nd</sup> largest)	17.7 (Largest)	4.25 (4th largest)	1.4 (2 <sup>nd</sup> largest)	260	1,459 (3rd largest)	1,200 (2nd largest)
JAPAN	89.2	54	0.63	7.54	-	-	1,005	195
USA	85.8	166.5	-	9.2	-	1,800	4,116	342.5

Source: TV Mohandas Pai / 3one4 Capital

# Young educated workforce

903

# of universities

49,061

# of colleges

General courses (mn)		Specialized courses (mn)	
Arts	10.04	Engineering	4.25
Commerce	4.47	IT / CS	0.94
Science	5.50	Management	1.23
Education	2.00	Medical	1.24
Social science	1.55	Law	0.37
		Others	1.07
Total	23.6		9.1
Total: 32.7 mn			

Gross enrolment ratio in higher education is 26%

500 mn population in 5 - 24 age bracket

Enrolment in professional courses grew at 20% CAGR

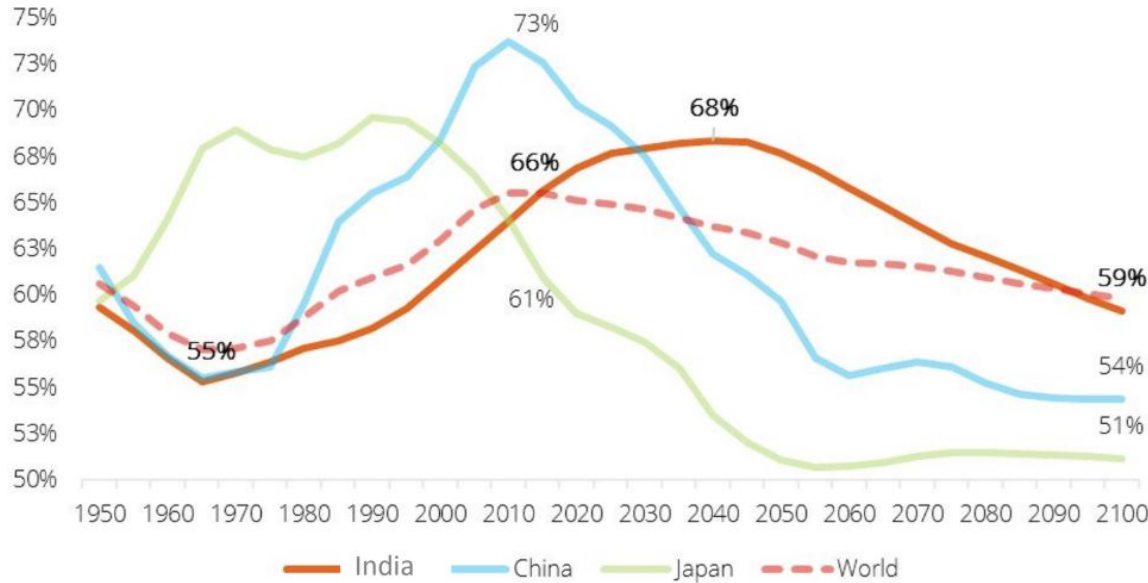
Pvt institutions account for 78% of institutions & 67% of enrolment

Source: TV Mohandas Pai / 3one4 Capital, Bloomberg, Capitaline

Lots of institutions and graduates, but lack of quality... and opportunities.

# India will continue to have a young working population

% Working Population (Ages 15-64)



India's working population is expected to total two-thirds of the total population in 2025

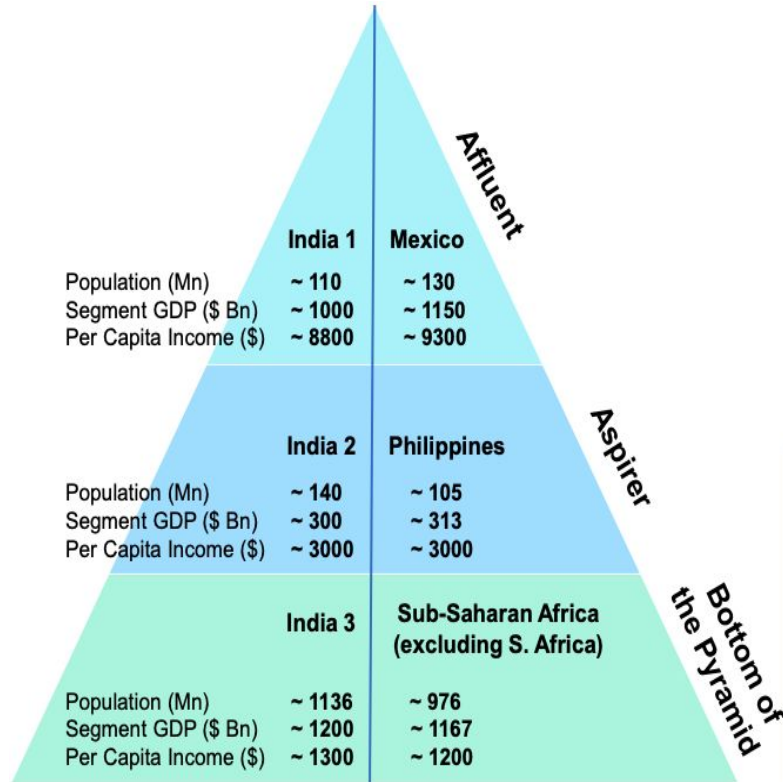
Higher aspirations & increased demand for skilled labor leads to higher education levels

We have a growing middle class (~300Mn) which is increasing its consumption

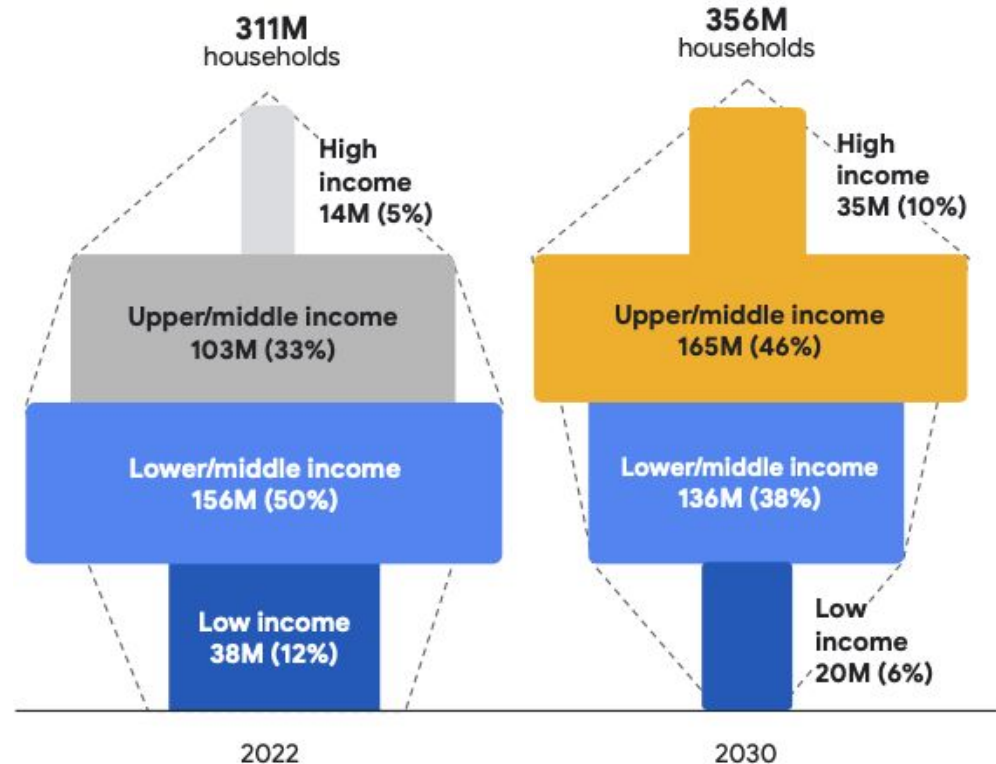
Source: TV Mohandas Pai / 3one4 Capital



# India = Mexico + Philippines + Sub-Saharan Africa

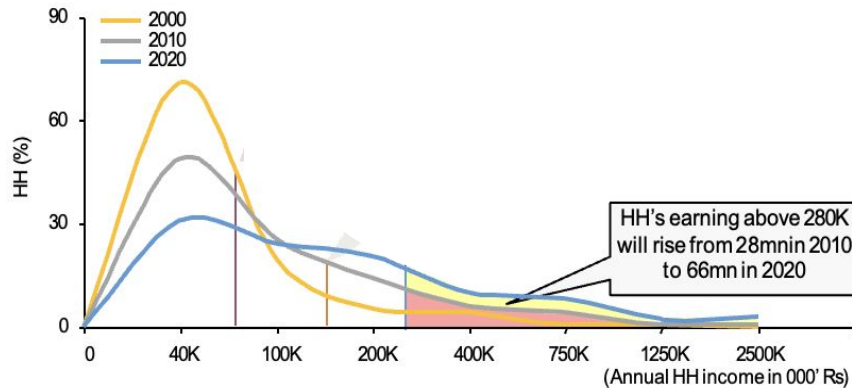


Source: Kuntal Shah / Oaklane Capital Management



Source: Bain. Note: low income <₹1.25L, lower middle ₹1.25-1.5L, upper middle ₹5-30L, high >₹30L per household per annum; total income based on ~\$3T in 2022 & ~\$5.1T in 2030

