



**NATIONAL
BANK**

FINANCIAL MARKETS

Economic and Financial Outlook

Victoria, British-Columbia

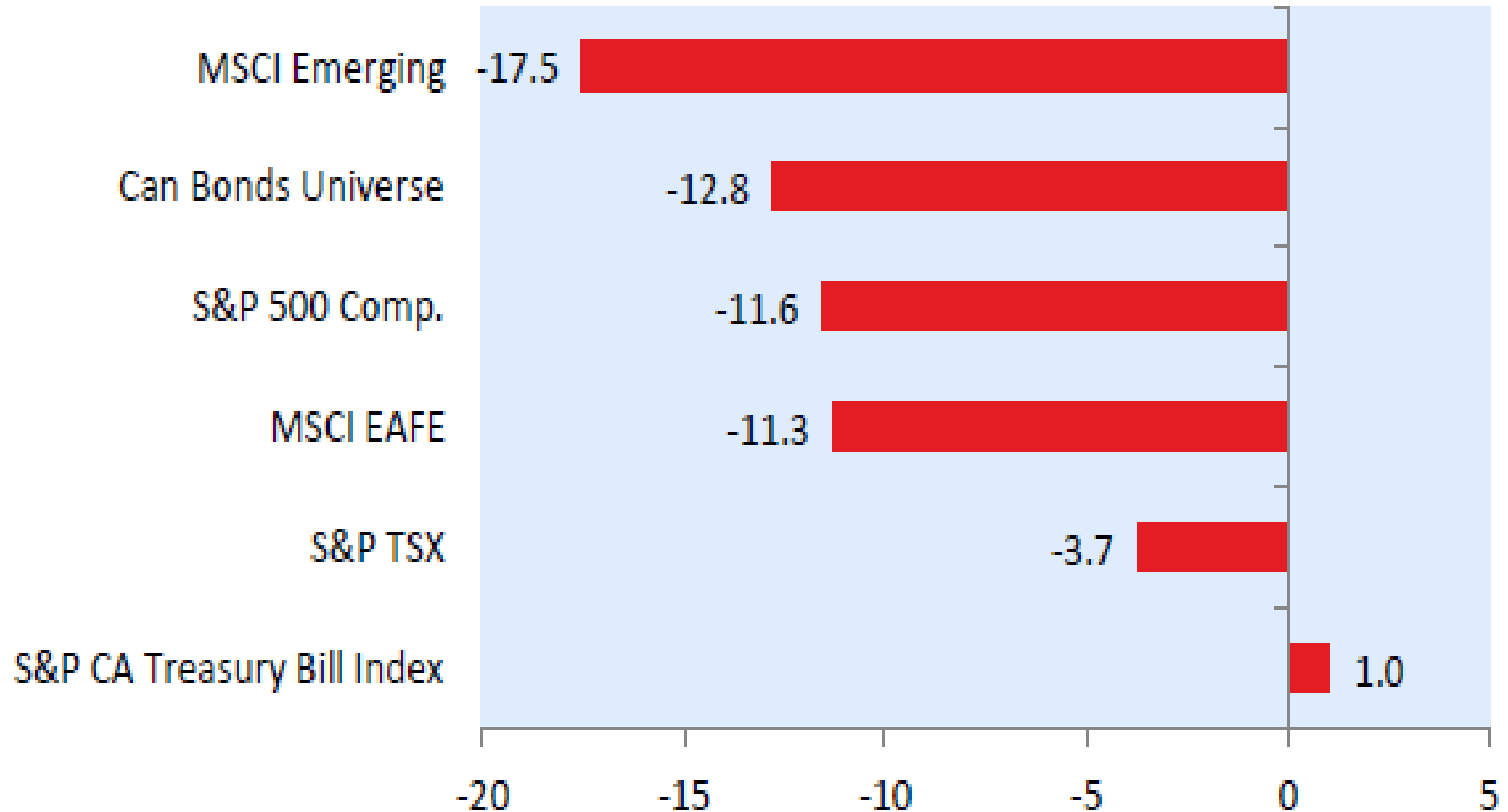
Stéfane Marion

November 16, 2022

2022: A year to forget

Total return by asset class (as of November 14, 2022)

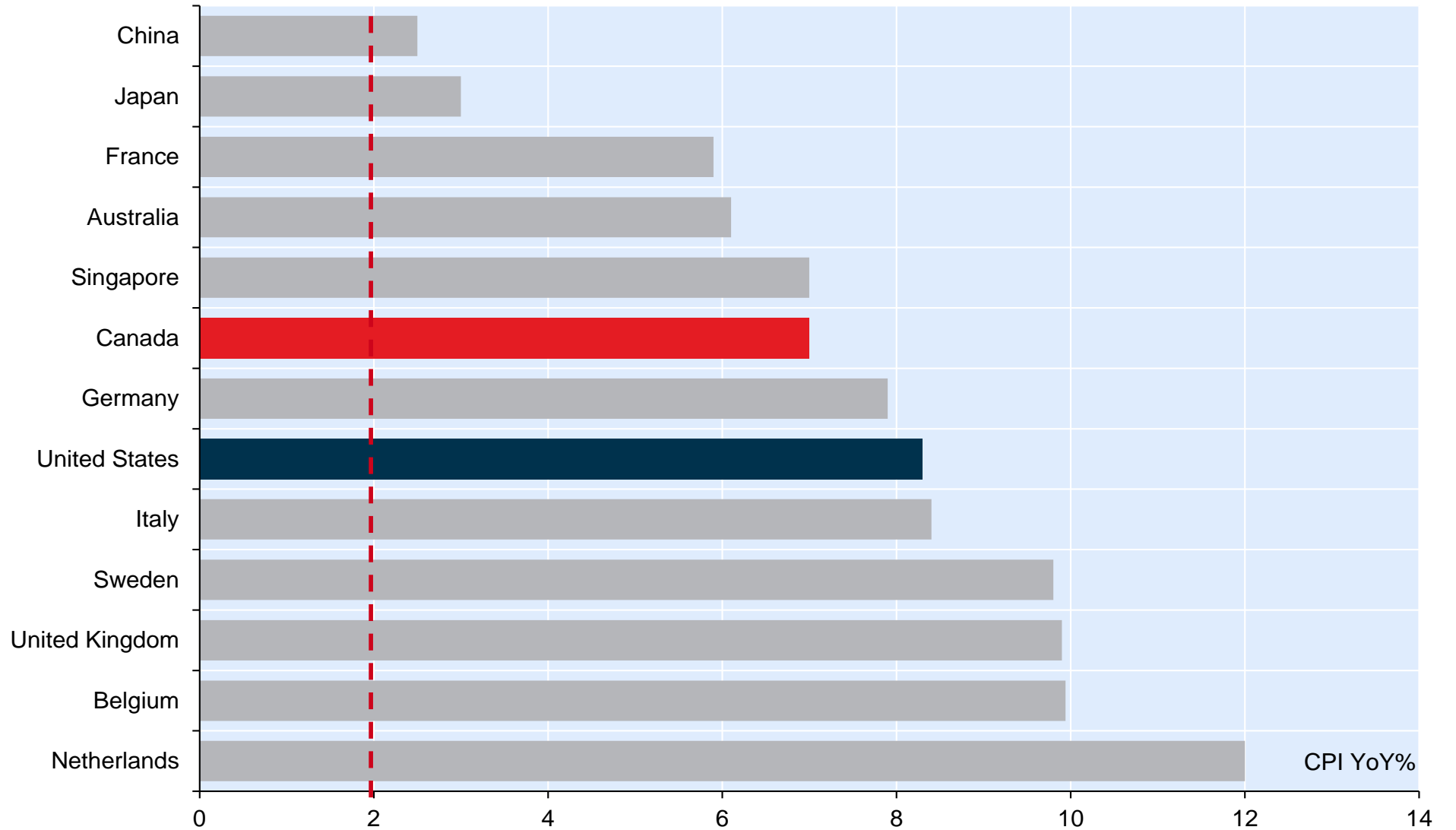
YTD Total Return (% in CAD)




**Central banks determined
to bring down inflation**

Global inflation – it's everywhere (for now)

Latest CPI YoY% readings from G13 countries

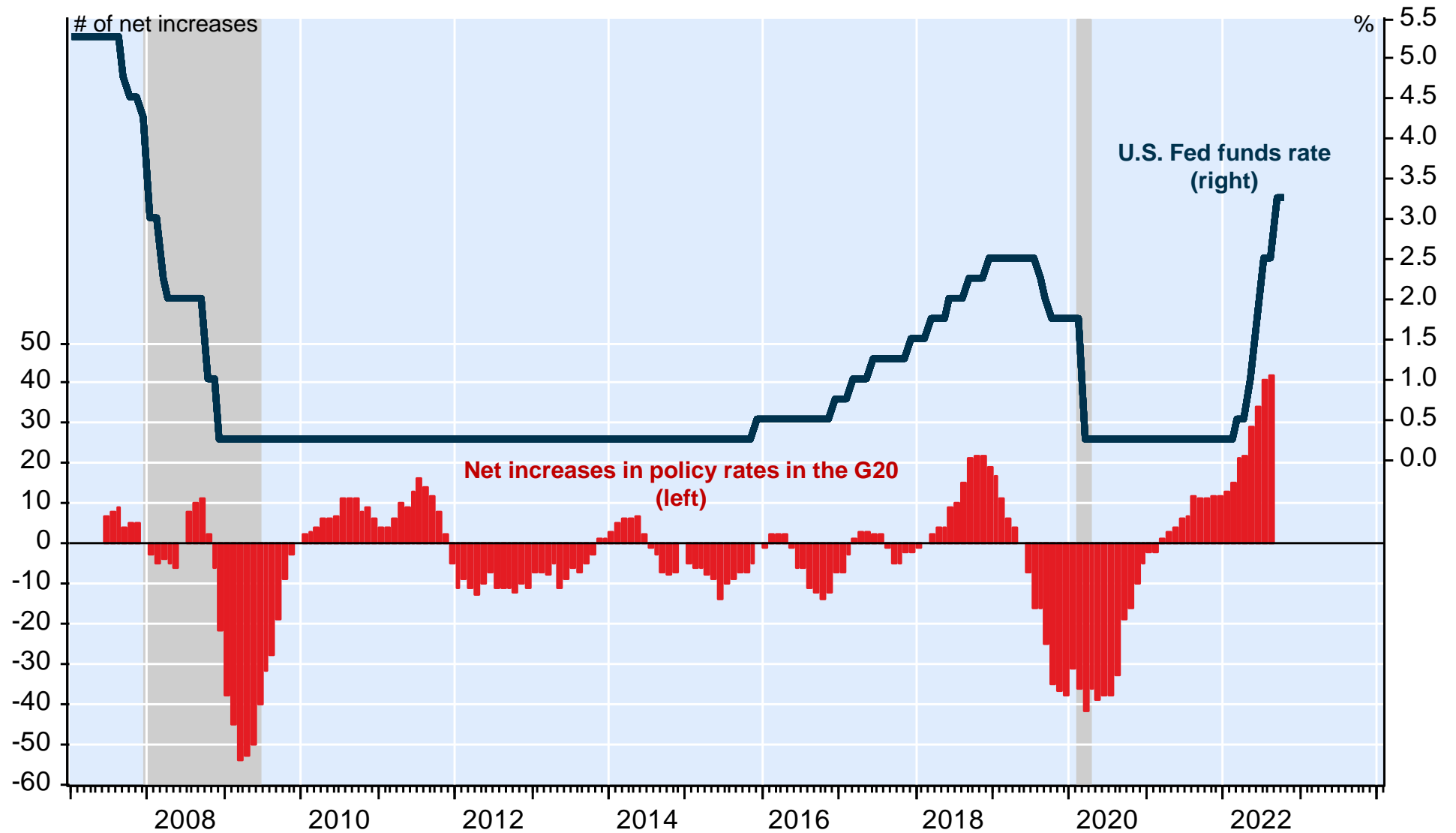




**Central banks:
“It takes at least a year for
higher interest rates
to impact the economy and
inflation”**

U.S.: The FOMC is not alone in raising interest rates

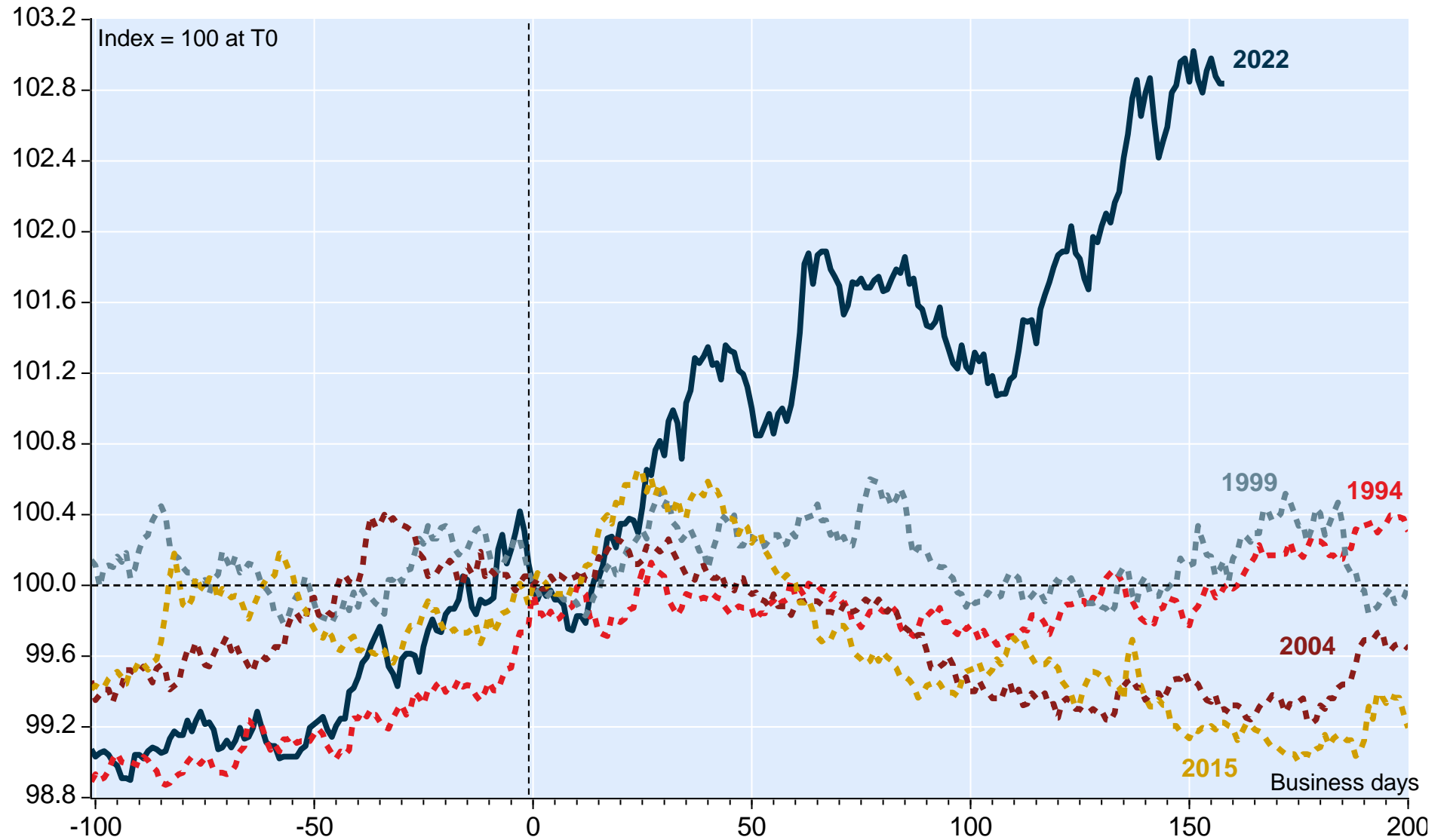
Fed funds rate and six-month sum of the net number of increases in policy rates in the G20



NBF Economics and Strategy (data from IMF Oct 22 WEO – figure 1.2)

U.S.: Financial conditions tightening at a blistering pace

Goldman Sachs Index of Financial Conditions, change since the first hike of a tightening phase

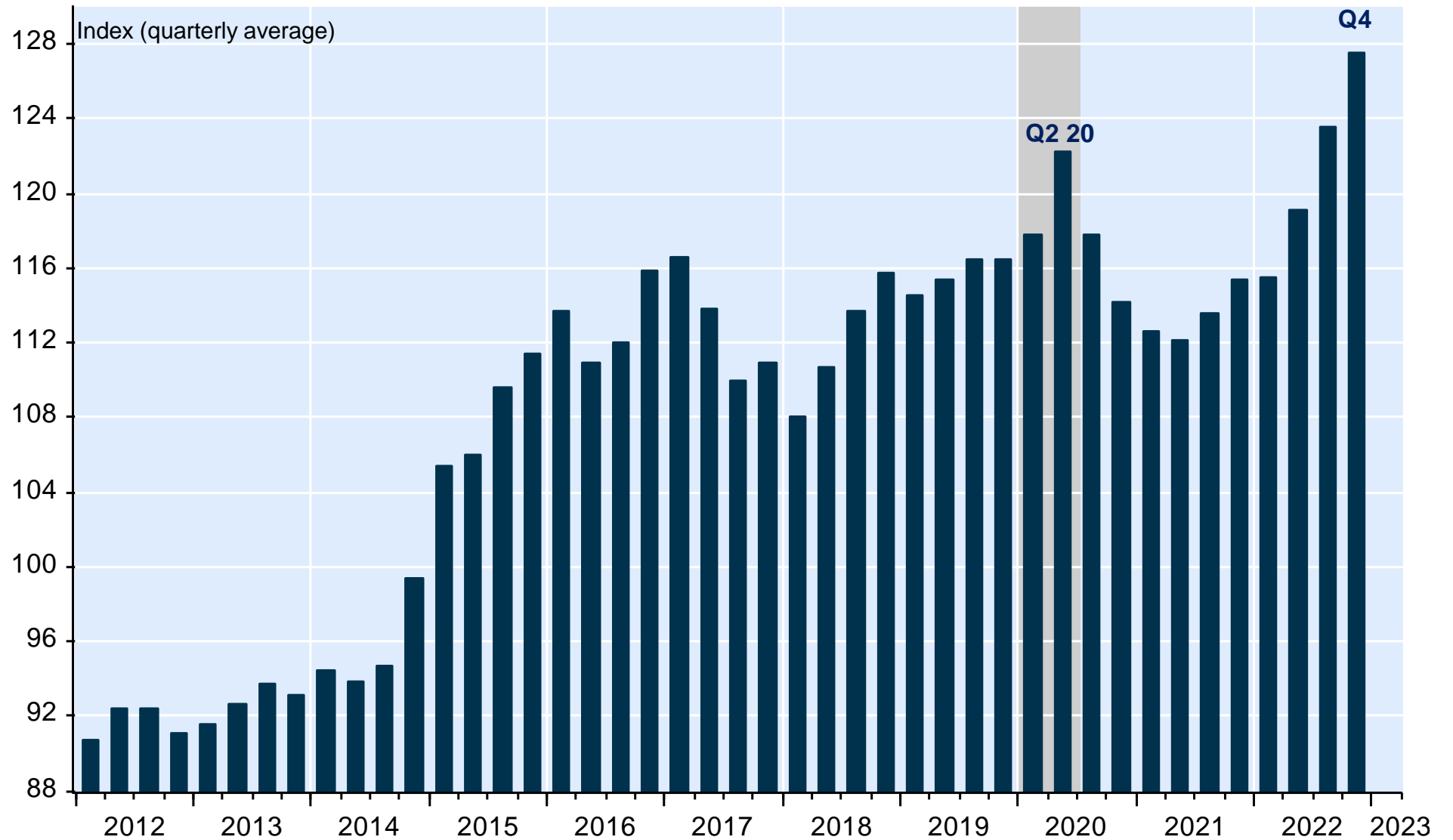


NBF Economics and Strategy (data via Bloomberg)



USD: Greenback surpasses pandemic peak

Trade-weighted USD (26 currencies) – As of Nov 1, 2022

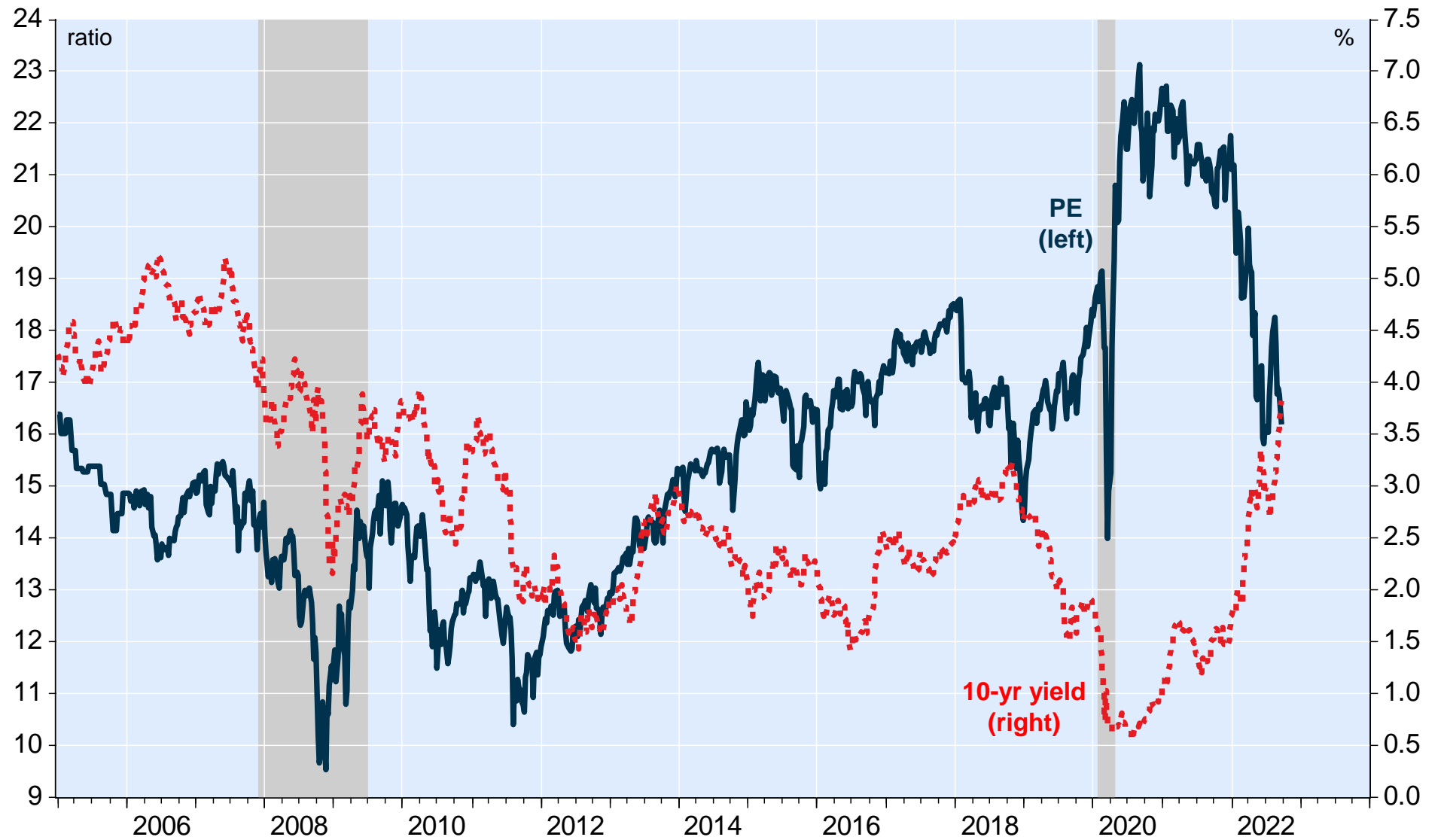


NBF Economics and Strategy (data via Refinitiv)



