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Preparing for Long-run Inflation and Investing During Downturns

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Inflation

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Economics is often confusing

At the moment, it's downright counter-intuitive.

- Inflation is at its highest in decades,
- And unemployment is its lowest in half a century,
  - But we're feeling the pain of the lower real wages that brings.

- Interest rates are climbing sharply. And home prices are sliding,
  - Yet rents are taking off.

Inflation

- Definition
- Severity
- Causes
- Government response
- Problems from governments’ responses
- What can companies do about it

Definition and Measurement

A general increase in prices

- And the resulting decline in the purchasing power of money.

Measurement:

Statistics Canada constructs the Consumer Price Index (CPI)

Process:

- **Collect over million prices**
  - Prices that change quickly like food or gasoline are collected more frequently
  - University tuition or insurance rates every year.
- **Weigh each item's price change**
  - By its share of total consumer spending.
  - Shares updated to reflect changes in consumer spending patterns.

What causes inflation?

Too much money chasing too little goods

Quantity theory of money,

$(M) \times (V) = \mathbf{(P)} \times (T)$

M=Money Supply
V=Velocity of circulation
P=Average Price Level
T=Volume of transactions of goods and services

What causes inflation?

Quantity theory of money,

(P) = (M) × (V) / (T)

Prices in increase when

M=Money Supply

V=Velocity of circulation

T=Volume of transactions of goods and services

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Context of

High Inflation

Covid—early days

When Covid hit, most economies went into a recession

- Economic activity came to a standstill
- Recession was sharp
- Danger of defaults on mortgages, loan repayments
- Likelihood of housing market and real estate collapse.
- Social unrest

Covid-early days

The second quarter of 2020

- Canada's GDP fell by 11 per cent in April 2020, the deepest plunge since the Great Depression.
- businesses suspended regular activity
- workers lost their jobs
- unemployment rate hit double digits.

Governments put one of the largest fiscal and monetary support programs ever.

Covid Response

- Renters were offered eviction moratoria.
- Mortgage forbearance was employed during the pandemic to help prevent a housing market crash.

Government of Canada

- Boosted Canada Child Benefit payments
- Goods and services tax credit
- Old Age Security and Guaranteed Income Supplement for seniors.
- Emergency Response Benefit for workers who lost significant income during the pandemic,
- Liberalized eligibility rules for Employment Insurance

Money Supply

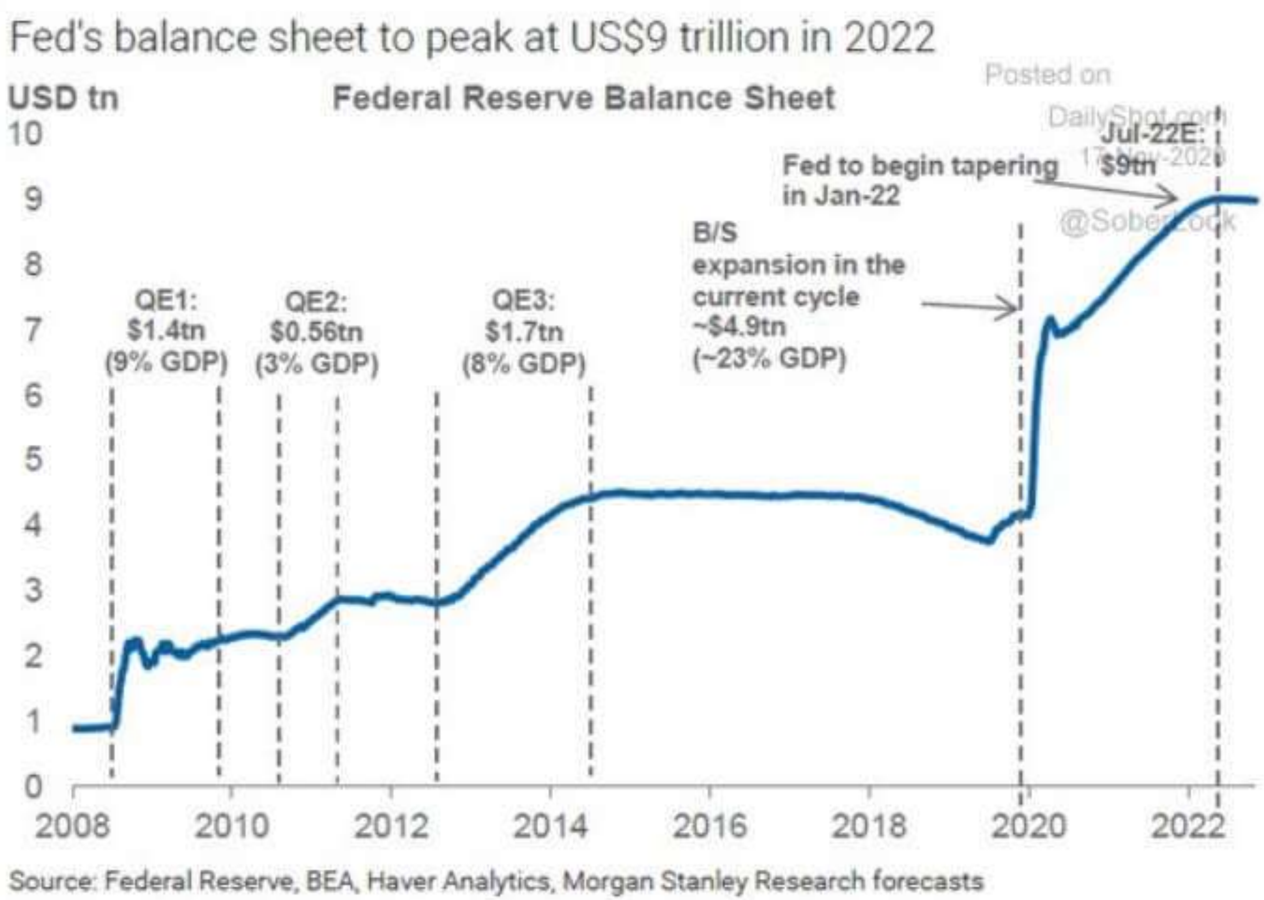
Quantitative Easing (QE)