# The possible consumption J-curve of India



	2000	2010	2020
\$1000 consumer durable	AC = 0.5 mn Fridge = 2 mn Dig. Pay TV = 0	AC = 2.5 mn Fridge = 5.5 mn DPTV = 24 mn	AC = 6 mn Fridge = 12 mn DPTV = 164 mn
\$10,000 car	Cars = 0.7 mn 2W = 3.7 mn	Cars = 1.9 mn 2W = 9.4 mn	Cars = 3.5 mn 2W = 20 mn
\$100,000 home	Mortgage = \$9 bn	Mortgage = \$88 bn	Mortgage = \$240 bn

Most segments should have grown 3-7x but income levels have remain depressed and narrow due to inadequacy of key enablers.

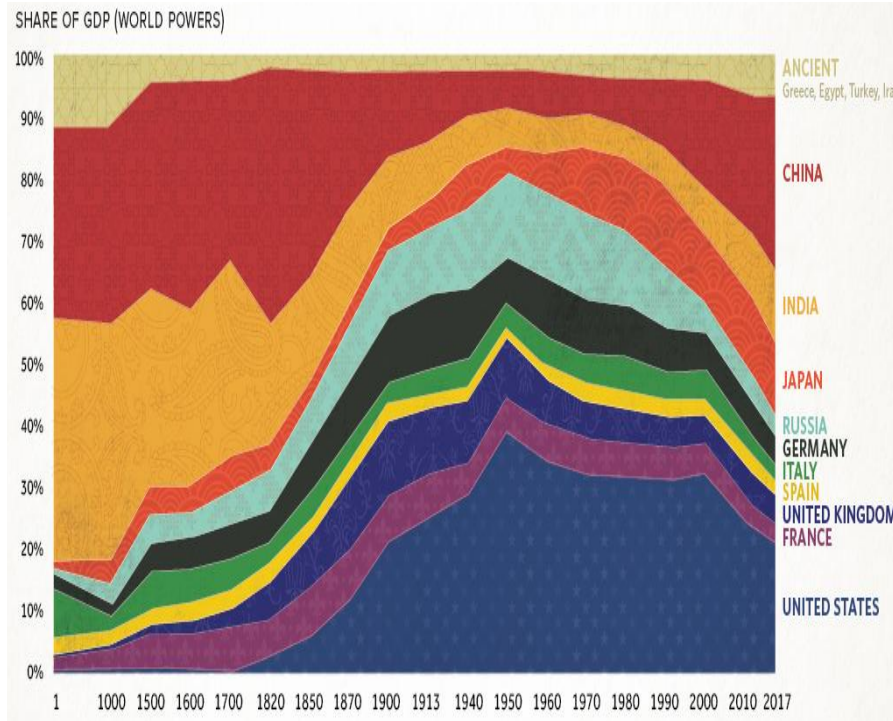
Consumption growth should be 14%-22% across the spectrum.

Note: figures in the table represent millions of units, DTH is expressed as total subscriber base, mortgages represent total loans outstanding.

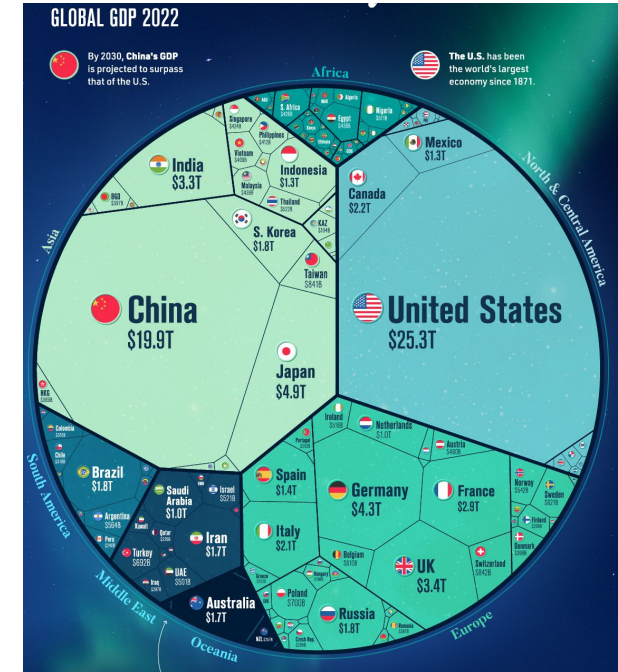
Sources: NCAER, Indian labour report 2009, CRISIL, National Housing Board

The consumption boom should be visible by 2030

# India could revert to ~20% global GDP share from 3%



Source: IMF estimates, [Visual Capitalist](#)

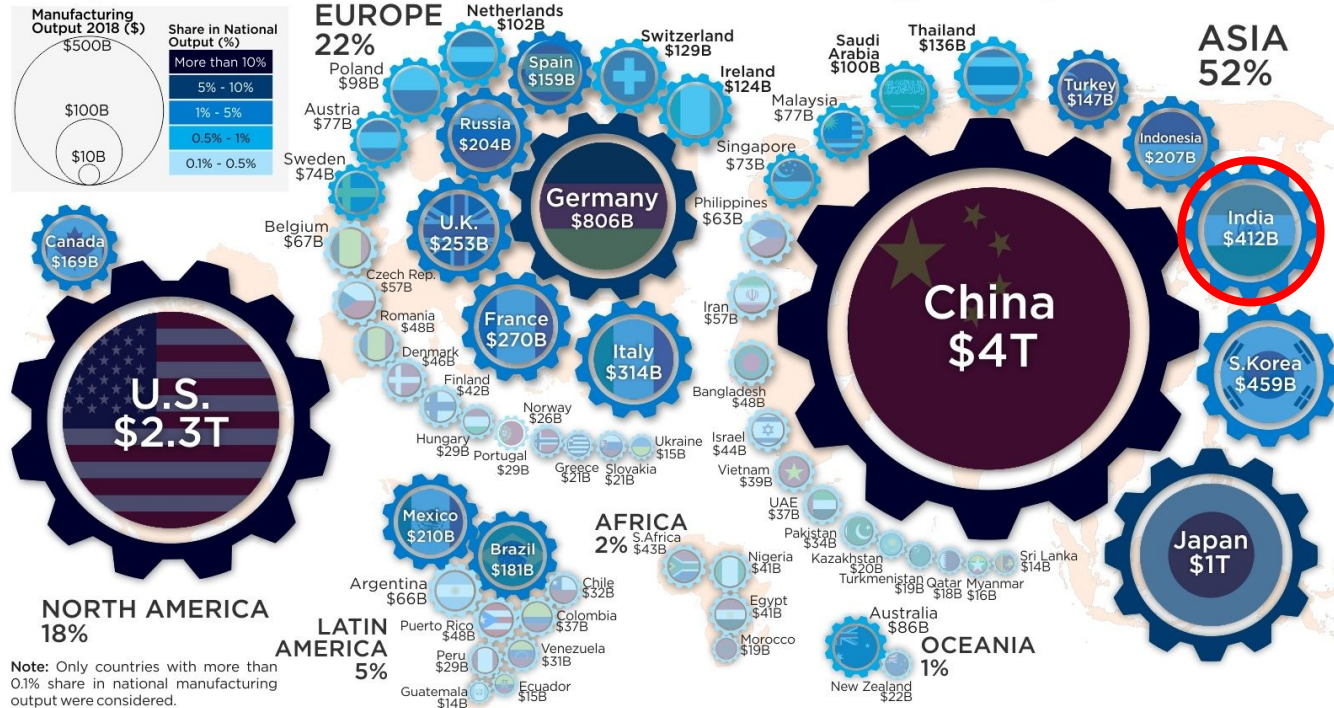


# ~20 years of infrastructure growth to catch up with China

China (1995 - 2020)	2020	418	7227	5	6500	920	1732
	2015	436	5913	4	4500	550	1292
	2010	268	5484	4	4190	537	871
	2005	138	2928	3	2197	370	393
	2000	67	1256	1	1198	282	145
	1995	51	802	1	876	209	0
		Airlines	Ports	Roads	Electricity	Refining	Telecom
		143M pax	845 MMT	3.3M km	831B kWh	187 MMT	584M subs
		India in 2020					