U.S.: PE compression

Forward PEs for the S&P 500 vs. yield on 10-year U.S. treasury



NBF Economics and Strategy (data via Refinitiv)



MSCI composite index: Price Performance

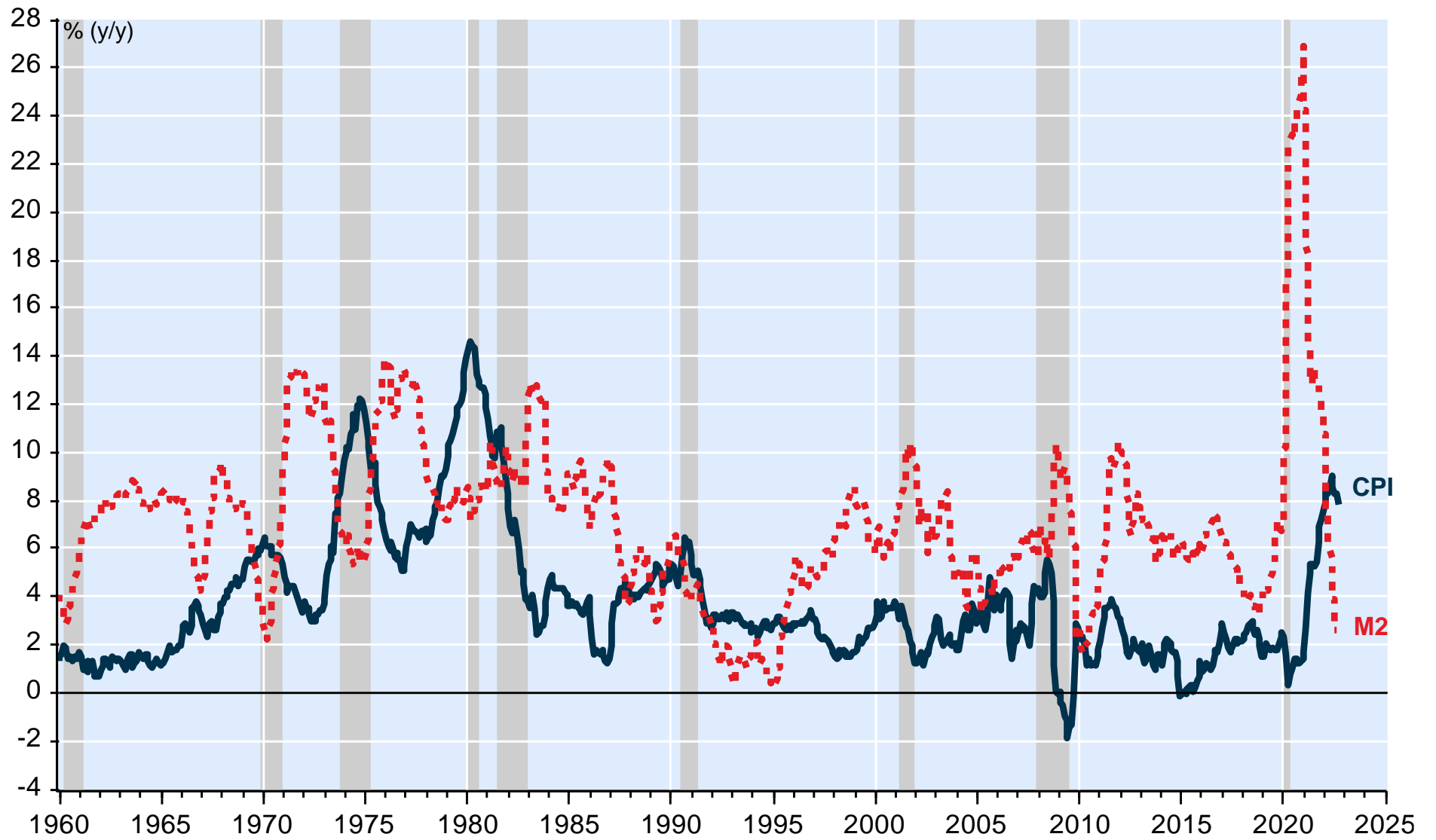
	Month to date	Quarter to date	Year to date
MSCI ACWI	4.0	10.2	-15.0
MSCI World	3.6	10.9	-14.5
MSCI USA	3.1	11.2	-17.4
MSCI Canada	3.3	9.0	-5.5
MSCI Europe	4.9	11.2	-10.0
MSCI Pacific ex Jp	7.0	7.7	-7.9
MSCI Japan	2.9	8.8	-1.4
MSCI EM	7.7	4.8	-19.0
MSCI EM EMEA	2.0	6.8	-20.0
MSCI EM Latin America	-0.5	6.5	1.5
MSCI EM Asia	9.8	4.3	-20.5

11/11/2022



U.S.: Money supply growth is weaker than normal

M2 vs. all-items CPI

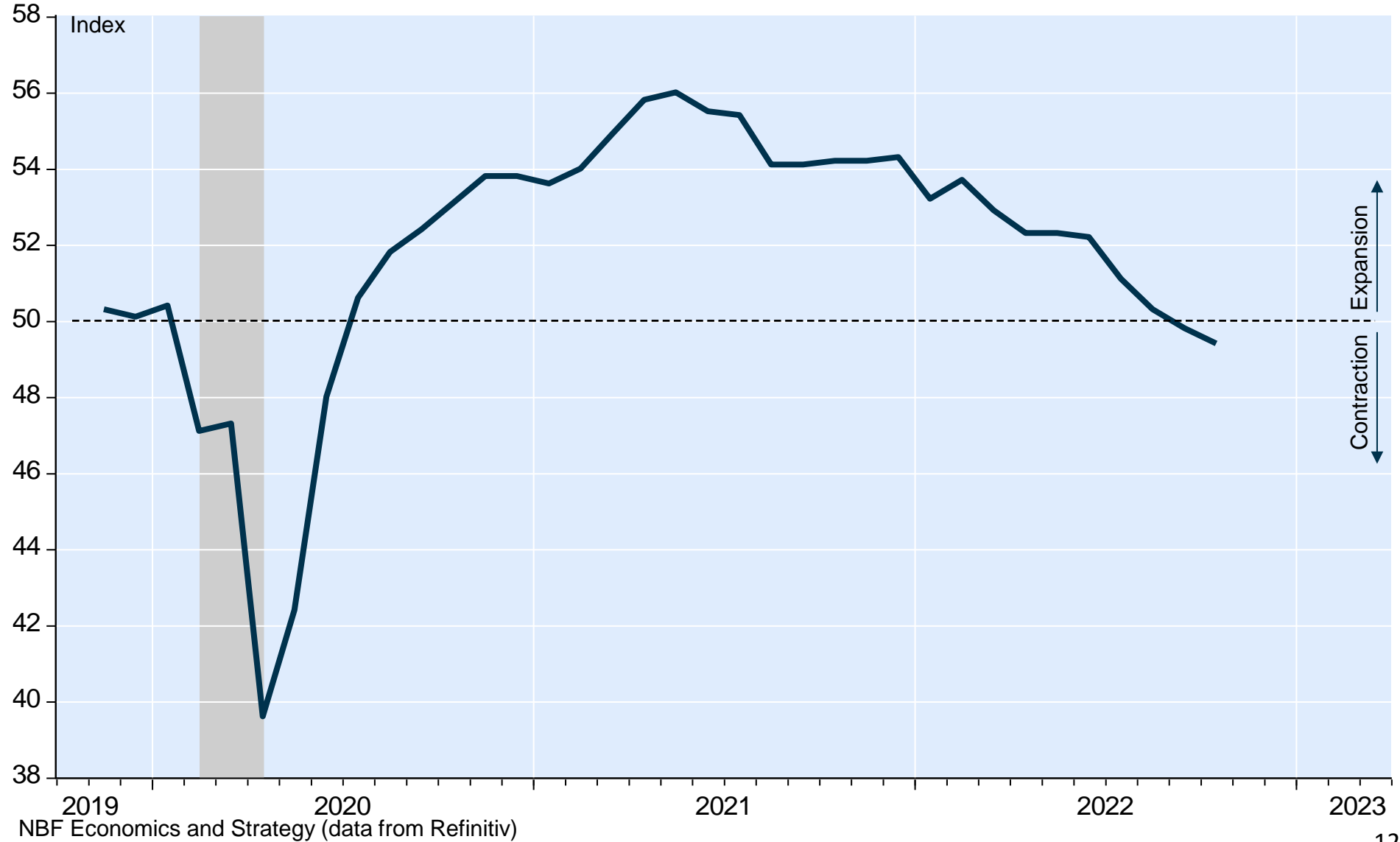


NBF Economics and Strategy (data via Refinitiv)



World: Factory activity down for second month in a row

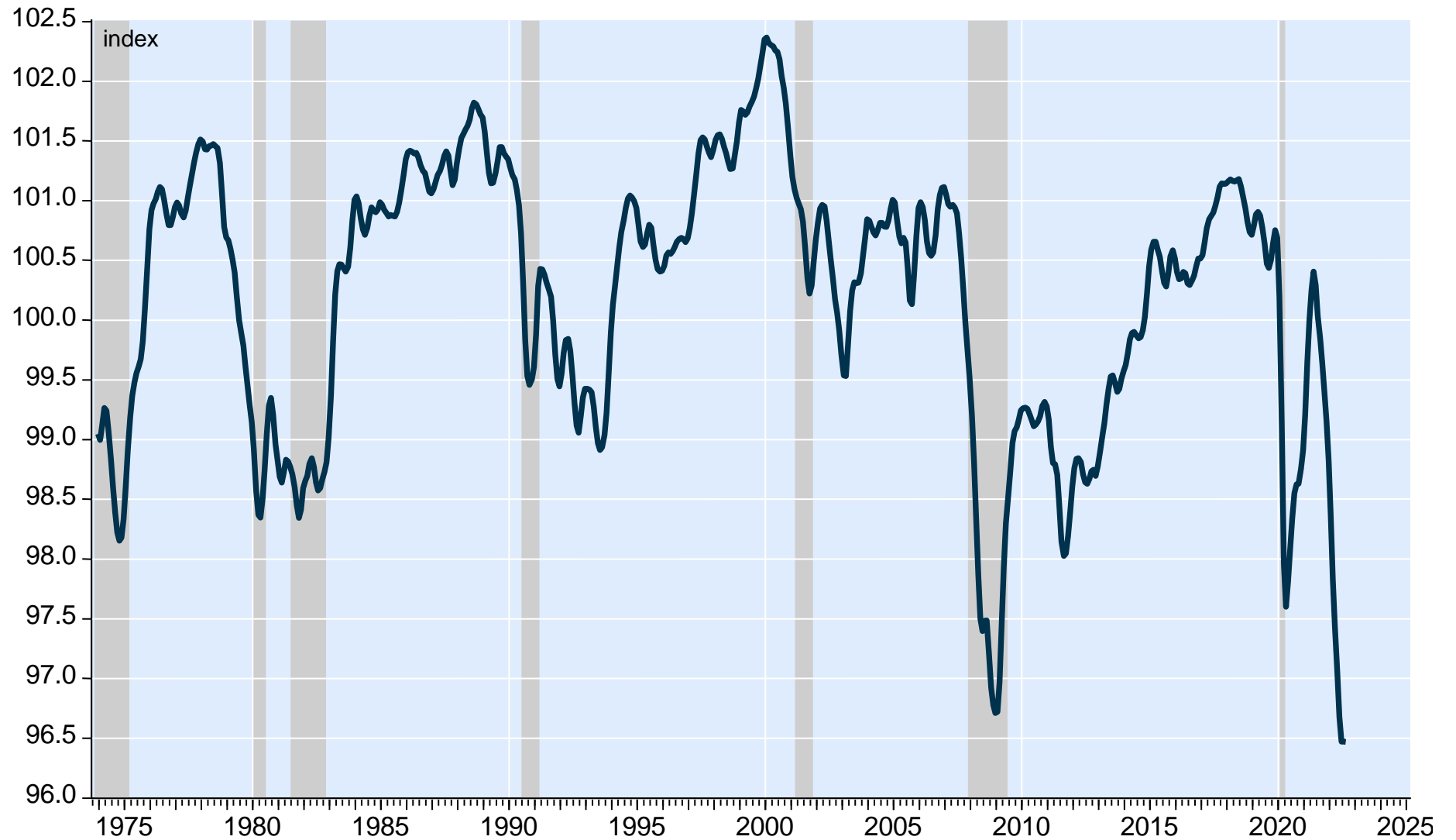
JP Morgan/Markit Global Manufacturing PMI, last observation: October 2022



NBF Economics and Strategy (data from Refinitiv)

OECD: Consumer confidence at a record low

OECD Consumer Confidence Index

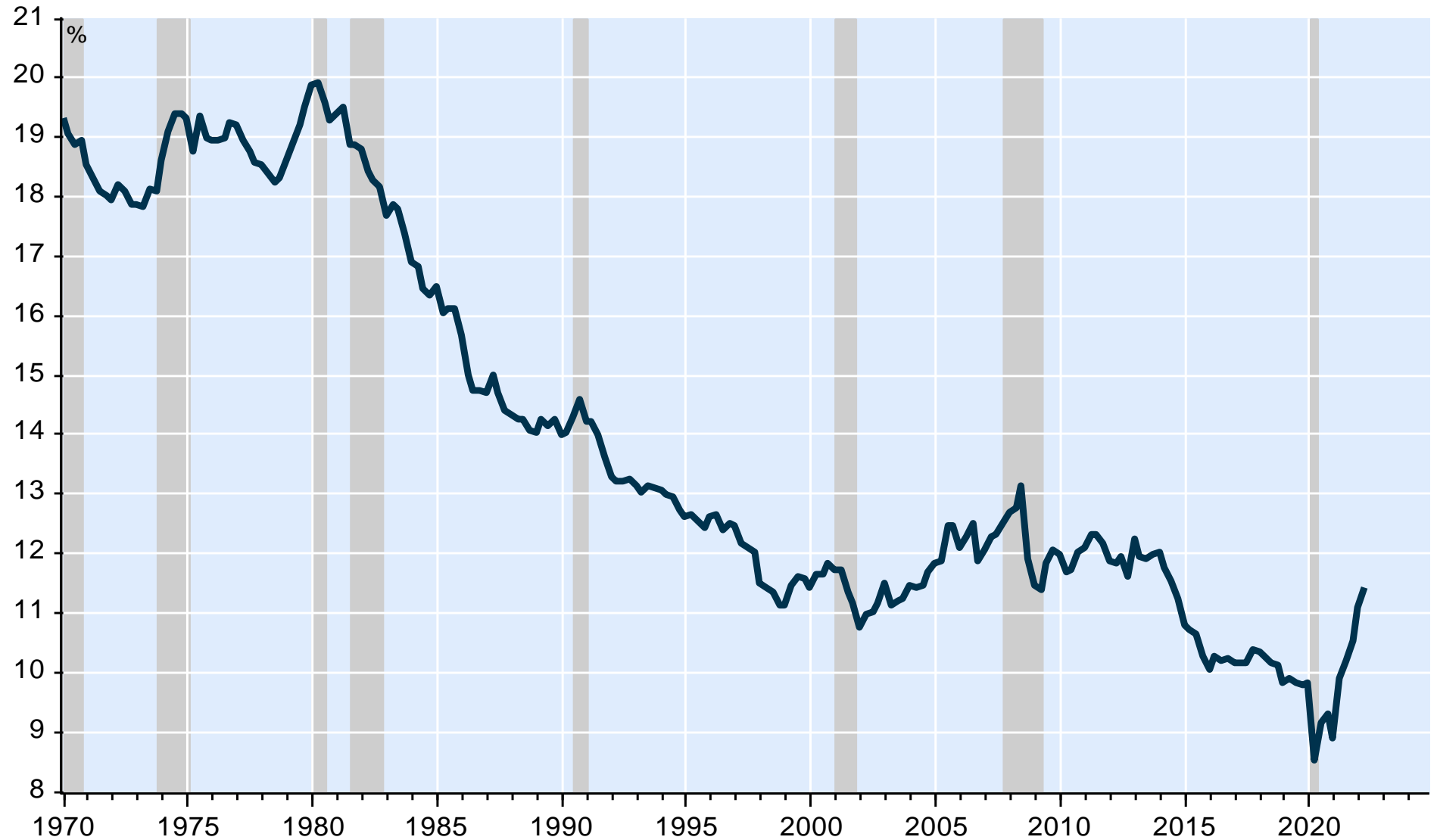


NBF Economics and Strategy (OECD data)



U.S.: Consumers are spending more on food & energy

Spending on food & energy as a share of disposable income



NBF Economics and Strategy (data via Fred)

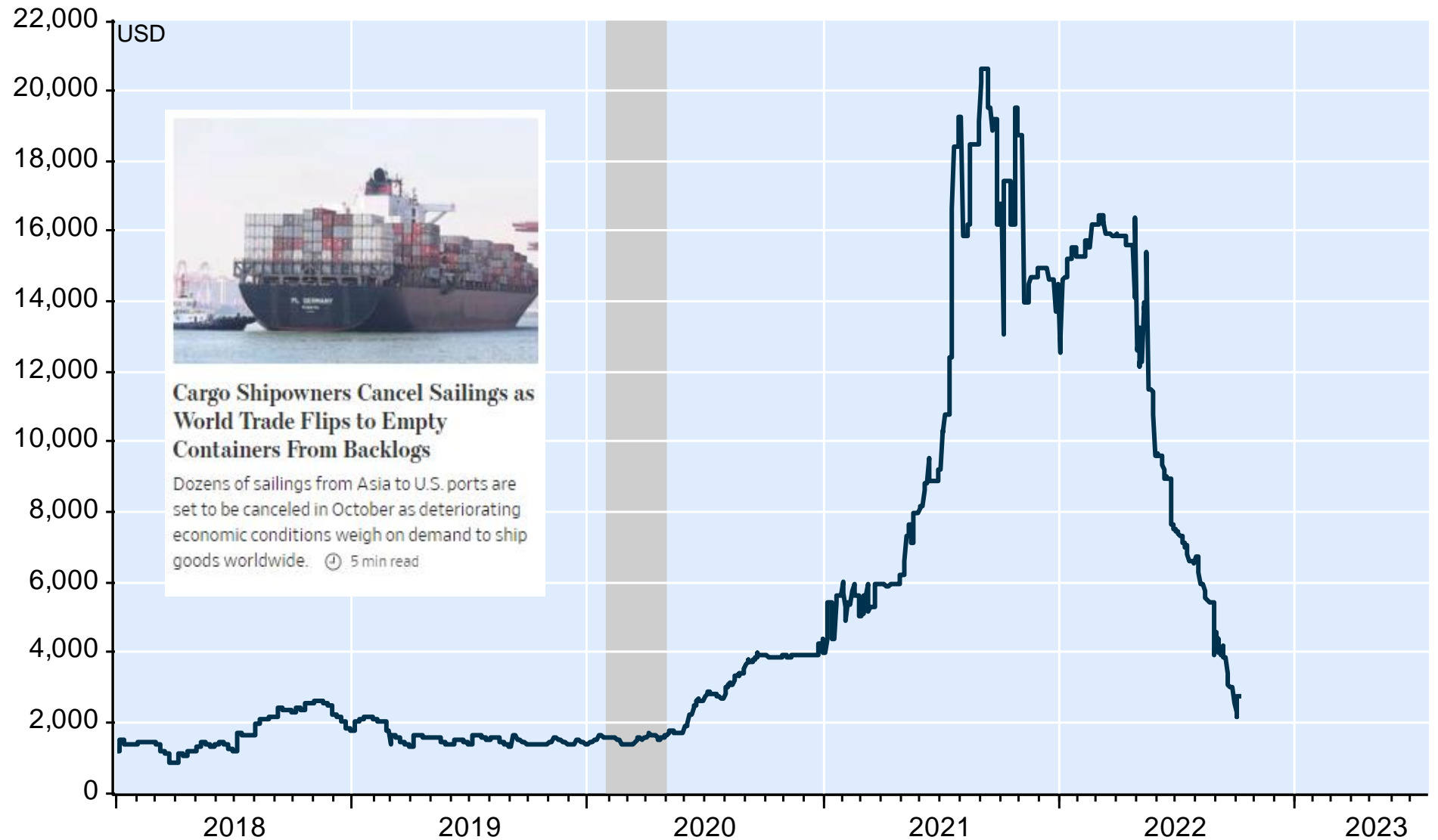


Inflation is a lagging indicator. Central banks must pause soon to assess the situation

