

Narrative Economics and Monetary Policy

Robert J. Shiller, Yale University
Bank of Canada Annual Conference
John Kuszczak Memorial Lecture
12:10 pm November 9, 2021

Outline of Talk

1. State of exuberance in many markets today
2. Contagion of popular economic narratives must be a powerful force behind this exuberance, though hard to pin down. Models of narratives going viral
3. Some perennial narratives in the past and continuing today
4. How to study popular economic narratives systematically

Emphasis in this Talk is Behavioral Economics

- There is an element of truth both to rational expectations models and to narrative economics models
- Need to blend the two approaches
- Some of Deputy Governor Beaudry's work is in that direction, in emphasizing "implicit contracts" which may take the form of narratives (Beaudry and DiNardo JPE 1991)

The Effect of Implicit Contracts on the Movement of Wages over the Business Cycle: Evidence from Micro Data

In this paper we address the question of whether wages are affected by labor market conditions in a manner more consistent with a contract approach than with a standard spot market model. From a simple implicit contract model, we derive implications about the links between wages and past labor market conditions. Using individual data from the Current Population Survey and the Panel Study of Income Dynamics, we find that an implicit contract model with costless mobility describes these links better than either a simple spot market model or an implicit contract model with costly mobility.

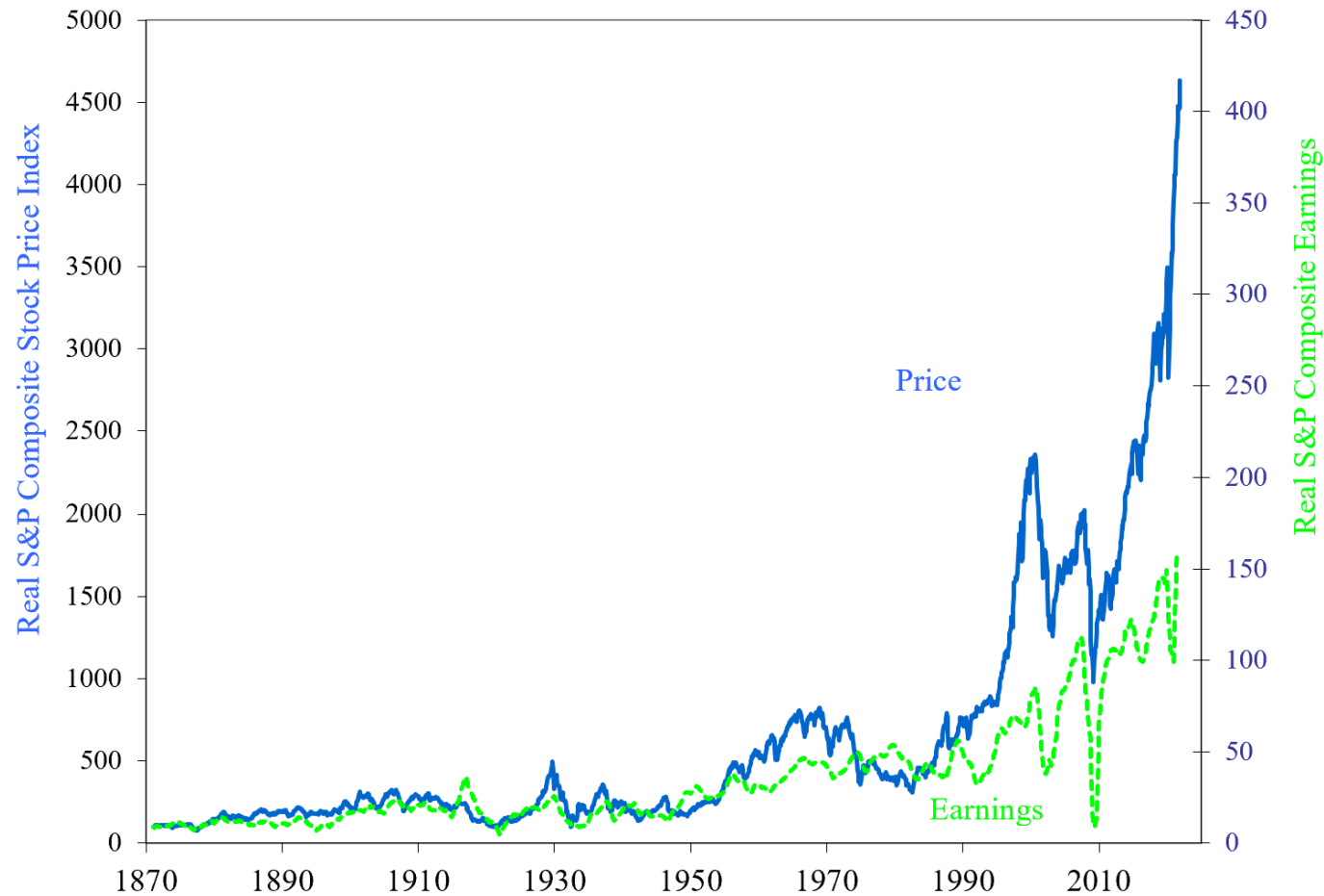
https://www.jstor.org/stable/2937776?pq-origsite=360link&seq=1#metadata_info_tab_contents

1. State of Exuberance in Many Markets Today

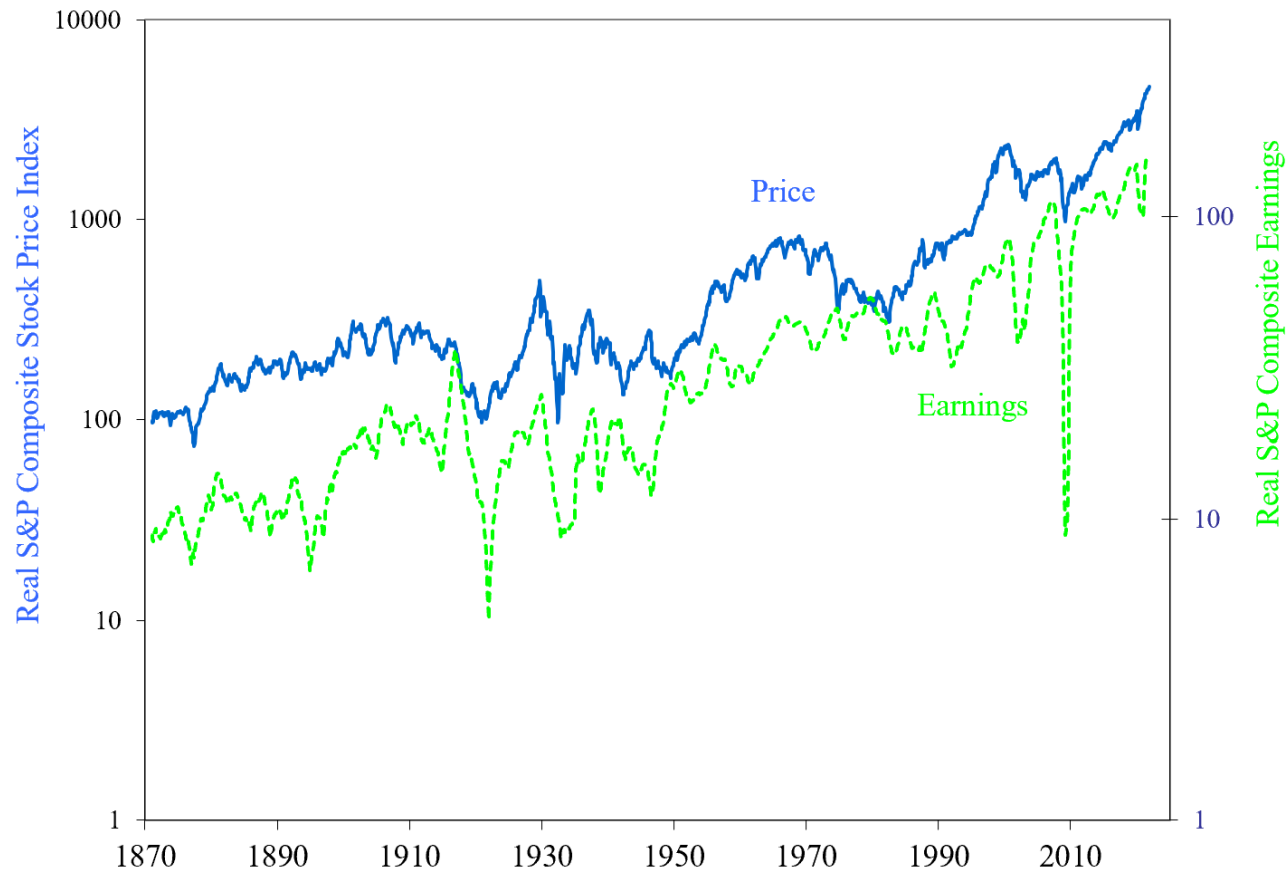
The Role of Viral Popular Narratives in . . .

- Speculative Excesses in All Three Major Asset Classes
 1. Stocks
 2. Bonds
 3. Real Estate
- Inflation in Consumer Prices