The Fed began experimenting in 2008 with a QE

- In essence, printing money - to buy debt
- Effectively, to loan money to banks, households, corporation
- To prevent financial meltdown

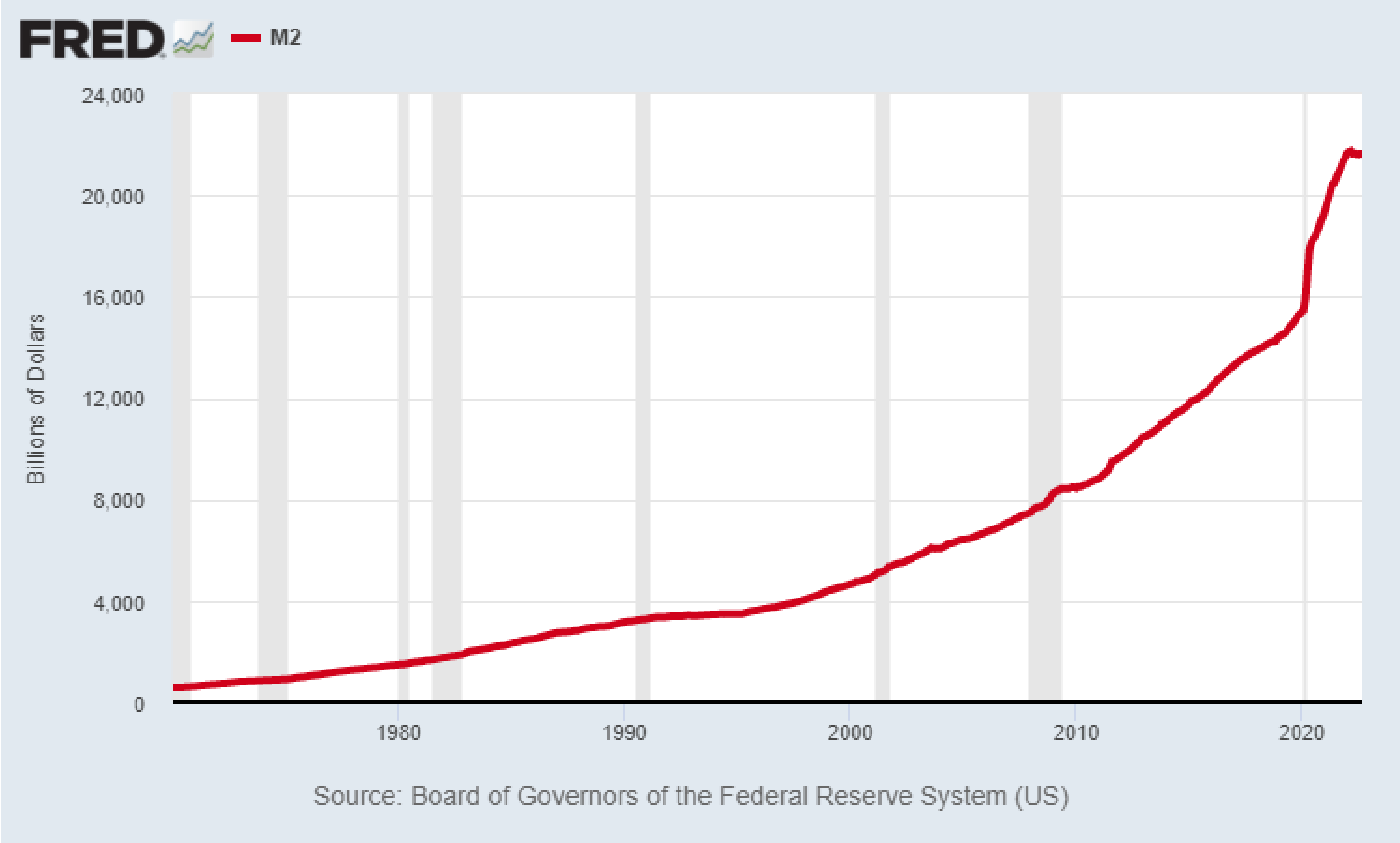
QE => Increase Money Supply

QE During Covid



It reached a high of US$9 trillion in April 2022

M2: Money Supply



Governments Around The World

G.S. Cortes, G.P. Gao, Felipe B. G. Silva et al. — *Journal of International Money and Finance 122 (2022) 102543*