Supply constraints still explain a large part of inflation

World: Transportation cost have plunged

Cost of shipping a 40-foot container from China to the US West Coast

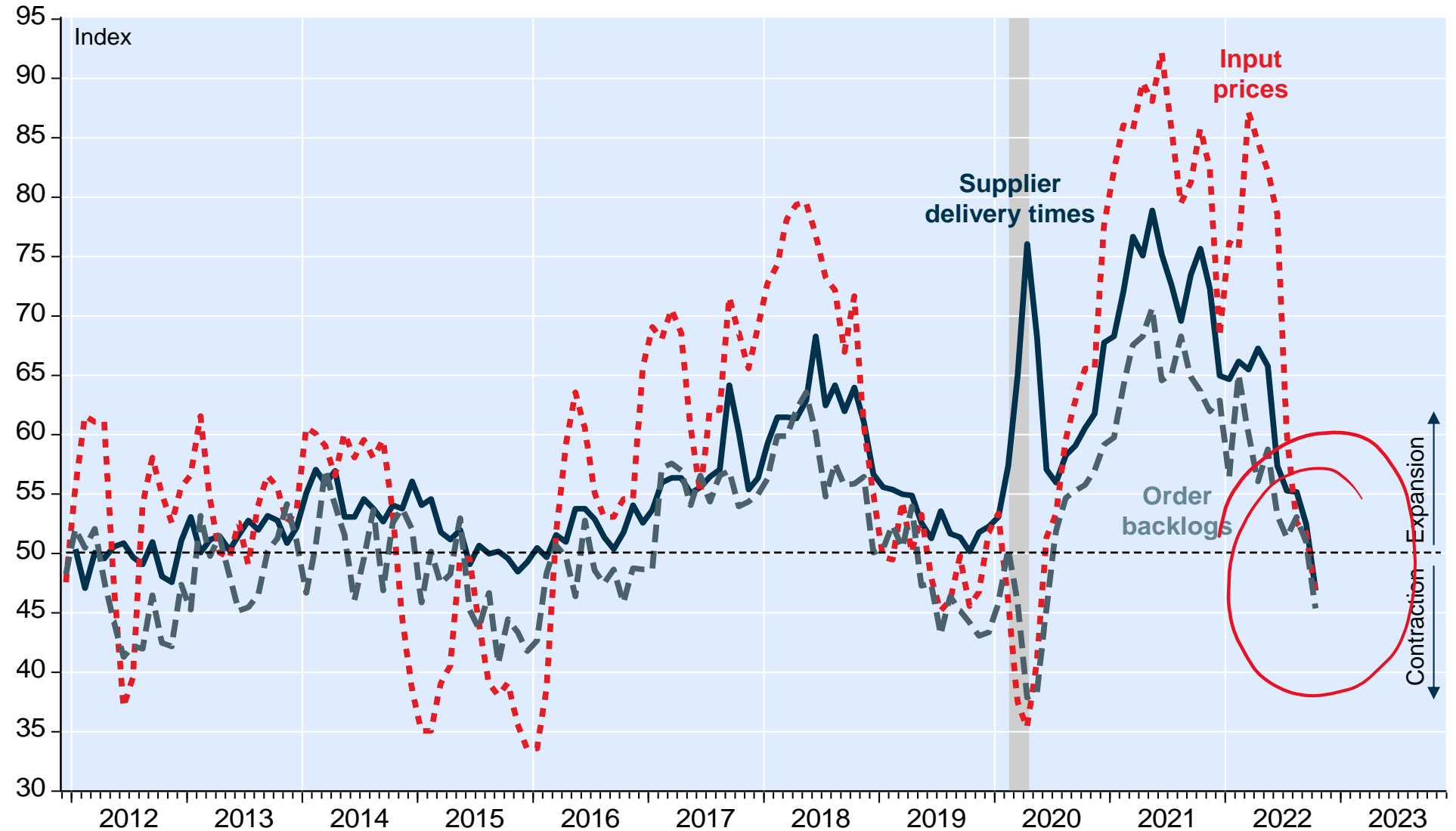


Cargo Shipowners Cancel Sailings as World Trade Flips to Empty Containers From Backlogs

Dozens of sailings from Asia to U.S. ports are set to be canceled in October as deteriorating economic conditions weigh on demand to ship goods worldwide. ⌚ 5 min read

U.S.: Manufacturing supply chain rapidly becoming more fluid

ISM Manufacturing PMI

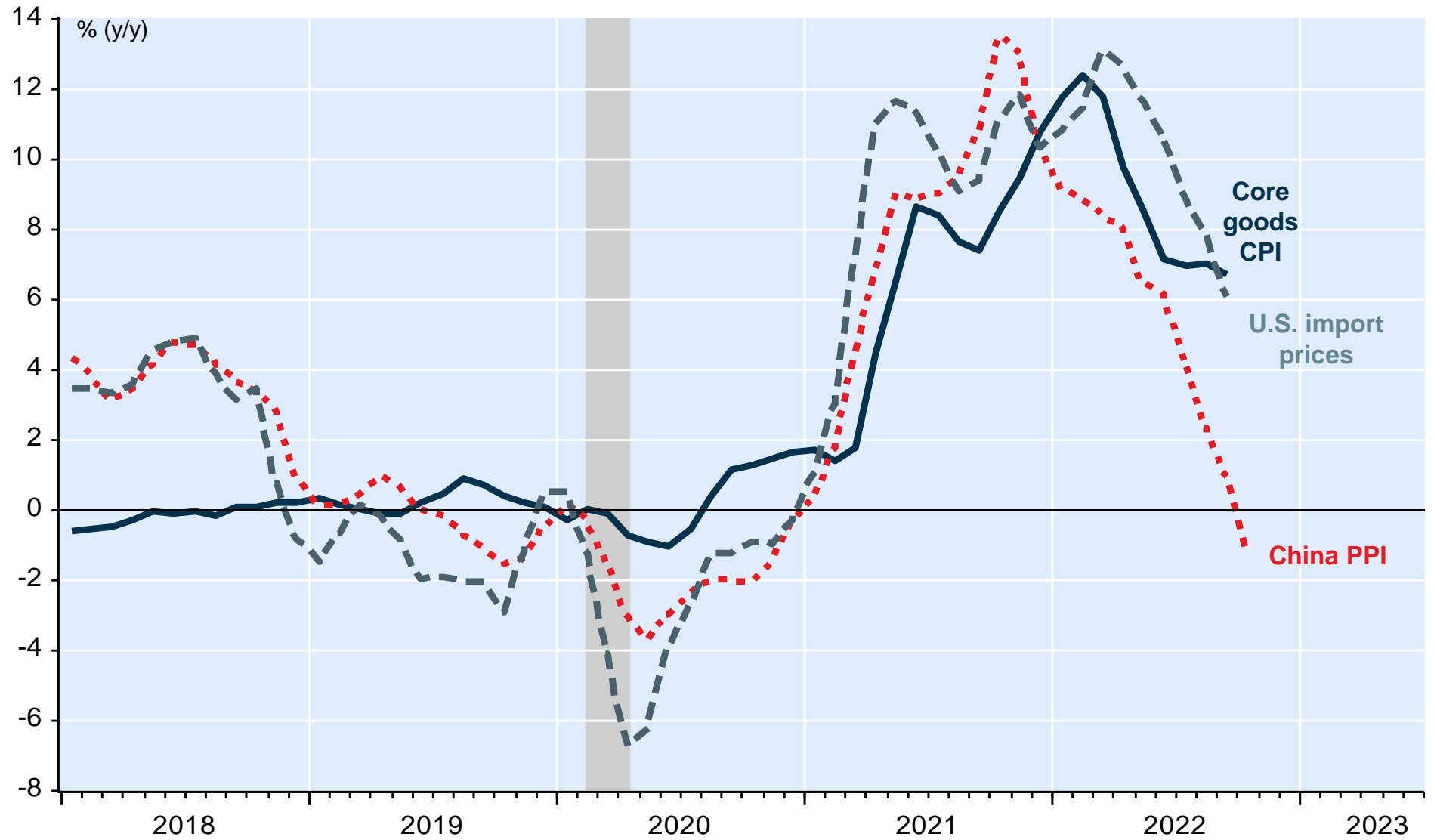


NBF Economics and Strategy (Refinitiv data)



U.S.: China might help

China PPI, U.S. import prices and U.S. core goods CPI

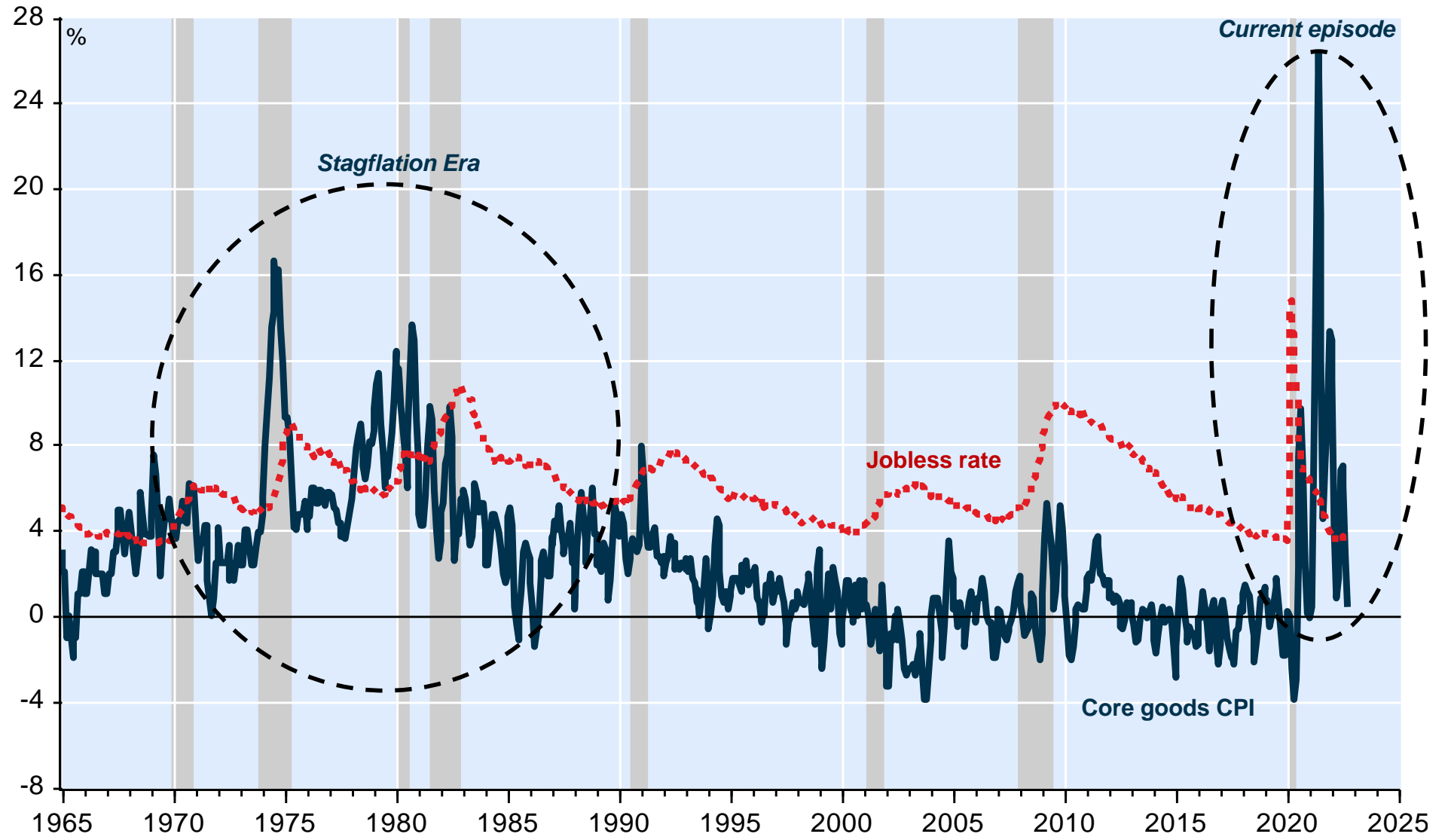


NBF Economics and Strategy (data via Refinitiv)



U.S.: Goods inflation falling much faster than in the stagflation era

Three-month annualized change in the core goods CPI vs unemployment rate



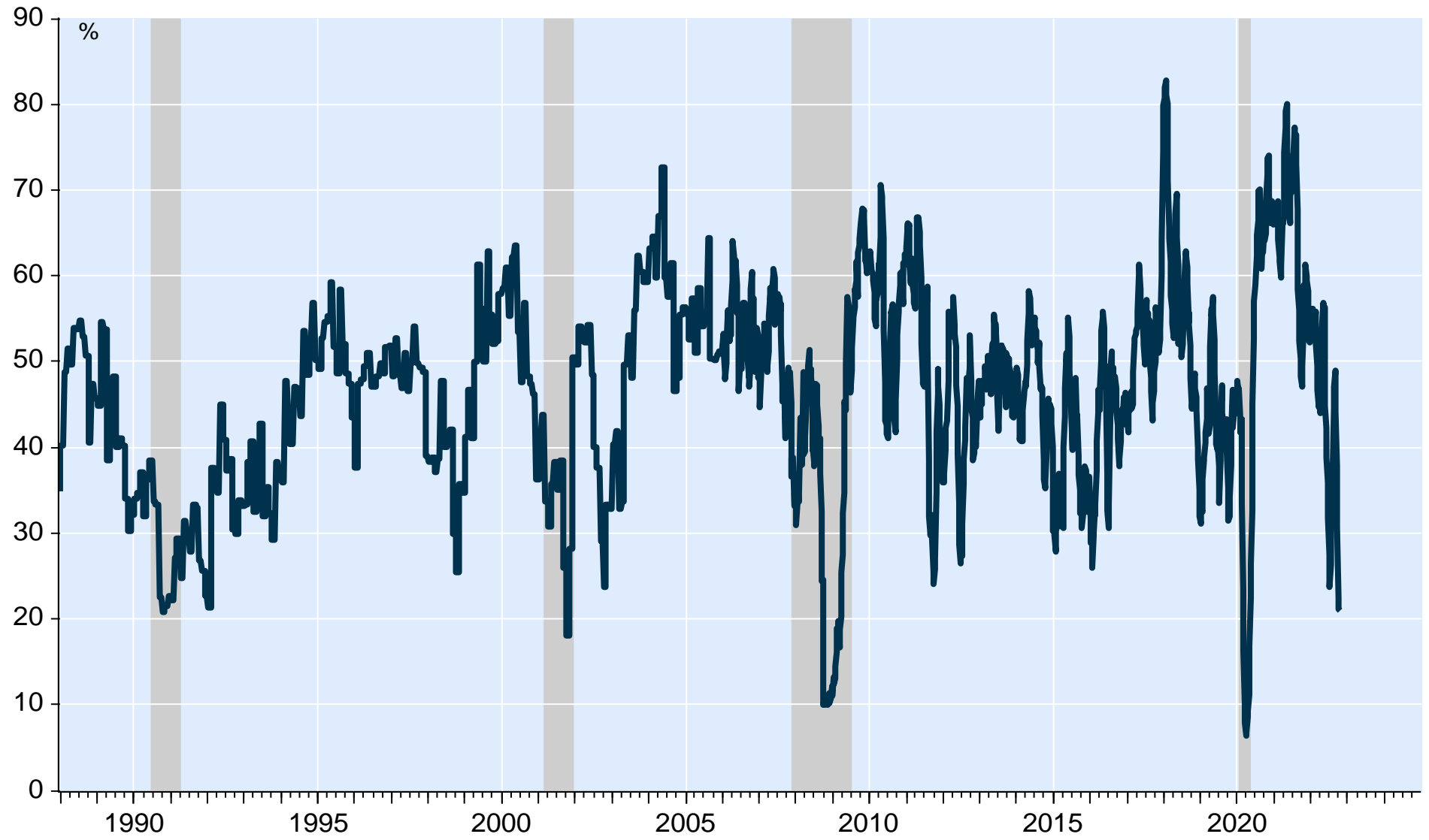
NBF Economics and Strategy (data via Refinitiv)



**The pace of hiring
will slow down**

S&P 500: Diffusion of positive earnings revisions

Weekly data, as of November 1st



NBF Economics and Strategy (data via Refinitiv)

MSCI composite index: EPS Performance

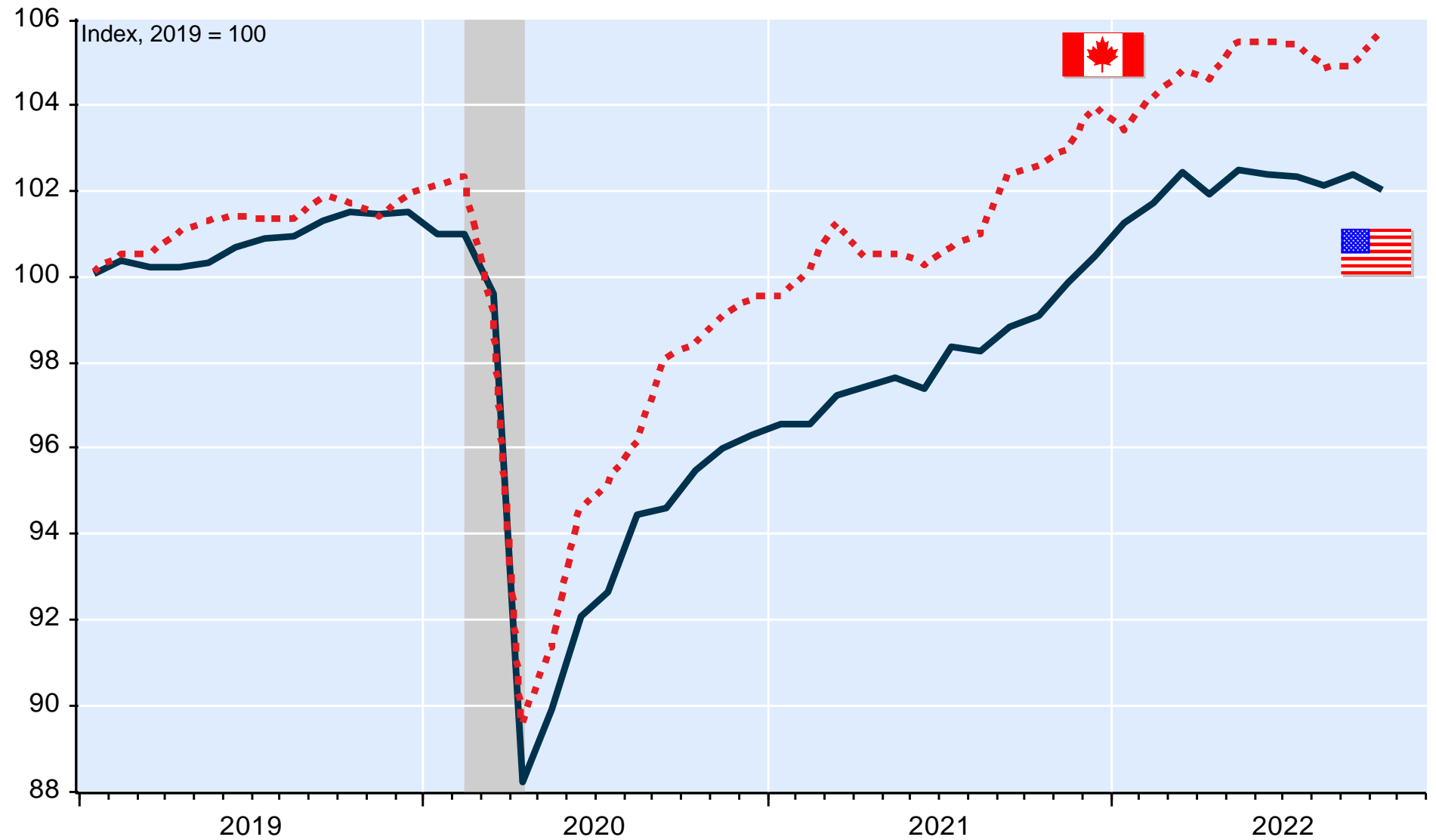


	2021	2022	2023	2024	12 months forward
MSCI ACWI	54.7	10.0	4.5	8.6	5.4
MSCI World	55.1	10.2	4.6	8.1	5.6
MSCI USA	52.5	6.4	6.4	9.6	6.2
MSCI Canada	74.8	20.7	3.8	3.5	6.3
MSCI Europe	66.0	17.6	1.4	5.7	3.7
MSCI Pacific ex Jp	45.6	12.2	4.0	4.5	5.8
MSCI Japan	0.0	42.7	12.8	1.4	5.7
MSCI EM	52.5	8.7	3.6	12.0	4.2
MSCI EM EMEA	63.4	17.8	8.4	7.6	8.5
MSCI EM Latin America	191.2	22.3	-12.2	5.2	-7.3
MSCI EM Asia	39.1	4.8	5.9	14.0	5.7

11/4/2022

Canada-U.S.: Full-time jobs are stalling

Full-time workers as per household employment survey



NBF Economics and Strategy (data via Refinitiv)