# India is one of several "China +1" beneficiaries

## Map of the World's Manufacturing Output

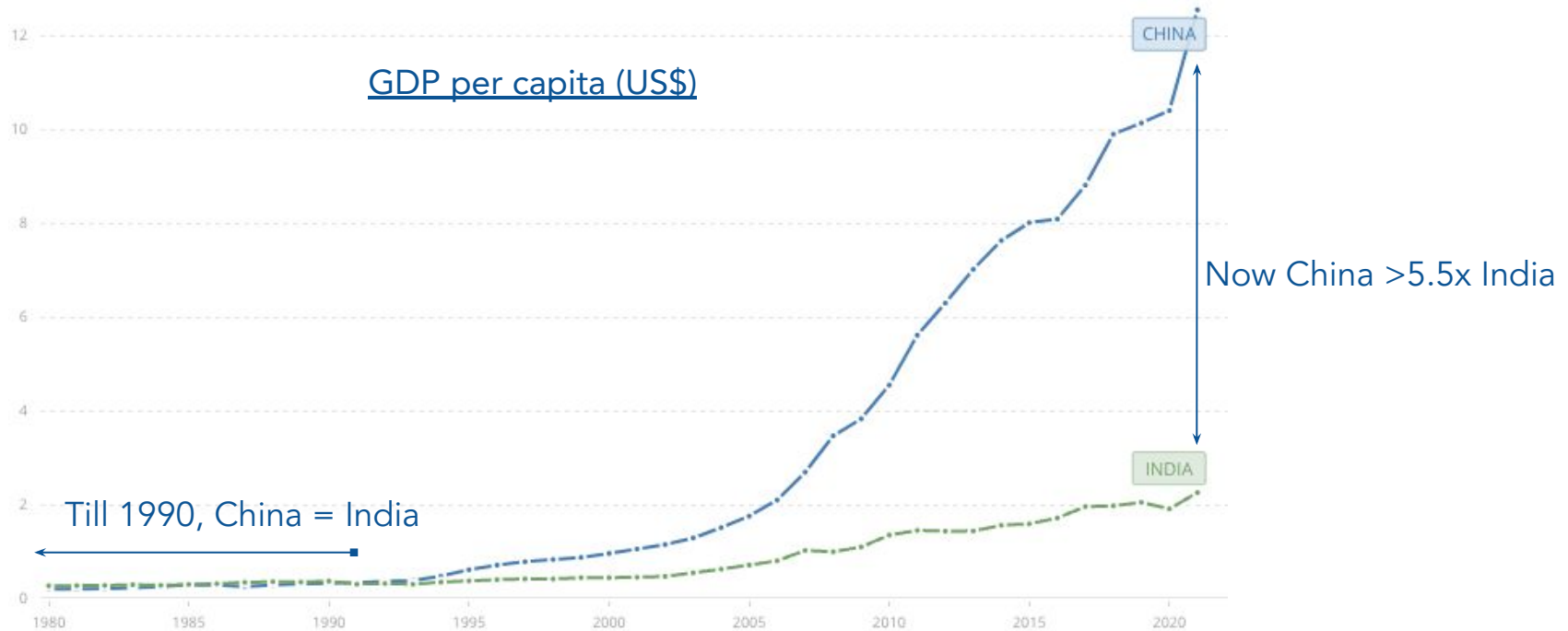


**Note:** Only countries with more than 0.1% share in national manufacturing output were considered.

**Article & Sources:**

<https://howmuch.net/articles/map-worlds-manufacturing-output>  
United Nations Statistics Division - <https://unstats.un.org/>

# China built infra & manufacturing to lift per capita income



Far sighted policy framework and efficient administration are prerequisites



# The benchmarks for India to catch up with China

INDIA	2000	2010	2020		China (current)
Cars sold (mn)	0.7	2.5	2.8		24.6
2W (mn)	3.6	11.8	17.4		16.5
Refrigerators (mn)		6.5	12.5		
ACs (mn)		3.1	7.0		214
Mobile subscribers (mn)	4	752	1,150		1,575
Broadband subs (mn)	0.1	11.0	22.8		590
Mortgages O/S (\$B)	11	104	282		5,685
Steel consumption (MT)	28	65	100		914
Cement consumption (MT)	92	198	288		2,377

Source: DAM Capital

# So is the glass half empty or half full?

The bull case has always been on the bottom-up stories of entrepreneurs and demographic dividend.

The bear case for India has traditionally been due to its twin deficits:

1. Weak BoP reflecting poor external trade dynamics
2. Weak fiscal position reflecting poor tax collections & government expenditure management

Fortunately, the macro environment is a lot more supportive as are government initiatives.

These provide reason to be hopeful.





# India prays for cheap oil & strong FX inflows. Structural issues need resolution.

## Current account

% to GDP	FY23E	FY24E
Exports	13.4	11.5
Imports	21.1	18.6
- of which oil	6.1	5.6
- & non-oil	15.0	13.0
Total trade bal (DGCIS)	(7.8)	(7.2)
Invisibles, net	6.0	5.6
~ Software & services	4.3	4.2
~ Remittances	3.1	2.6
Invisible outflows	(1.4)	(1.2)
Current account balance	(1.8)	(1.6)

Funded by

## Capital account

% to GDP	FY23E	FY24E
FDI	1.0	1.0
Portfolio investment	(0.0)	0.3
Capital inflows	0.9	1.2
Loans	(0.1)	0.1
- of which ST (suppliers credit etc)	0.3	0.2
Banking capital	0.8	0.3
~ of which NRI	0.2	0.1
Other capital	0.2	0.1
Capital account balance	2.1	1.7

~7% trade deficit is unsustainable. We require single minded focus on eliminating energy dependence and building robust exports of goods & services

Capital flows must sustain at >2% of GDP to reduce cost of capital for Indian businesses.

Providence and policy action has made the external account situation manageable, but India needs to find structural answers to weather a global liquidity shock and rising energy prices.

# INR depreciation has left us poor

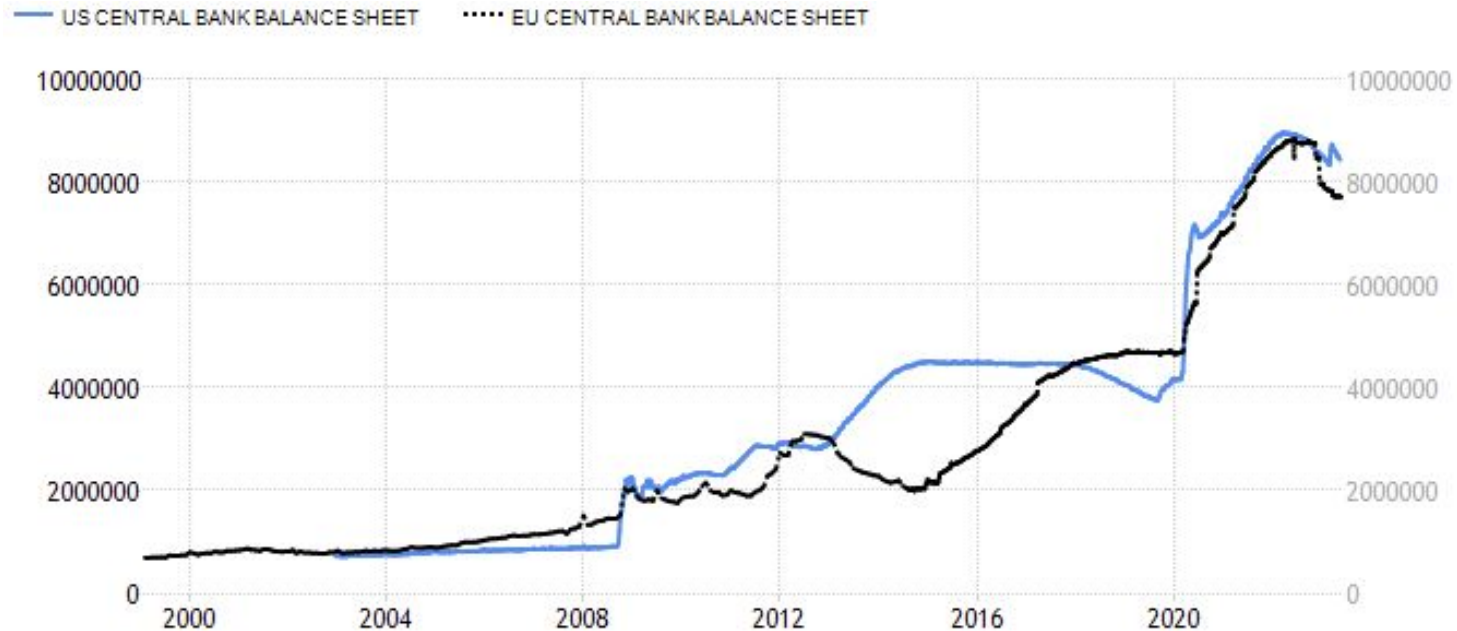
How much is ₹100 today worth in terms of 1958 money?



