

Timelines of recession and recovery

A chartbook of what happens to key segments of the economy vital to the financial services industry before, during and after recessions



EXPERIAN EDGE

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Economist's note

“Timelines of recession and recovery” was born out of conversations with the leadership teams of financial institutions around the country and here internally at Experian. What started off as a piecemeal approach to answering questions around the potential business-line impacts of a recession has turned into a broader collation of data points. By pulling together what happens to key segments of our economy (including employment, consumer spending, lending and delinquency) before, during, and after recessions, my hope is that banks, credit unions, fintechs and others will be able to better establish a framework for what to expect when the next downturn inevitably arrives.

The first rebuttal of this effort will no doubt be “every recession is different” and “especially, this time”, but as you will see throughout the report, **trends begin to emerge in the data**, which, I believe, will prove useful in assessing the potential timing and impact to your business — both within and outside of recessionary periods. The point of this project is not to tell you what will happen, but to give you a starting point from which to anchor key assumptions.

Cheers and happy reading.



Joseph Mayans | Director of U.S. Economics

What is a recession?

Executive teams spend a significant amount of time anticipating and planning for the next recession, even as these stress events occupy a relatively short time in our economic history. Since 1980, the U.S. economy has spent roughly 155 quarters (~38 years) in expansion, and only 20 quarters (5 years) in recession. However, recessions can sometimes be generation-defining events that significantly impact the financial health of households and businesses and leave long-lasting scars on the broader economy.

While there have been recent discussions of “rolling-mini recessions” or “sector-specific recessions”, these characterizations obscure what has historically been considered a recession in the United States and the specific impacts they carry. The official arbiter of U.S. recessions, the National Bureau of Economic Research (NBER), defines them as:

“... a **significant decline in economic activity** that is **spread across the economy** and that **lasts more than a few months.**”

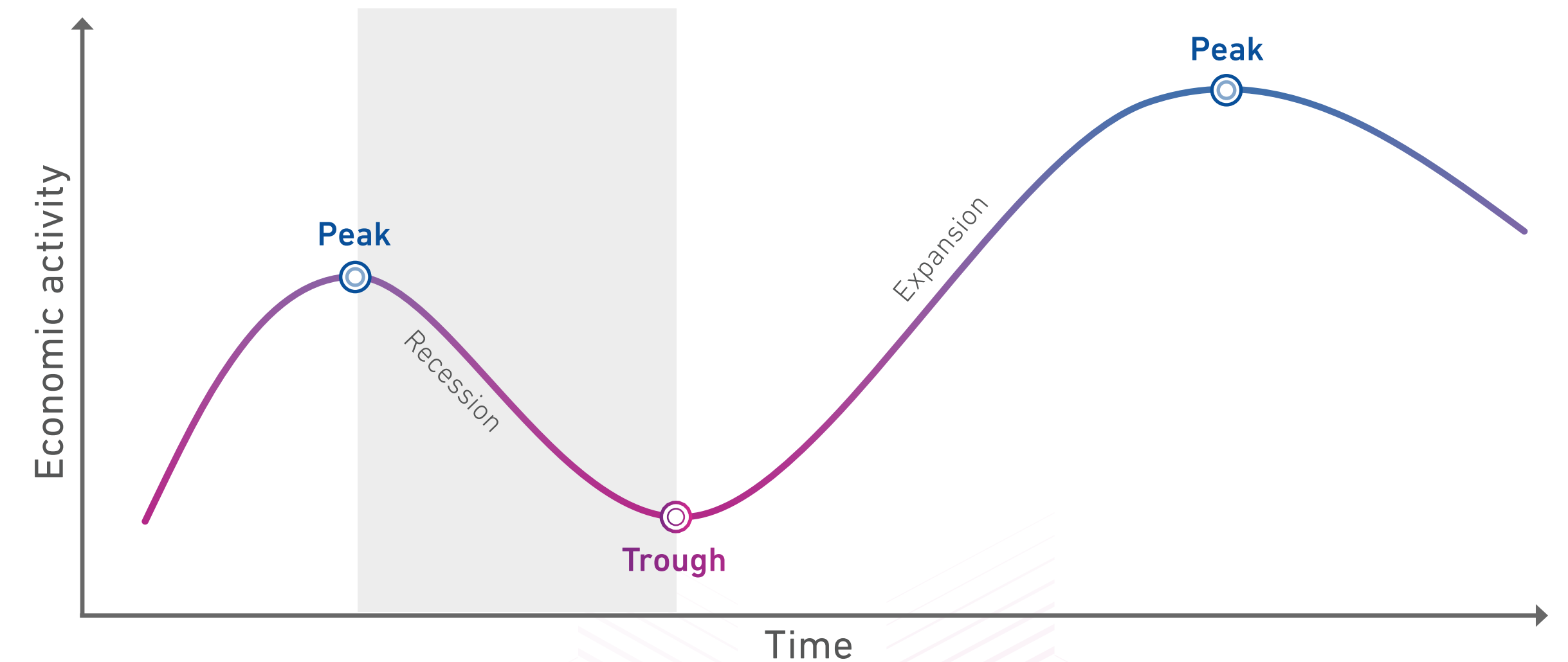
Some of the key data points NBER considers when determining a recession has occurred are:

Real personal income less transfers, nonfarm payroll employment, real personal consumption expenditures, wholesale-retail sales adjusted for price changes, employment as measured by the household survey and industrial production

The duration of a recession is measured from peak to trough, which means they begin in the period (month or quarter) after the economic peak has been reached and end at the trough (low point) of the cycle — at which point the next expansion begins (Chart 1).