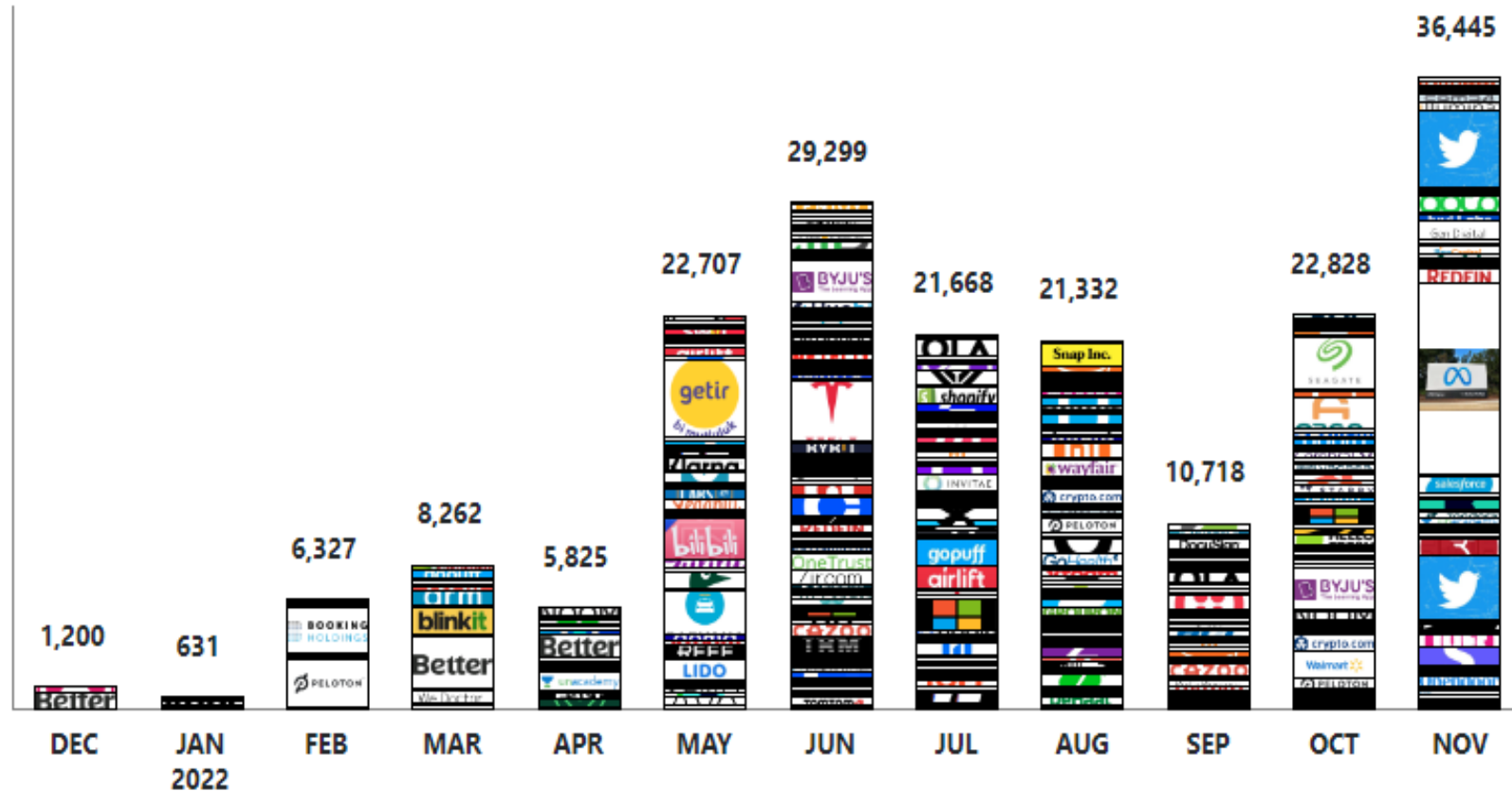
World: A difficult year for tech employment

of Tech Employees Let Go

of Tech Layoffs

of Tech Employees Let Go

as of November 15, 2022

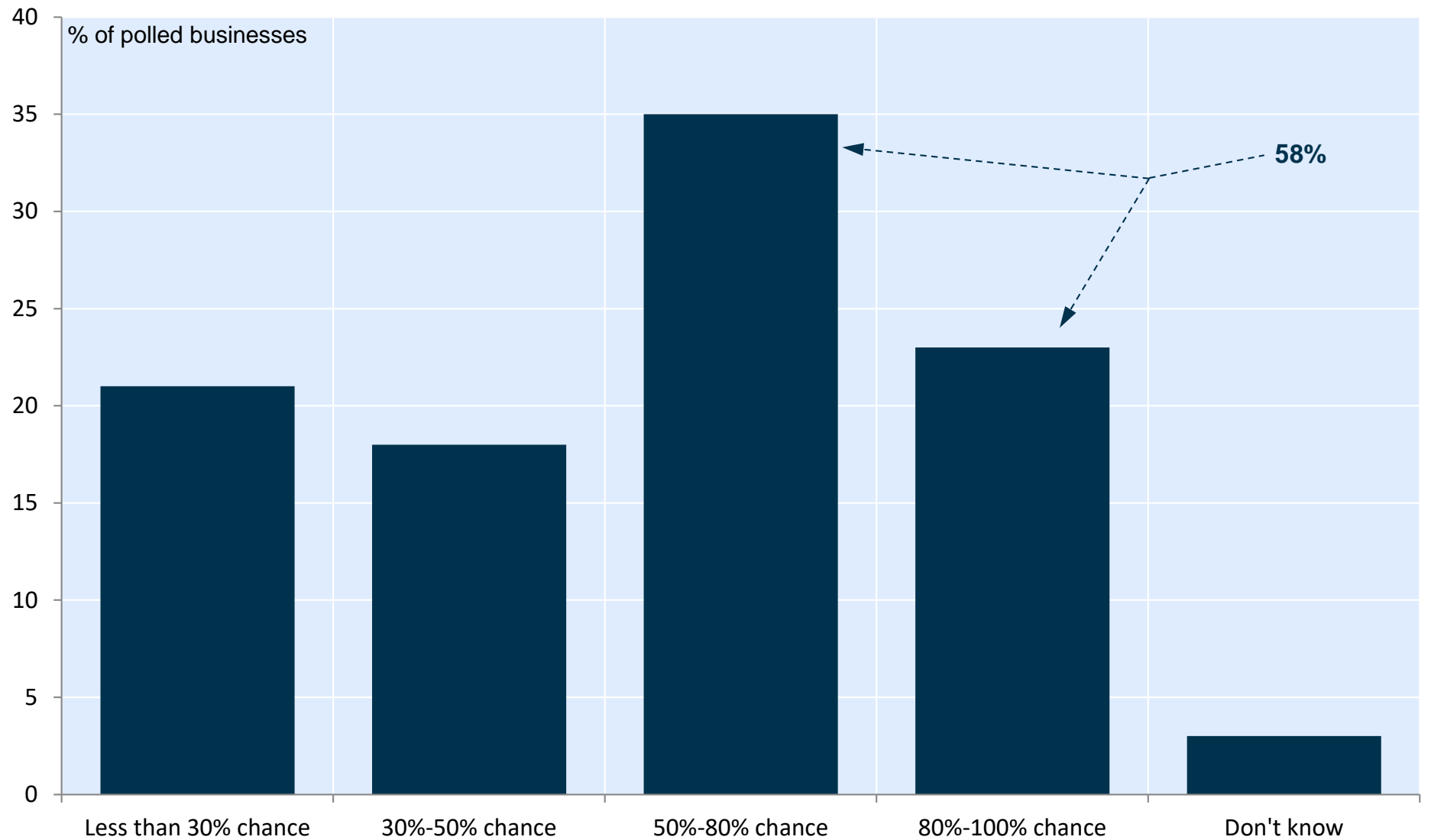


source: trueup.io/layoffs

Canada: Run for the hills?

Canada: Odds of recession mounting

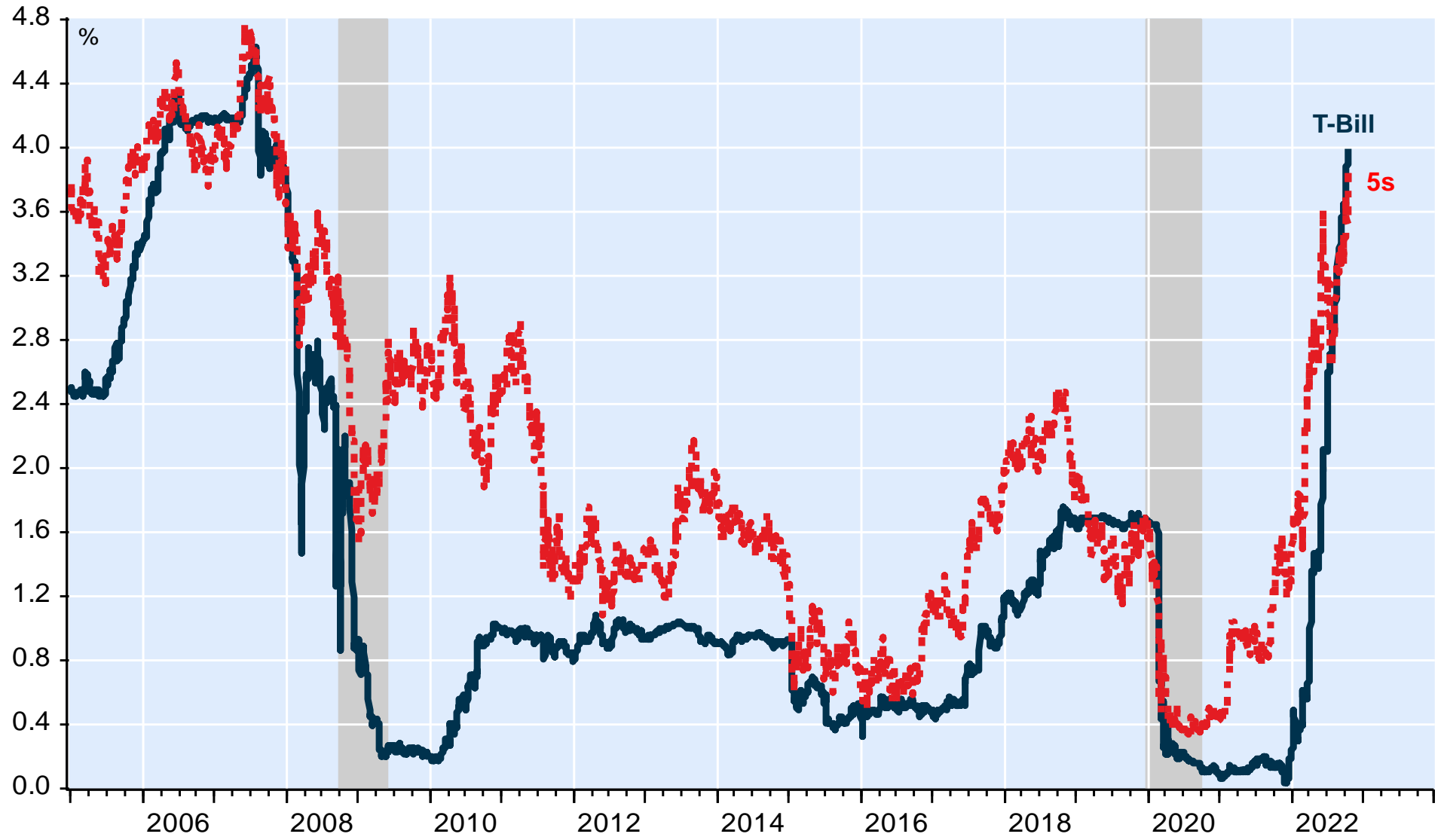
Odds of recession over next 12 months (% of firms for each probability band), Business Outlook Survey



NBF Economics and Strategy (data via Bank of Canada)

Canada: Economy killer?

3-month T-Bill vs. 5-year Treasury

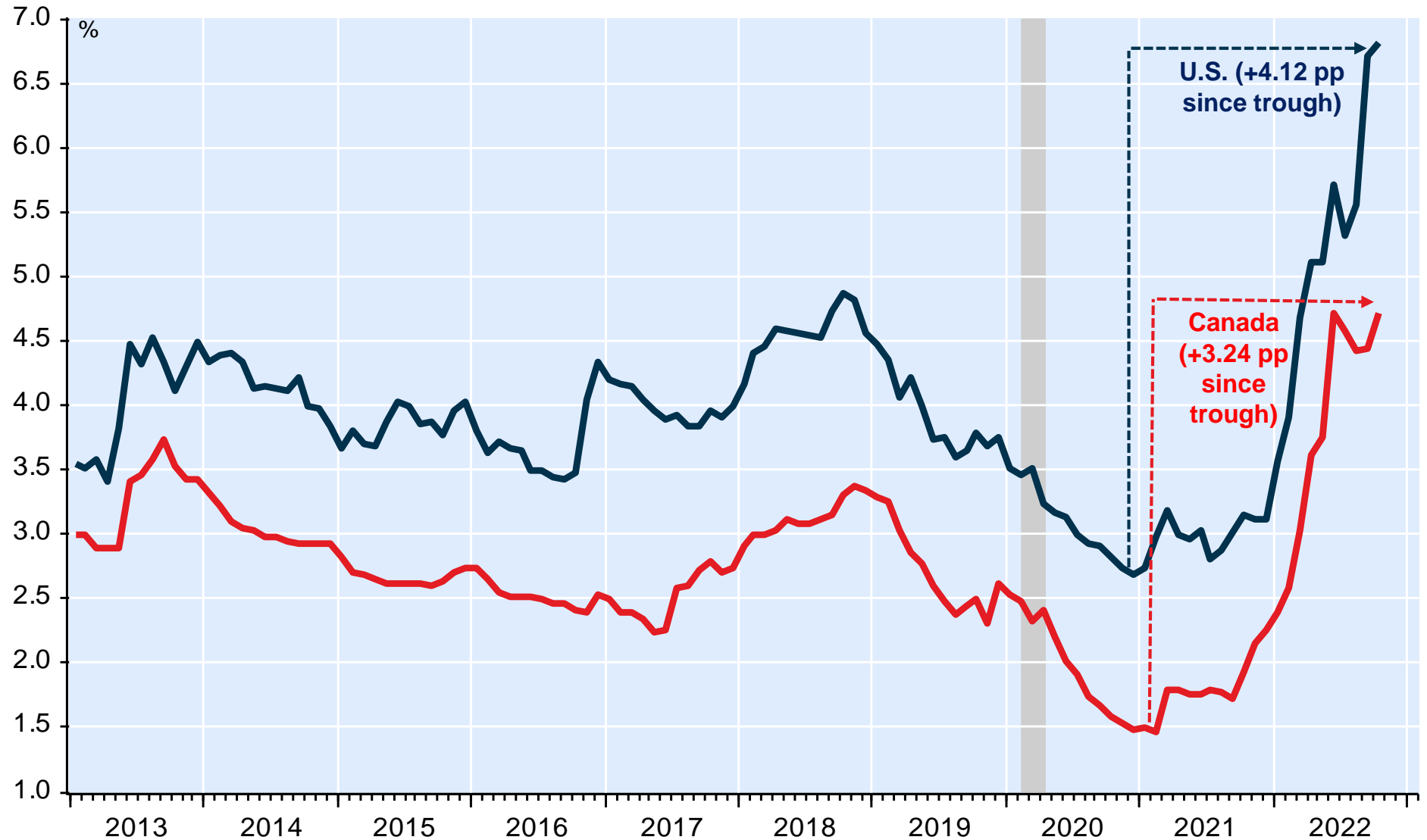


NBF Economics and Strategy (data from Refinitiv)



Canada and United States: Mortgage rates

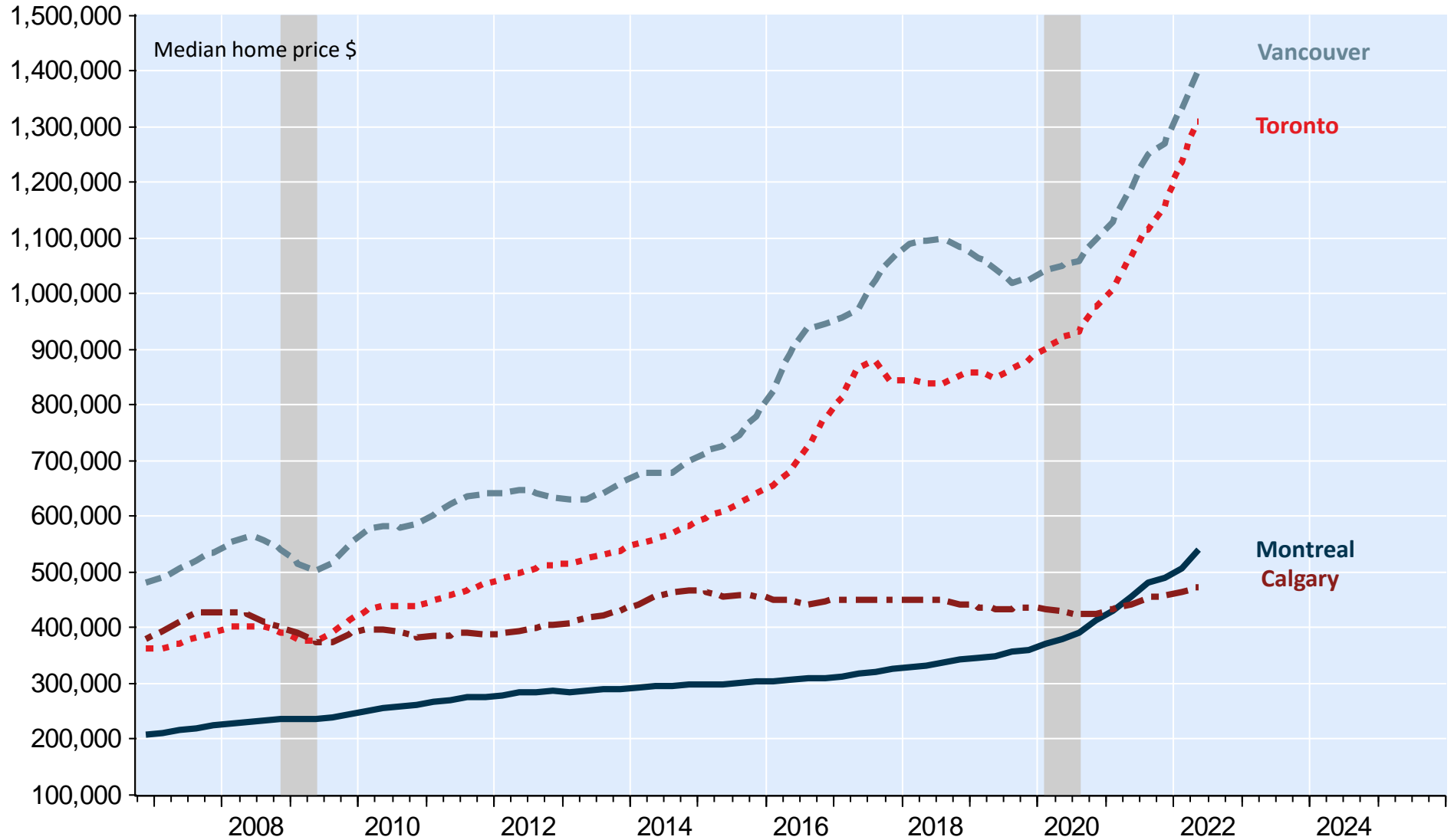
Best interest rate for a fixed insured 5-y mortgage in Canada and rate on a 30-y fixed mortgage in the U.S.