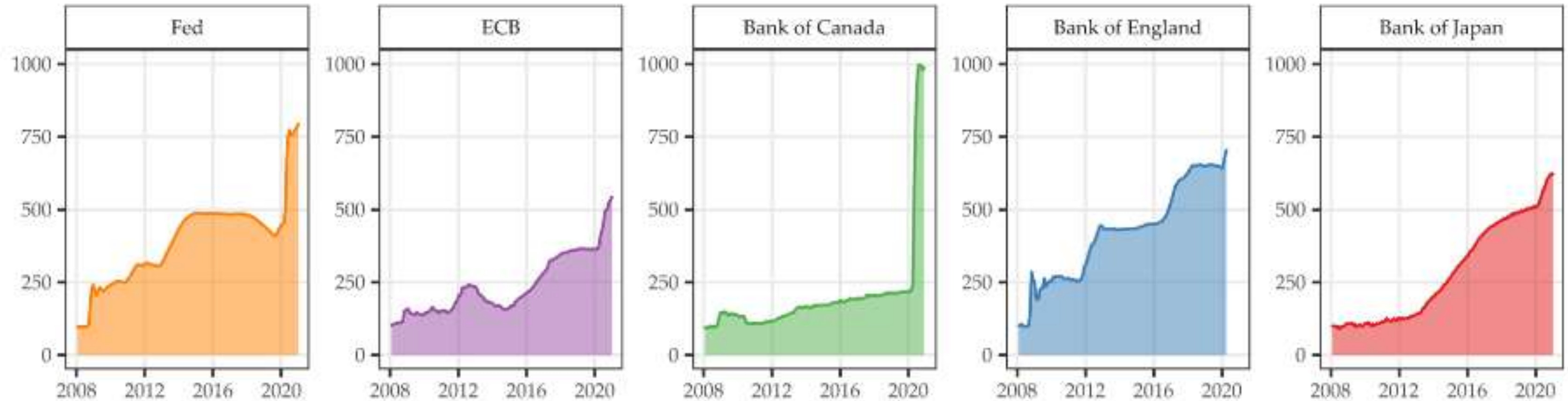
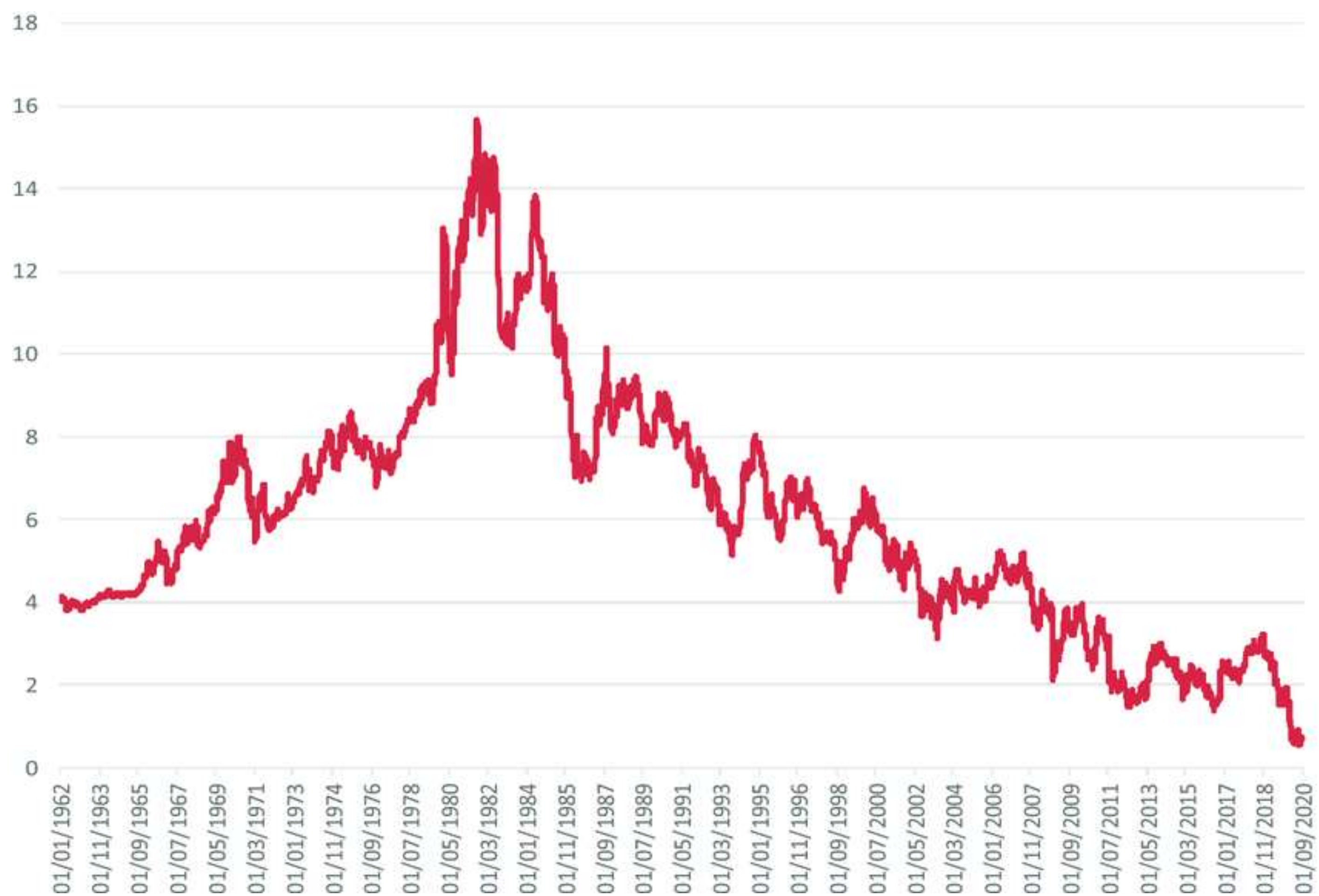