An item costing ₹100 today would have cost ₹1 in 1958.

A respected and strong currency is a prerequisite for a powerful large economy.

# Outdated “forex reserves policy”



Source: Trading Economics

Trillions of USD, Euro, Yen printed over 15 years... and we hold them as “reserves”, allowing them to get away with this Ponzi scheme!

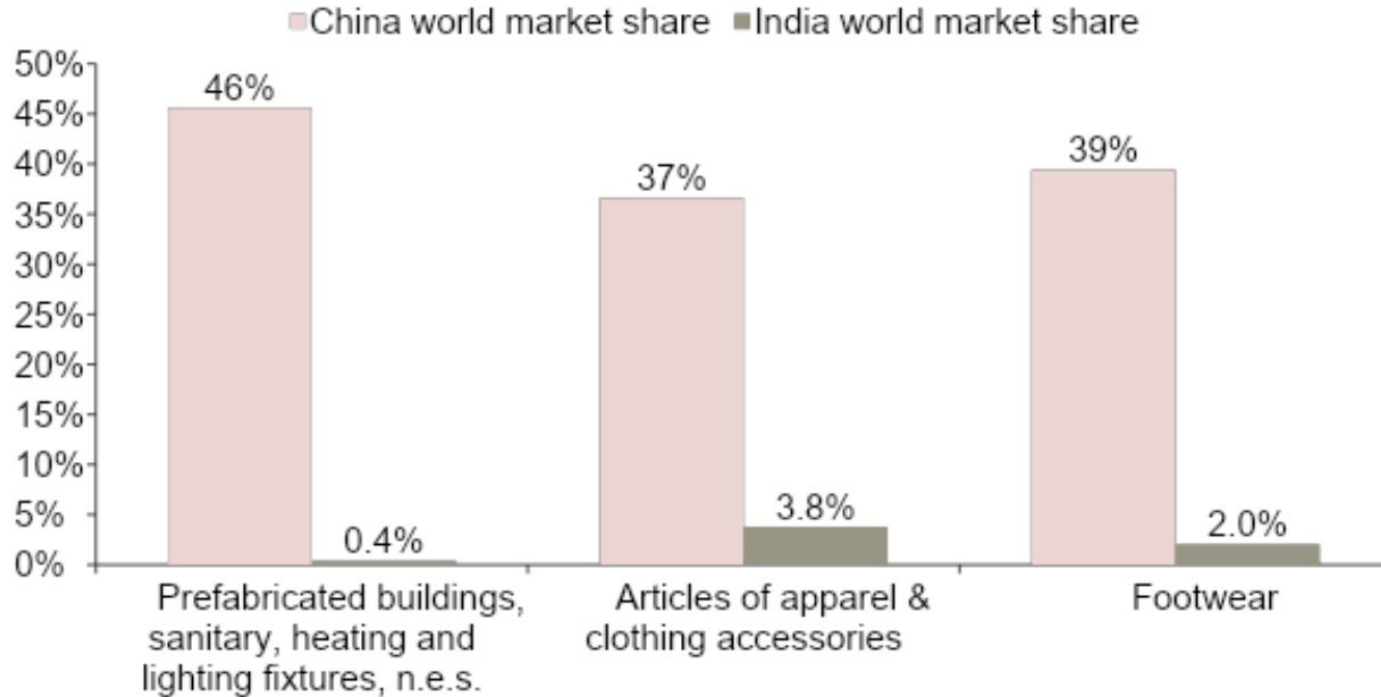
# In reality, exports correlate to imports & investments



INR depreciation has not helped exports. It has transferred purchasing power overseas, leaving us poorer.

What we need is a stable cross-currency rate that allows for a lower cost of capital to compete globally.

# Indian manufacturers lack scale and branding

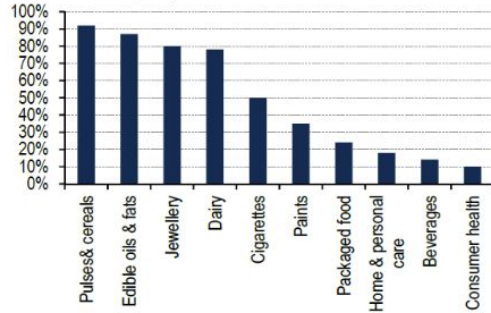


Source: UNCTAD

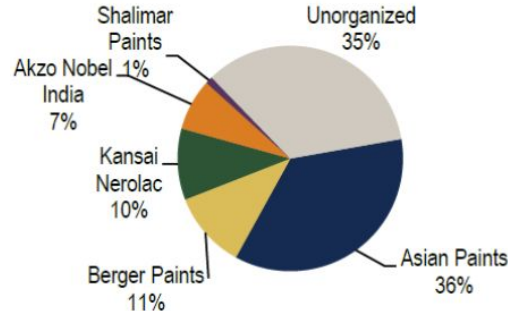
We require globally competitive and predictable policies, infrastructure, and cost of capital

# Sadly, Indian enterprises prefer staying “unorganized”...

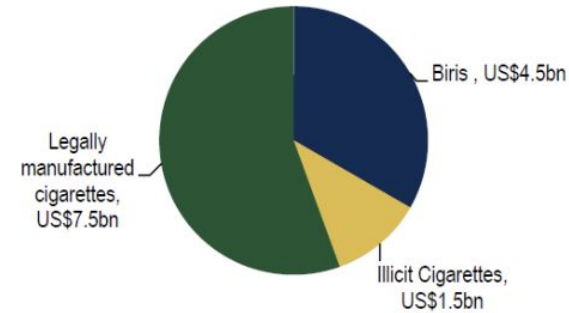
10-80% of products across categories are unbranded



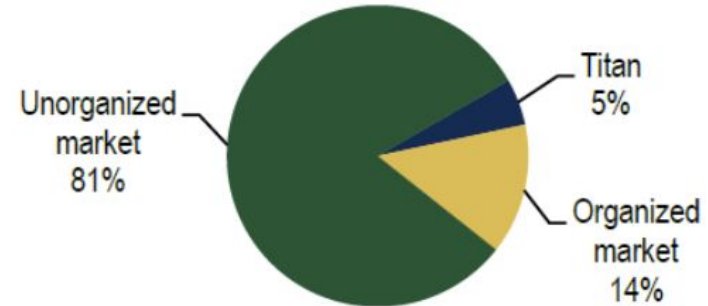
~35% of paints market remains unorganized