Real US Stock Prices and Real Earnings 1871-2021



Real US Stock Prices and Real Earnings 1871-2021, Log Scale



S&P/TSX Composite Index

INDEXTSI: OSPTX

Overview

News

Compare

Market Summary > S&P/TSX Composite Index

INDEXTSI: OSPTX

21,216.15 +9,525.26 (81.48%) ↑ all time

Oct 22, 4:20 PM EDT · Disclaimer

1 day

5 days

1 month

6 months

YTD

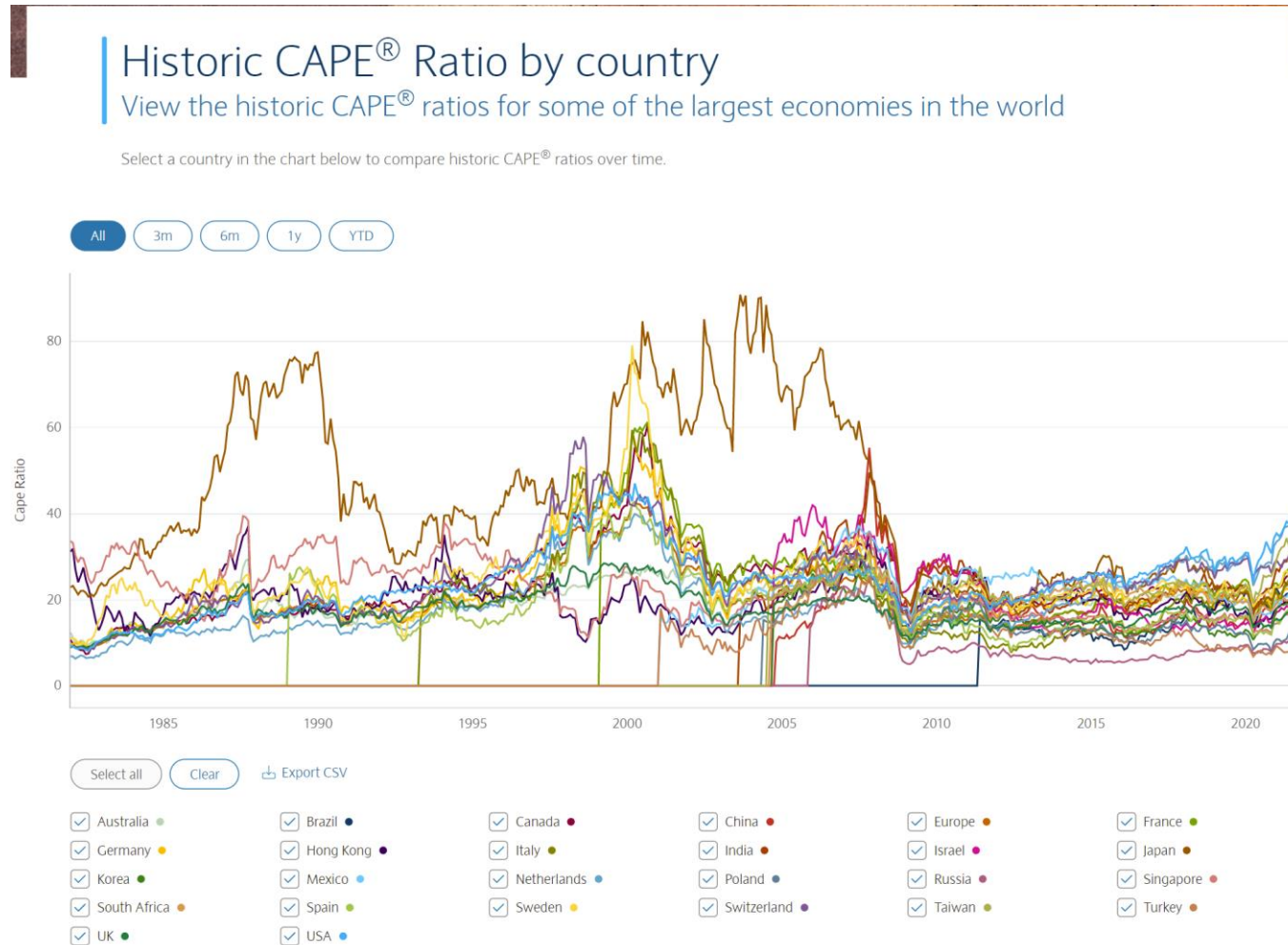
1 year

5 years

Max

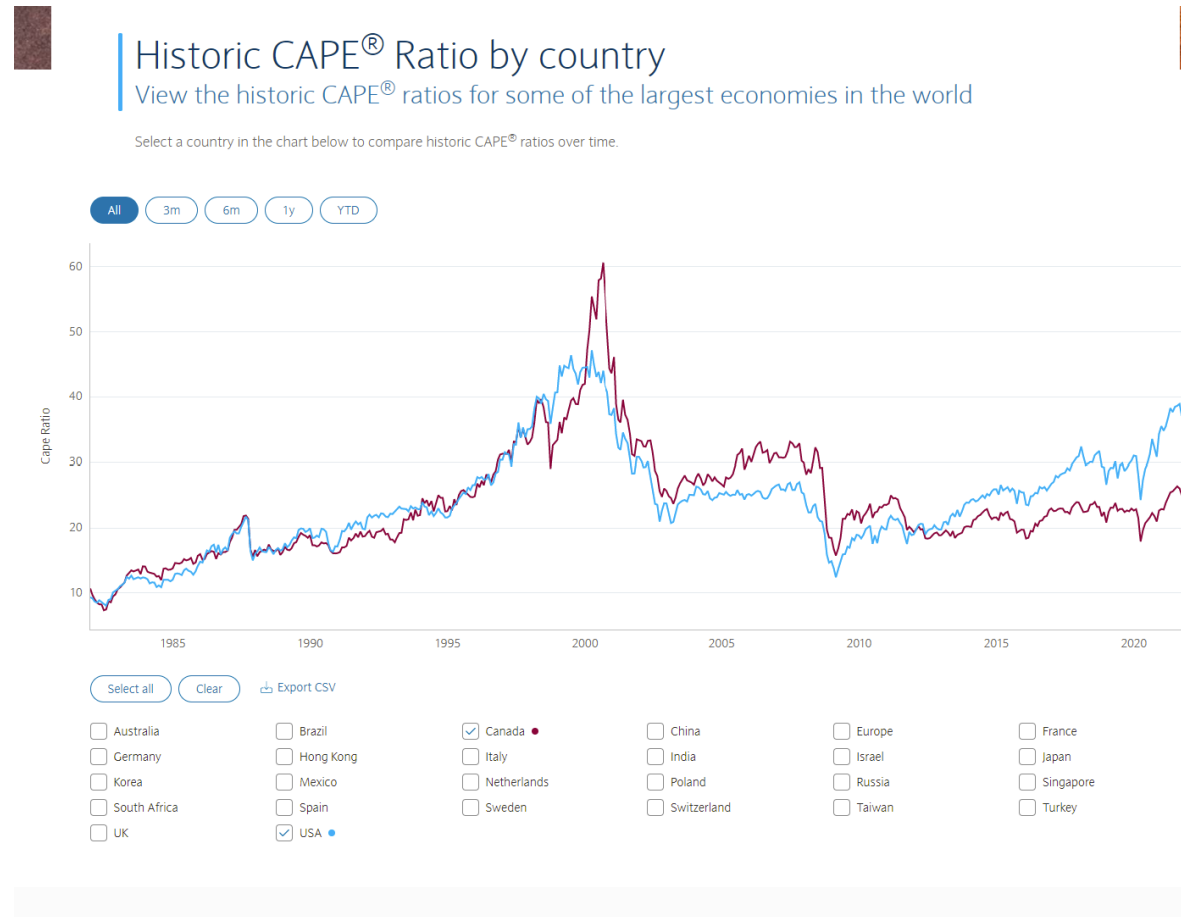


Stock Market Levels via CAPE for 26 Countries, Source: [Barclays](#)

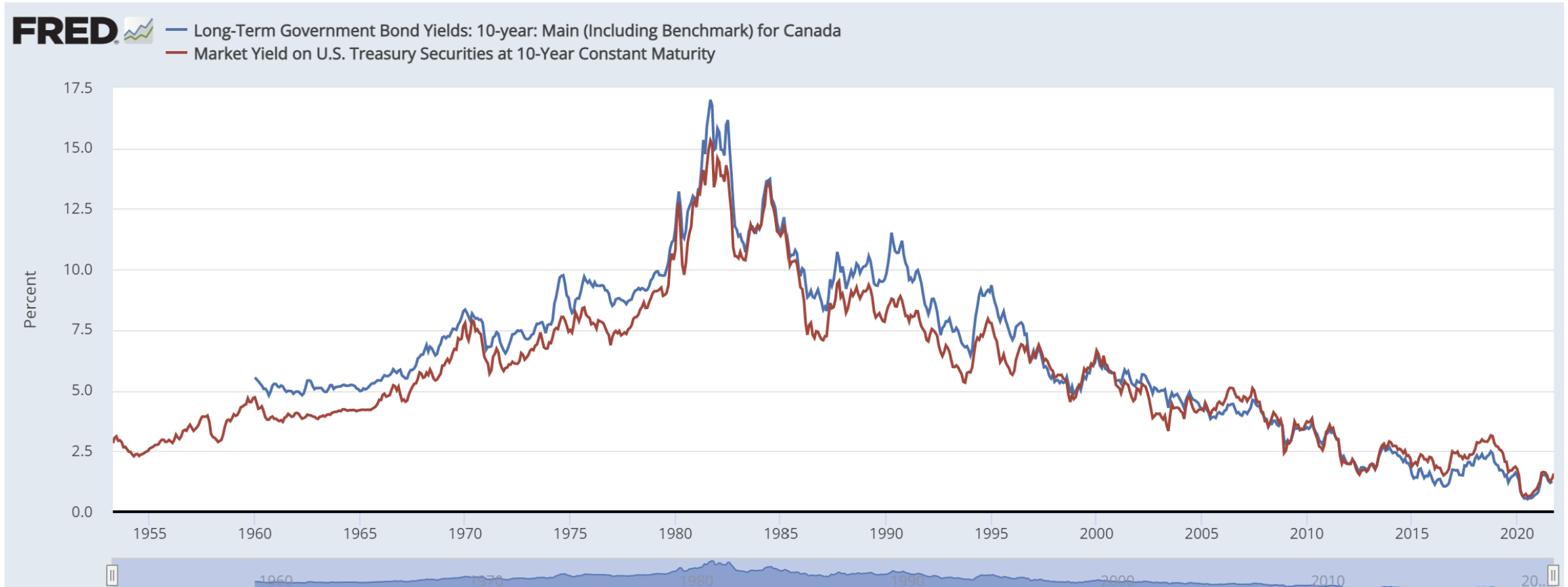


Stock Market Levels via CAPE for USA, Canada

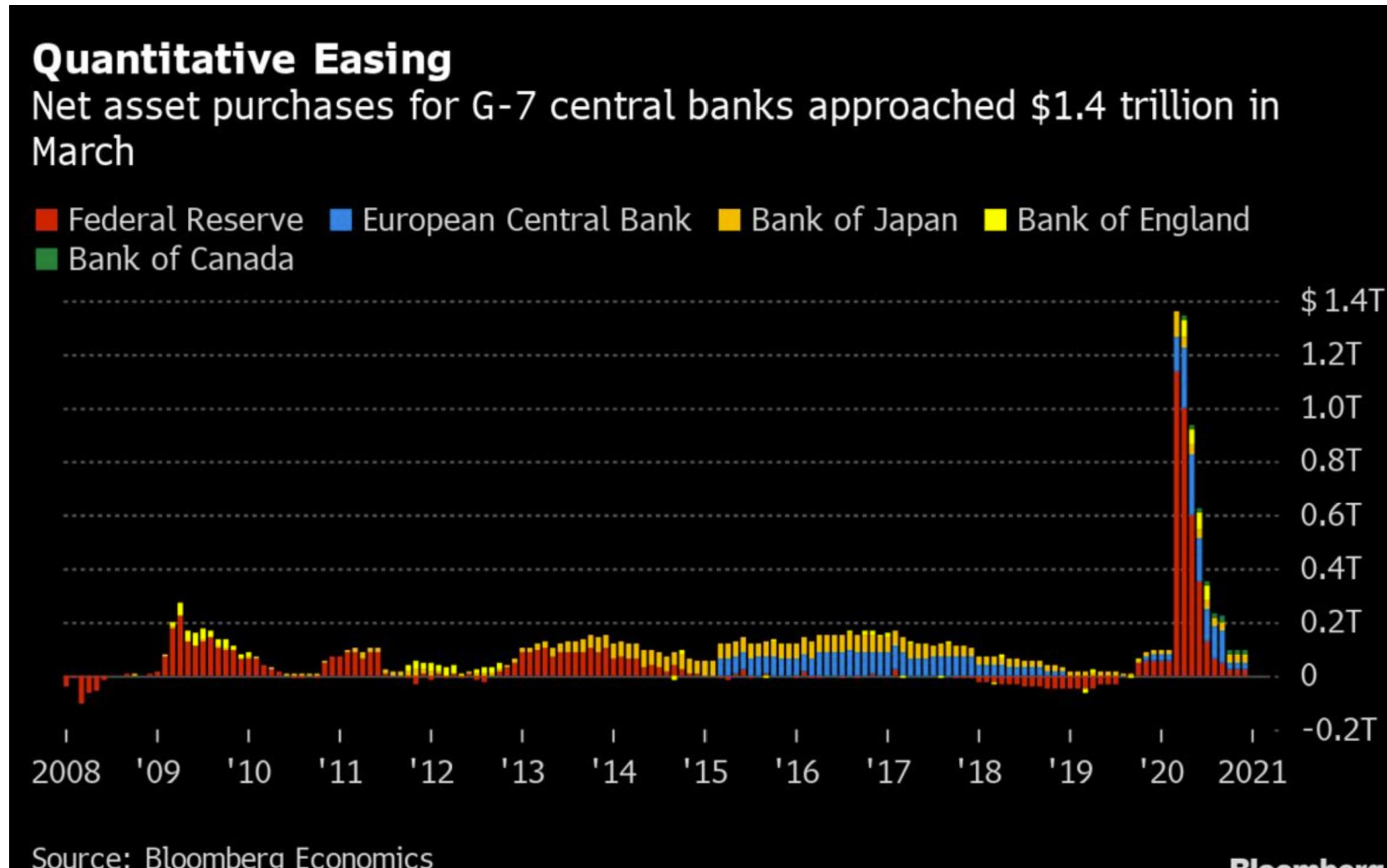
Source: [Barclays](#)