Fig. 1. Balance Sheet Expansion of Major Central Banks. This graph shows the expansion in the balance sheet of each major central bank from January 2008 to May 2021. The size of the balance sheet is measured by total assets, normalized to 100 in January 2008 to facilitate time-series comparisons around the main periods of interest (i.e., 2008 and 2020). The data are from each central bank's website.

10-Yr Treasury Yields aka Interest Rates



Shift in demand patterns, and Bubbles

- **Households spent less**
  - On services, international travel, dining out, travels
- (Rich) Households awash with cash
  - Interest rates reached close to zero=> No point in holding cash
  - Money found its way to financial assets and real estate

Asset bubbles: Stocks, Housing, Crypto

Post-pandemic recovery

- Demand for goods increased, but
  - Bullwhip effect
  - Supply chain disruptions
  - Shipping bottlenecks, shipping rates skyrocketed
  - Ports could not get functional
- Demand for services came back
  - Workers nowhere to be found
  - Restaurants, airports, hotels
  - Truck drivers

Post-pandemic recovery

- Post-Covid **demand for goods and services higher** than pre-Covid days.
- Households still sitting on **larger cash than before**.
- But **supply disrupted**.

Simply speaking

Too much money chasing too little goods

=> Inflation

Dual punch on supply side-1

Russian attack on Ukraine

- West’s subsequent sanctioning of Russian goods and trade.
- Russia an important supplier of oil, gas, and coal to European factories.
- **Ukraine and Russia combined**
  - the world’s largest exporters of grains, feed crops for cattle, and fertilizers for growing crops.