NBF Economics and Strategy (data via NBF, Fred "mortgage30us")

Canada: Perspective on home prices

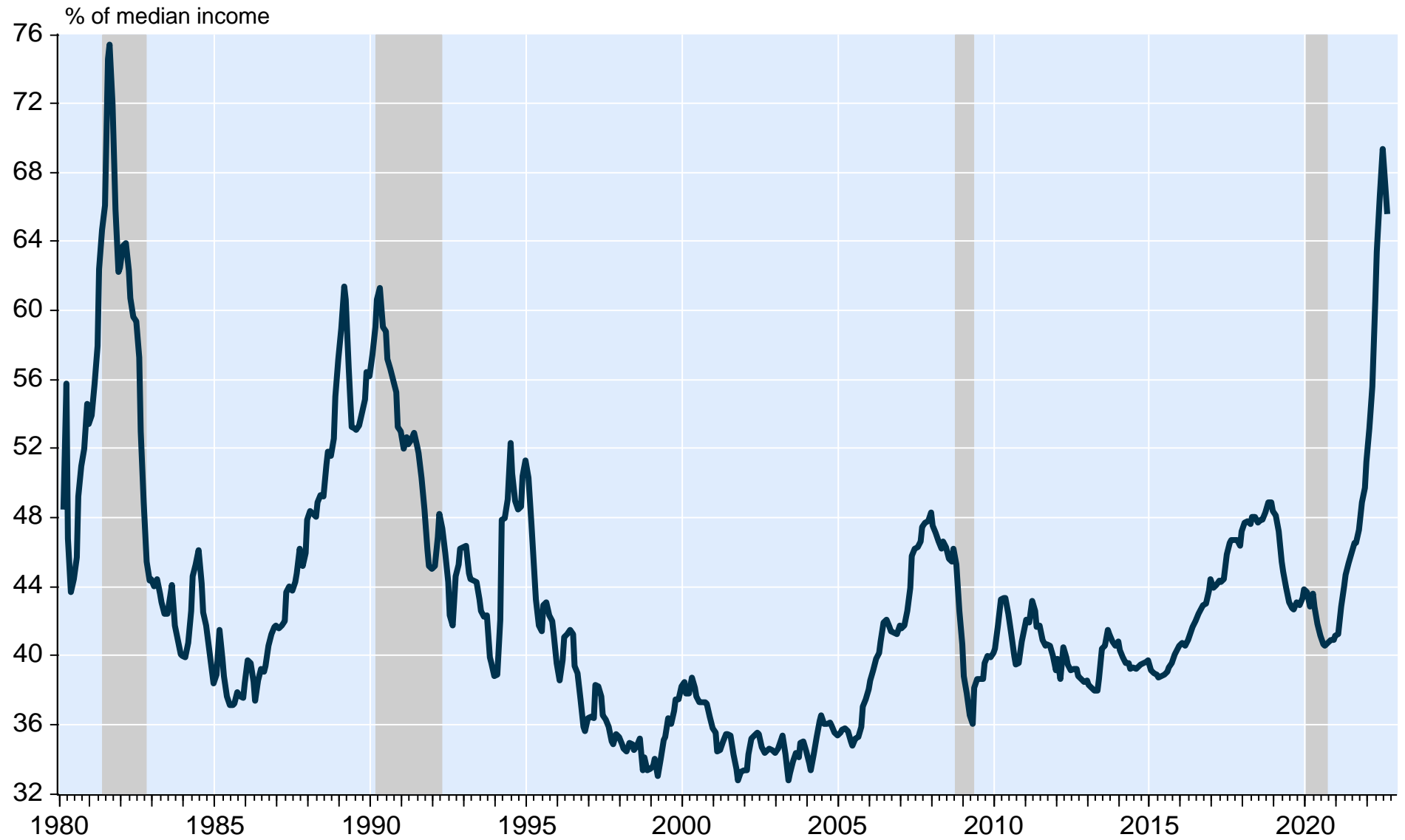
Median home price in different cities (\$)



NBF Economics and Strategy (data via Statistics Canada, Teranet-NBC, CREA)

Canada: Housing affordability worst in 40 years

Monthly mortgage payment on median home price (25 year amortization, 5-year term)

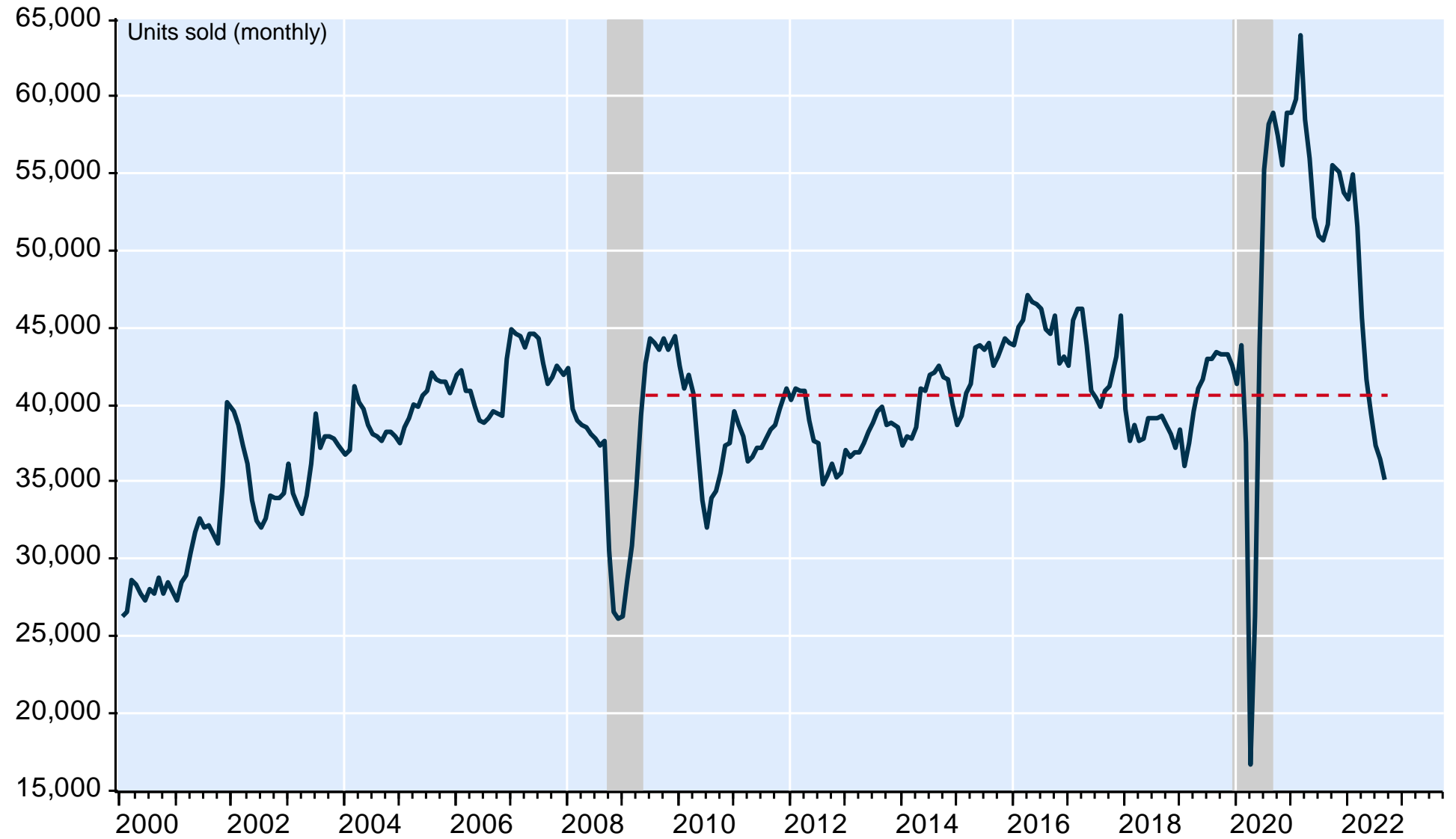


NBF Economics and Strategy (data via Teranet-National Bank)



Canada: Residential sales

Seasonally adjusted data

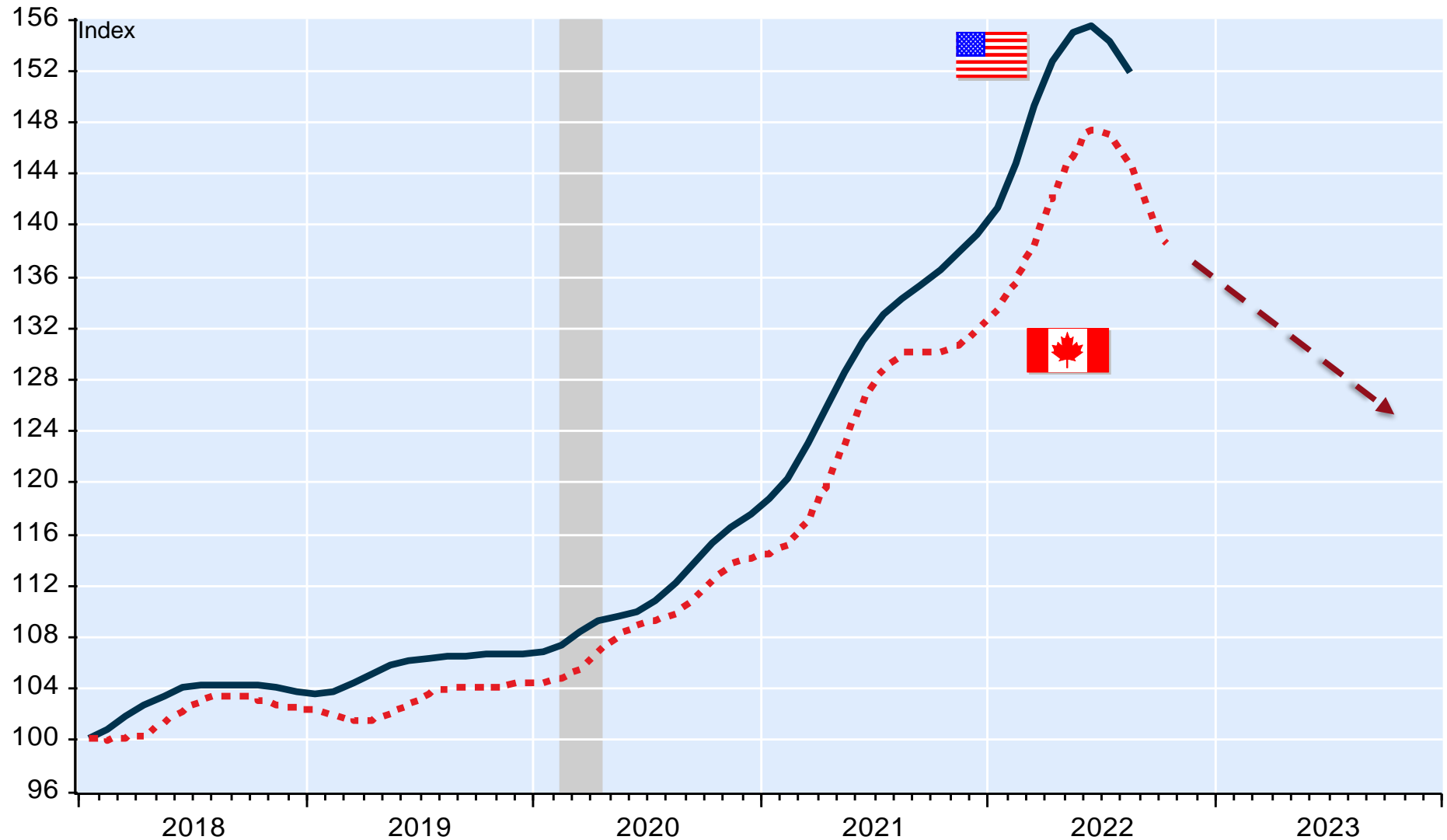


NBF Economics and Strategy (data via CREA)



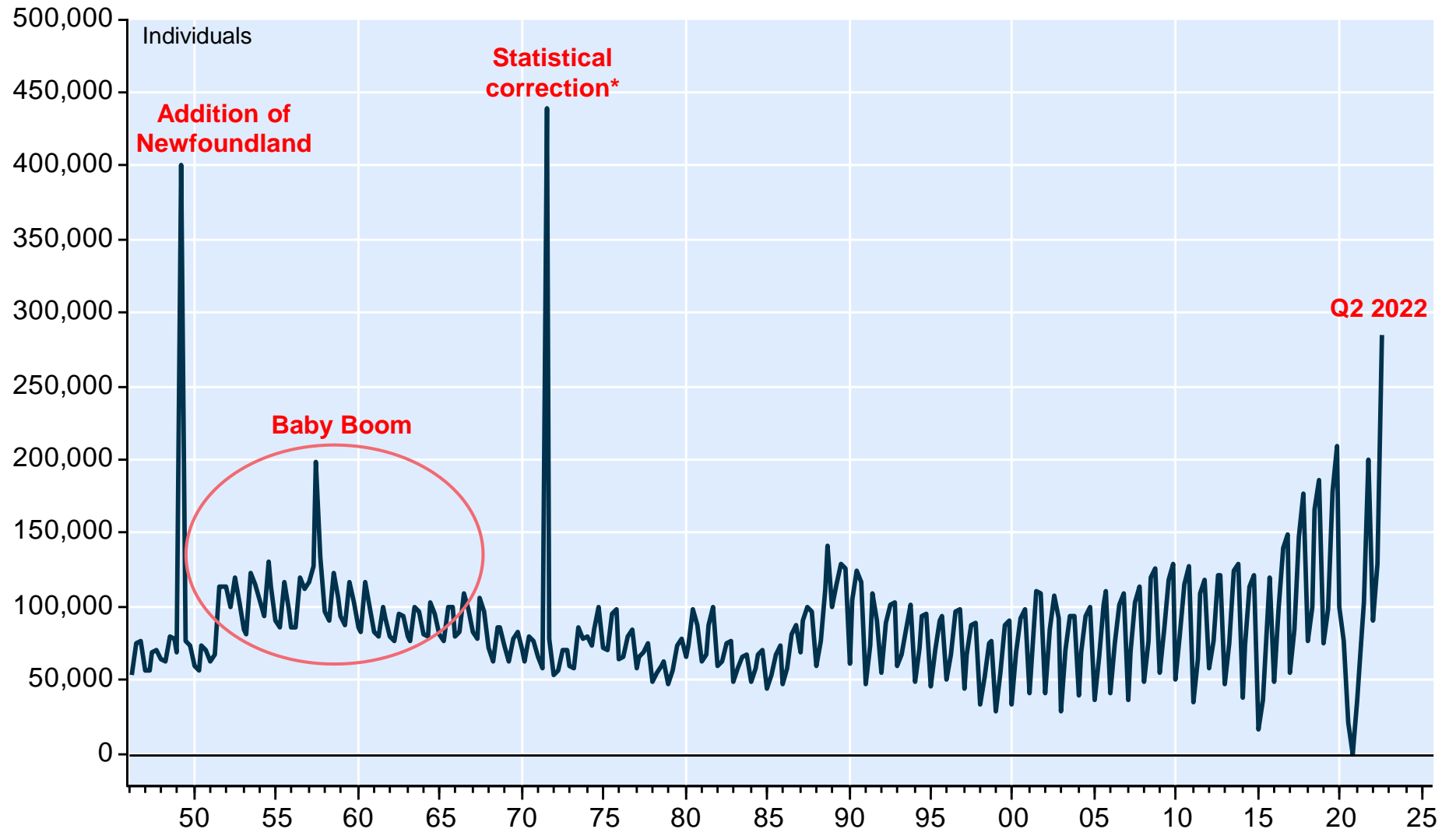
Canada: More home price deflation expected

Teranet-National Bank home price index (composite-11) and Case-Shiller index (composite-20)



Canada: The population of a small province added in a single quarter

Change in population Q/Q, number of individuals

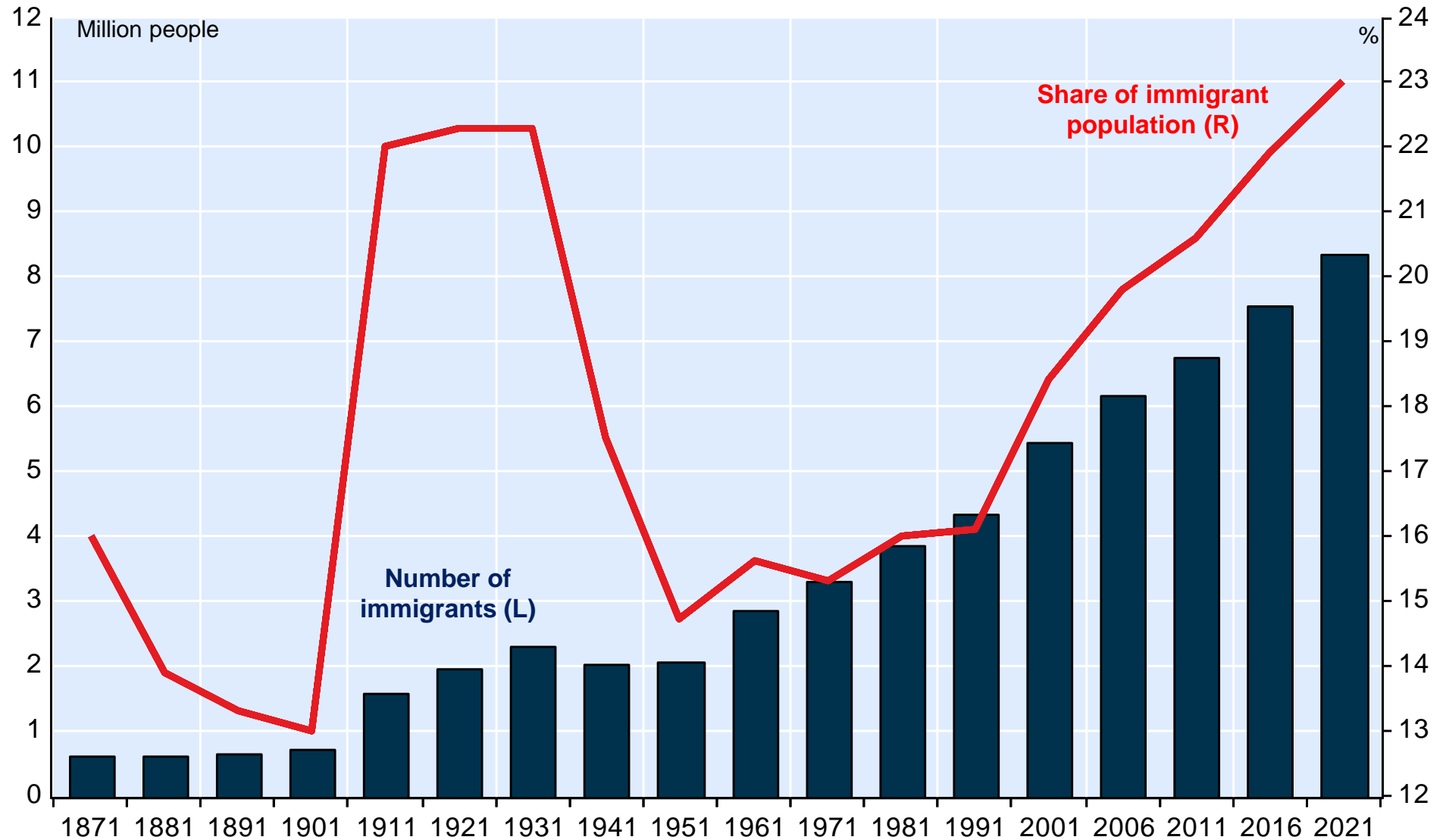


*Adjustment for census net undercoverage prior to July 1971

NBF Economics and Strategy (data via Statistics Canada)

Canada: A growing share of the population is immigrant

By census year

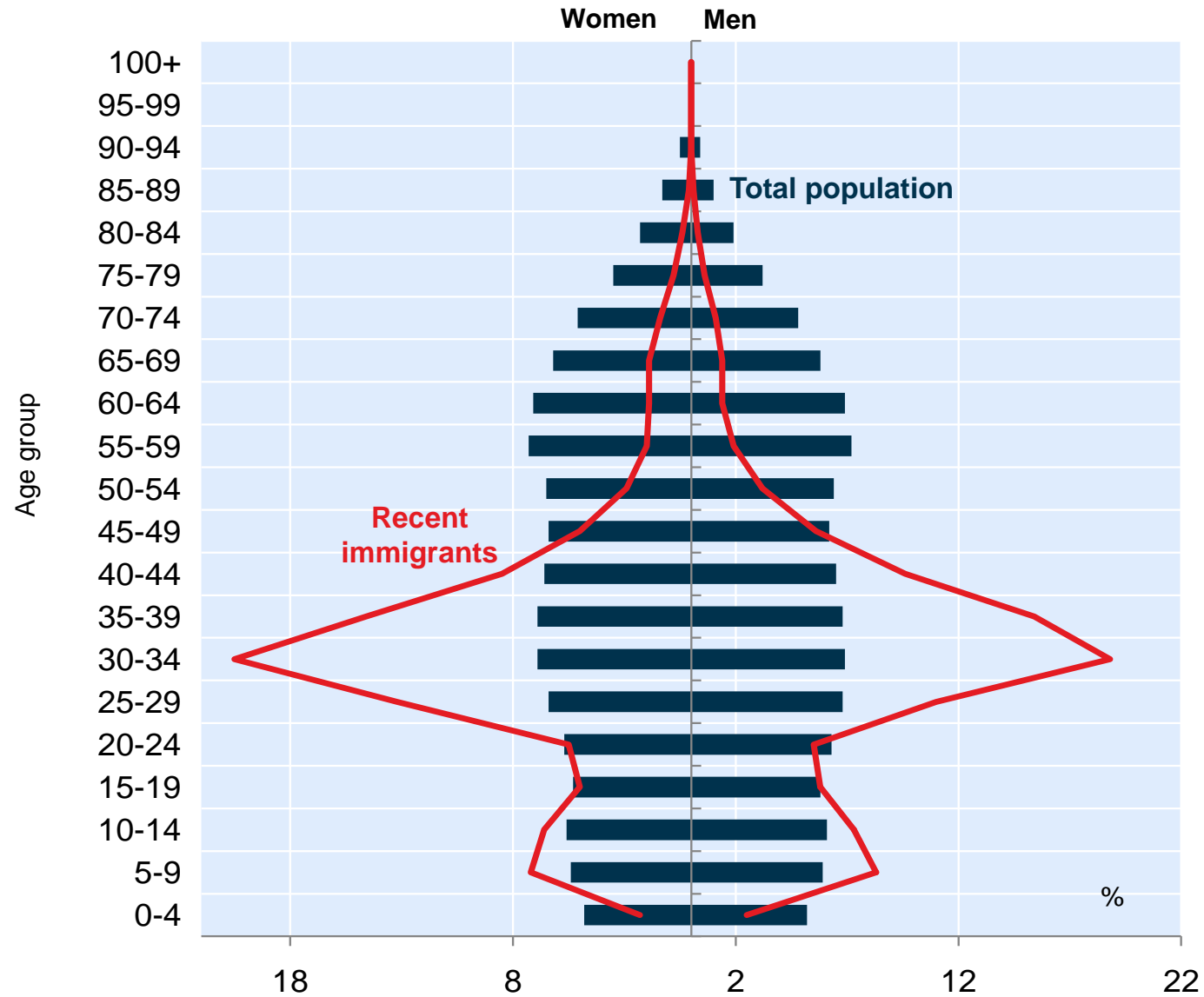


NBF Economics and Strategy (data via Statistics Canada <https://www150.statcan.gc.ca/n1/daily-quotidien/221026/g-a001-eng.htm>)