Market size of taxed & untaxed smoking goods each ~\$7B

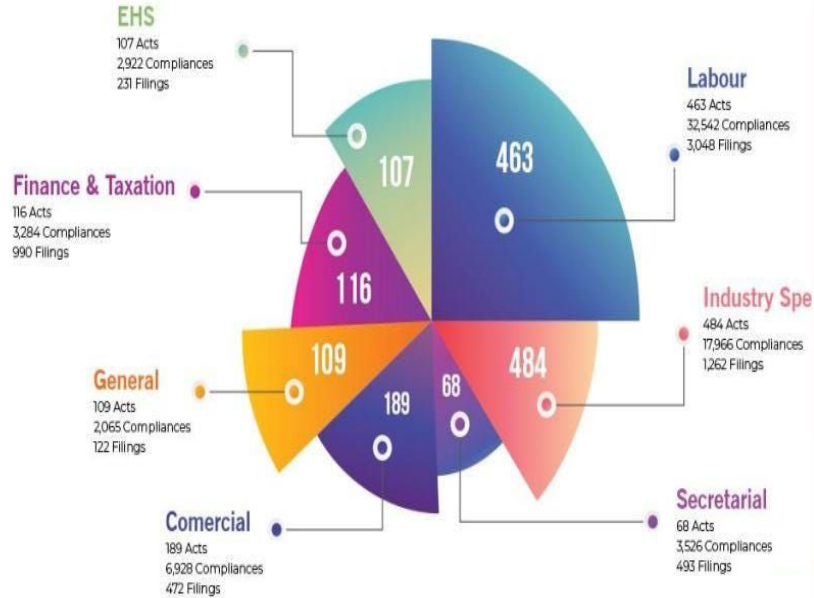


Jewelry is still an overwhelmingly unorganized segment

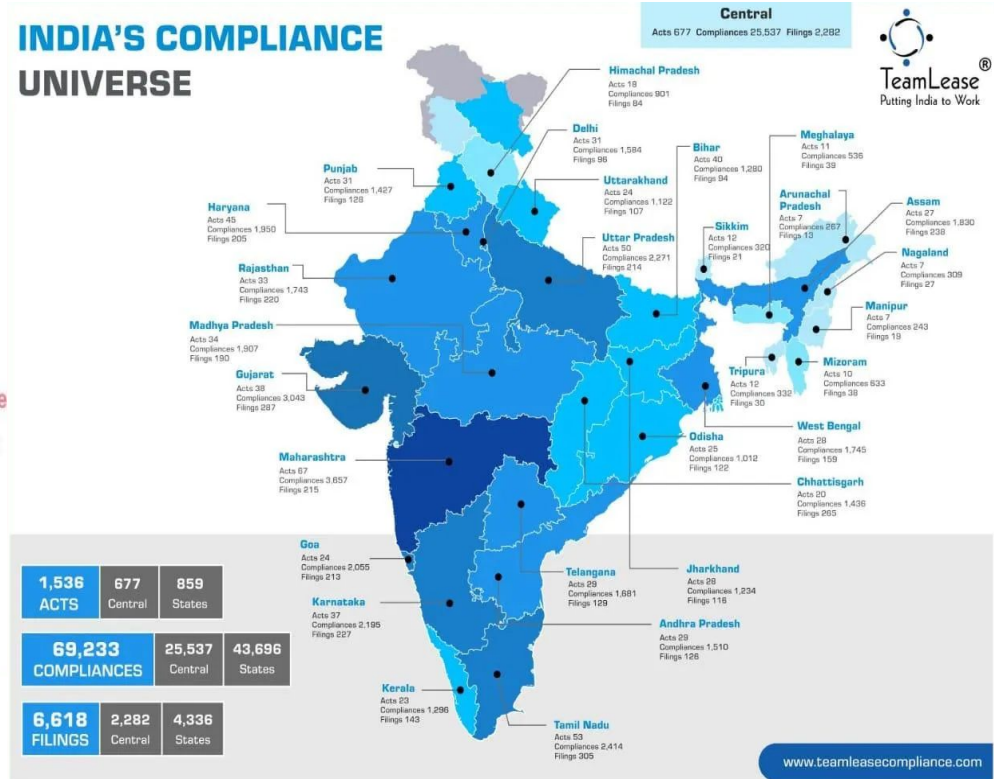


# ... due to excessive laws and jammed courts

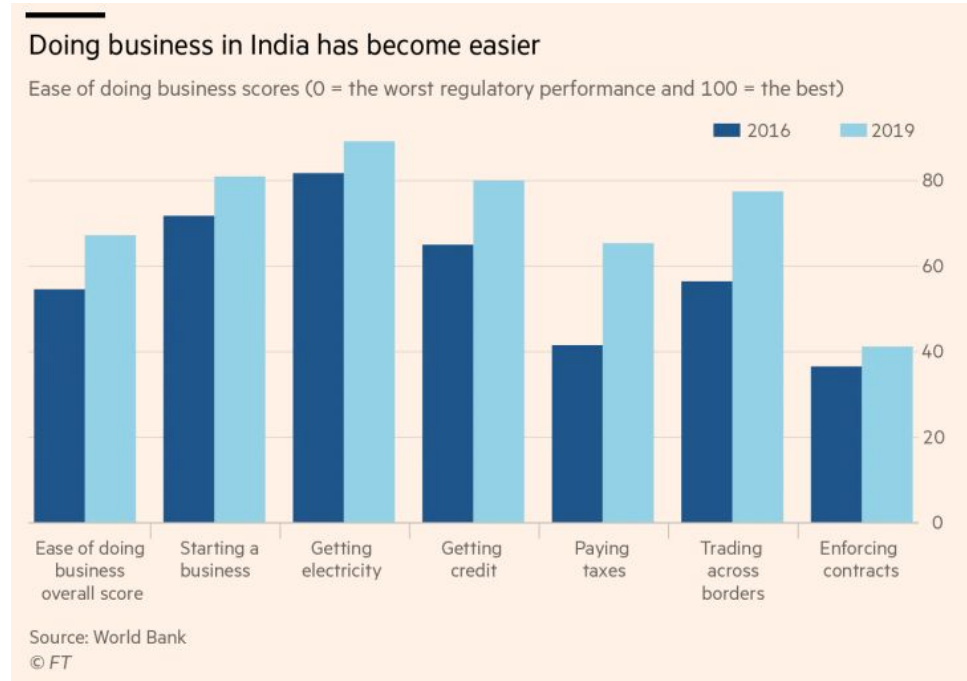
## India's Compliance Universe



## INDIA'S COMPLIANCE UNIVERSE



# While we have improved our EoDB rank...



... it's not good enough to accelerate our move to a top 3 economy.



# Possible mitigants for our external balance sheet

Problem	Mitigant	Rating
Vulnerability to energy prices	Stepping up exploration	↓
	Purchasing overseas assets	↓
	Framework agreements/swaps	•
	Renewables: nuclear, solar, hydrogen	•↑
Weak manufacturing exports	Enabling environment: EoDB, IBC, PLI, GST, RERA, tax cuts	↑
Weak service exports (excluding IT), eg tourism, R&D, entertainment/culture, education, healthcare	Enabling infra: roads, ports, rail, air, telecom	↑
	Enabling policies: labor, edu, skill development, agri	•
	Enabling financing: RBI, SEBI, exchanges	↑
	Enabling future industry leading platform plays: AI, SC, EV, etc	•↑
Curbing high non-essential imports (gold, electronics)	Gold bonds, financial inclusion	↑
	PLI	↑
Fragile currency & high cost of capital	A fully convertible currency the world can hold & transact in	•

A once in a generation opportunity is available for India to seize. Will it?

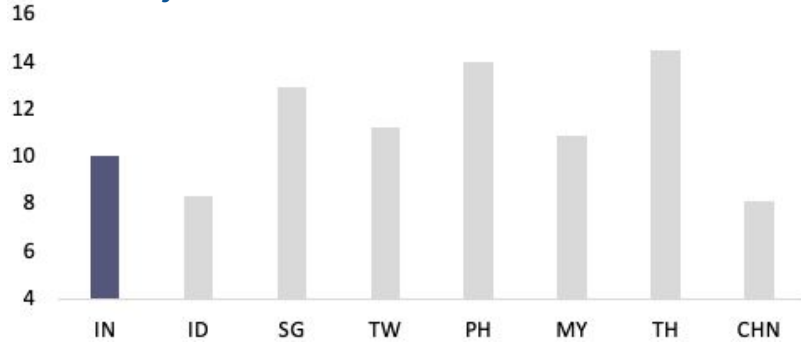
# Reality of life is rarely understood by politicians



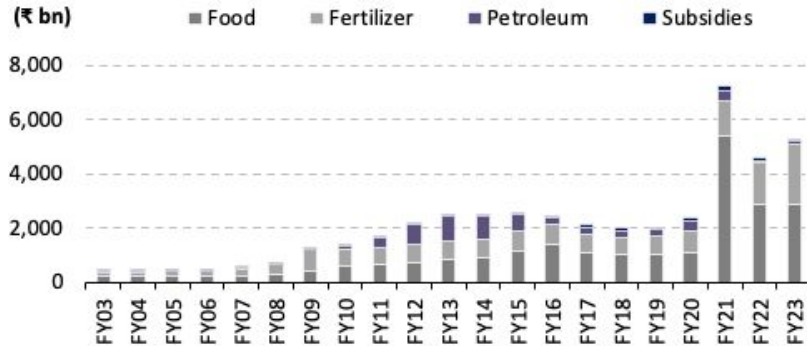
Source: [Margaret Thatcher's address to UK Conservative Party conference in 1983](#)