Dual punch on supply side-2

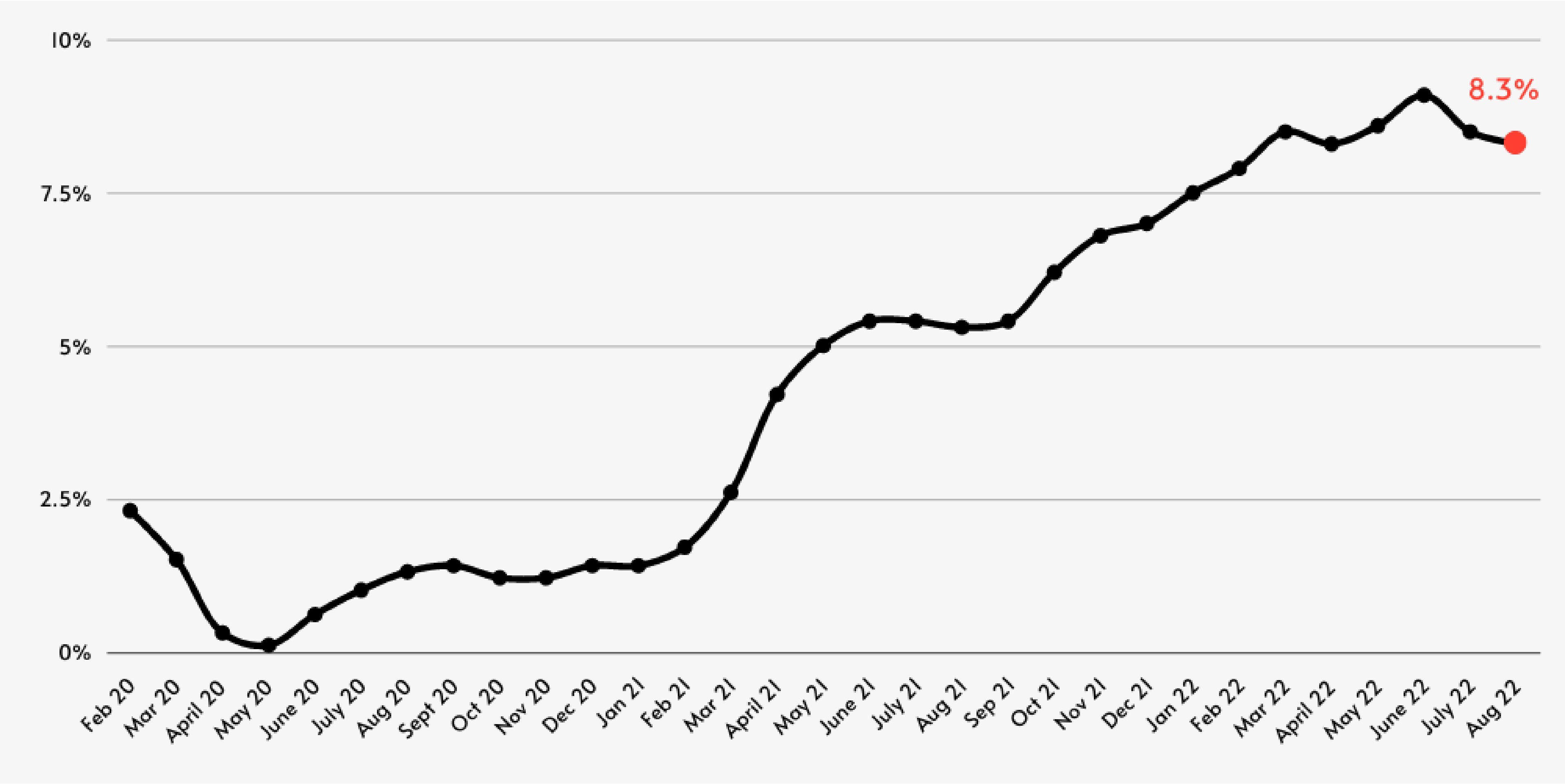
China's Zero Covid Policy

- China is world's factory.
- Lockdowns and closures of the world's most important manufacturing.

Throws a wrench in a well-functioning global supply chain

Inflation over time

US inflation over time



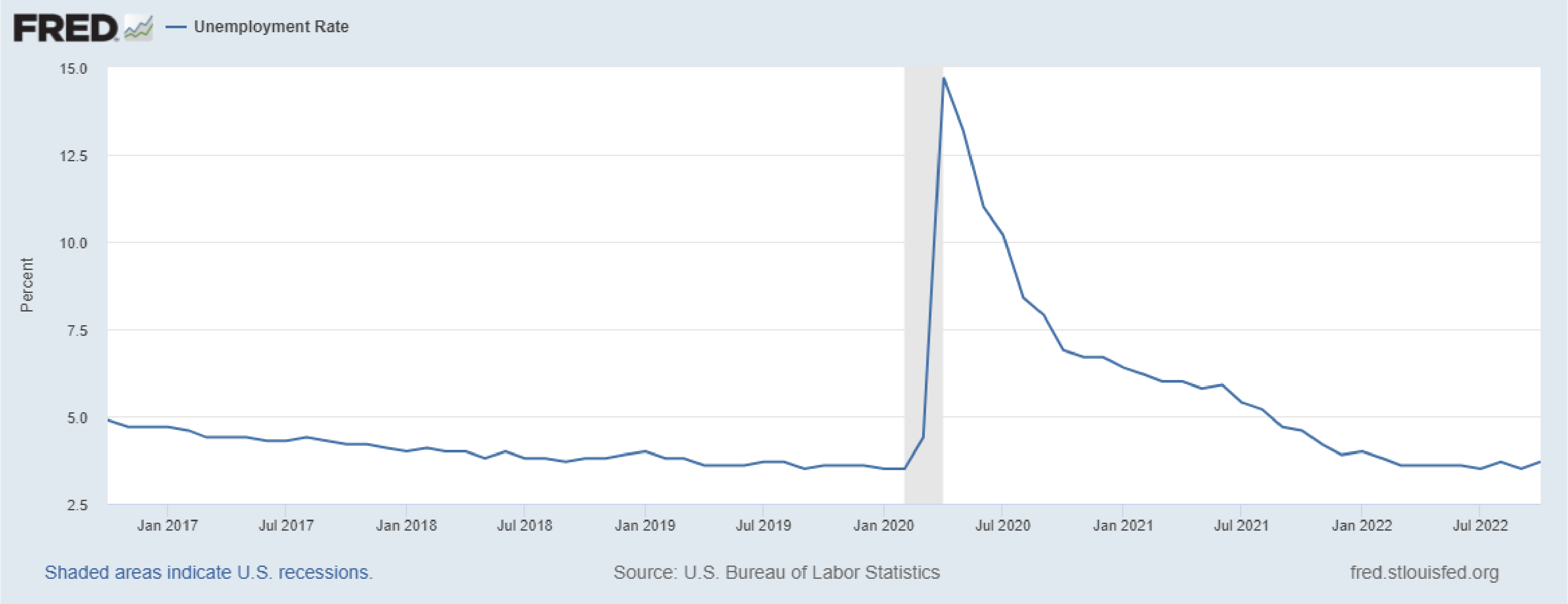
US Fed Mandate

Keeping **our** economy healthy is one of the most important jobs of the Federal Reserve.

- The Federal Reserve System has been given a **dual mandate**—pursuing the economic goals of **maximum employment** and **price stability** **(aka 2% inflation).**
- It does this by using a **variety of policy tools** to manage financial conditions that encourage progress toward its dual mandate objectives—in other words, conducting **monetary policy**.

Inflation superhigh, and unemployment super low

Inflation superhigh, unemployment super low



Why Fed cares about inflation

Start with food insecurity

Swelling of grocery bills swell, pose enormous burden on low-income households.