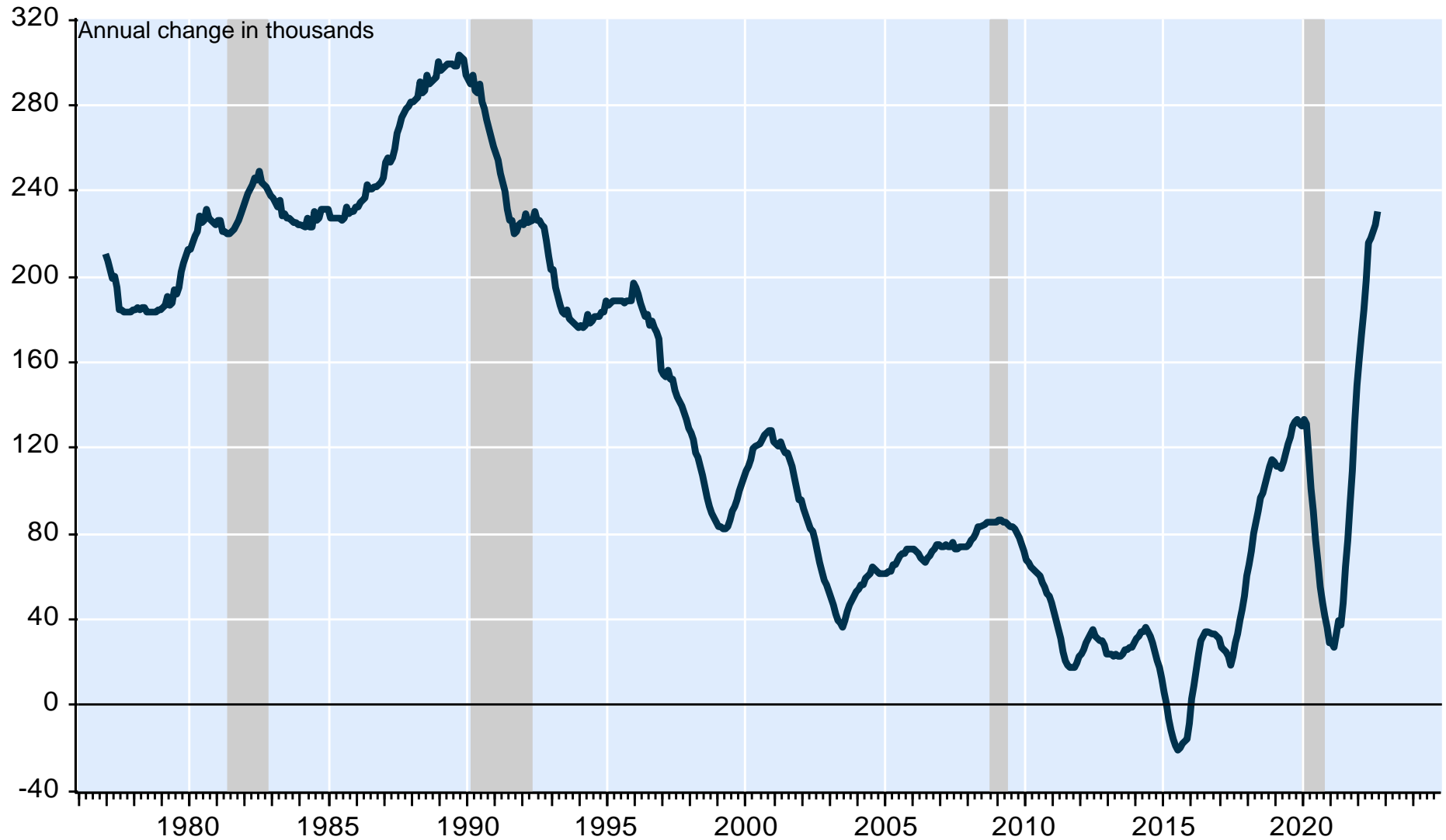
Canada: Immigrants rejuvenate Canada's age pyramid

Age distribution of recent immigrants (between 2016 and 2021) and total population, as of 2021 census



Canada: Best demographics in a generation

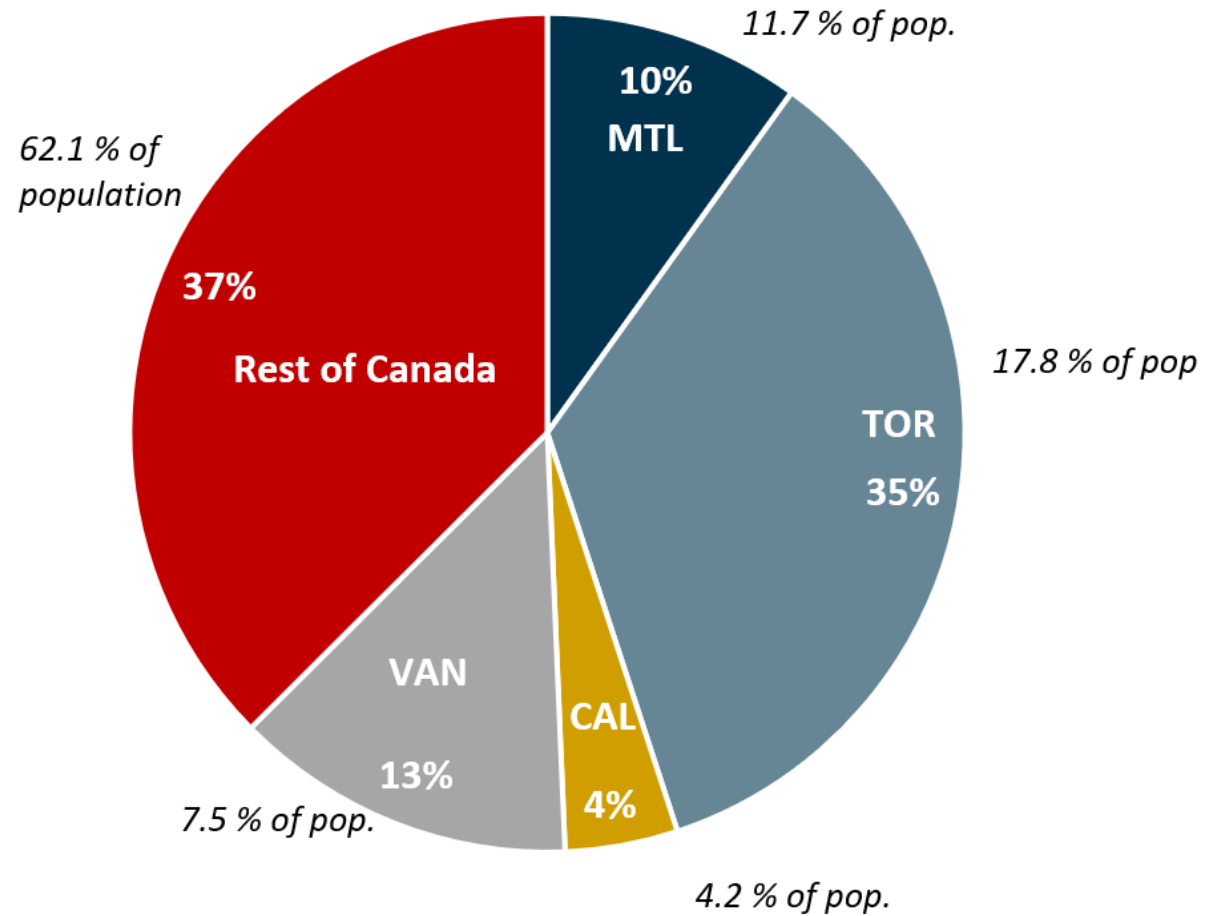
Population aged 25-54



NBF Economics and Strategy (data via Refinitiv)

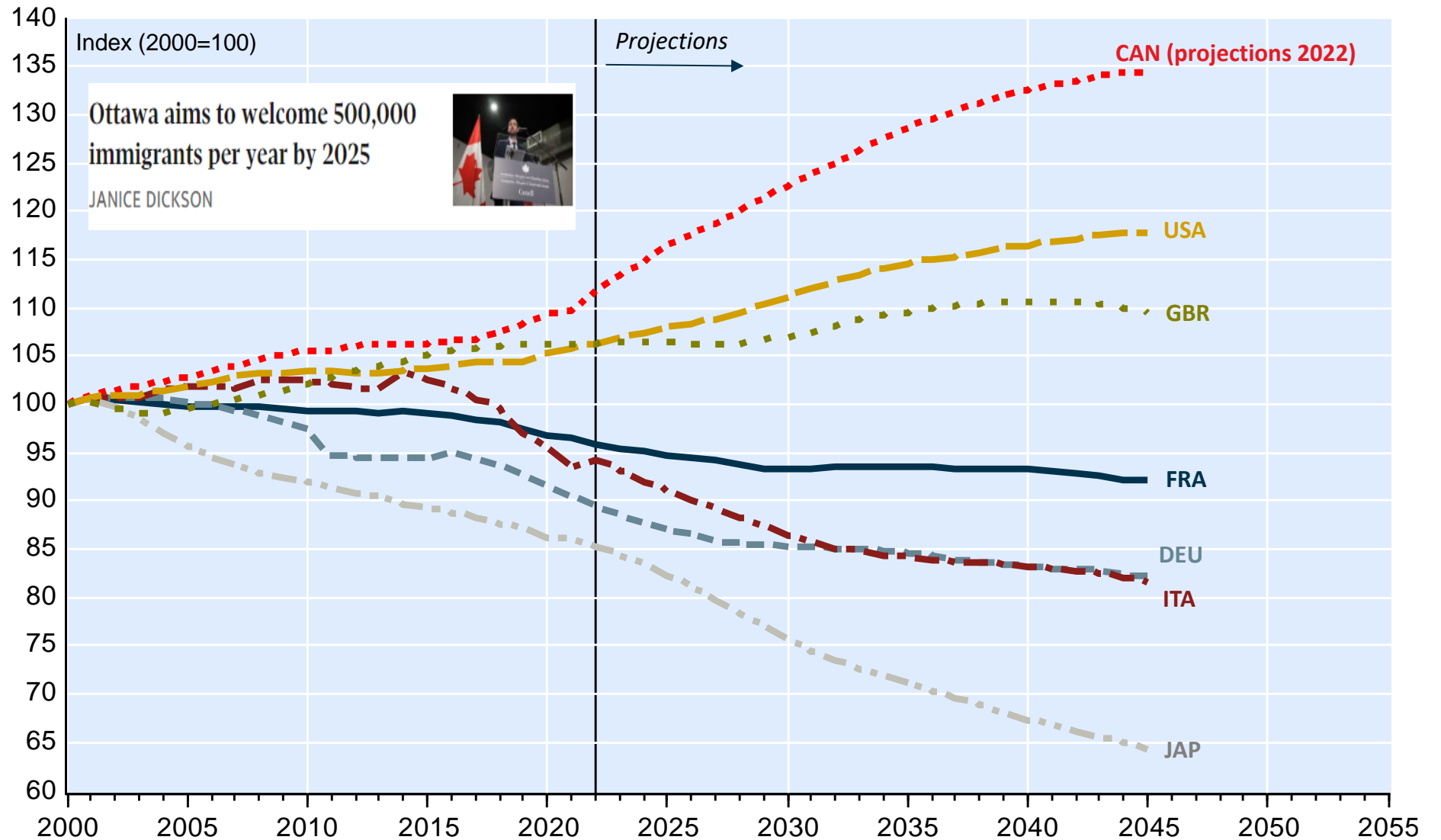
Canada: Immigration distribution in 2021

The number of immigrants was 405,800 in 2021, 63% opted for the 4 largest CMAs (40% of the population)



Canada : Best population growth in the G7 for prime-age population

25-54 years old projected population



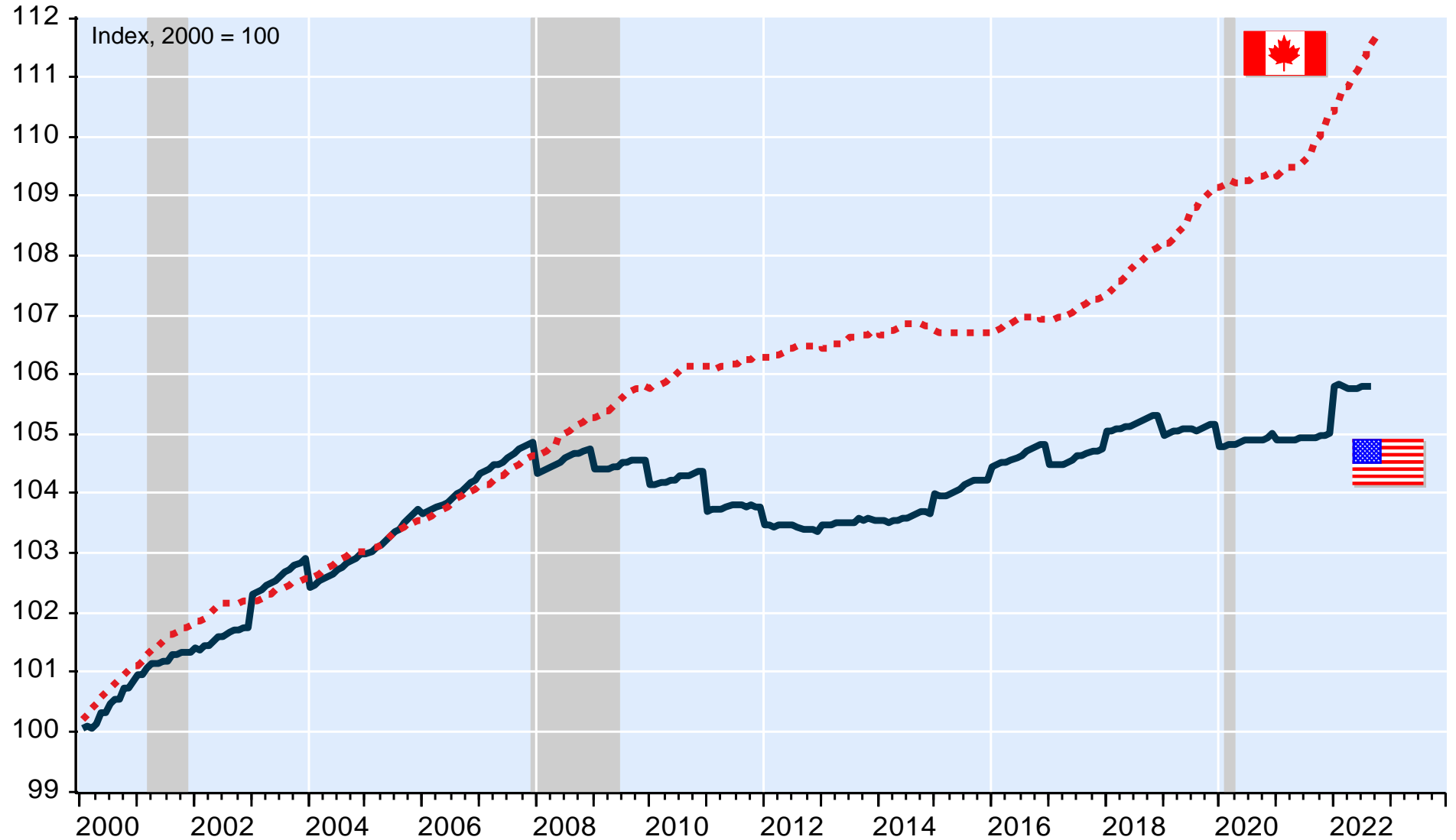
Ottawa aims to welcome 500,000 immigrants per year by 2025

JANICE DICKSON



Canada: Prime-aged workforce growing faster than in the U.S.

Civilian population aged 25-54

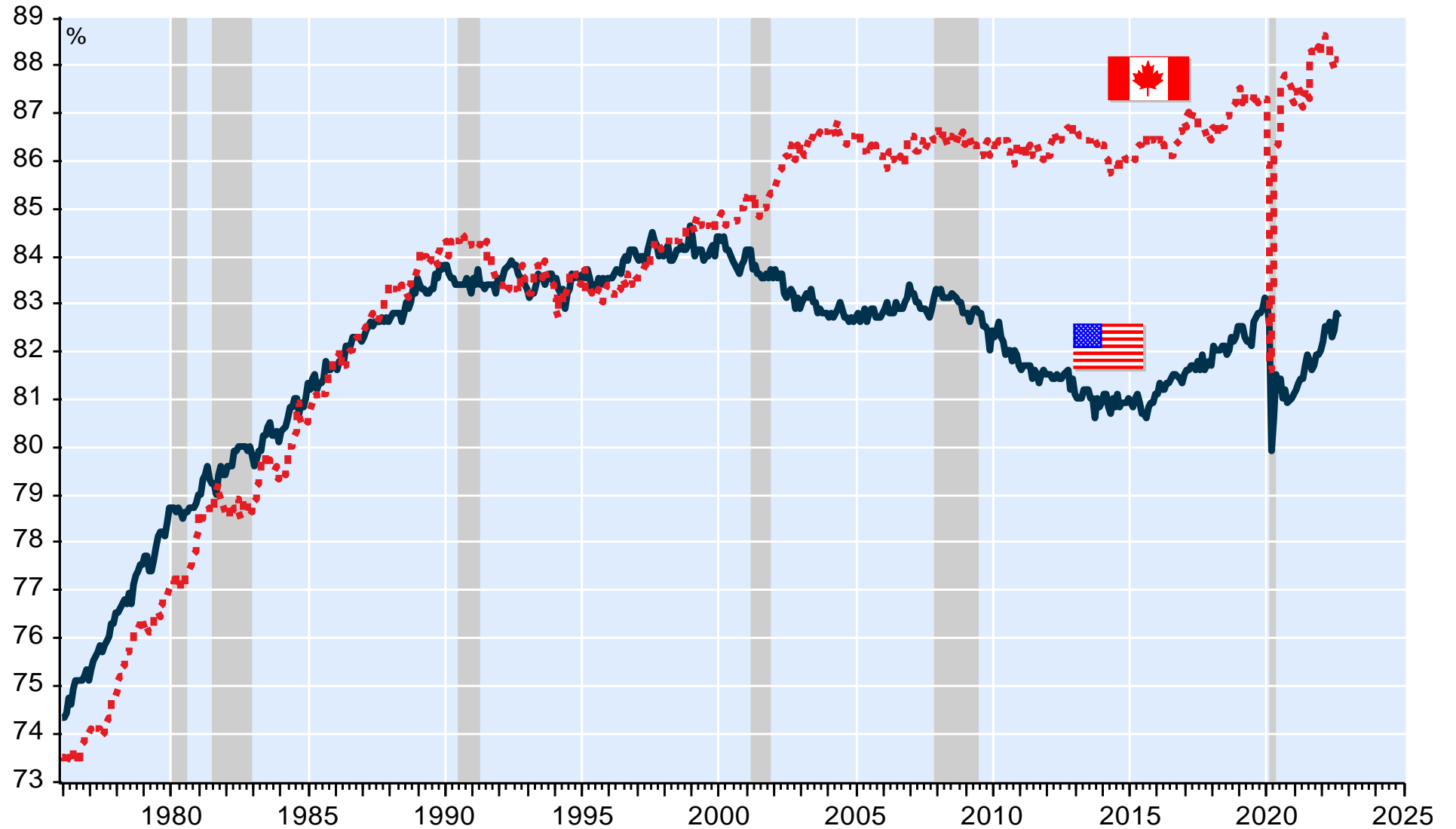


NBF Economics and Strategy (data from Statistics Canada, U.S. Bureau of Labor Statistics)



Canada: Labour force participation near a record high

Labour force participation rate for population aged 25-54



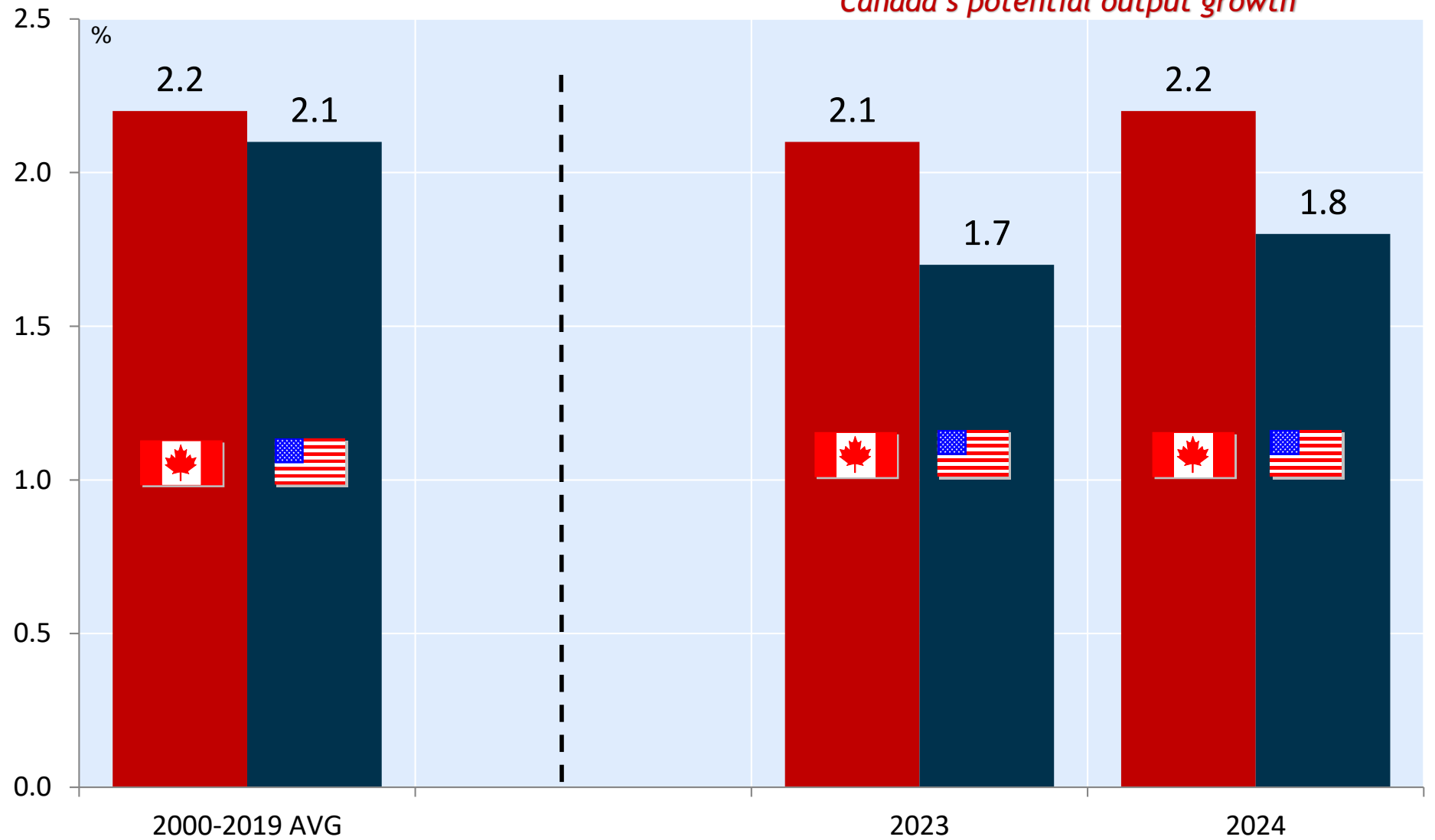
NBF Economics and Strategy (data from Statistics Canada, U.S. Bureau of Labor Statistics)



Canada: Potential GDP growth to exceed that in the U.S.