# Fiscal flexibility constrained by low taxes & high subsidies

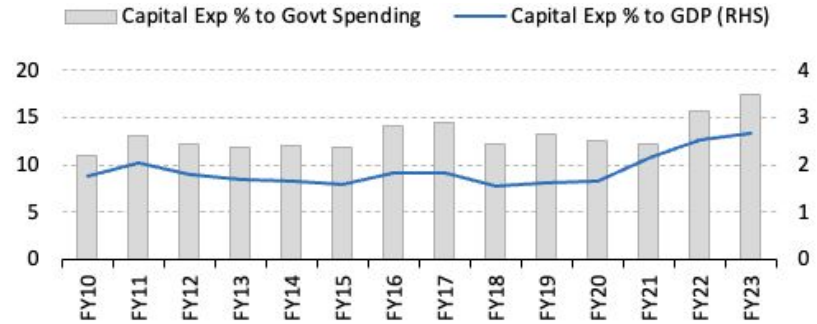
Ability to tax and collect remains low



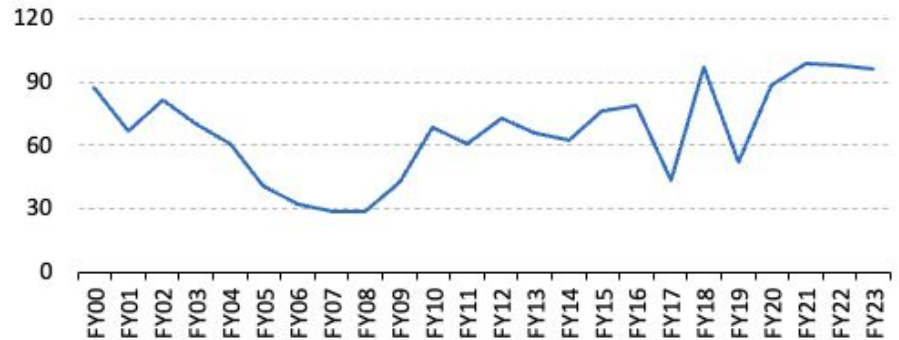
Subsidies have exploded



Capex has expanded but not yet enough

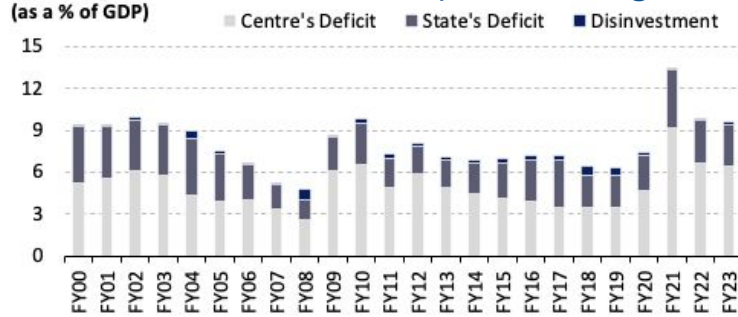


Centre's borrowings as a % of incremental deposits

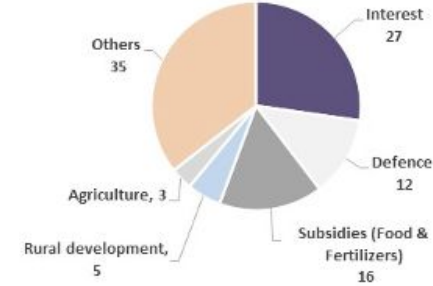


# Fiscal flexibility constrained by high debt

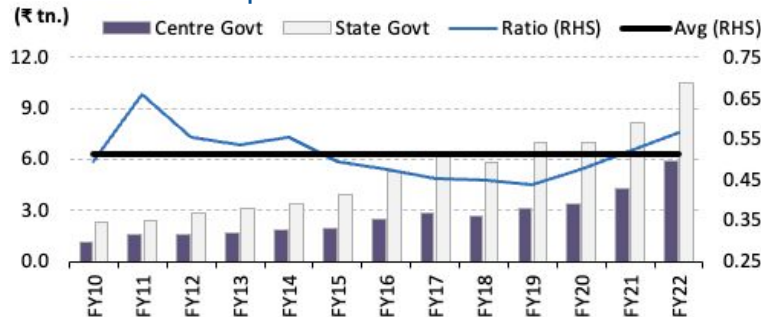
## Centre and State deficits spiked during Covid



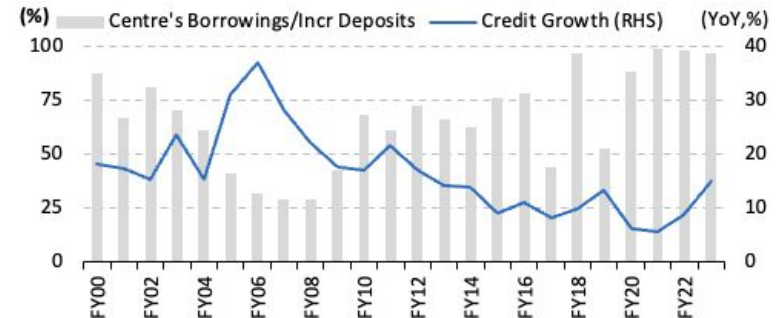
## Major spends still not allocated for capacity building



## States spend more than Centre



## Govt borrowing has crowded out the pvt sector



# GOI Finances: + 9 - 15 cannot be our path to destiny

% of GDP	FY23E	FY24E	
Net tax revenue receipts	7.7	7.8	Require widening of tax base
Non tax revenues	1.3	1.3	
- Dividend, interest, etc	1.1	1.0	
- Divestments etc	0.3	0.3	
<b>TOTAL REVENUES</b>	<b>9.0</b>	<b>9.1</b>	Require urgent & massive sales of public sector assets to mitigate debt burden
- Revenue expenditure	12.7	11.7	
- Interest	3.4	3.6	
- Admin	2.5	2.3	
- Subsidies	1.9	1.3	Require rationalization & better targeting. Increase health & skilling outlays.
- Rural development & welfare	1.0	0.9	
- Health & education	0.6	0.6	
<b>Total capital expenditure</b>	<b>2.7</b>	<b>3.3</b>	
- Defense	0.6	0.6	Require massive step-up in infra & defence
- Roads & railways	1.3	1.7	
<b>TOTAL EXPENDITURE</b>	<b>15.4</b>	<b>15.1</b>	
Central fiscal deficit	(6.4)	(6.0)	

Policy action and fiscal responsibility is key.

# The fiscal problem & possible mitigants

Historic Problem	Actions Taken/ Required	Rating
Low income/ business tax collections	Lower rates, easier tax administration & faster refunds	✓
	Analytics to detect evasion	✓
	Stable rates & rules - TBD	•
Low “consumption tax” collections	Stable & lowish rates to promote velocity	✓
	GST to promote one market; eliminates multiple taxes and tolls.	✓
Low infrastructure spend	Massive infra buildout; eliminate octroi/tolls to speed up logistics	✓
	Smarter defence capex with technology absorption	✓
High subsidies	Targeted subsidies with JAM, DBT	✓
	Agri reforms, farm laws	•
Underinvestment in health, education & skilling	Targeted insurance & pension schemes	✓
	Skill mission / education policy / labor reform	•
High cost administration	Focused on better execution & monitoring speedier, better outcomes	✓
	Rationalization of Govt staff	x
	Judicial reform & capacity expansions - <b>major bottleneck!</b>	x

From a “Robin Hood sarkar” to a customer centric platform for an agile, modern, large economy

# Government is better targeting & delivering on its expenditure



## HEALTHCARE

Health assurance to **362M beneficiaries** under Ayushman Bharat Scheme



## ELECTRIFICATION

**100%** village electrification achieved in 988 days covering 18,452 villages



## MOBILE

**1.2Bn** Mobile phone users in India in 2022, 600 Mn smartphone users, **162Mn** smartphones sold p.a.



## EDUCATION

Drop off rate to be curbed - enrollment in **class 10 at 77% vs. class 11 at 52%**



## ROADS

**99%** of the country's habitations connected with all-weather roads under PMGSY



## INTERNET

**Total 800 Mn users** another **400Mn** first-time internet users are expected to come online



## HOUSING

**27.4 million** houses completed under PM Awas Yojana



## SANITATION

**99%** individual household latrines (IHHL) achieved under Swachh Bharat Mission



## BANKING

**More than 85%** Indians owned a bank account owing to PM Jan Dhan Yojana



## WATER

**99%** of population has access to clean water close to home, 110M rural HHs provided tap water connections.



## FOOD SECURITY

**All 36 states/UTs** now covered under NFSA vs. 11 in 2014



## GAS CONNECTIONS

**95.65M rural women** provided free LPG gas connections

Source: Government bodies, World Bank, Global Carbon Project, UNESCO, UNDP, WaterAid

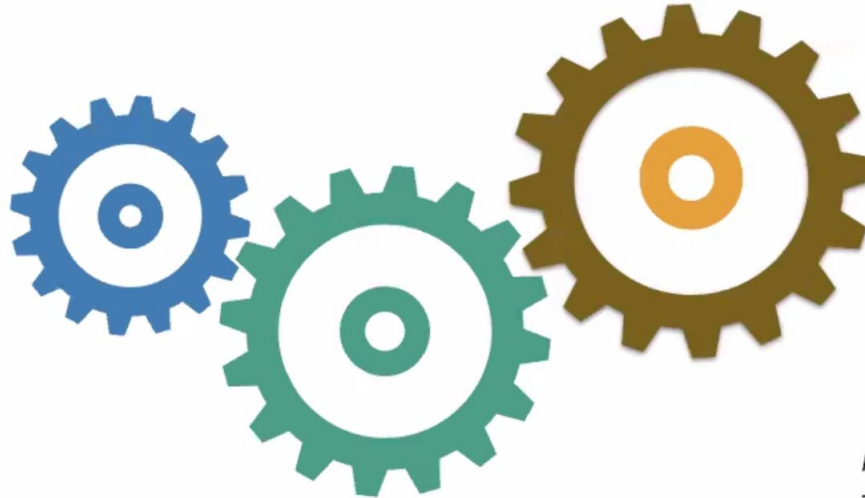
# Government is enabling better infrastructure

It is 3rd wave of public Infra. India is first to make DPI

## Transportation Infrastructure:

Roads, Ports,  
Railways and  
Airports

Low logistics cost  
(recent catch up)



## Telecom Infrastructure:

Fixed Telephony  
Mobile Telephony

Low telecom cost  
(recent catch up)

## India Stack aka Foundational Digital Public Infrastructure:

- Flow of people
- Flow of money
- Flow of information

Low digital transaction cost  
(India's Leadership)

India Stack approach prevents:

- Monopolization
- Authoritarianism
- Weaponization or Colonisation

India is a leader in Responsible  
DPI!