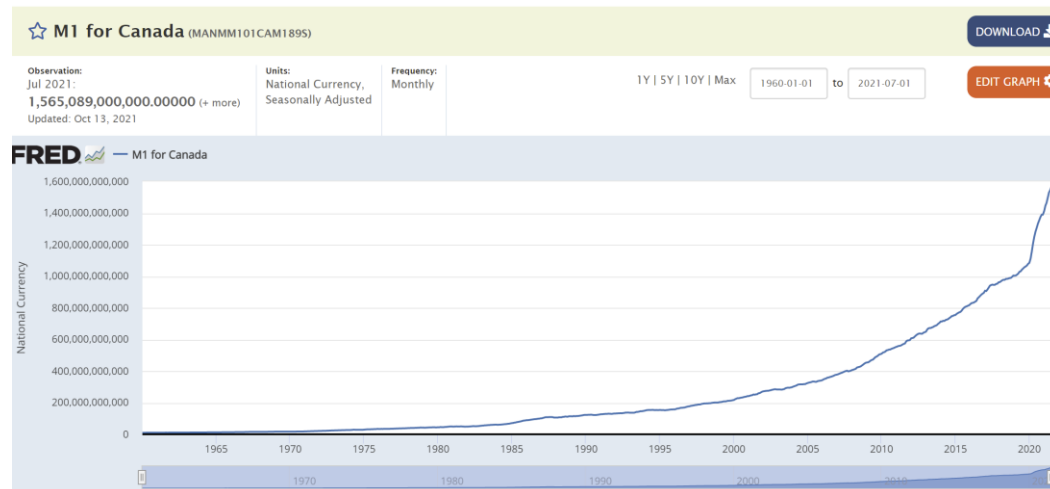
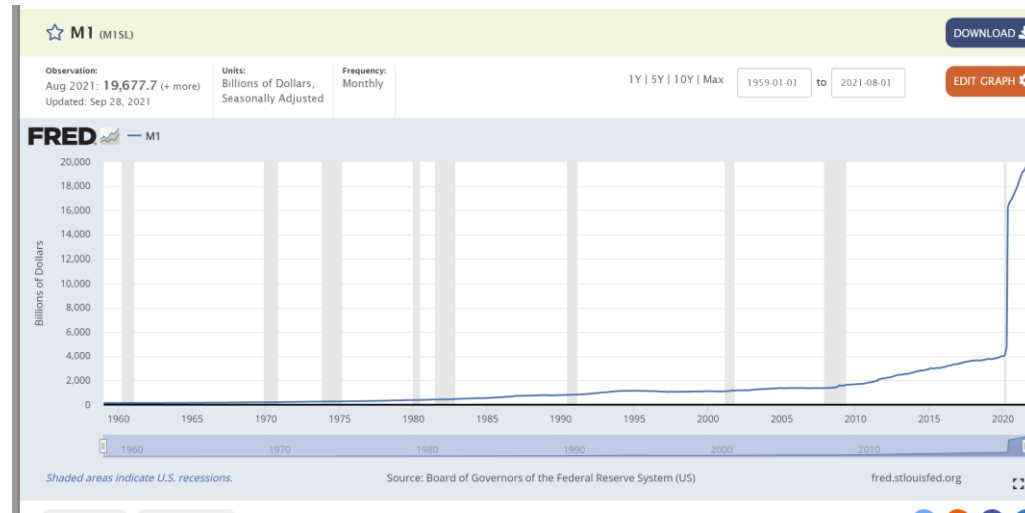
Government Bonds, 10-year, Canada and US



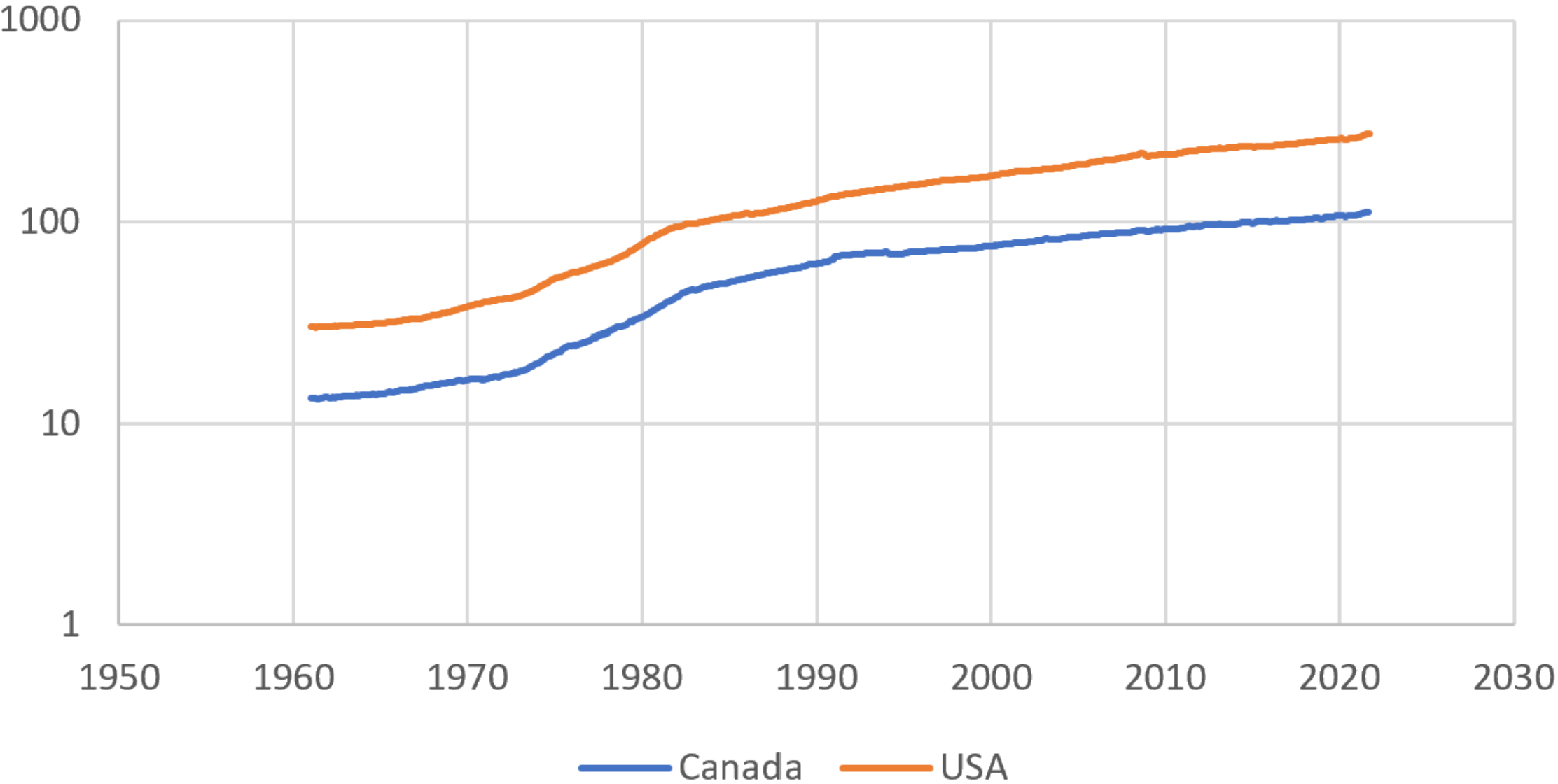
International Quantitative Easing from [Bloomberg](#)