Potential real GDP growth: Canada vs. the U.S.

Net immigration to account for over two-thirds of Canada's potential output growth

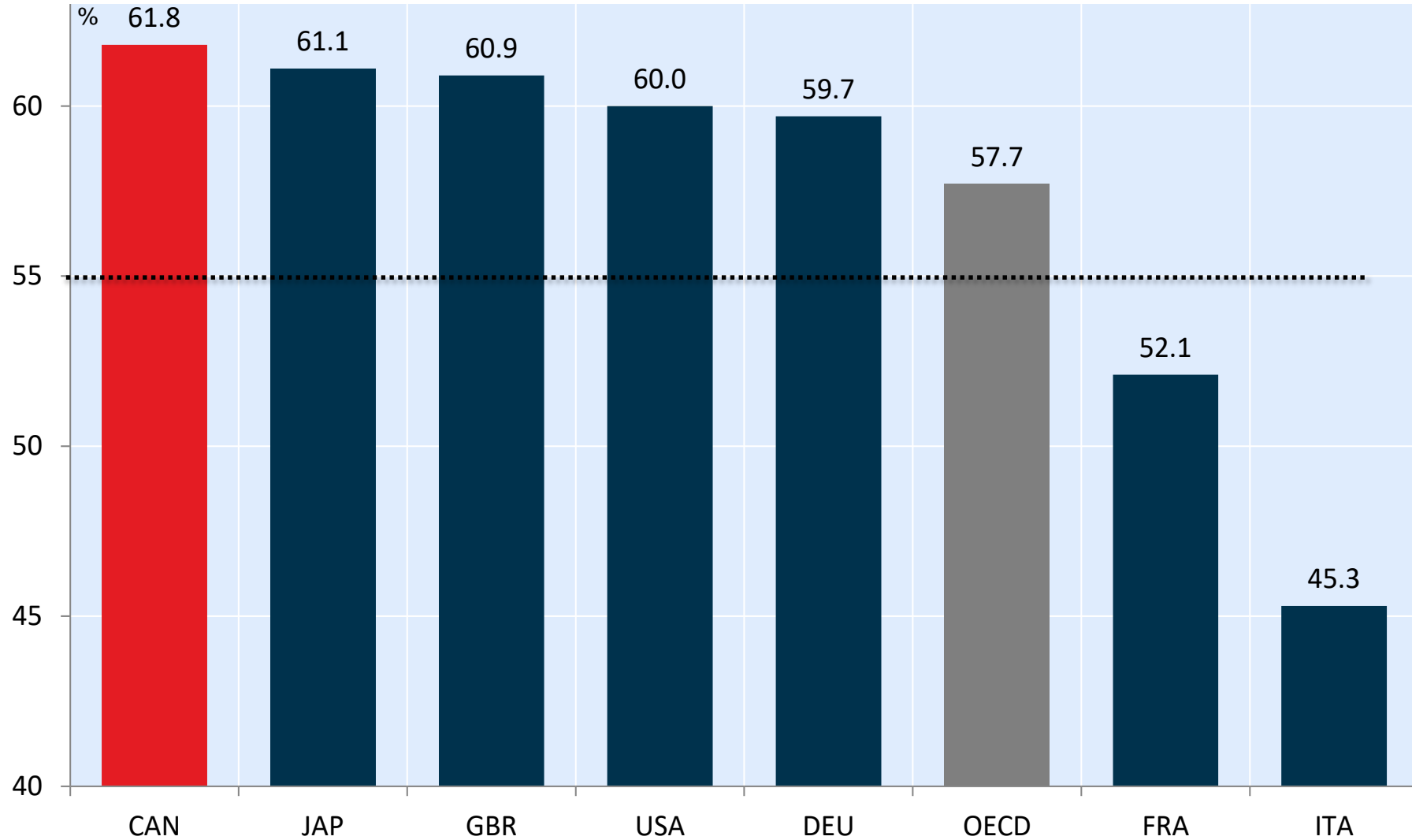


NBF Economics and Strategy (data from Bank of Canada October 2022 Monetary Policy Report)

World: Taxpayers needed to pay for social safety net

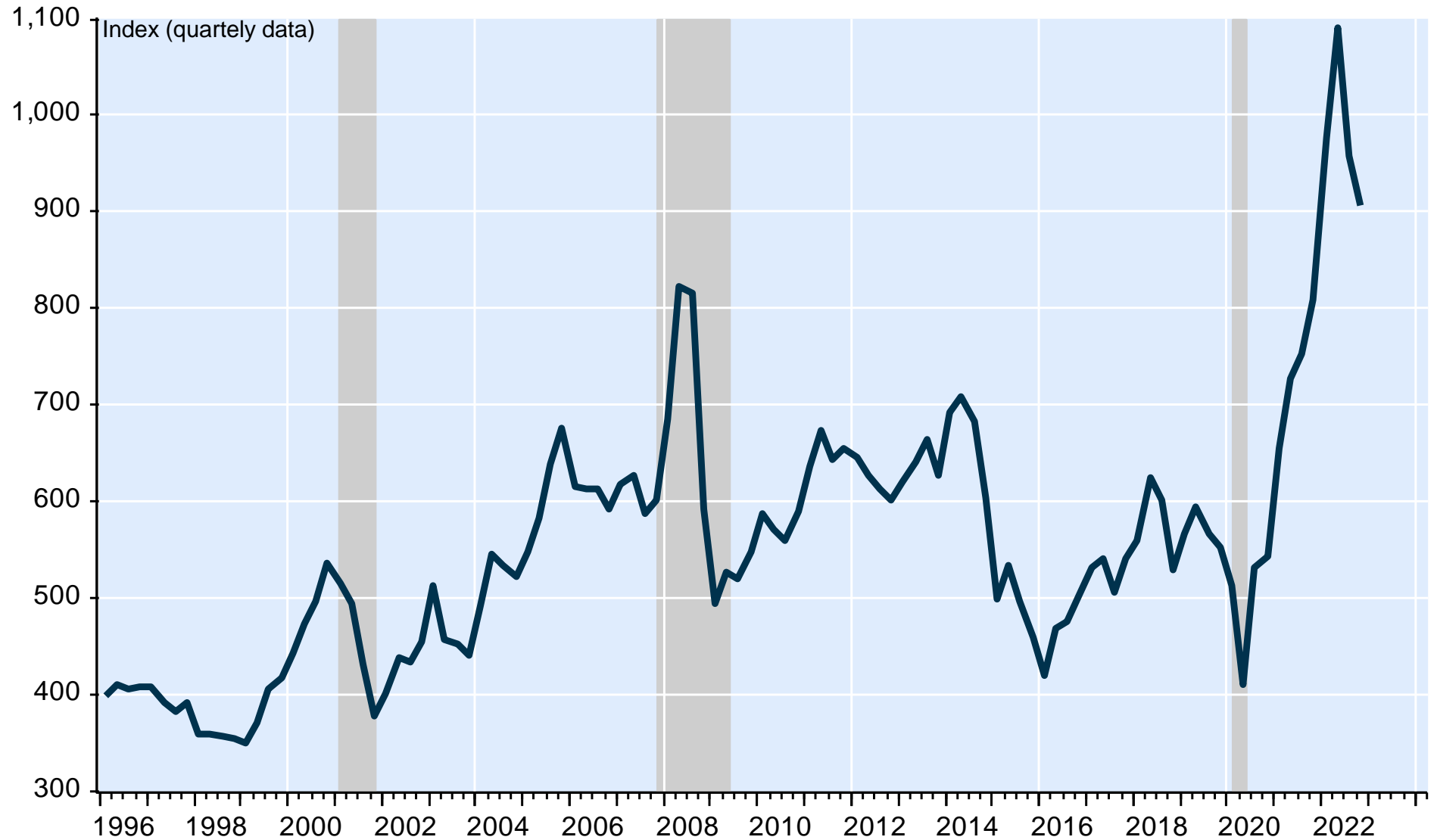
Employment/population ratio (2022 Q2) – people aged 15+

It's best to remain above 55%



Canada: Commodity prices remain very high

Price of commodities produced in Canada and sold on international markets (in CAD)

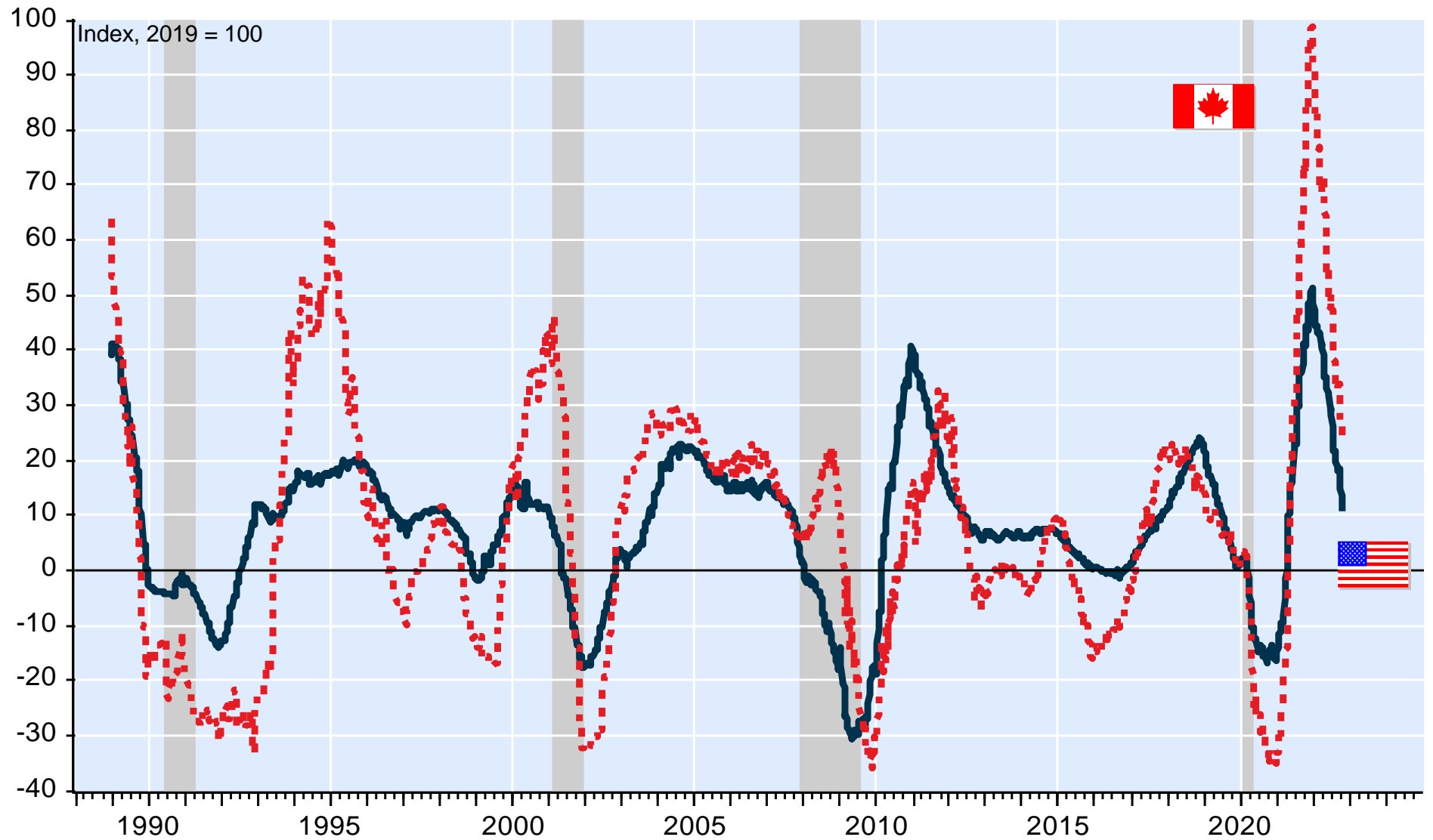


NBF Economics and Strategy (data via Refinitiv)



Canada-U.S.: Perspective on earnings during a cycle

Trailing EPS: S&P 500 and S&P/TSX

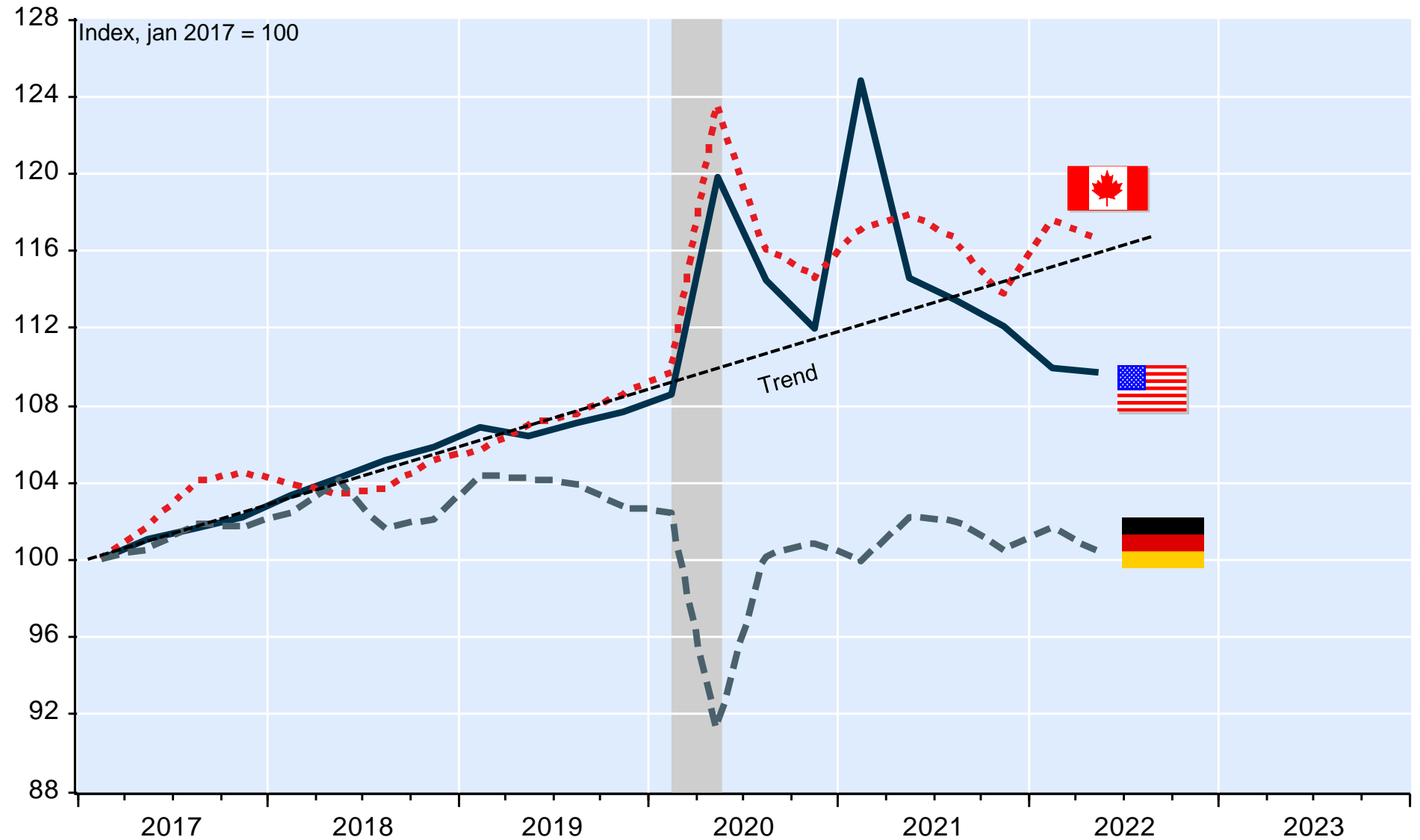


NBF Economics and Strategy (data via Refinitiv)



Canada: Disposable income remains above trend

Real disposable income: Canada, US, Germany

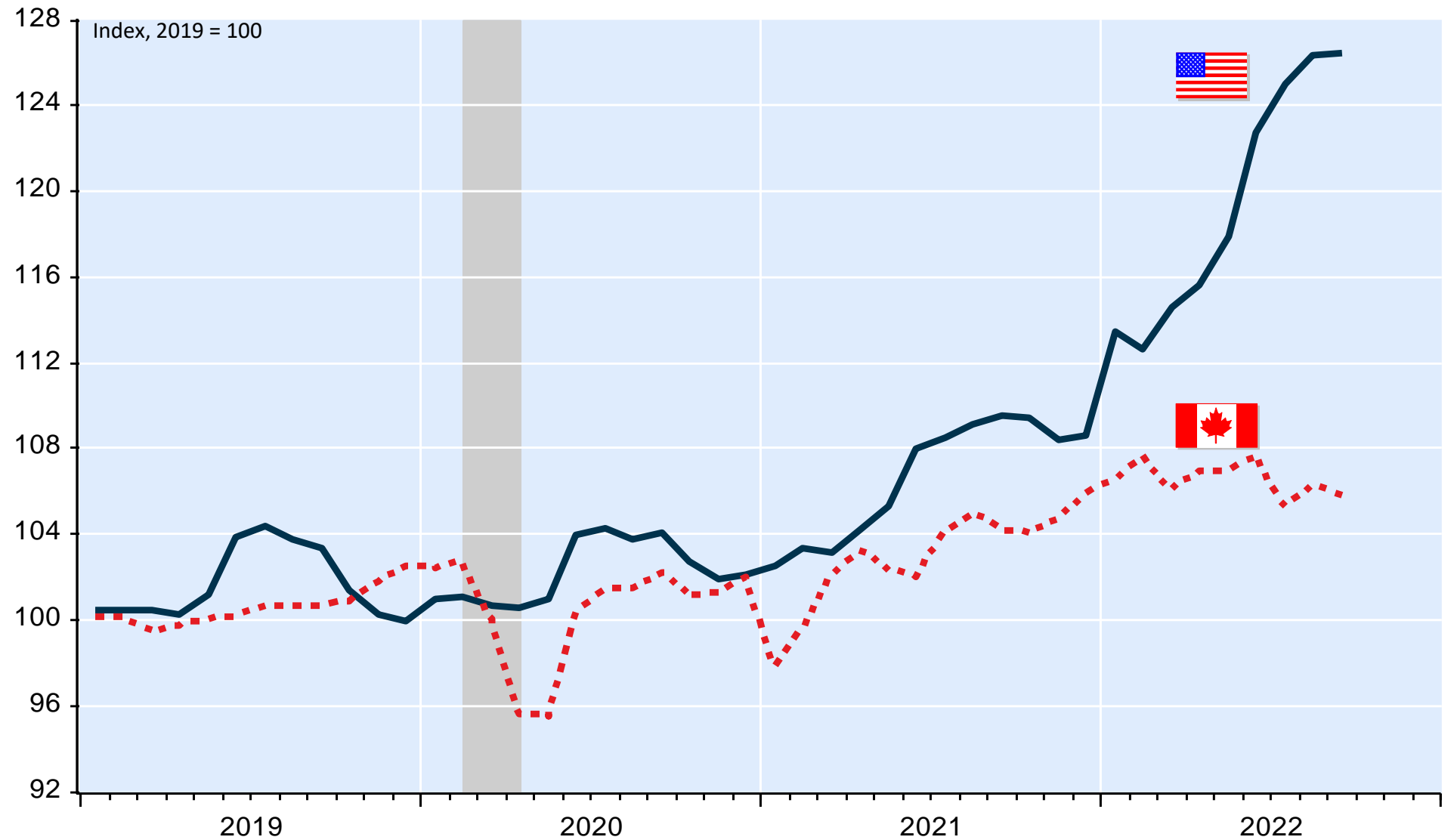


NBF Economics and Strategy (data from Refinitiv)



Canada: Electricity prices remain stable for residential users

CPI for electricity sold to consumers: Canada-U.S.