Source: iSPIRT



# India stack serves as a powerful foundation for the digitization of the country & its internet economy

India Stack enables citizens, businesses and governments to access a wide variety of public services online. Here's how:

- 1** A unique identification number for each individual enables **authentication-on-demand**.  
**PROGRAMMES:** Aadhaar
- 2** **Documents-on-demand** has helped digitise the user onboarding process, allowing more to be accomplished online.  
**PROGRAMMES:** DigiLocker, e-KYC
- 3** **Payments-on-demand** has helped shift India towards a cashless society.  
**PROGRAMMES:** UPI, AEPS, RuPay
- 4** **Permission-on-demand** or personal data sharing, provides a secure way to apply and get approvals for services like personal loans.  
**PROGRAMME:** Sahamati



Adoption has been significant:

- 1.3B** Aadhar cardholders (99% coverage)<sup>1</sup>
- 67B** Digital identity verifications<sup>1</sup>
- 8.9B** UPI transactions per month<sup>1</sup>
- 9.3M** Consent requests via account aggregators<sup>1</sup>

Source: Bain, Google, Temasek

# Phenomenal rise of Internet usage

## Time spent online

Average hours/day spent online per internet user



## Social media hours

Average hours/day spent on social networks per internet user



## Online video hours

Average hours/day spent watching online videos per online video user<sup>1</sup>



## Digital payments

Number of real-time<sup>2</sup> transactions per capita per year



Source: Bain, Google, Temasek



**700M<sup>3</sup>**  
internet users



**470M**  
social media users



**570M**  
online video streamers



**350M**  
digital payments users

# Digital commerce has reached a tipping point



**220M**  
shopped online



**110M**  
made purchases  
in online games



**65M**  
ordered food online



**80M**  
households paid  
utility bills online



**25M**  
used online  
ride-hailing services



**15M**  
have paid for  
an online course

Source: Bain, Google, Temasek

# 3 open networks - ONDC, OCEN & UHI - were built on India Stack and are likely to create a step change



## Open Network for Digital Commerce (ONDC)

Supports the **digitisation of small businesses** and encourages the democratisation of digital commerce. The initiative set an ambitious target of \$48B annual GMV and 1.2M sellers by 2027.

### Implications for consumers:

- Access to more sellers, brands and products
- Faster delivery via hyperlocal retailers
- Lower prices

### Implications for small retailers:

- Access to a bigger audience
- Lower cost of selling
- More options for services like logistics
- Reduced dependence on larger platforms like Amazon and Flipkart



## Open Credit Enablement Network (OCEN)

**Democratises credit for small borrowers and enables lending** as a feature for marketplaces. A 2021 pilot saw loans as small as \$2.50 being authorised through the network. The average loan amount is \$475.

### Implications for individual borrowers and MSMEs:

- Greater accessibility to credit from more sources
- Lower cost of borrowing
- Streamlined loan application process

### Implications for lenders:

- Access to a wider pool of borrowers
- Reduced cost of acquisition, especially for small non-bank financial companies (NBFCs)
- More efficient underwriting and lending decisions



## Unified Health Interface (UHI)

The **backbone of India's healthcare system**, with centralised patient information including doctor and test appointments, teleconsultations and ambulance services. Over 390M digital health profiles exist today as part of the Ayushman Bharat Digital Mission (ABDM) Stack, which aims to improve the quality and delivery of healthcare.

### Implications for patients:

- Ability to easily store and access personal health information, like prescriptions and appointment times
- Readily available information on health services
- Transparency in pricing and services offered

### Implications for health service providers:

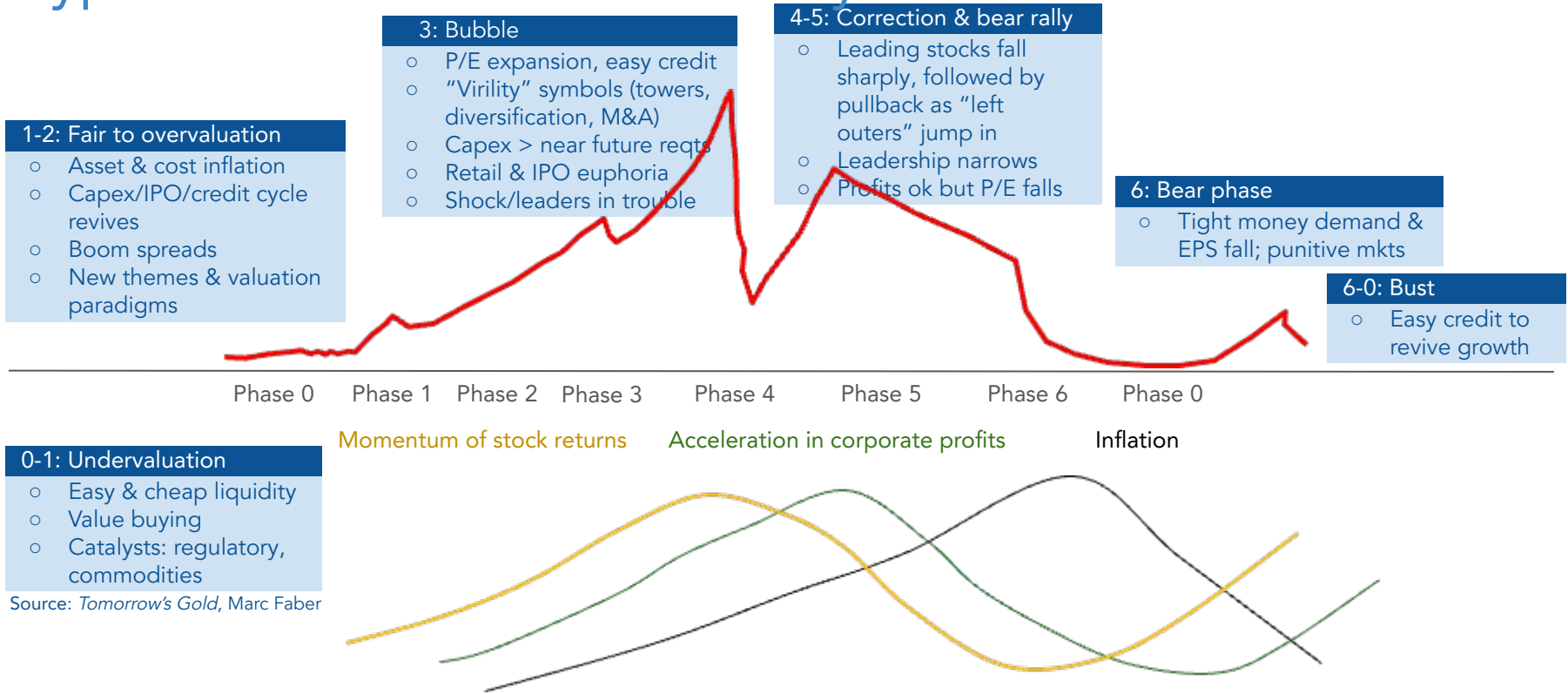
- Greater discoverability
- Access to patient's medical history to minimise errors
- Digitised claims process and quicker reimbursements
- Integrated systems for more effective follow-ups

Source: Bain, Google, Temasek

# India macro summary

- India - the “सोने की चिड़िया” missed the Industrial Revolution and its share of global GDP went from >30% to <3%, accompanied with the loss of its sovereignty
- Since the economic reforms of 1991, GDP has expanded >10x & market cap >30x
- India is now among the world's top 5 economies, and its agricultural & industrial base makes it a leading producer of most commodities
- It is recognized as the last major emerging market that, within the coming decade, has the opportunity to catapult to the 3rd largest economy in the world
- The Indian government has implemented a number of major reforms that include GST, RERA, IBC, as well as major social inclusion measures & EoDB indicators. However, the need for even deeper rooted reforms in a slowing global economy awash with liquidity is an unprecedented opportunity.
- A number of reform measures to optimize land, labour, capital, enterprise, governance, and technology have been articulated by numerous experts and are awaited eagerly
- Global & Indian investors continue to value entrepreneurs & businesses that can demonstrate large potential for growth in earnings with good governance

# Typical market and economic cycle



Source: *Tomorrow's Gold*, Marc Faber

# Some enduring themes for this decade

## ➤ Financialization of savings

- Continued beneficiaries are private sector banks, insurance companies, mutual funds, mortgage and consumer finance companies

## ➤ Privatization beneficiaries

- As the government withdraws from “monopolistic” sectors, natural oligopolies could emerge in sectors ranging from telecom to energy/mining to ports/airports to government services

## ➤ Platform plays

- As the population urbanizes, key beneficiaries will be platform plays in healthcare, education, e-commerce, etc.