Poor families spend a much larger share of their income on food

In 2020,

- The average family spent 12% of its earnings on food.
- **poor households** spent **27% on food** that year.

They have **little discretionary spending they can pare back to free up funds for food.**

They are particularly vulnerable to spikes in food costs.

Why care about inflation—poor households

An estimated 38 million Americans are food insecure,

- they have insufficient means
- unsure where their next meal is coming from

In addition to food insecurity

↑Fuel

↑Rent.

Importantly, no commensurate increase in wages at the lowest levels.

Federal minimum wage practically unchanged.

Canada

25 per cent of the population can not afford food, rent, and utilities.

Previously, Fed had goofed up!

<u>It expected</u>

- In December 2020 that prices would rise by **less than 2%** in each of the following two years.
- in December 2021, it reckoned that inflation in 2022 would be just **2.6%**

Now a Knee-jerk reaction

Pressed gas too long, <u>now apply brakes, suddenly</u>.

Fed applies brakes

Two things

1. **Reversal of QE**:
   - Target one trillion reduction in money supply this year.
2. **Increase interest rates**
   - On Nov. 2, 2022, lifted borrowing costs by **0.75 percentage point**-
   - its **fourth straight hike** of that size,
   - brings its benchmark rate **to as high as 4%**

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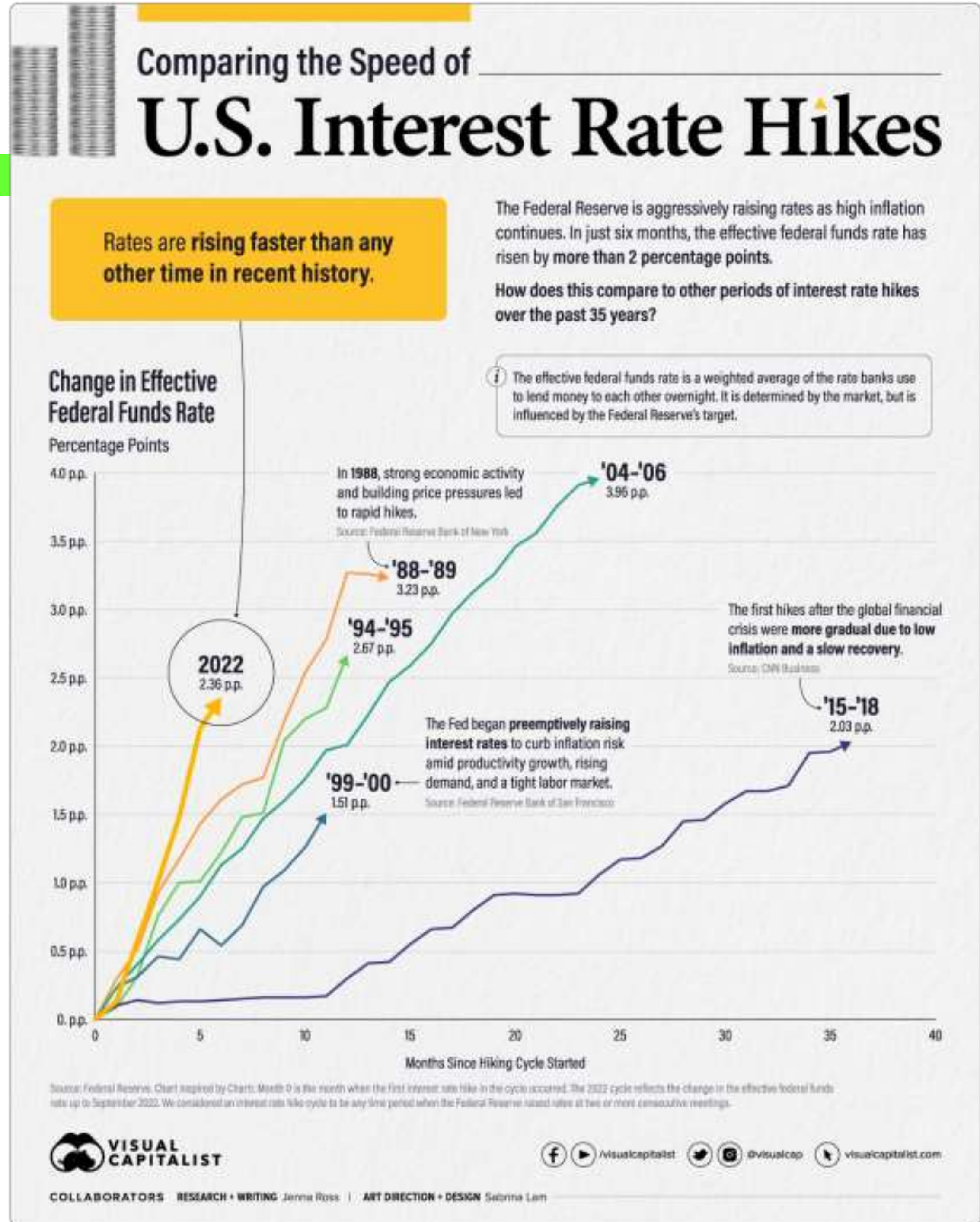
Is Fed overdoing it now?