While NBER’s criteria for measuring recessions are important for determining the impact to the broader economy, for the purposes of this resource, we will be focusing primarily on the correlated effects for consumers and the lending industry.

CHART 1



Organization and notes on the data

The following chartbook is designed to be a reference and review of publicly available economic data that pieces together what happens to key variables in the time periods surrounding a recession. Because the focus is for financial institutions and those industries that rely on consumers, the segments of the economy that will be assessed are the labor market, lending and delinquencies, and consumer spending.

The data (other than gross domestic product) are presented in nominal terms, rather than real (inflation-adjusted), as that is the basis by which financial institutions operate. This report covers the 1981, 1990, 2001, 2008 and 2020 recessions, but there are times in which a shorter horizon is assessed for certain data points given the lack of historical information. All data is presented on a quarterly basis. Due to the unique dynamics created by the pandemic lockdowns in the 2020 recession, the impact charts show both the average with 2020 included and excluded. Unless otherwise noted, the overall average (which includes 2020) is what is referenced in the text.

Much of the information is presented in the form of heatmaps that cover the two years leading up to a recession through the two years after. Heatmaps are used help show the timing of impact and are useful for determining general relationships and answering questions, such as: when do delinquencies tend to peak relative to unemployment? How long after institutions begin tightening credit does it show up in overall credit growth? Some of these relationships should prove useful both within and outside of recessionary times.

Because of the number of data points presented, this chartbook is split into two sections. **The first section provides a look at the “average” recession and the summary heatmaps for the last five downturns.** This should provide a good overview and may be enough information for most readers. The second section of the report will dive deeper into several of the areas presented in the summary.

THE “AVERAGE” RECESSION

The following summary provides a look at how key economic variables develop surrounding the prior five recessions in 1981, 1990, 2001, 2008, and 2020. The first section of charts show the average impact and timeline of when those impacts are most acute. The heatmaps then provide a broader view of the two years leading up to each recession, the recession, and the two years after. Pink in the heatmaps represents slower growth for most data points and higher rates for unemployment, interest rates, and delinquencies. The darker the pink, the greater the impact. The most acute hits to unemployment, lending and delinquency, do not occur until after the recession has officially ended. Because of this dynamic, the impact charts show the totality of effect, not just what happens during the recession itself. And while the charts show the two years after the recession, in some cases, it can still take much longer for some segments of the economy to fully recover.

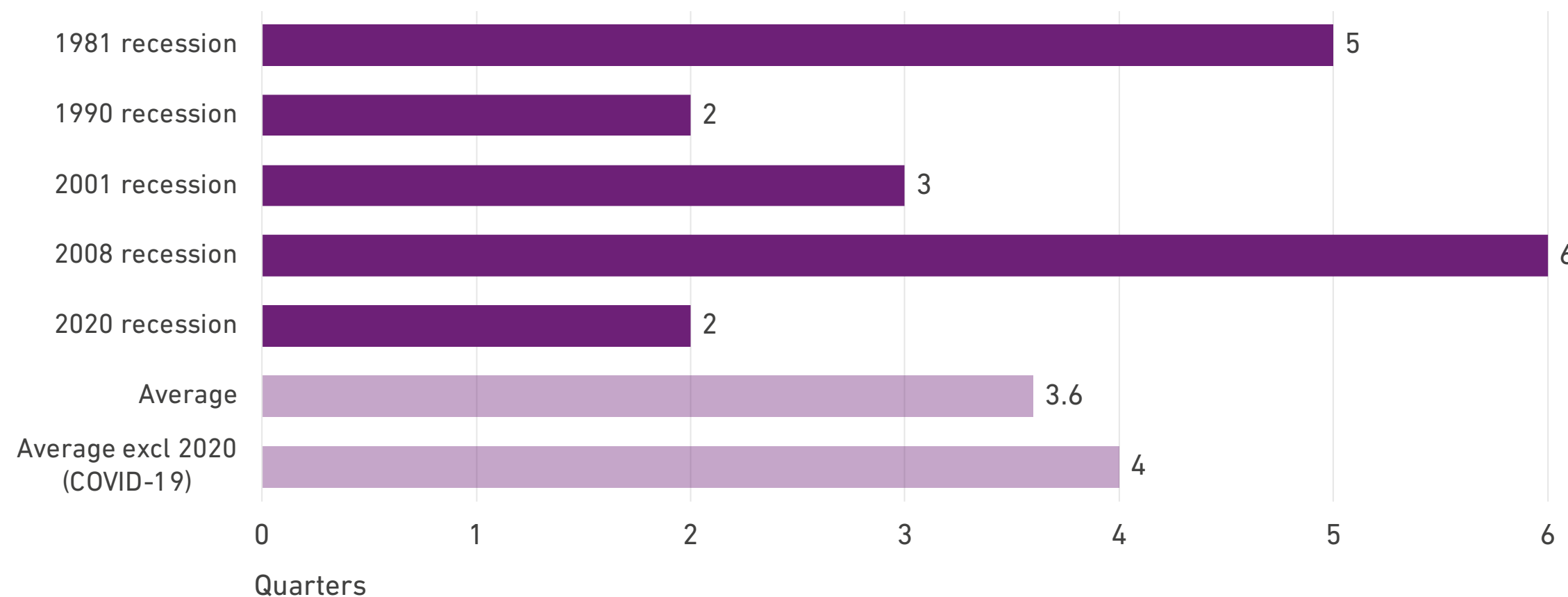
The average recession

Since 1981, recessions have lasted an average of four quarters, during which economic growth fell to a quarterly average of -4.8% (charts 2, 3). The hit to the labor market resulted in the loss of 3.9% of jobs and caused the unemployment rate to rise by 4.3 percentage points (pp) (charts 4, 5). The impact resulted in quarterly growth of consumer spending to ease from 1.8% to 0.7% (excluding 2020), lending growth to contract by -0.1% (the year after a recession), and total delinquencies to rise by 1.6 pp (charts 6, 7, 8).