## ➤ Discretionary consumption

- As incomes and per capita GDP rises, discretionary spends on durables, travel, media, and experiences (eg big fat Indian weddings) will burgeon

Leadership and execution will determine the winners as always

# You, the investor



# Understand yourself



Warren Buffett



Peter Lynch



George Soros



Jim Simons






Don't be the next XYZ. Be the original.

# Spirituality and investing

- They are interconnected
- A spiritual mindset brings complete awareness and yet a sense of detachment to the investment process
- Humility, confidence, circle of competence, judgment
- Read my article published in The Economic Times:  
[Capital markets and the path to nirvana](#)



# Remember that nature is cyclical, not linear!

- Seasonality 
- Business cycles / boom-bust 
- Market cycles 
- Life cycles 
- Innovation / Schumpeter 

# Impermanence in markets

- Like weather cycles & day/night cycles, understand there are also investment cycles and cycles in companies
- Cycles revert to the mean, so stay equanimous against greed/envy/fear
- Internalizing the reality of cycles instills an appreciation of the future as a continuation of history, thereby enabling confidence
- There is no permanent bull market, nor a permanent bear market

# Investment is a lonely art

- Don't agonize when people disagree with you
- As long as you accept questions, criticisms, or suggestions in the right spirit, you will keep improving your investing process
- Collective brainstorming can help you get better all the time
- Focus on process, not outcome
- Right understanding, patience, and preparation lead to outsized results

# Build a robust investment process

- Accounts are an X-ray to give you an insight into management's decision making
  - Eg capital allocation, how they reward employees, how efficiently they control costs, etc
- Meetings and following up with companies can help you understand if the aspiration and the reality match
- Reading EVERY single note to accounts can help you understand hidden time bombs
- Build scenarios to understand the possible outcomes and the margin of safety in your valuation framework
- Your entry price is the only variable you can actually decide on

# Focus on the size of the win

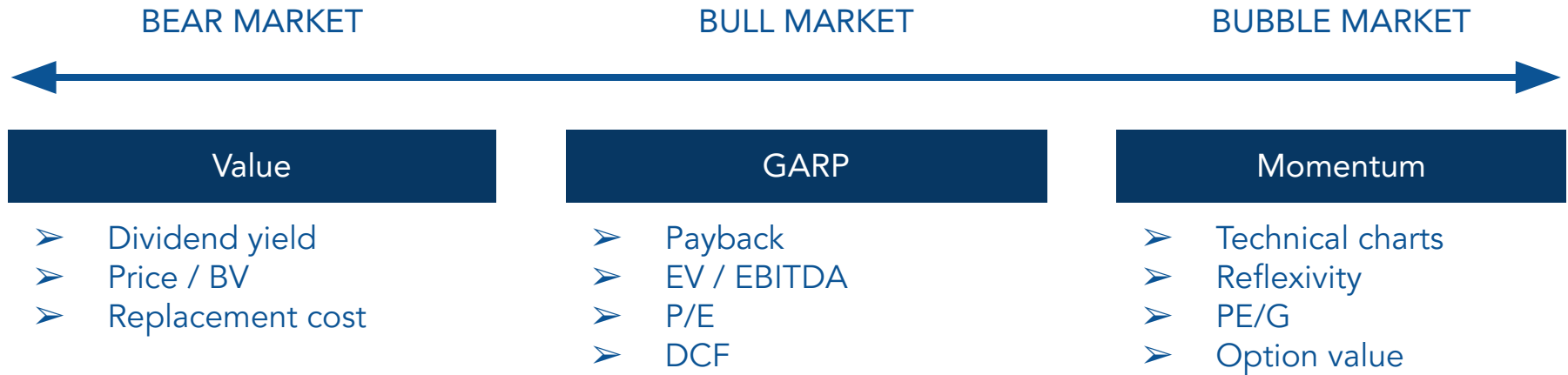
- Focus on the size of the win
  - Can a company earn profit equal to today's market cap?
    - Whether it happens is secondary, but the thinking should be in that direction
    - It requires research, understanding, and intense study
  - He likes to take bets only at good odds, which tend to give him disproportionate returns
  - It makes him the most unique
- Frequency vs magnitude
- “Activity and achievement are not related”

## “Invert, always invert.”

- How large can the profits of this company be?
- What can stop this from happening?
- Need to understand scenarios and sensitivities of most companies
- I feel more confident when prices go down, provided I have thought through most scenarios for the company
- I learned the complete opposite in business school → beta is bad



# Don't swing in valuation approaches



# Understand what your portfolio is telling you

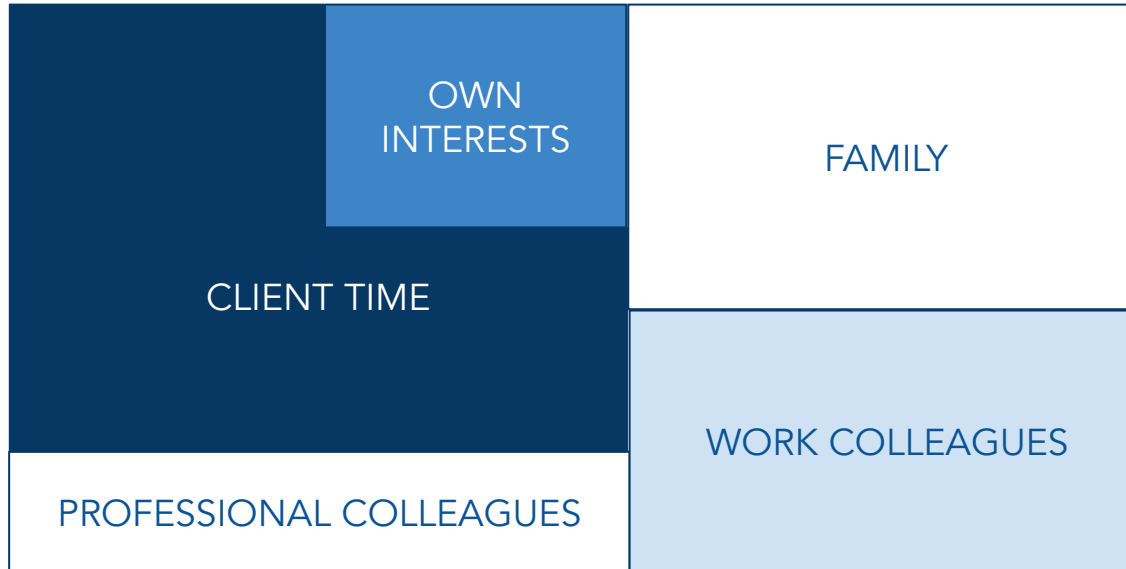
Sectors	Large cap	Mid cap	Small cap	Total
FMCG				
Pharma				
Banks				
IT				
Telecom				
Media				
Engineering				
Autos				
Commodities				
Total				

# Decompose | THEN | Consolidate

➤ A good investor is a good businessman and vice versa

Aggregate portfolio metrics							
Sales	OPIDT	PAT	Div	NW	Debt	Net Block	Wkg Cap
OPM%		Sales / Net Block		Wkg Cap / Sales		ROI	ROE
Div yield%		P/BV		EV / EBITDA		P/E	PE/G

# How is your portfolio tilted?



Build a conscious lifestyle!

# Summary

- Investing is the ultimate profession: requires total immersion and complete awareness and alertness. Learning is cumulative.
- Valuation / investing is an interplay of:
  - Macro developments - including economics, geopolitics, technology
  - Micro business drivers
  - Management ability & intent
  - Market cycles
  - Your own psyche / temperament as an investor
- Investment principles never change
  - Margin of safety, circle of competence, self awareness



*"And so, while the end-of-the-world scenario will be rife with unimaginable horrors, we believe that the pre-end period will be filled with unprecedented opportunities for profit."*