With inflation rampant, Volcker raised rates to over **15% in 1980** - and then **20% in 1981.**



Consequences of sudden brakes

- Endangering **recession**
- **Uncertainty** for corporate investments
- **Killing the startup** activity and tech sector
- Reducing **household wealth**
- Risk of **housing crisis**
- Rising **cost of debt servicing**
  - Variable interest mortgages
  - Student loans
  - New vehicle loans
  - Zombie companies, at best can pay interest

An example of looming housing crisis

Interest payments on a 30-year loan of $400,000

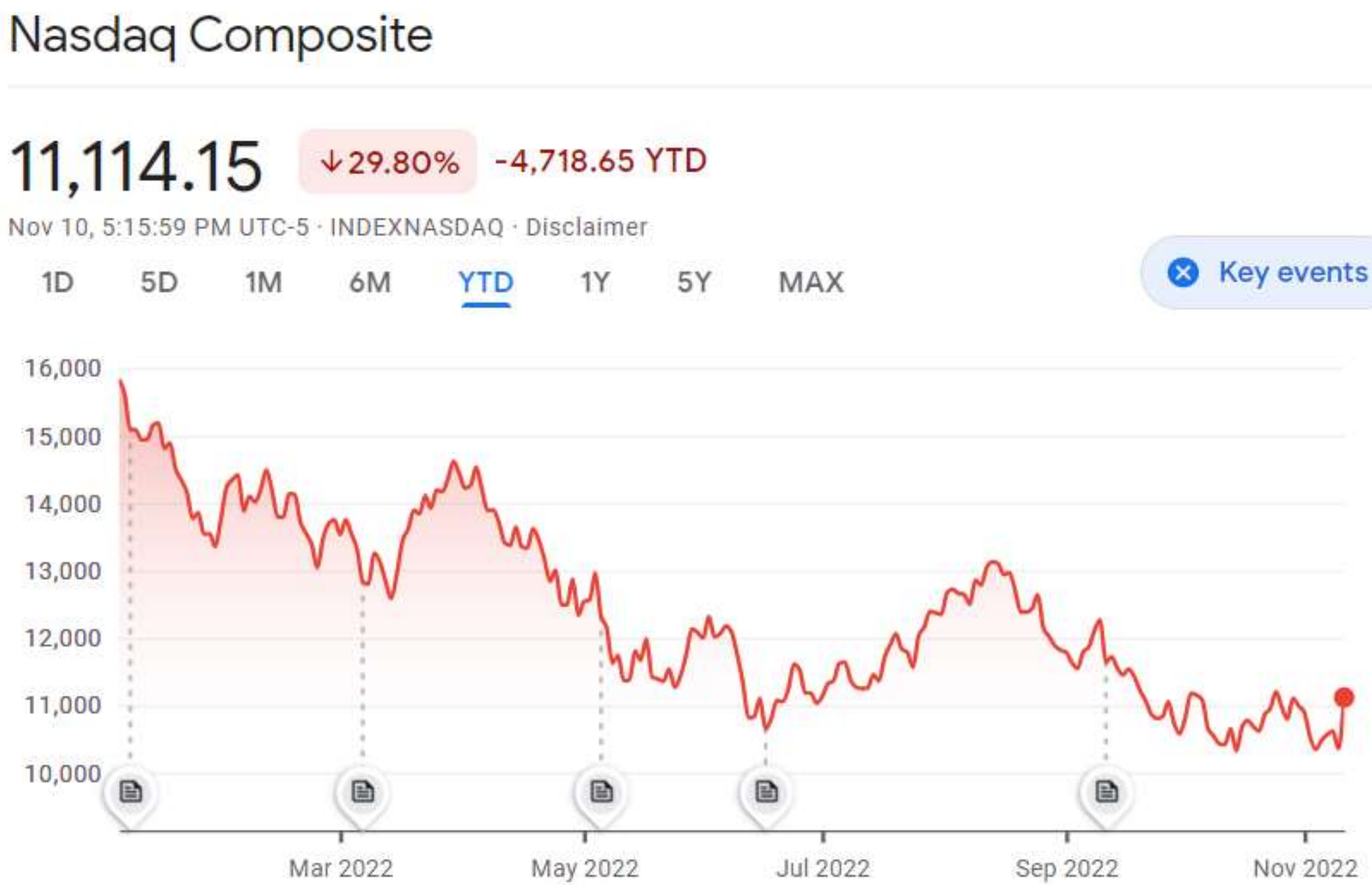
- @3%: $ 12,000 p.a.
- @7%: $ 28,000 p.a.

Imagine a household barely able to pay its interest.

To maintain the same level of affordability, housing prices must fall by about 50%

Housing, the single largest saving for North American households.