In terms of timing, the 10-year treasury and 30-year mortgage rates tend to peak roughly 5 quarters prior to the start of a recession, with the fed funds rate peaking a quarter after that — a year out from the downturn. During a recession is when credit conditions tend to be at their tightest, job losses are the most acute, and consumer spending is slowest. Delinquencies peak, on average, two quarters after the end of a recession, with unemployment peaking three quarters out. The year after a recession is when overall lending activity is at its weakest (chart 9).

CHART 2

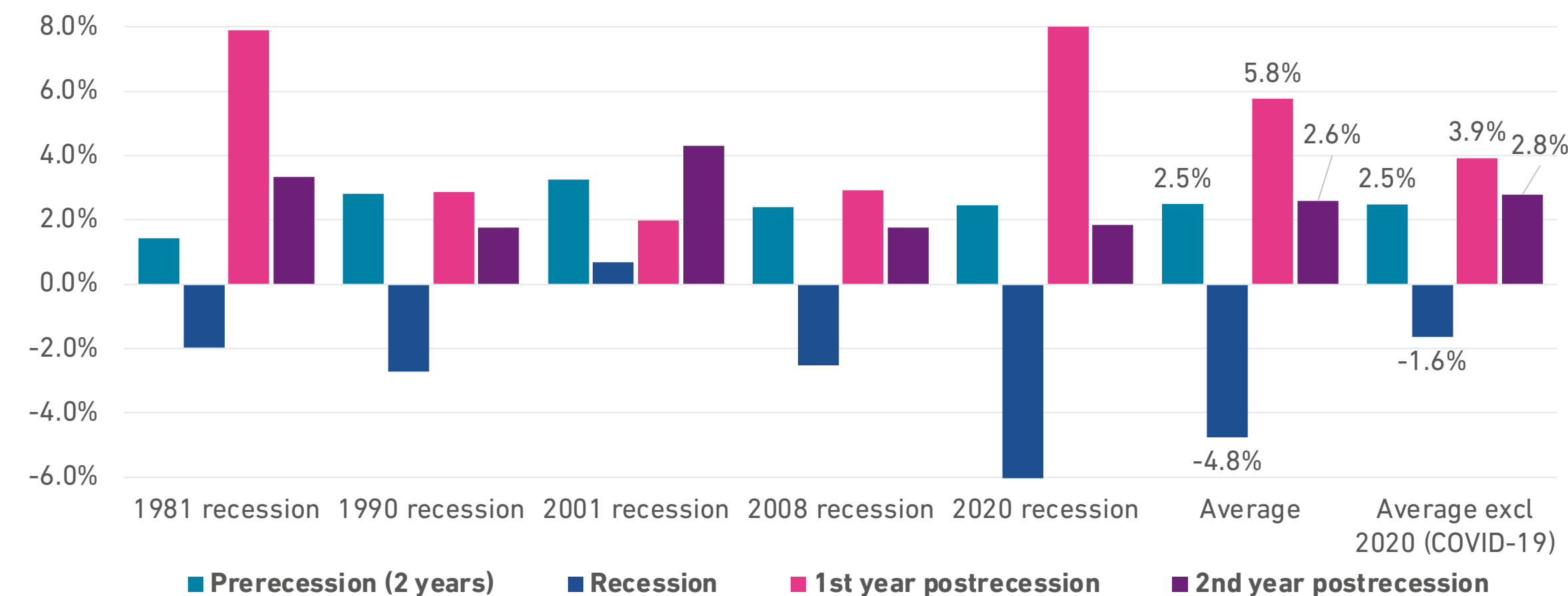
Length of prior recessions (in quarters)