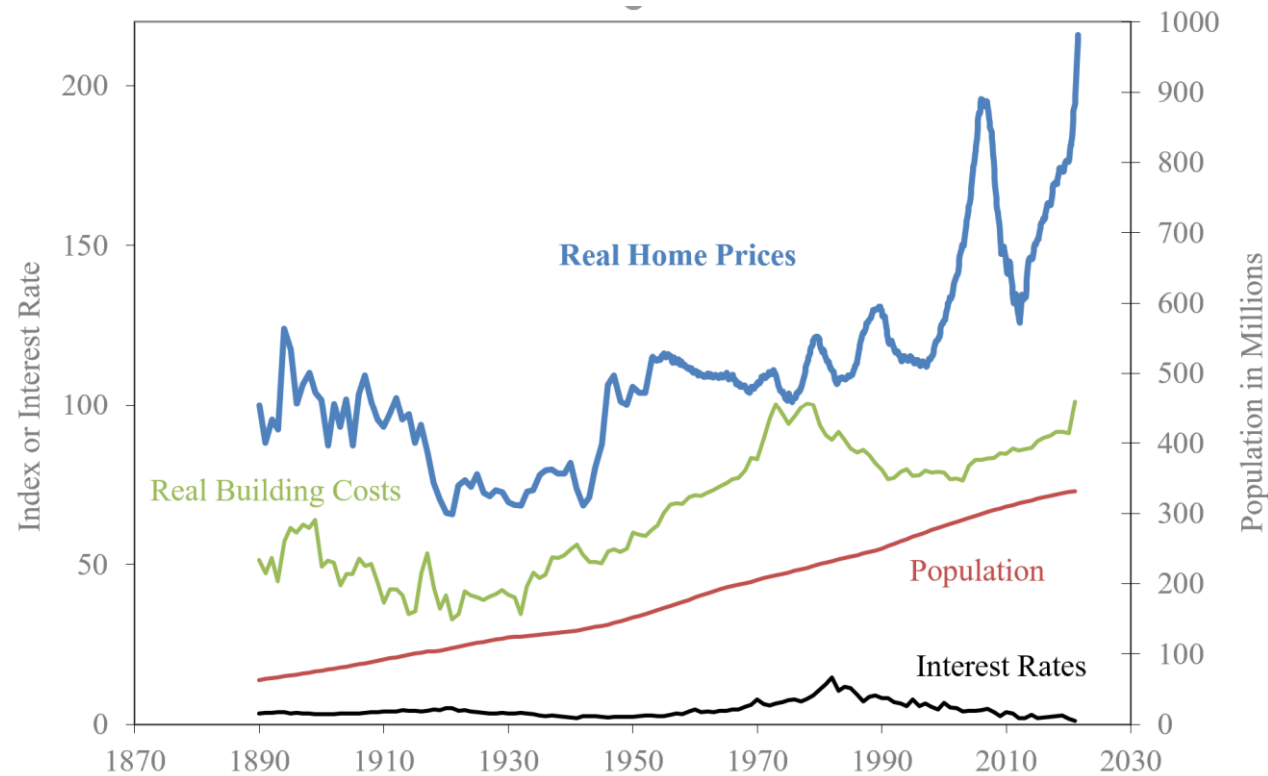
M1 Money Supply US and Canada



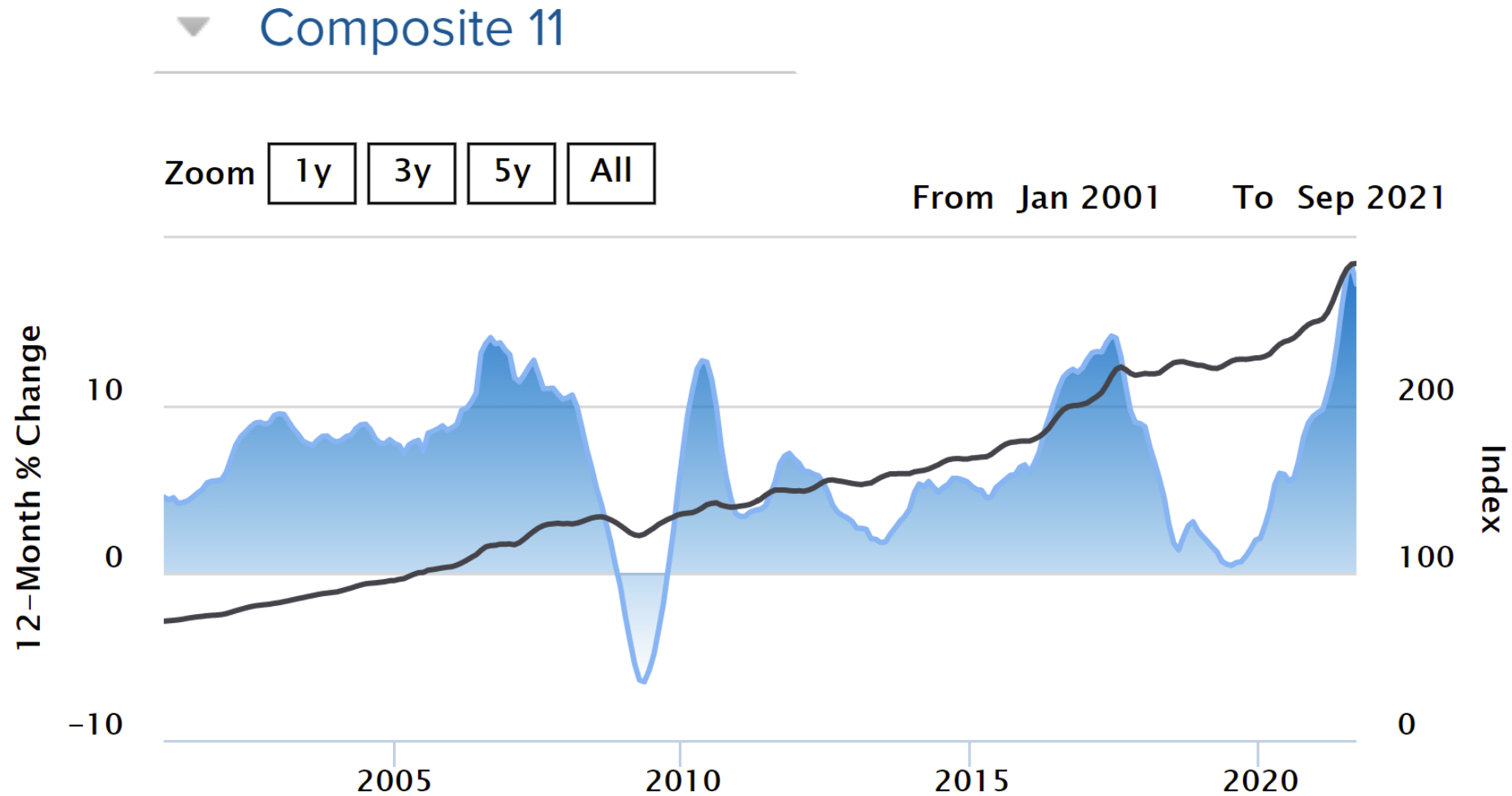
Consumer Price Index, Canada & US Compared



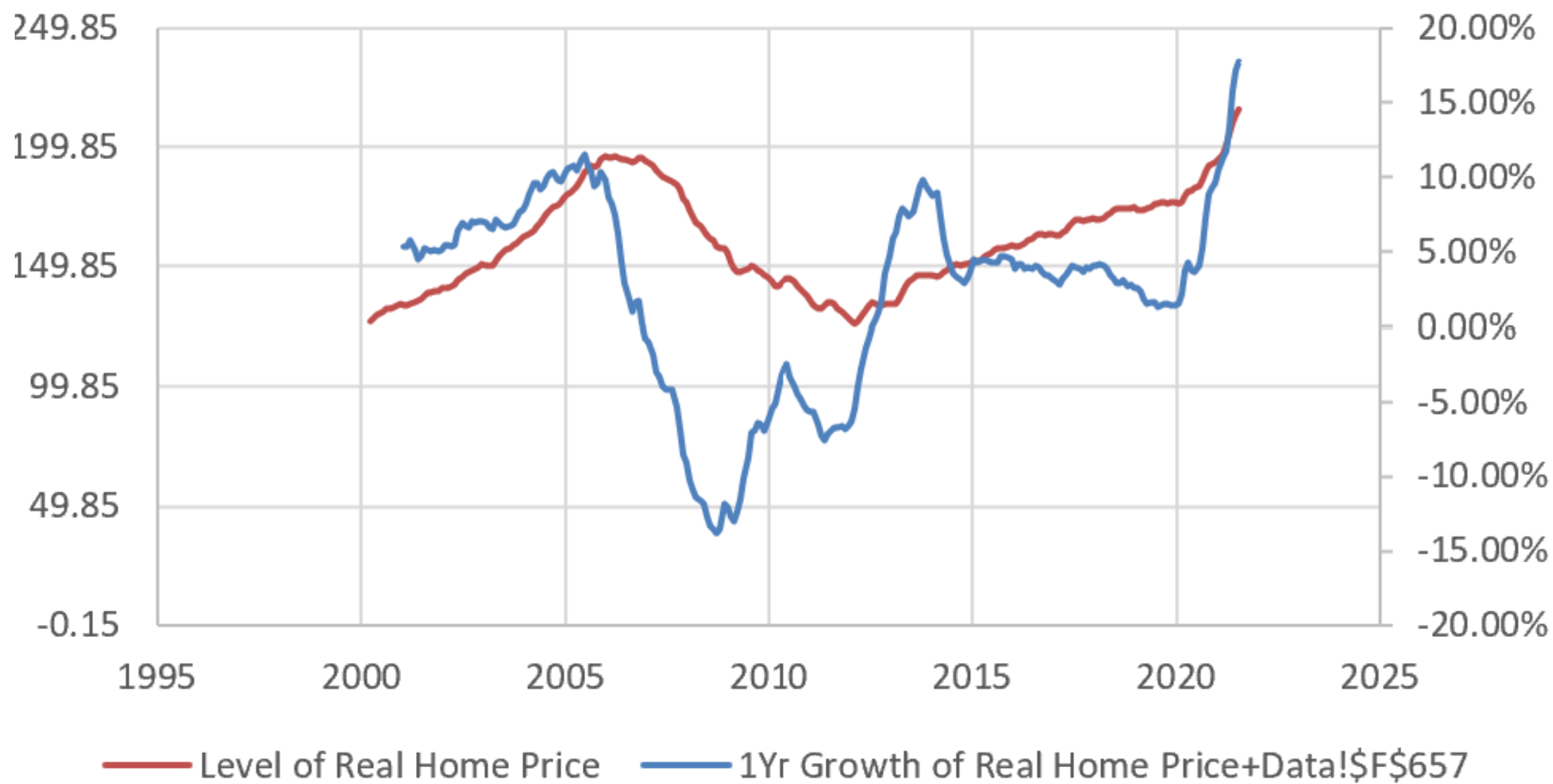
From my book *Irrational Exuberance*, Updated, Fig 3-1, U.S. Real Home Prices 1890-2021



Teranet Composite 11 Home Price Index for Canada



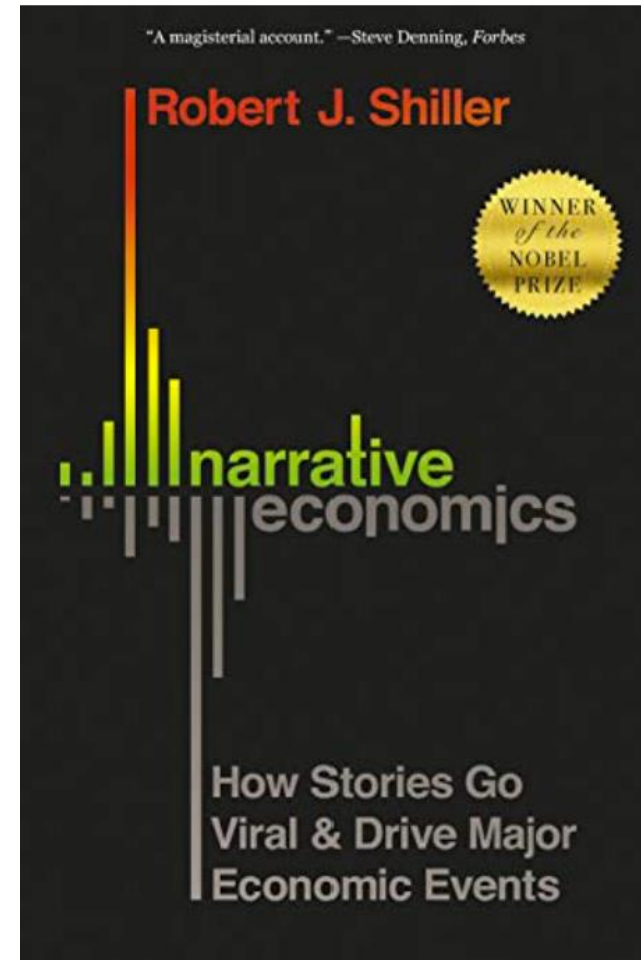
Real S&P/CoreLogic/Case-Shiller Home Price Index