Tech stocks this year



Fed knows the tradeoffs

- **Food and Rent Insecurity for the poorest**

versus

- **Destruction of wealth for the not-so-poor**

Fact: About **one-quarter of Americans** have essentially **no wealth** or even a **negative net worth**

Consequences for other countries

- With rising US interest rates
  - US Dollar strengthens (15%+ this year)
- **Other currencies weaken**,
- But,
  - Commodities denominated in USD (most)
  - Most foreign debts in USD (50%+)
  - Global foreign reserves (60%+)
  - Trade invoices (70%+)
  - Foreign exchange transactions (80%+)

Other countries act along with Fed

- Other countries (including Canada) must raise interest rates following Fed hikes
  - To prevent capital outflows.
  - To avoid devaluation of currencies.
- **Increases the cost of capital** in their countries
  - Amplify a potential global recession.

Consequences for other countries

- Consequences of Currency **devaluations**:
  - Import costs rise, food, oil, minerals
  - Can’t service or repay debts,
  - Exacerbate inflation troubles
  - Recession, unemployment, social unrest, law and order problems
- **Exodus of capital** from risky countries

Look at Pakistan, Sri Lanka, Ghana…..

Consequences for other countries

They turn to

- **IMF**
  - Comes with stringent conditions, to lower government subsidies on fuel and food at a time when prices are increasing.
- **Bank loans**
  - Short term
  - Higher interest rates
- **Borrow from China and Oil-rich states.**

Can international concerns be ignored?

Debt problems are contagious,

- the Latin American debt crises of the 1980s,
- the Asian financial crises of the 1990s,
- and the Eurozone debt crises of the 2010s.

Should Fed Care?

Recall: The Federal Reserve System has been given a **dual mandate**—pursuing the economic goals of **maximum employment** and **price stability** **(aka 2% inflation).**

- Its mandate is for the **US** **domestic economy**.
- It operates mostly independently of the federal government.

EU considering

- A tax of at least 33 percent on oil and gas companies
- Redistribute extraordinary profits from energy companies to poor households and vulnerable firms.
- Non-gas electricity companies would face a levy
- A threshold electricity price at less than half the current market rates.

European Wages

- **60% workers** have collective-bargaining agreements,
- Tend to run for a year or more
- **It takes time** for economic conditions to influence their pay.
- Germany's public-sector unions will enter forthcoming negotiations seeking **a raise of 10.5%**

Furtherance of wage-price spiral

What can companies do about it?

Harvard Business Review

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Business And Society

How Companies Can Prepare for a Long Run of High Inflation

by Vijay Govindarajan, Hassan Ilyas, Felipe B. G. Silva, Anup Srivastava, and Luminita Enache

May 02, 2022

Suggestion-1

Understand your entire value chain and its exposure to supply chain shocks.

- go beyond learning about just your immediate supplier — figure out the supplier behind your supplier, and so on.
- Even a minor subcomponent criss-crosses the world at various manufacturing stages.
- Assess the **risk of disruption** at each stage,
- Develop alternative sources of supply, and keep sufficient inventory.

Those days of keeping lean, just-in-time inventories are gone.

Suggestion-2

Understand your capital structure:

- Your mix of equity shares, preferred shares, bank loans, short-term credit, supplier credit, and convertible debt.
- See which ones need to be repaid and when, which are affected by interest rate increases, and which could bring your business down if you default.
- Financial plans that worked during the last decade may be too risky for the coming years.

Restructure your loans, obtain new lines of credit, **and maintain enough cushion**.

Suggestion-3

Pay extra attention to global developments, realignment of countries' alliances, and changing policies of international suppliers.

- These factors can no longer be taken for granted.
- **Short-term factor loom large**. You can't expect that **countries will act rationally in their long-term economic interests**.
- Politics, international pressures, and **national fervor could dominate rational economic thinking**, leading to rapid changes in business policies.

Suggestion-4

An important challenge in the midst of the exodus of people from the job market is to keep morale high and prevent attrition.

- Losing a key employee means months of lost productivity and expenditure of additional efforts to find and train a replacement.
- Constant communication with employees and at least be aware of their plans for switching jobs.
- Be more flexible in accommodating their personal needs, such as letting them work from home, which may boost employee productivity.

Some recent layoffs (% of workforce):

Seagate: 8%
Docusign: 9%
Shopify: 10%
Twilio: 11%
GoFundMe: 12%
Chime: 12%
Meta: 13%
Redfin: 13%
Lyft: 13%
Stripe: 14%
Patreon: 17%
Coinbase: 18%
Opendoor: 18%
Flipboard: 21%
Intel: 20%
Snap: 20%
Dapper: 22%
Robinhood: 23%
Twitter: 40-50%

Suggestion-5

The luxury of pursuing risky, nonremunerative ideas is now gone.

- It's time to **rationalize** activities, customers, businesses, brands, segments, suppliers, manufacturing sites, and product lines,
- **Short-term survival takes precedence over long-term growth.**
- Go back to the drawing board
- Identify core areas and focus on those that provide the best returns for finite resources while holding the most promise for future.

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Suggestion-6

<u>Yet, do not</u> apply **a universal axe** and order **an across-the-board cut** of salaries, expenditures, and headcount.

- Would lead to low morale and further attrition of talented employees.
- Don't be tempted to start cutting forward-looking expenditures like R&D, employee training, and advertising.

Use a finer scalpel.

- Design a new scorecard to rank-order activities and business lines in terms of retention priorities.
- The scorecard must consider the current organizational priorities, while leaving scope for growth and future profitability.

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