Source: National Bureau of Economic Research and author's calculation

CHART 3

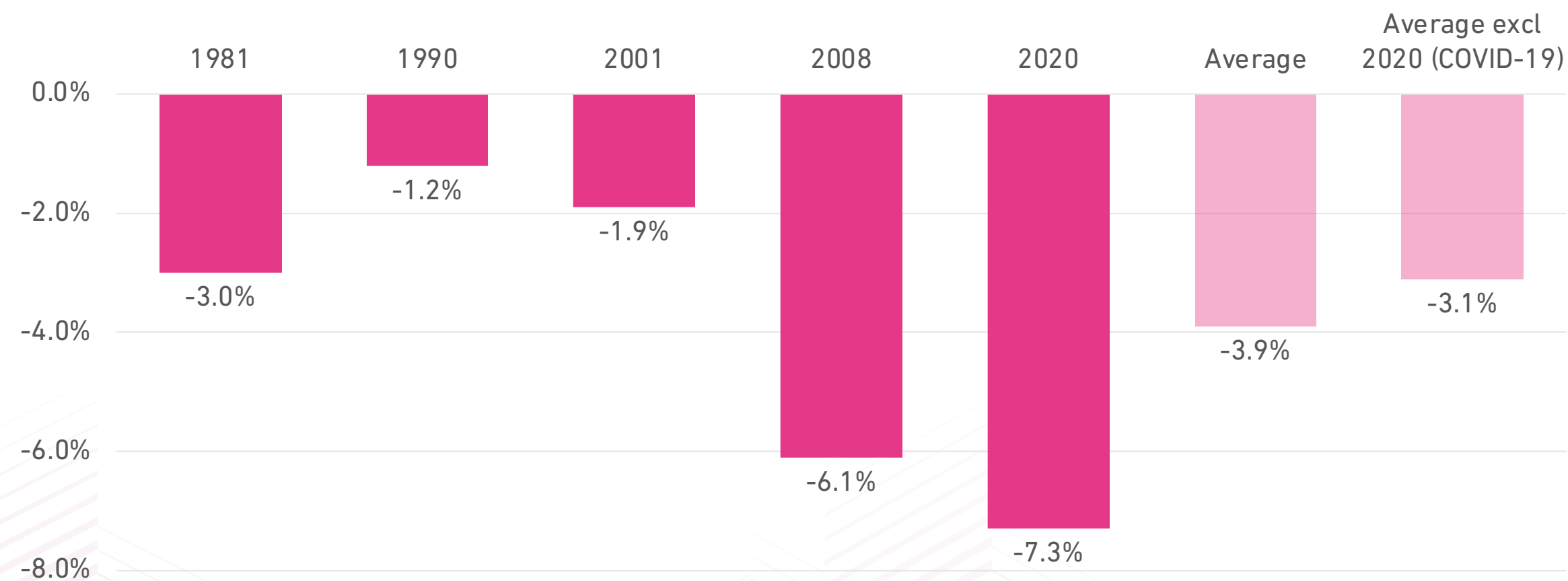
Real gross domestic product: average quarterly growth