2. Contagion of popular economic narratives

Narrative Economics, Princeton University Press, 2019, Epidemiology before the Pandemic

- Contagion rate of a story is not determined exclusively by its validity
- If contagion and recovery parameters are constant, epidemics are hump shaped
- If parameters change, there can be second (or third, or more) waves
- There are fast and slow epidemics, big and small epidemics
- Narratives, like viruses, go through epidemic curves and create business fluctuations



Kermack-McKendrick SIR Disease Epidemic Model, 1927 (Compartmental or SIR Model)

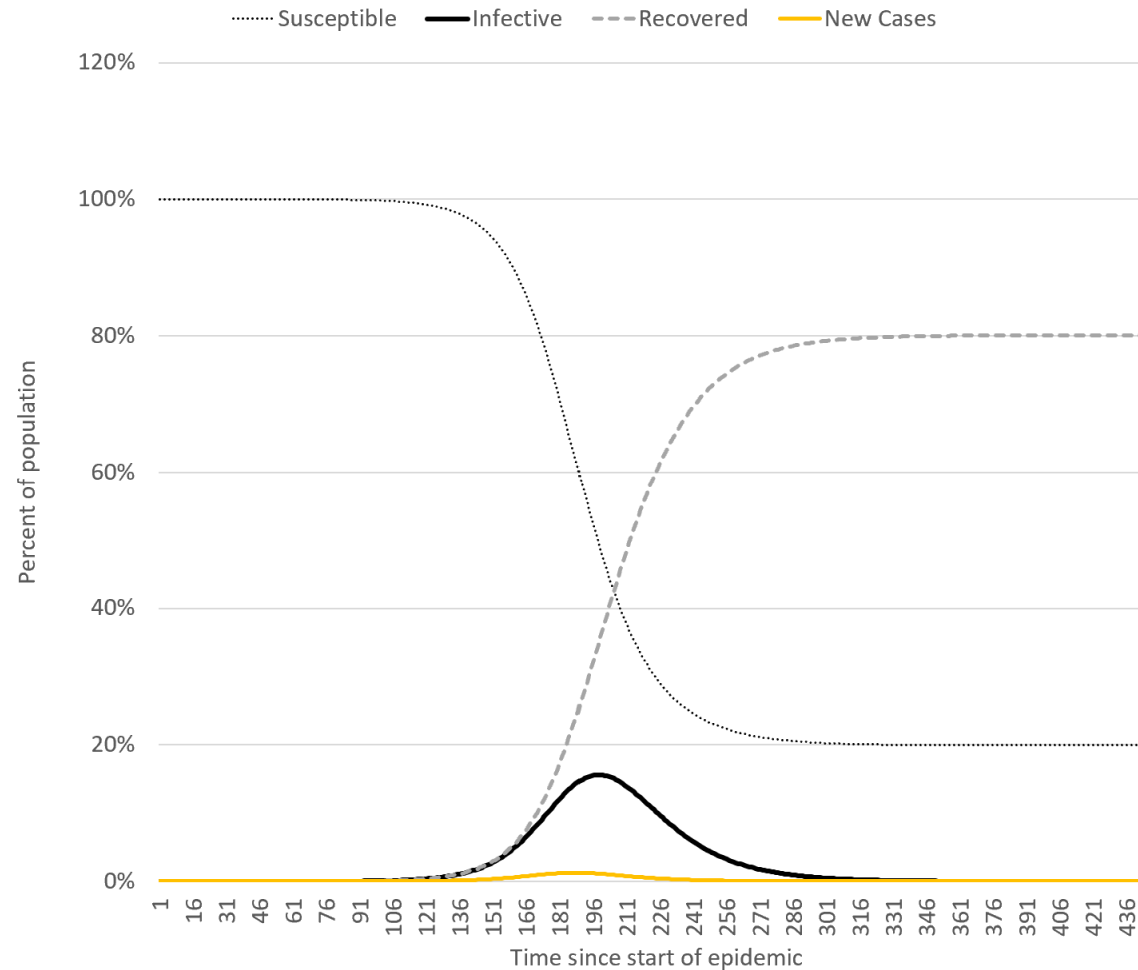
S =fraction of population susceptible, I =fraction of population infected and now contagious, R =fraction of population recovered and now immune, $S+I+R=1$, c =contagion parameter, r =recovery rate

$$\frac{dS}{dt} = -cSI$$

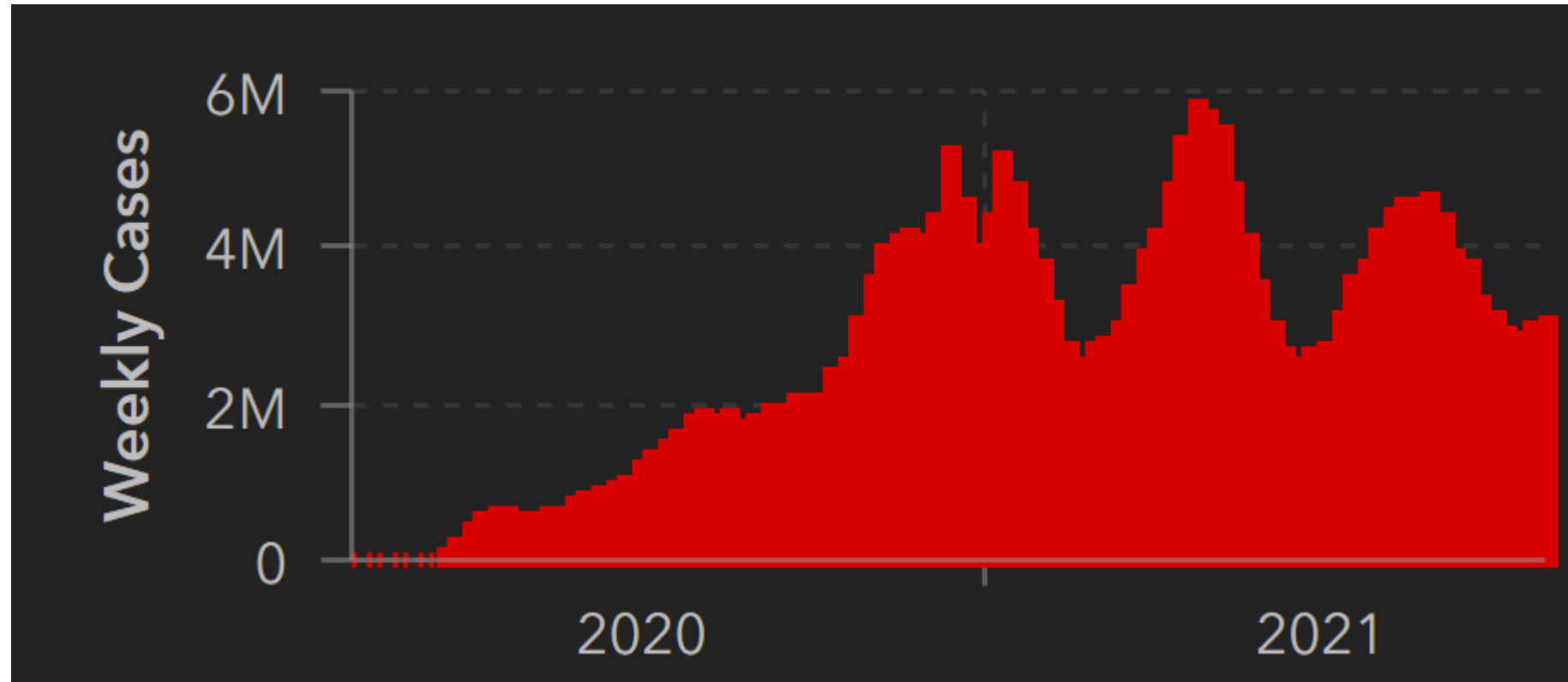
$$\frac{dI}{dt} = cSI - rI$$

$$\frac{dR}{dt} = rI$$

Figure 2: Time Paths of S, I, and R in
Kermack-McKendrick Model
 $I(0)=.0001\%$, $c=0.28$, $r=0.14$



COVID-19, 249 million Cases Worldwide from January 2020 to Oct 31, 2021 (Johns Hopkins)



Total Cases	Total Deaths	Total Vaccine Doses Administered
248,813,323	5,033,576	7,185,229,645

Co-Epidemics and Constellations of Narratives

- HIV and tuberculosis epidemics tend to occur together, affect each others' contagion rates
- Polarization of society along political lines, geographical lines leads to analogous co-epidemics in financial markets
- Donald Trump and Trumpism as an example of polarization creating constellations of stories
- Search *Google All* for “Canada’s Donald Trump” and one gets 81,400 hits, not all pointing to the same person
- Polarization of attitudes to COP26 and global warming is another example

Multitudes Are Trying to Go Viral with Narratives, Especially Now with New Communications Technology

- British YouTube star George Mason (age 24) tries to go viral in China on Douyin (Chinese TikTok) in seven days. He doesn't even speak Chinese
- https://www.youtube.com/watch?v=AM9vIhiG_8A
- He tries a multitude of manipulations, like claiming singer Harry Styles (popular in China as well as UK) is his cousin
- In one week, he uploaded 26 videos to China with help from a translator. After another week with no more uploads he says he succeeded in getting 1.913 million views and 16,600 followers in China



3. Perennial Popular Economic Narratives Still Alive Today

Some Perennial Narratives (from my book) with approximate year of peak of epidemics

1. Financial panic, 1907
2. Frugality 1933, versus Conspicuous Consumption, 1934, 2015
3. The Gold Standard 1896, 1933, versus Bimetallism, 1896
4. Laborsaving Machines Replace Many Jobs, 1919, 1936
5. Automation 1964, and Artificial Intelligence, 1987, 2018
6. Land bubble 1827, 1934, housing bubble, 2010
7. Stock Market Crash, 1929, 1987
8. Boycotts, 1886, 1932, Profiteers, 1920, and Greedy Business, 1935
9. The Wage-Price Spiral 1958, and Greedy Labor Unions, 1959