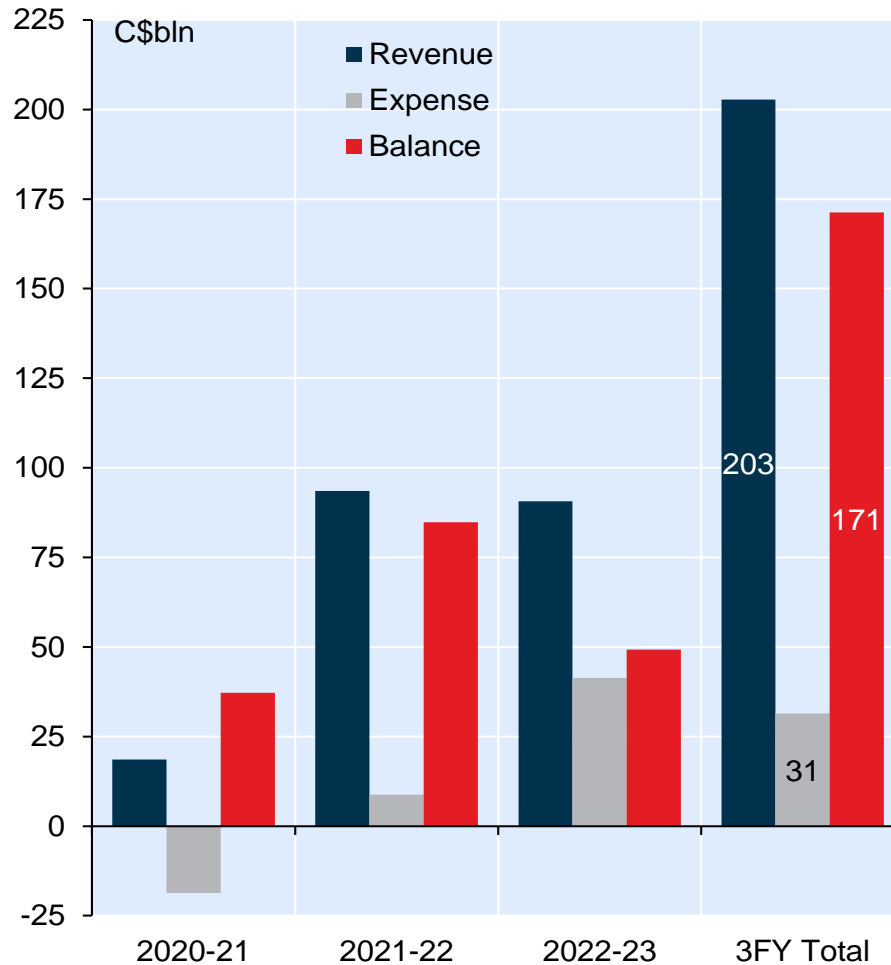
NBF Economics and Strategy (data via [Statcan](#) and [Fred](#))



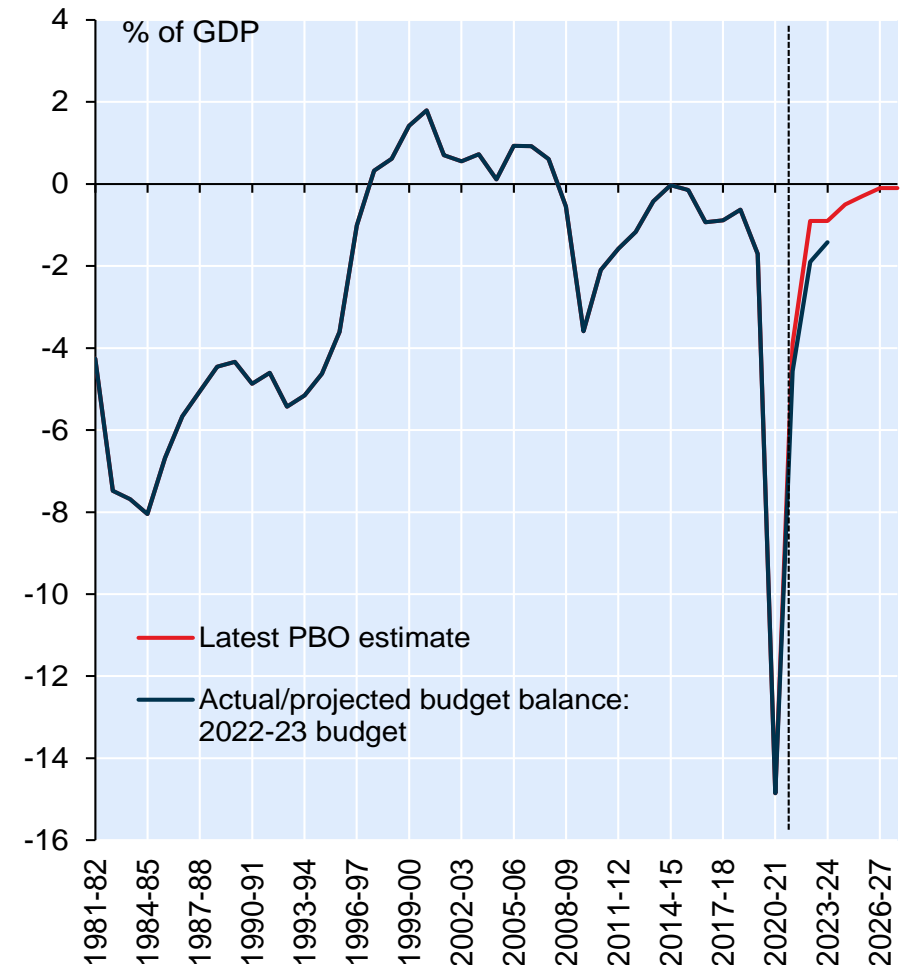
Surging nominal incomes have helped shore up government finances

There's been strong discipline from the provinces, while the feds are on a path to balance

Change in provincial finances vs. Budget 2021 plans



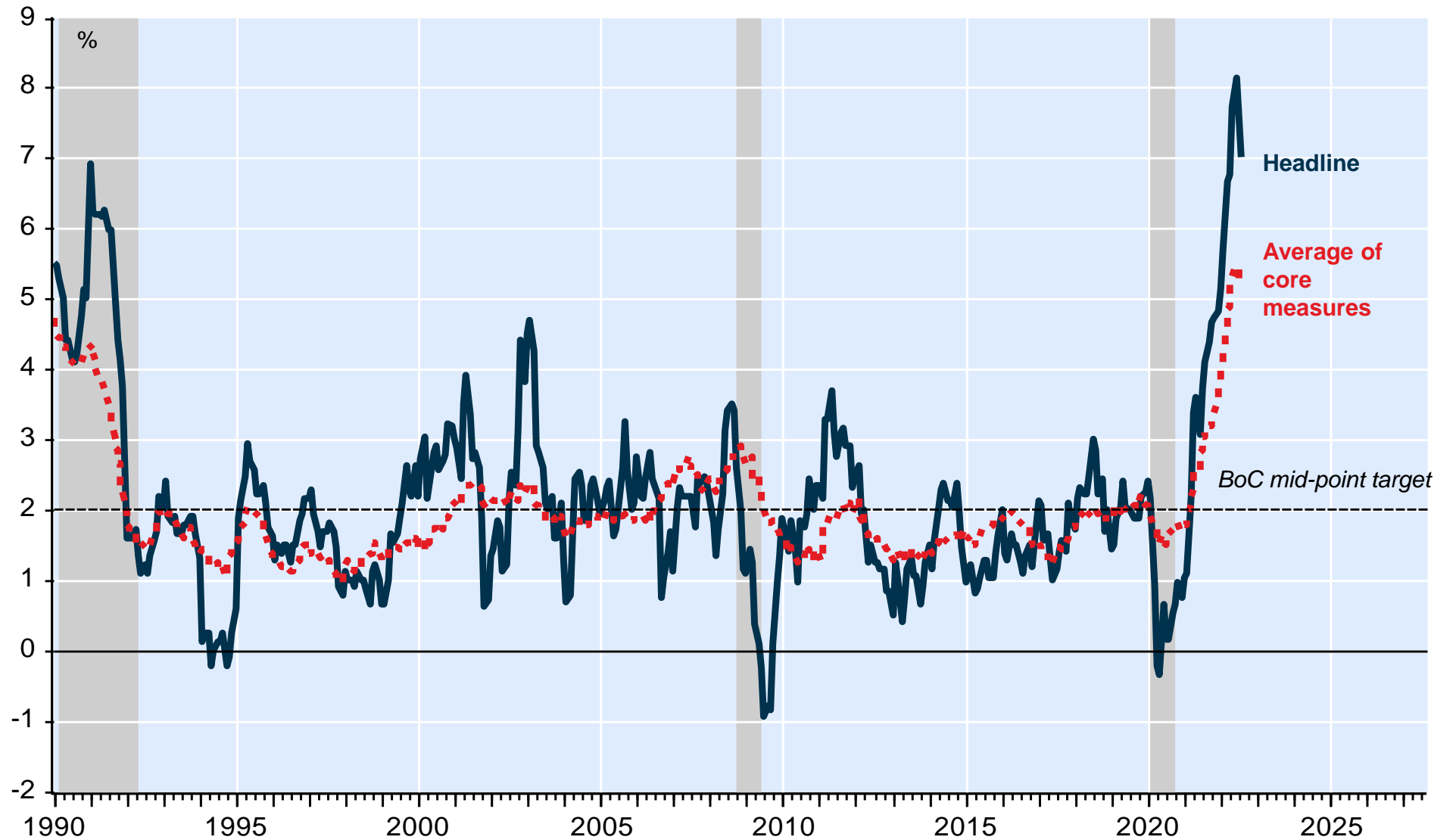
Federal budget balance: budget estimate vs. latest



Source: NBF, PBO, prov gov'ts | Note: In some cases, 2021-22 figures are not yet finalized; 2022-23 figures are based on latest official projections & subject to change

Canada : Perspective on inflation

CPI inflation (%)

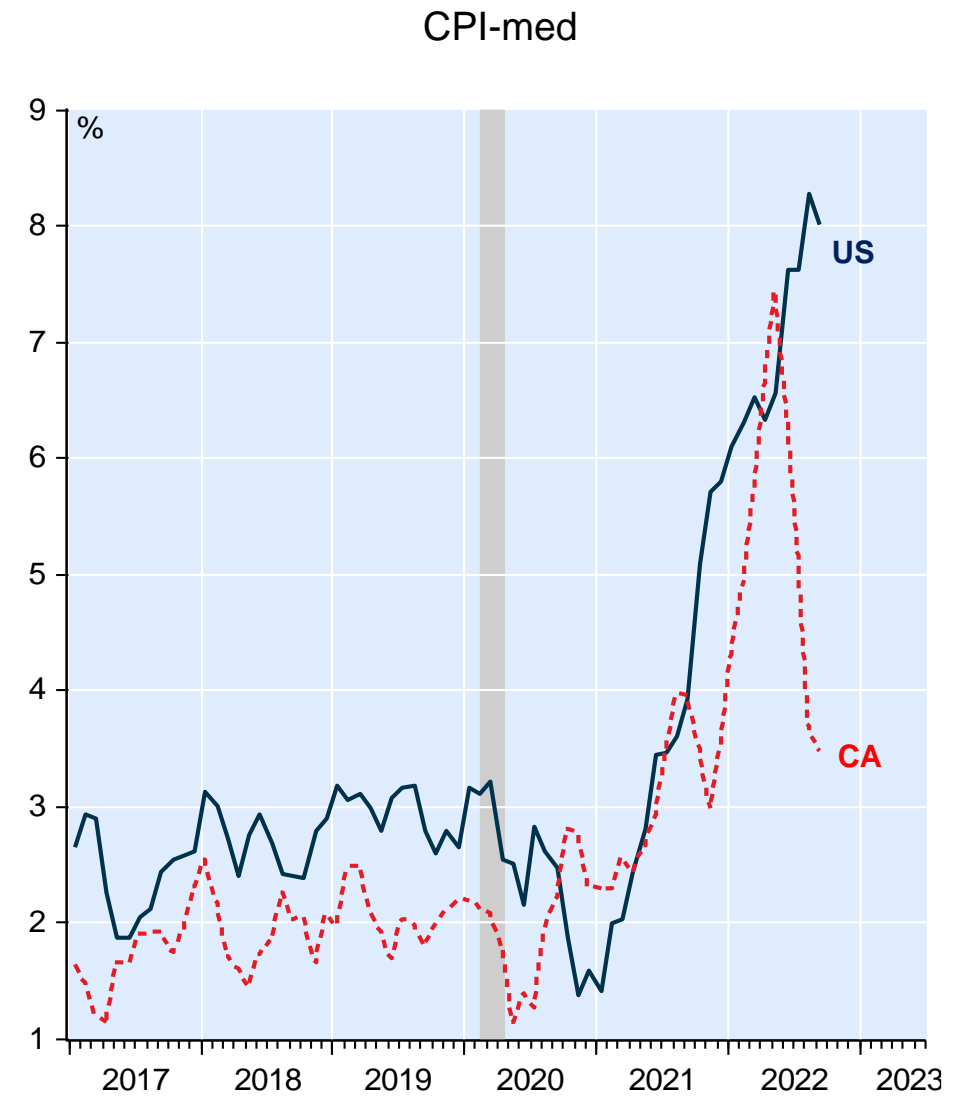
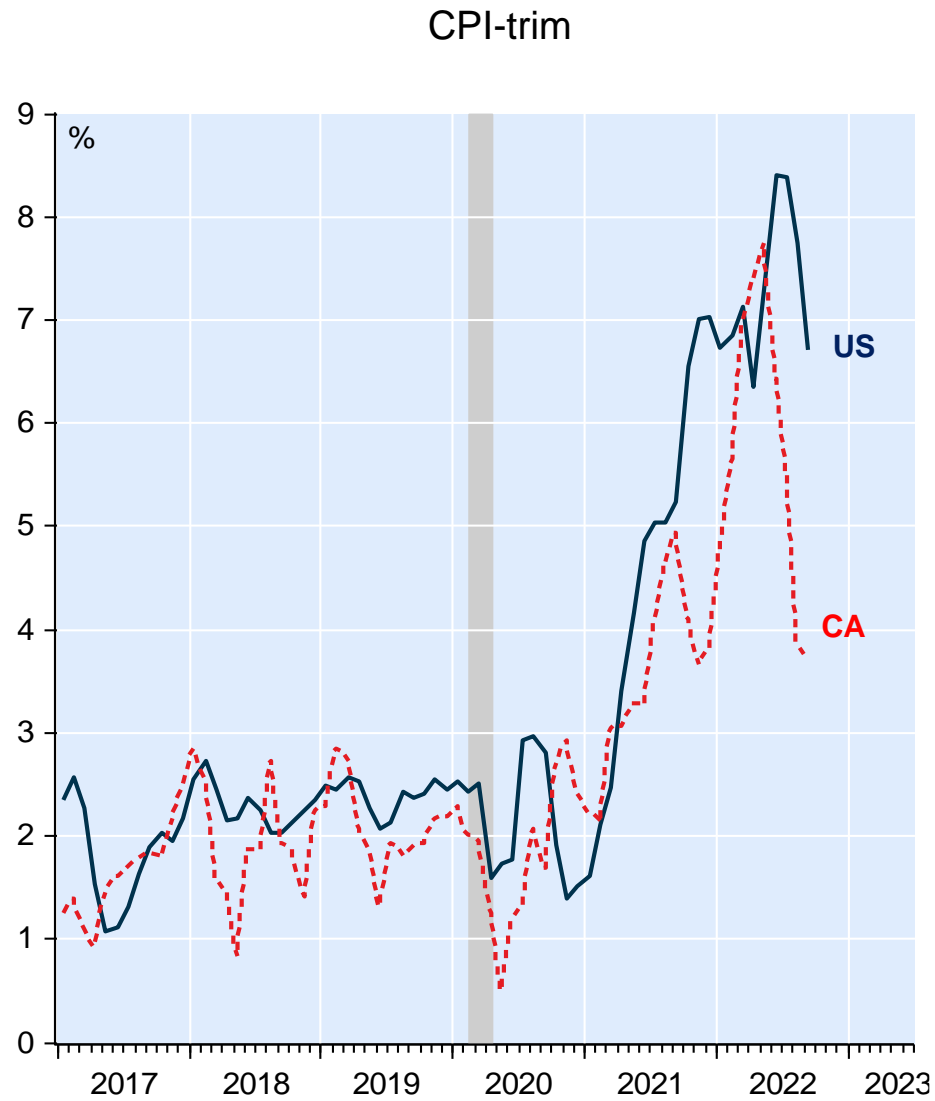


NBF Economics and Strategy (data via Statistics Canada)



Canada: Core inflation softer this side of border

3-month annualized change in core inflation measures



NBF Economics and Strategy (data via Statistics Canada, Fred)



A complex geopolitical backdrop

- The war in Ukraine and tensions over Taiwan have accelerated plans by the two superpowers to become less dependent on each other in some key sectors.
- The U.S. has recently restricted the export of advanced semiconductors to China. The equipment needed to manufacture these products is also included.
- On the one hand, the U.S. believes that China wants to steal U.S. technology and become the leading superpower
- On the other hand, China believes that the U.S. is not only seeking to gain more access to the Chinese market, but also to hinder China's rise as a global power

In addition to considering the quality of a company's products and services, investors should also analyze the compatibility of companies with the geopolitical objectives of countries like China or the United States.

Furthermore, what is the meaning of the term "friendshoring"?

Go Canada ?

- Europe is geographically surrounded by geopolitical instability, while we are surrounded by two oceans and the United States
- Our electricity prices are much lower and we have large reserves of oil and natural gas
- We have large reserves of agricultural land and water
- We have the mineral resources, the technology, and the geology to make the transition to green energy

Will our politicians be up to the task?

Forecast summary

- Central banks are determined to bring down inflation
- They have already tightened by a lot - global growth is falling (recession in Europe).
- Inflation is a lagging indicator. Central banks need to pause soon to assess the situation
- Supply constraints still explain much of the inflation.
- The pace of hiring will slow.
- We assume a much faster pace of inflation deceleration in the coming months.
- If we are right, the Fed stops tightening at yearend.
- USD starts 2023 weaker as policy easing expected in H2 2023
- Bank of Canada delivers lower terminal rate than Fed
- USD/CAD goes from 1.34 in Q1 2023 to 1.25 in 2023 (WTI at \$80).

Detailed interest rate forecast

United States						
Quarters	Fed Fund	3 Mth Bill	2YR	5YR	10YR	30YR
14-Nov-22	4.00	4.19	4.41	3.99	3.86	4.05
Q4	4.50	4.55	4.50	4.10	3.95	4.10
Q1:2023	4.75	4.65	4.45	4.05	3.85	4.00
Q2	4.75	4.50	4.05	3.75	3.60	3.80
Q3	4.50	4.05	3.45	3.40	3.35	3.60
Q4	3.50	3.40	3.00	3.10	3.20	3.45
Q1:2024	3.00	2.90	2.90	3.05	3.15	3.35
Q2	3.00	2.70	2.80	3.00	3.10	3.30
Q3	3.00	2.65	2.75	2.95	3.05	3.25

Canada						
Quarters	Overnight	3 Mth Bill	2YR	5YR	10YR	30YR
14-Nov-22	3.75	4.02	3.85	3.31	3.14	3.26
Q4	4.25	4.30	4.05	3.40	3.25	3.30
Q1:2023	4.25	4.25	3.95	3.35	3.20	3.25
Q2	4.25	4.20	3.50	3.20	3.10	3.20
Q3	4.25	4.05	3.30	3.05	3.00	3.15
Q4	3.75	3.60	3.15	2.95	2.95	3.10
Q1:2024	3.25	3.10	2.95	2.90	2.95	3.05
Q2	3.00	3.05	2.80	2.85	2.95	3.00
Q3	3.00	2.90	2.70	2.85	2.90	3.00

Source: NBF



United States Economic Forecast

<i>(Annual % change)*</i>						<i>Q4/Q4</i>		
	2019	2020	2021	2022	2023	2021	2022	2023
Gross domestic product (2012 \$)	2.3	(2.8)	5.9	1.8	0.2	5.7	0.1	0.3
Consumption	2.0	(3.0)	8.3	2.6	0.6	7.2	1.3	0.5
Residential construction	(1.0)	7.2	10.7	(9.4)	(8.7)	(0.3)	(14.4)	(1.3)
Business investment	3.6	(4.9)	6.4	3.4	1.1	5.0	3.3	1.0
Government expenditures	3.3	2.6	0.6	(0.9)	1.7	0.5	0.1	1.7
Exports	0.5	(13.2)	6.1	7.2	0.9	6.5	5.5	(1.7)
Imports	1.1	(9.0)	14.1	8.9	(0.1)	10.1	3.9	0.7
Change in inventories (bil. \$)	73.1	(54.6)	(19.4)	121.2	27.5	197.6	70.0	25.0
Domestic demand	2.3	(1.9)	6.7	1.5	0.4	5.4	0.6	0.7
Real disposable income	3.5	6.2	1.9	(6.4)	0.9	-0.4	-2.5	1.1
Payroll employment	1.3	(5.8)	2.8	3.9	0.4	4.3	2.8	-0.2
Unemployment rate	3.7	8.1	5.4	3.7	4.5	4.2	3.7	4.8
Inflation	1.8	1.3	4.7	8.1	3.4	6.7	7.3	2.1
Before-tax profits	3.9	(5.9)	22.6	4.9	(1.6)	22.3	-0.7	3.1
Current account (bil. \$)	(446.0)	(619.7)	(940.2)	(1,033.6)	(995.0)

Canada Economic Forecast

<i>(Annual % change)*</i>						<i>Q4/Q4</i>		
	2019	2020	2021	2022	2023	2021	2022	2023
Gross domestic product (2012 \$)	1.9	(5.2)	4.5	3.2	0.7	3.2	1.8	0.9
Consumption	1.4	(6.2)	5.0	5.1	1.0	5.2	3.2	0.8
Residential construction	(0.2)	4.3	15.3	(8.4)	(6.0)	(0.4)	(9.0)	(3.0)
Business investment	2.5	(12.1)	2.3	6.8	(0.4)	7.0	2.8	1.3
Government expenditures	0.8	0.9	5.6	1.6	1.5	3.6	1.1	1.8
Exports	2.3	(9.7)	1.4	3.4	4.2	0.8	4.2	2.2
Imports	0.4	(10.8)	7.7	6.5	1.9	5.7	4.2	2.0
Change in inventories (millions \$)	18,377	-18,720	-2,361	20,965	11,525	5,259	11,000	11,900
Domestic demand	1.2	(4.1)	5.6	2.9	0.4	4.1	1.4	0.8
Real disposable income	3.0	8.2	0.3	0.5	0.5	(0.6)	2.7	0.9
Employment	2.2	(5.1)	4.8	3.5	0.3	4.2	1.4	0.5
Unemployment rate	5.8	9.6	7.4	5.4	6.1	6.3	5.6	6.2
Inflation	1.9	0.7	3.4	6.5	2.5	4.7	5.5	2.5
Before-tax profits	(0.6)	(1.9)	32.3	15.3	(6.1)	15.7	11.0	0.9
Current account (bil. \$)	(47.0)	(39.4)	1.1	8.0	(5.0)

* or as noted



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