Source: Bureau of Economic Analysis and author's calculation

CHART 4

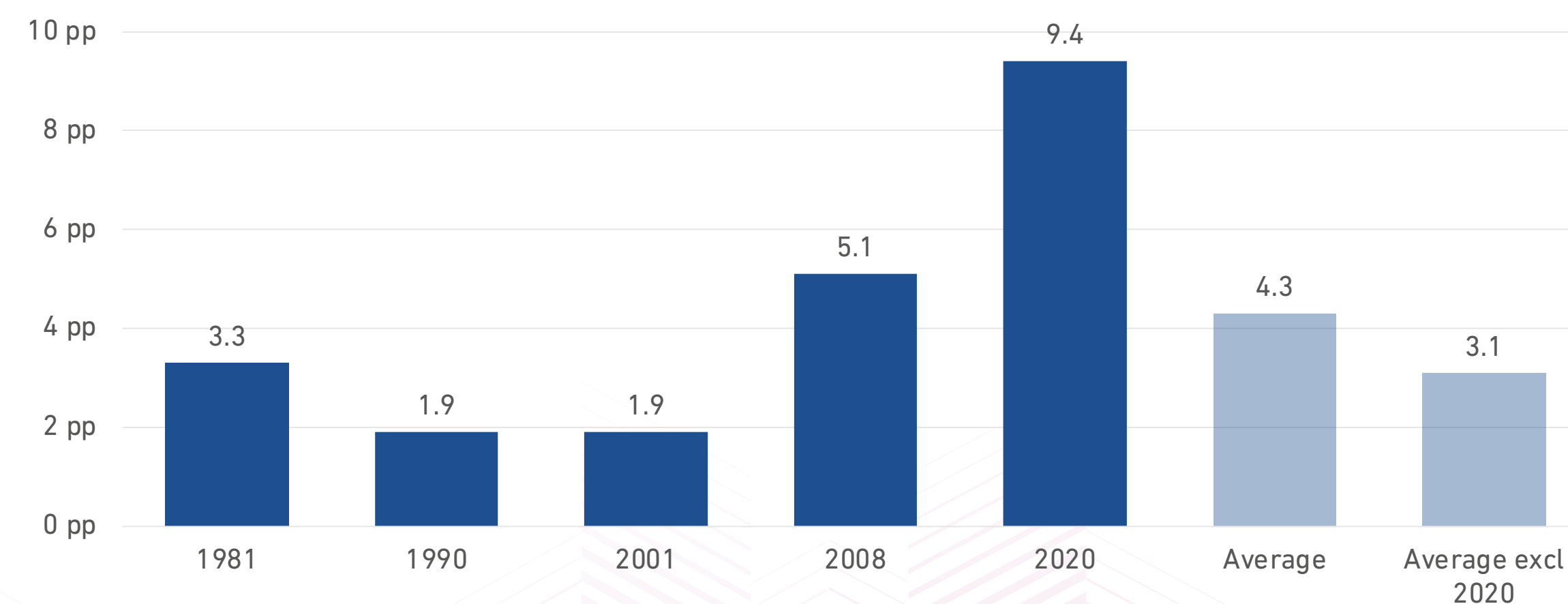
Decrease (%) in nonfarm payrolls



Source: Bureau of Labor Statistics and author's calculation

CHART 5

Increase (pp) in unemployment rate



Source: Bureau of Labor Statistics and author's calculation

CHART 6

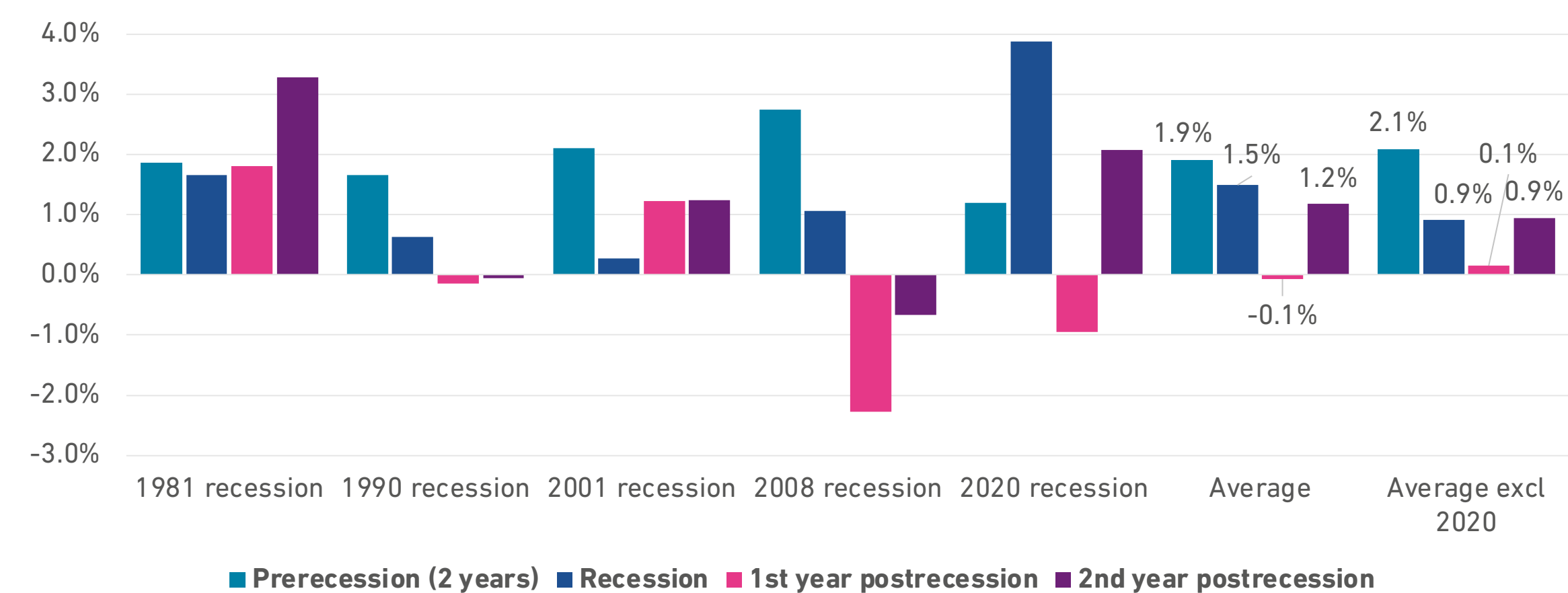
Total consumer spending: average quarterly growth



Source: Bureau of Economic Analysis and author's calculation

CHART 7

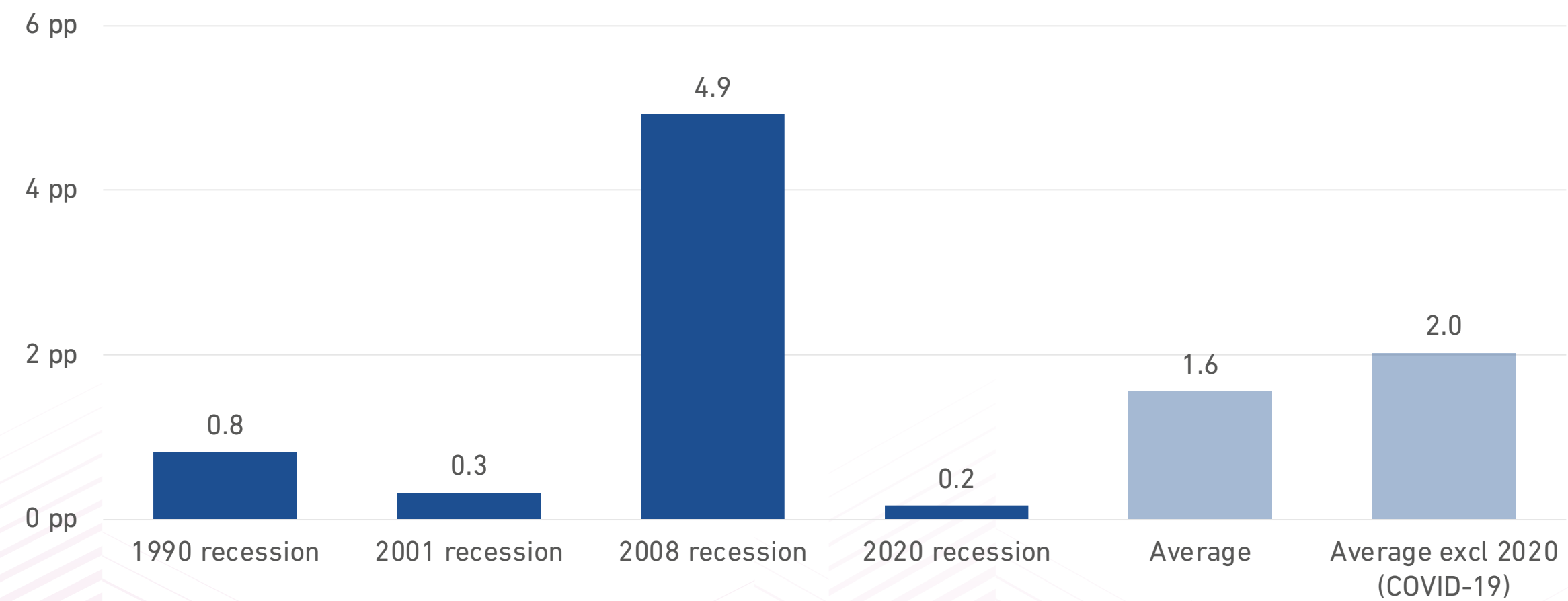
Total loans and leases, commercial banks: average quarterly growth