Wage-Price Spiral Went Viral 1950s

Google Books Ngram Viewer

🔍 wage-price spiral

1800 - 2019 ▼

British English (2019) ▼

Case-Insensitive

Smoothing of 0 ▼



Buyers Strike

Google Books Ngram Viewer

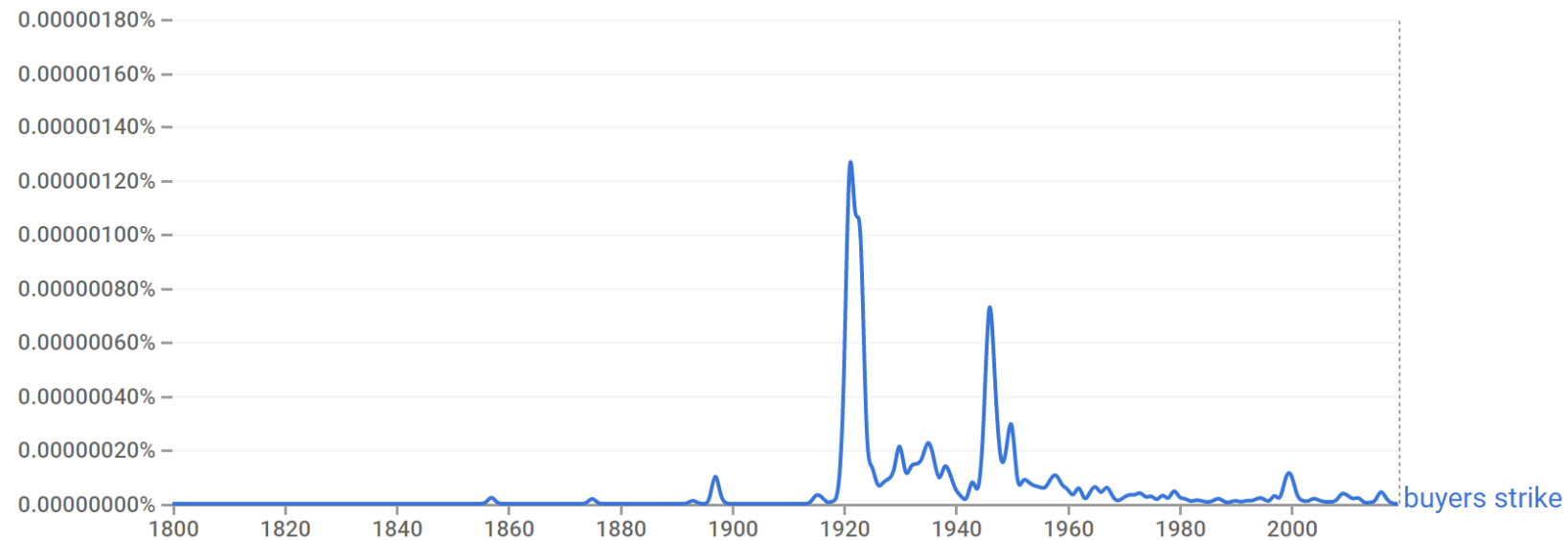
buyers strike

1800 - 2019 ▾

English (2019) ▾

Case-Insensitive

Smoothing of 0 ▾



Canadian-American Economist John Kenneth Galbraith, from his 1958 Best-Seller, *The Affluent Society*

few subjects are more debated than the relative responsibility of workers and employers for the price advances which inflation comprises.

In the inflation drama, it remains only to introduce Hamlet. That, by common consent, is the union. It is the instigator presumptive of that most familiar of economic phenomena, the wage-price spiral.



Inflation: 'You Fight It'

[The Christian Science Monitor \(1908-\); Boston, Mass. \[Boston, Mass\]. 30 Jan 1957: 14.](#) [Browse this issue](#)

Workers don't resist higher prices very strenuously so long as they can get wage hikes. Employers don't fight very hard to hold the line on wages while the cost can be passed along in boosted prices. Of course, many a small employer finds he can't keep pace and many a consumer on a fixed income is pinched. And the process is basically dangerous wherever the increases go beyond an increase in productivity. That is happening.

Who, then, will fight inflation? The President has urged the public to take a hand. For years economists have been predicting a jolting "buyers' strike." Consumer resistance would certainly slow down price rises in many lines. The Federal Reserve believes prices are beginning to evoke such resistance and that this rather than tight money is causing some of the "slowdown" of which its critics complain.

Detroit Free Press (1923-1999), General edition; Detroit [Detroit]. 07 Apr 1958: 8

Buying Boom Urged to Doom Current Gloom

MANY OF us are aware that this so-called recession is the result of a buyers strike.

Why don't we all take the example of the residents of Sturgis, Mich., and fight to lick this thing right now and wipe out the current business gloom? We have everything to gain if we do and much to lose if we don't.

The current move to sell more cars is not enough. We who are not affected by a layoff or a short work week must go out and buy those commodities we have been needing, which we can afford, that we would have bought before had we not been frightened into tightening up by pessimists everywhere.

* * *

Intercepted Letters

REP. HARRIS
Capitol Hill

Dear Oren:

THERE were times when your FCC probe suggested that the way trod by the Congressional investigator is paved with eggs.

PIPELINE PETE



Dwight D. Eisenhower, One of the Celebrities Attached to Wage-Price Spiral Narrative.

- Supreme Commander of Allied Forces in Europe WWII
- Supreme Commander of NATO
- US President 1953-1961

January 1957 State of the Union Address by Eisenhower Asks Everyone to Do Their Part to Defuse the Wage-Price Spiral

“ In this regard I call on leaders in business and in labor to think well on their responsibility to the American people. With all elements of our society, they owe the Nation a vigilant guard against the inflationary tendencies that are always at work in a dynamic economy operating at today's high levels. They can powerfully help counteract or accentuate such tendencies by their wage and price policies.”

Business in its pricing policies should avoid unnecessary price increases especially at a time like the present when demand in so many areas presses hard on short supplies. A reasonable profit is essential to the new investments that provide more jobs in an expanding economy. But business leaders must, in the national interest, studiously avoid those price rises that are possible only because of vital or unusual needs of the whole nation.

“Freedom has been defined as the opportunity for self-discipline. This definition has a special application to the areas of wage and price policy in a free economy. Should we persistently fail to discipline ourselves, eventually there will be increasing pressure on government to redress the failure. By that process freedom will step by step disappear. No subject on the domestic scene should more attract the concern of the friends of American working men and women and of free business enterprise than the forces that threaten a steady depreciation of the value of our money.”

Eisenhower Almost Suggests a 1920-style Buyers Strike in September 1957

"I cheerfully, or maybe I should say sorrowfully, admit that this problem of inflation is today our major internal problem, and we must, all of us, do our part from the—I am not advocating a buyer's strike, but I do know this, we should buy selectively and carefully, and not merely because we have the biggest income in history, largest individual incomes, largest corporate incomes. We should not be spending recklessly and adding fuel to this flame."

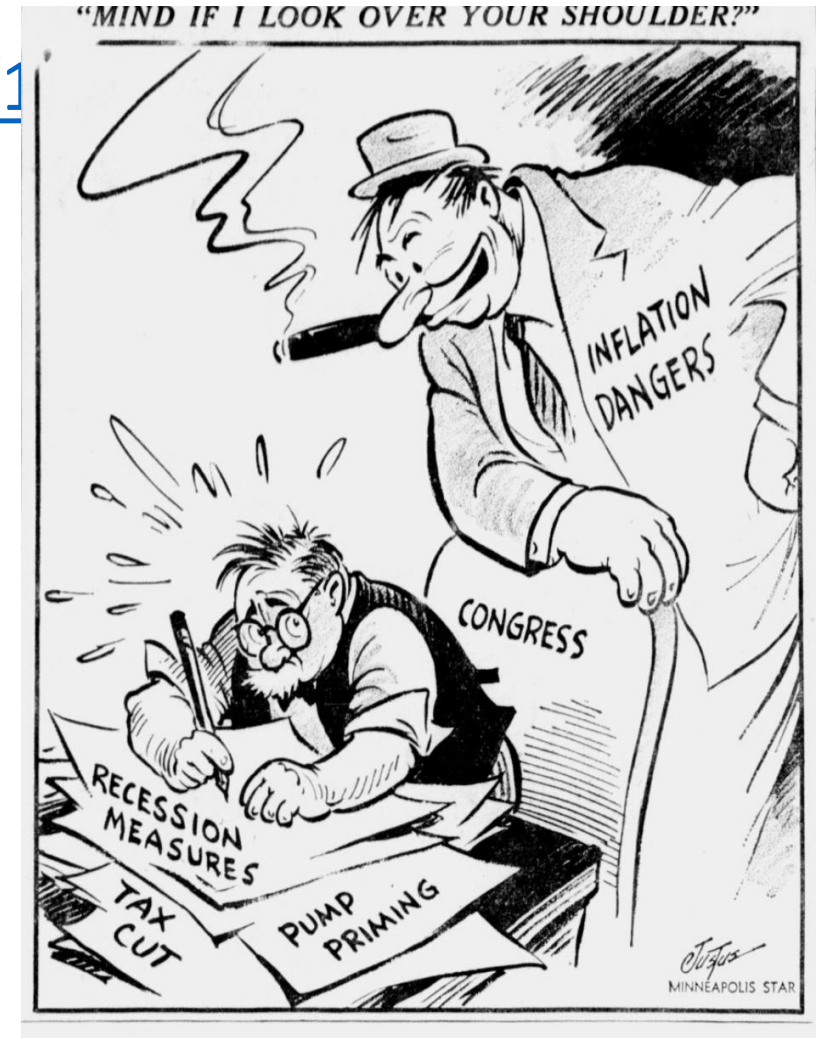
Inflation Main Worry, Says Ike: Don't Add Fuel to Flame, He Urges Public
INFLATION MAIN PROBLEM, IKE WARNS NATION Urges More Selective Buying by Public

[TROHAN, WALTER.](#) [Chicago Daily Tribune \(1923-1963\)](#); Chicago, Ill. [Chicago, Ill]. 04 Sep 1957: 1



President Eisenhower whips off his glasses before answering a reporter's question at news conference.

- <https://www.proquest.com/news/docview/1DA84D9FPQ/8?accountid=15172>
- Minneapolis Star, March 19, 1958



From My questionnaire Survey 1996

“Why Do People Dislike Inflation?”

B12. Please evaluate which of the following theories about the effects of general inflation on wages or salary relates to your own experience and your own job: [Circle one number]

1. The price increase will create extra profits for my employer who can now sell output for more; there will be no effect on my pay. My employer will see no reason to raise my pay.
2. Competition among employers will cause my pay to be bid up. I could get outside offers from other employers, and so, to keep me, my employer will have to raise my pay too.
3. A sense of fairness and proper behavior will cause my employer to raise my pay.
4. None of the above or no opinion.

	1	2	3	4	
US All	26%	11%	21%	43%	n = 112
Economists	4%	60%	11%	25%	n = 75

From My questionnaire Survey 1996

“Why Do People Dislike Inflation?”

B6. Do you agree with the following statement? “When I see projections about how many times more a college education will cost, or how many times more the costs of living will be in coming decades, I feel a sense of uneasiness; these inflation projections really make me worry that my own income will not rise as much as such costs will.”						
	1 Fully agree	2	3 Undecided	4	5 Completely disagree	
US All	66%	20%	7%	6%	1%	n = 116
Economists	5%	15%	9%	30%	41%	n = 80

Greed and Inflation – 22,369 Proquest News & Newspapers Hits

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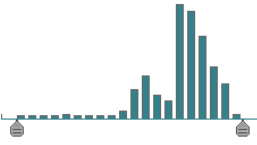
Source type

-  Scholarly Journals (173)
-  Dissertations & Theses (168)
-  Newspapers (2,619)
-  Historical Newspapers (18,570)
-  Magazines (426)

[More >](#)

Publication date

1833 - 2021 (decades)



Enter a date range

- First takes off in 1920s, after WWI inflation
- Peaks in 1970s

17 Years Later—Whip Inflation Now

- 1974 Under President Gerald Ford
- “Winning our fight against inflation and waste involves total mobilization of America's greatest resources—the brains, the skills, and the willpower of the American people.
Here is what we must do, what each and every one of you can do: To help increase food and lower prices, grow more and waste less; to help save scarce fuel in the energy crisis, drive less, heat less. Every housewife knows almost exactly how much she spent for food last week. If you cannot spare a penny from your food budget—and I know there are many—surely you can cut the food that you waste by 5 percent.”



1982 Canadian Campaign Similar to 1974 WIN Campaign

TRUDEAU TURNING ATTENTION TO ECONOMIC CONCERNS

MICHAEL T. KAUFMAN, Special to the New York Times

New York Times; Sep 5, 1982; U.S. Major Dailies

retreat near here, the general strategy being considered involves public campaigning and touring by Mr. Trudeau similar to an election campaign.

The Government has already commissioned an emblem showing the numerals 5 and 6 against a maple leaf, and this logotype is soon to be displayed on products whose manufacturers subscribe to the restraint program.

The stickers and tags are reminiscent of the 1974 campaign in the United States in which the Ford Administration endorsed the distribution of WIN buttons. WIN stood for "Whip Inflation Now."

Google Books Ngram Viewer

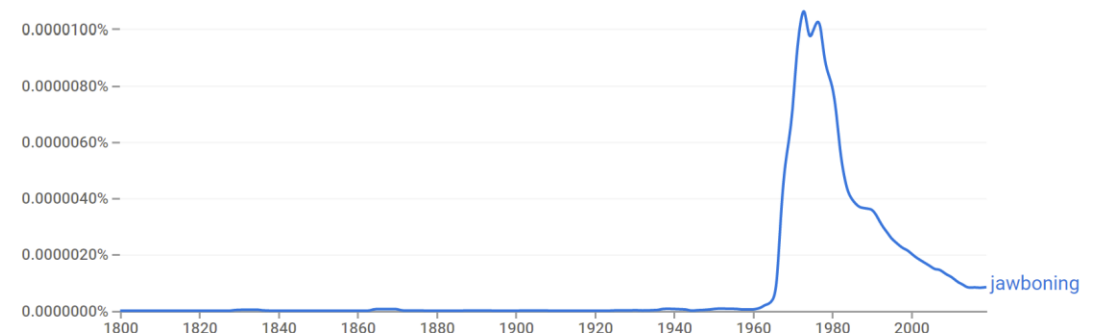
Q jawboning

1800 - 2019

English (2019)

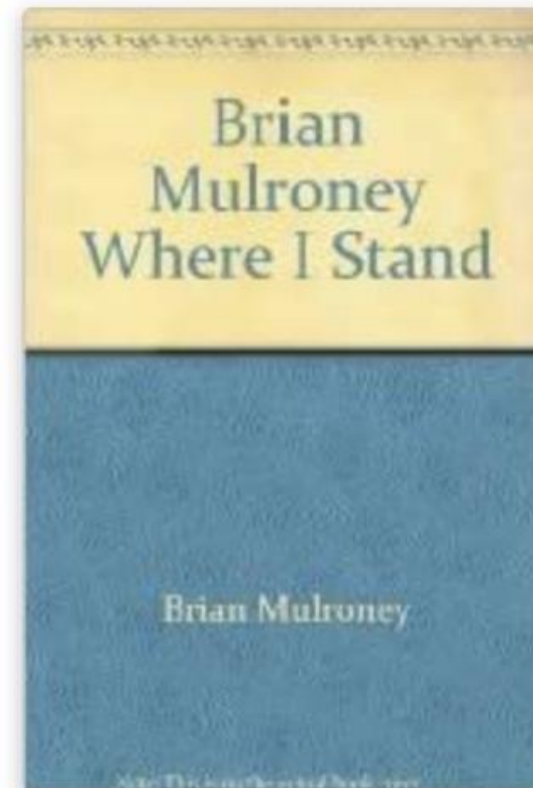
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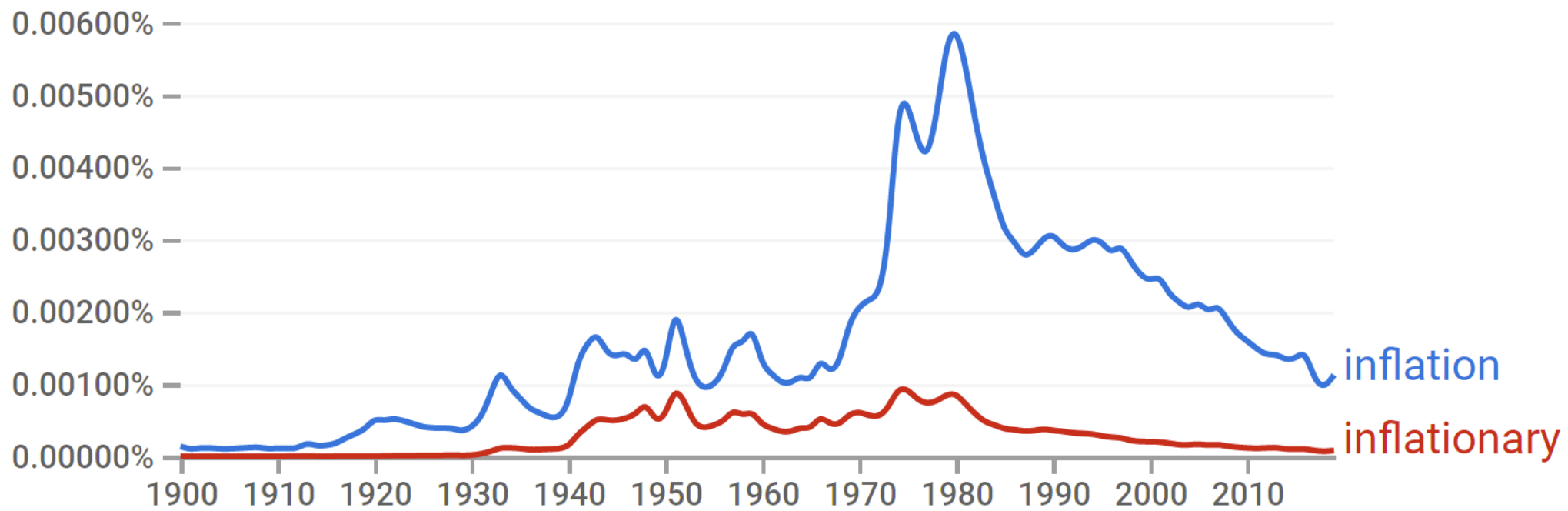
Smoothing



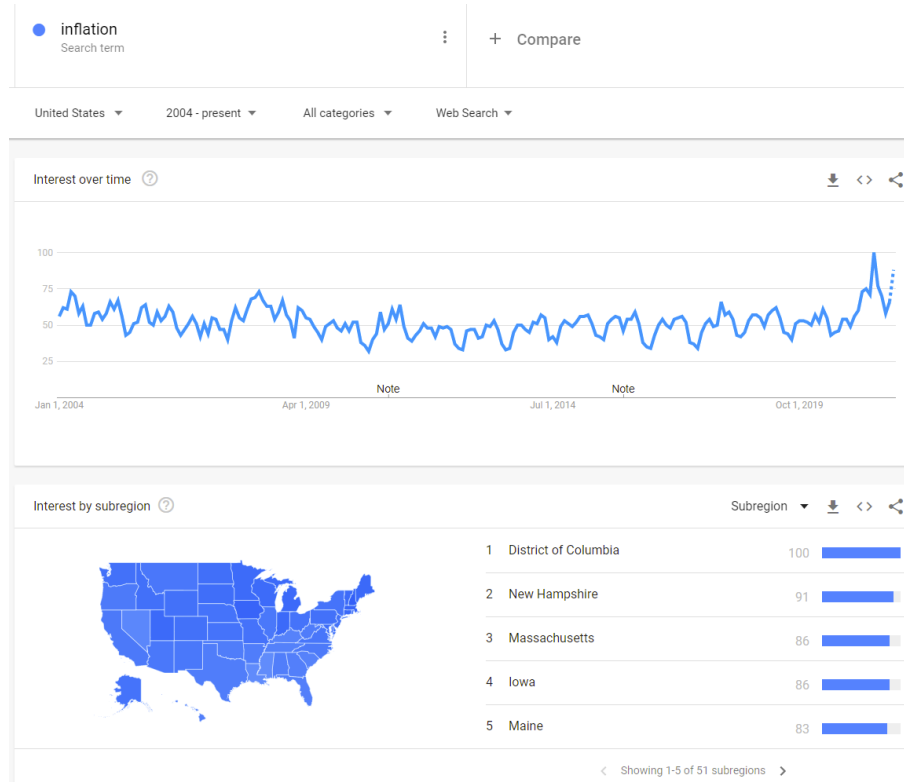
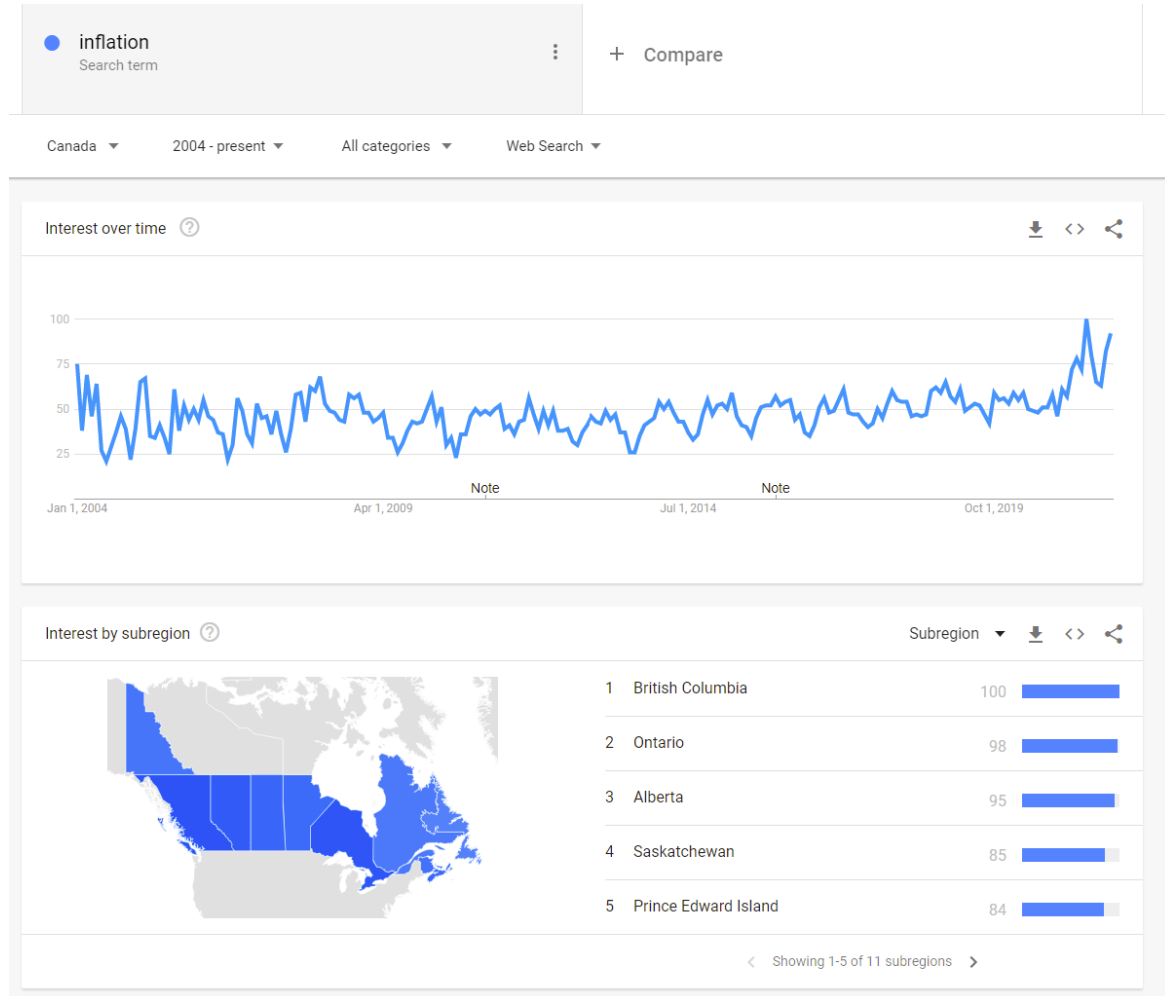
Failure of Jawboning Narrative Led to Conservative Get-Tough governments