Source: Federal Reserve H.8 (data retrieved June 2023) and author's calculation

CHART 8

Increase (pp) in delinquency: all loans

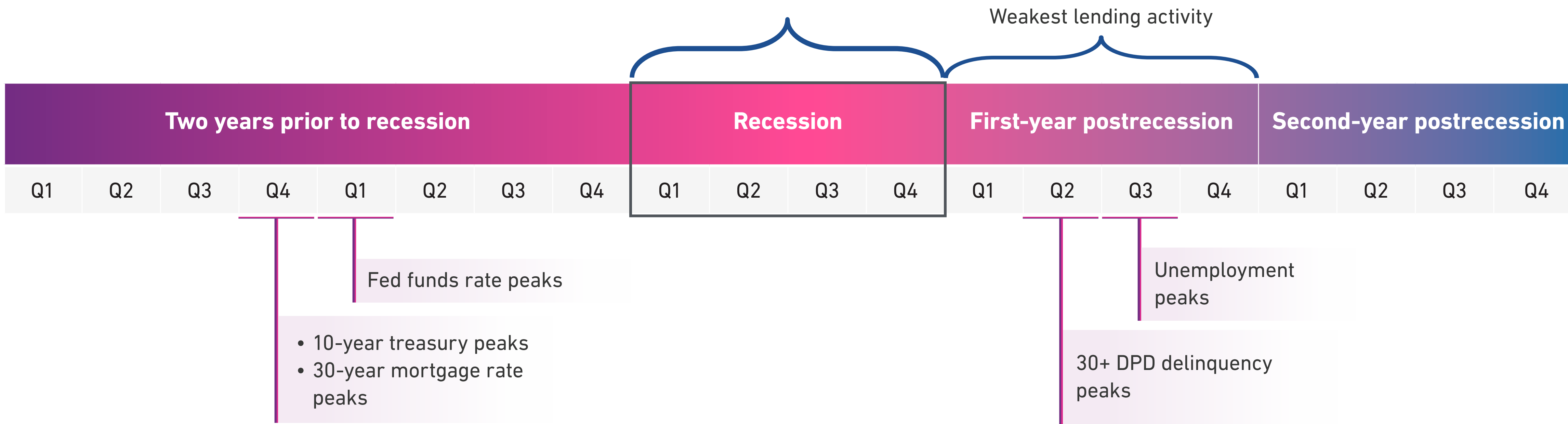


Source: Federal Reserve and author's calculation

CHART 9

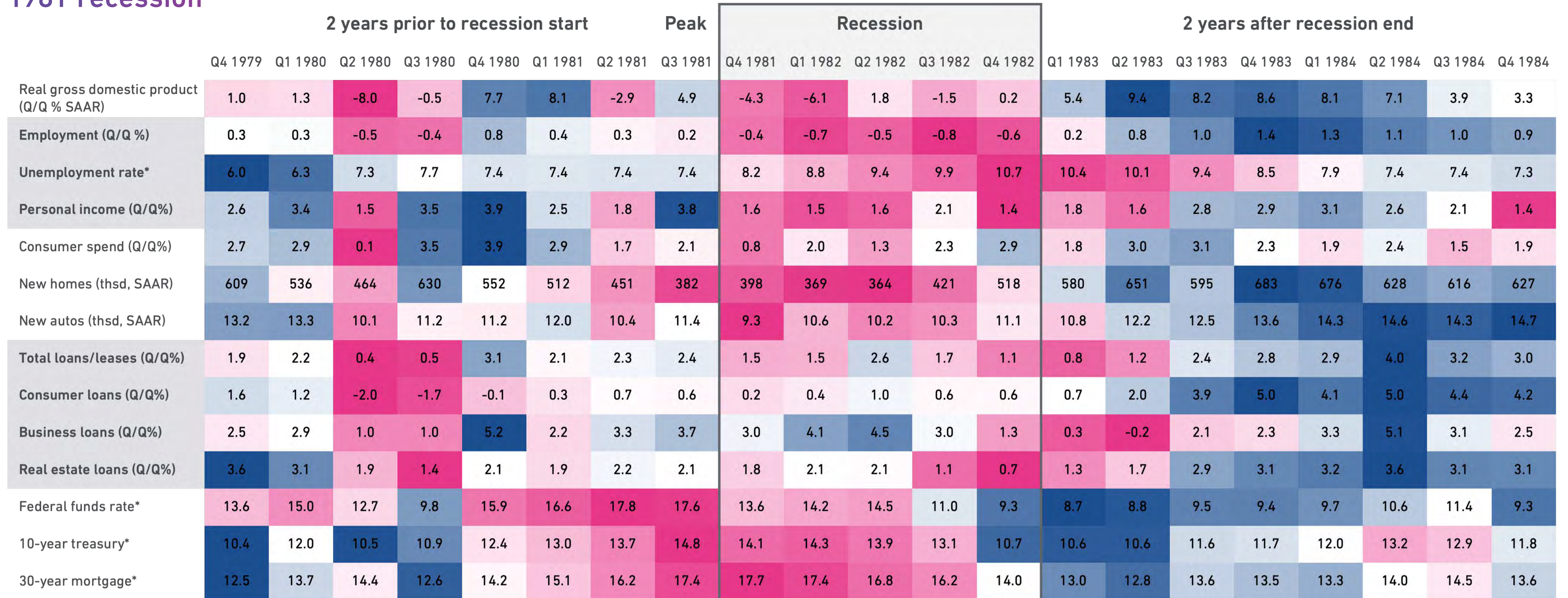
The "average" recession timeline

- Weakest consumer spending
- Largest declines in employment
- Tightest credit conditions



TIMELINE HEATMAP

1981 recession



Weaker growth



Higher rates*

Stronger growth

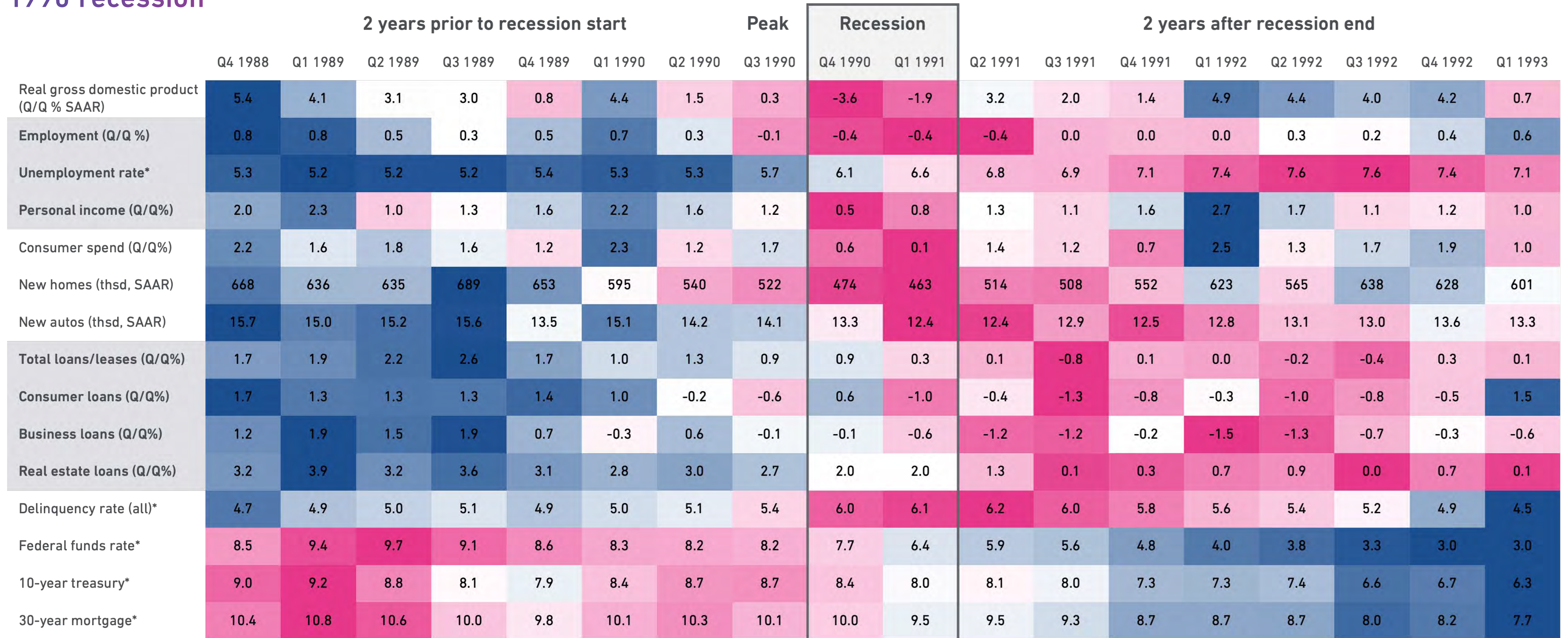


Lower rates*

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Census, Federal Reserve, Freddie Mac