- Margaret Thatcher 1979
 - Ronald Reagan 1980
 - Brian Mulroney 1984
- 1983 book

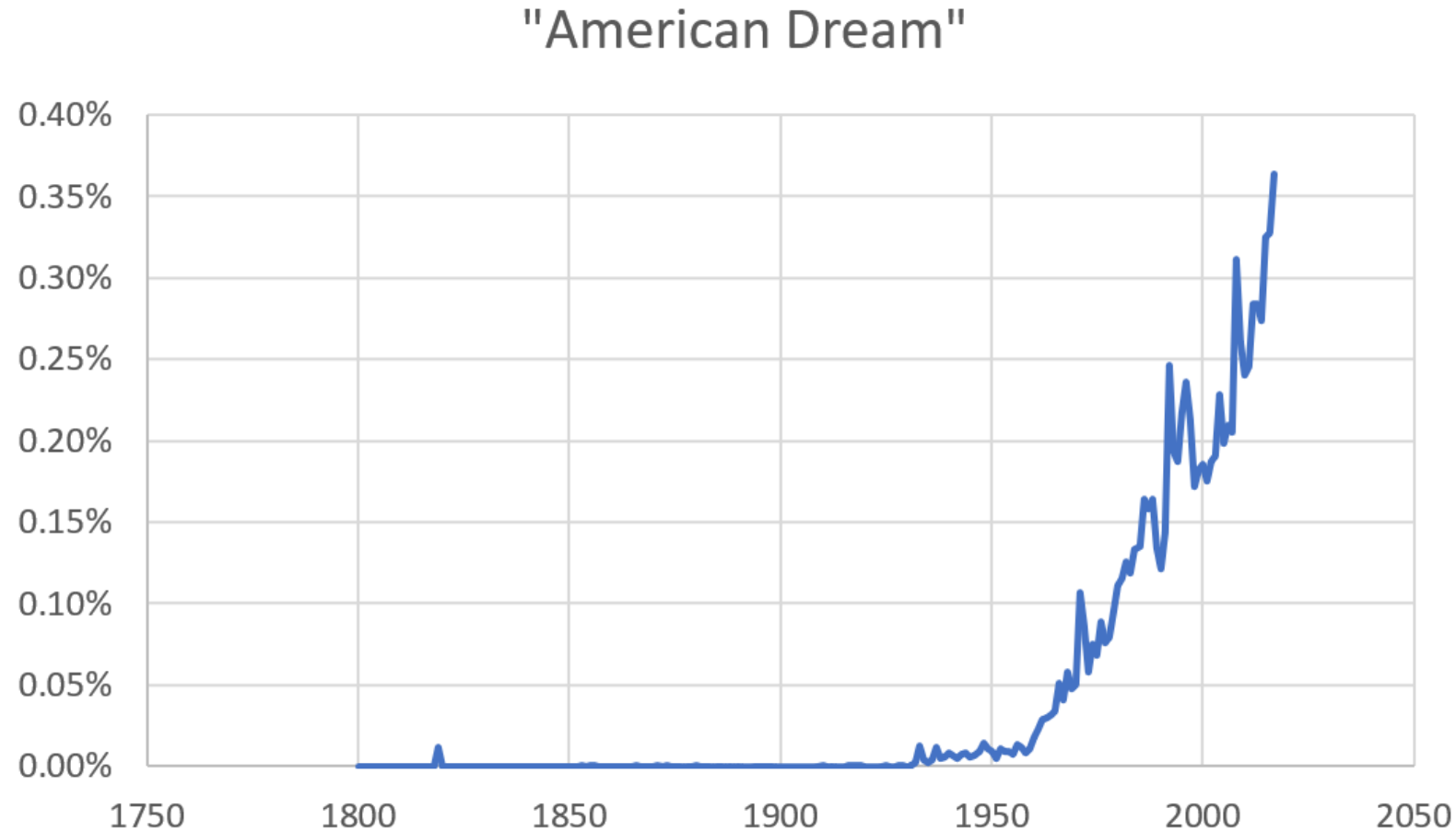




Inflation Has Returned as Narrative in both Canada and US, Google Trends



Percent of Articles Mentioning “American Dream” in Proquest News & Newspapers, 1800-2017



“The American Dream” Was Coined by James Truslow Adams, 1931

- James Truslow Adams (1878-1949) *The Epic of America* 1931 coined the term “American Dream”
- A “dream of a land in which life should be better and richer and fuller for every man, with opportunity for each according to his ability or achievement.”
- “It is not a dream of motor cars and high wages merely, but a dream of a social order in which each man and each woman shall be able to attain to the fullest stature of which they are innately capable, and recognized by others for what they are.”
- [Nicholas Kristof 2014 New York Times](#): “It’s now the Canadian Dream. . . the American dream has just swapped citizenship, for now it is more likely to be found in Canada or Europe.”
- “American Dream” in USA has morphed in usage towards a name for the pleasures of homeownership
- An emerging trend towards including Canada in a “North American Dream”



Canadian Dream Not the Same

Google Books Ngram Viewer

Q American Dream,Canadian Dream



1800 - 2019 ▼

English (2019) ▼

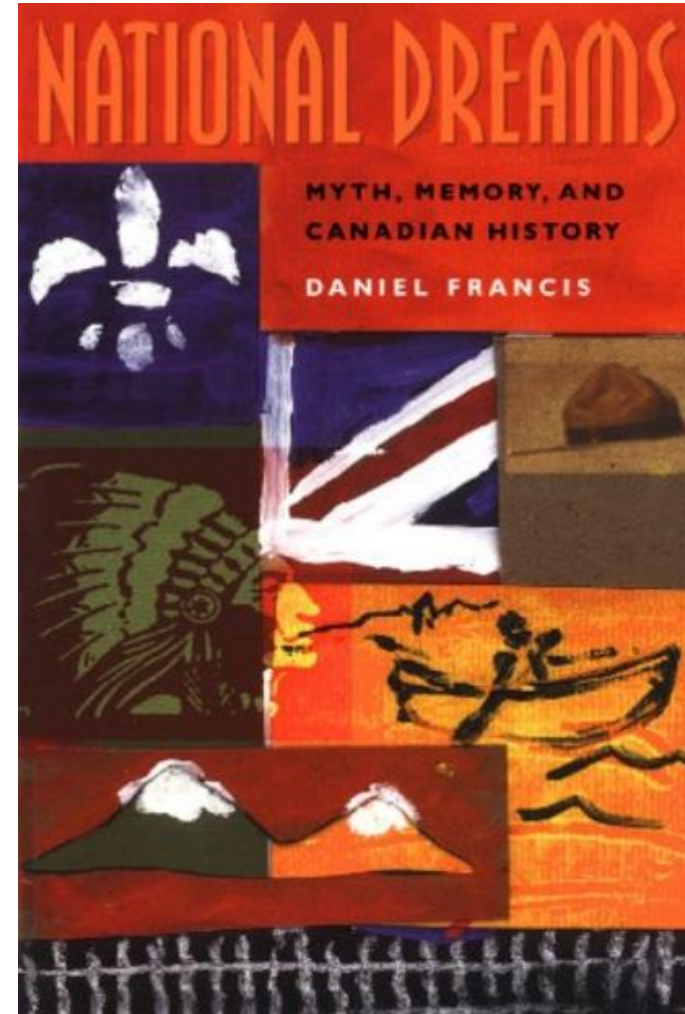
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Smoothing of 0 ▼



The Canadian Dream, Daniel Francis 2002

- “The CBC, the social safety net, universal health care, hockey—these are just some of the components of our civic ideology.”
- “The ‘conquest’ of the North, by which is meant the extraction of all this wealth, is believed to be our national destiny. More than that, southerners have also imagined the North to be a source of spiritual strength. Whether we ever visited it or not, having the North there made us better as a people, or at least gave us a future in which we might become better. The North is “a window which opens out onto the infinite—on to the potential future,” wrote Andre Siefried. It is also a refuge, a sanctuary, a place to seek renewal in contact with elemental nature, a place where modern industrial society has not reached.”
- “. . The Canadian West as a paradise where newcomers would find every opportunity to achieve the good life.”



4. Further Research on Economic Narratives

Research Methods for Macroeconomics and Finance

- Education in Economics should include research methods in psychology, sociology, anthropology, history, marketing, journalism, folklore studies, etc.
- Need new methods to improve our understanding of changing patterns of narratives, changing keywords, changing meanings of words
- Need new methods to identify constellations of narratives and ability of manipulators to attach their narratives to other constellations

The Future of Narrative Economics

- New technology will, via social media, affect contagion, recovery rates
- New data availability—digitized text and speech
- New forms for economic theory
- Collecting better information on popular economic narratives should start now