TIMELINE HEATMAP

1990 recession



Weaker growth



Higher rates*

Stronger growth

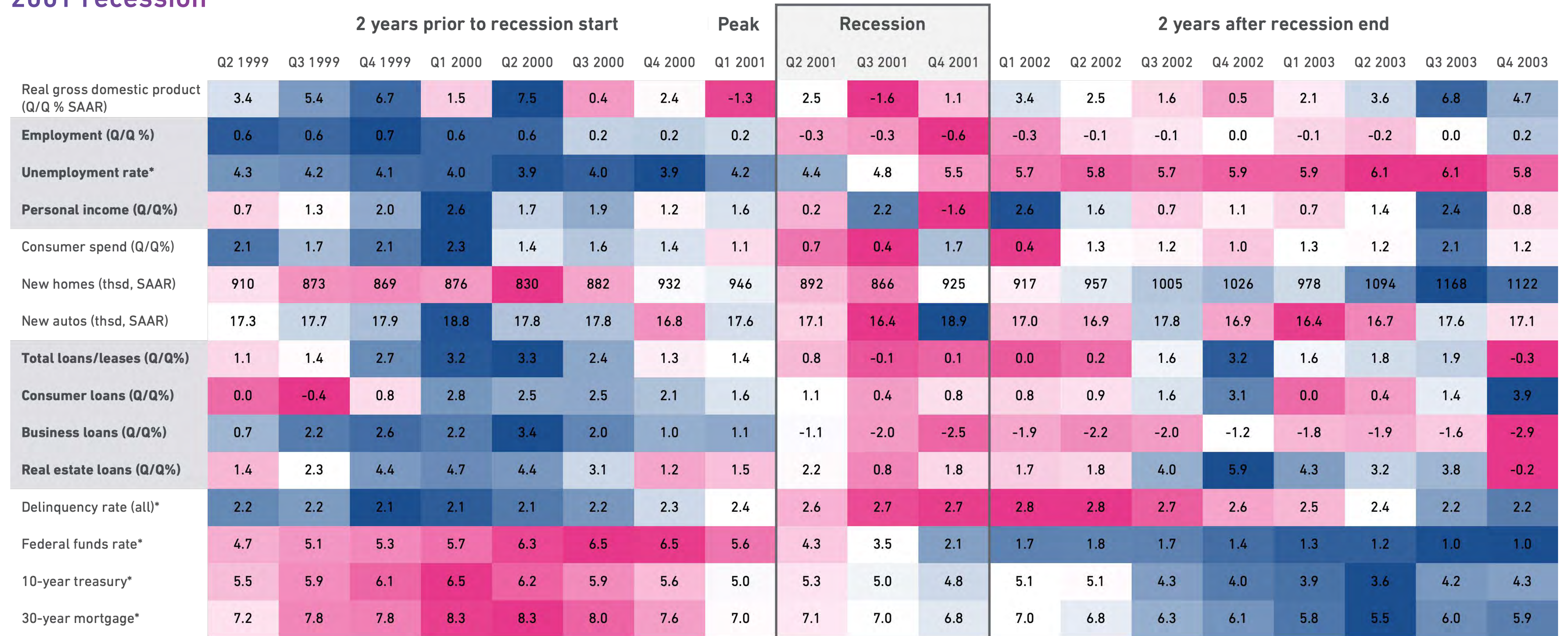


Lower rates*

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Census, Federal Reserve, Freddie Mac

TIMELINE HEATMAP

2001 recession



Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Census, Federal Reserve, Freddie Mac

TIMELINE HEATMAP

2008 recession

	2 years prior to recession start								Peak	Recession						2 years after recession end						
	Q1 2006	Q2 2006	Q3 2006	Q4 2006	Q1 2007	Q2 2007	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011
Real gross domestic product (Q/Q % SAAR)	5.5	1.0	0.6	3.4	1.2	2.6	2.4	2.5	-1.6	2.3	-2.1	-8.5	-4.6	-0.7	1.5	4.3	2.0	3.9	3.1	2.1	-1.0	2.7
Employment (Q/Q %)	0.6	0.4	0.3	0.3	0.4	0.3	0.1	0.2	0.0	-0.3	-0.5	-1.2	-1.7	-1.4	-0.7	-0.4	-0.1	0.5	0.0	0.3	0.2	0.5
Unemployment rate*	4.7	4.6	4.6	4.4	4.5	4.5	4.7	4.8	5.0	5.3	6.0	6.9	8.3	9.3	9.6	9.9	9.8	9.6	9.5	9.5	9.0	9.1
Personal income (Q/Q%)	2.5	1.3	0.9	1.1	1.7	1.3	0.7	1.2	1.0	2.9	-1.0	-0.5	-0.9	0.9	-0.5	1.0	1.1	1.8	0.8	1.0	1.8	0.7
Consumer spend (Q/Q%)	1.6	1.4	1.4	0.8	1.5	1.1	1.2	1.4	0.7	1.3	0.3	-2.5	-0.9	-0.1	1.4	0.7	1.0	1.1	0.9	1.3	1.2	1.1
New homes(thsd, SAAR)	1117	1094	1005	981	851	841	721	662	585	509	448	386	349	369	405	374	354	336	294	301	292	305
New autos (thsd, SAAR)	17.4	16.9	17.0	16.9	16.8	16.5	16.2	16.3	15.4	14.6	13.4	10.6	9.6	9.9	12.0	11.0	11.0	11.7	12.0	12.4	13.0	12.5
Total loans (Q/Q%)	2.5	3.0	2.3	3.8	1.8	1.4	3.3	3.9	2.4	0.9	0.7	4.5	-1.1	-1.0	-2.8	-2.2	-1.9	4.8	-1.1	-0.6	-0.9	-0.2
Consumer loans (Q/Q%)	0.0	2.0	-0.2	1.9	0.9	0.9	3.1	2.4	1.7	1.2	2.6	4.7	2.0	-2.8	-1.4	-1.1	0.0	36.9	-1.7	-1.7	-3.4	0.4
Business loans (Q/Q%)	3.4	4.1	3.8	2.3	2.8	3.4	5.5	6.3	4.2	2.7	1.7	3.6	-2.8	-4.2	-6.8	-5.7	-4.9	-2.1	-0.9	0.0	1.1	2.1
Real estate loans (Q/Q%)	2.6	3.0	2.4	6.4	1.7	0.5	1.9	3.1	1.4	0.5	-0.2	5.0	-0.2	1.1	-1.4	-0.8	-1.2	-0.8	-1.2	-0.9	-1.4	-1.7
Delinquency rate (all)*	1.5	1.5	1.6	1.7	1.7	1.9	2.1	2.5	2.9	3.3	3.7	4.8	5.6	6.4	6.9	7.3	7.4	7.2	6.9	6.4	6.2	6.0
Federal funds rate*	4.5	4.9	5.2	5.2	5.3	5.3	5.1	4.5	3.2	2.1	1.9	0.5	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1
10-year treasury*	4.6	5.1	4.9	4.6	4.7	4.8	4.7	4.3	3.7	3.9	3.9	3.2	2.7	3.3	3.5	3.5	3.7	3.5	2.8	2.9	3.5	3.2
30-year mortgage*	6.2	6.6	6.6	6.2	6.2	6.4	6.6	6.2	5.9	6.1	6.3	5.8	5.1	5.0	5.2	4.9	5.0	4.9	4.4	4.4	4.8	4.7

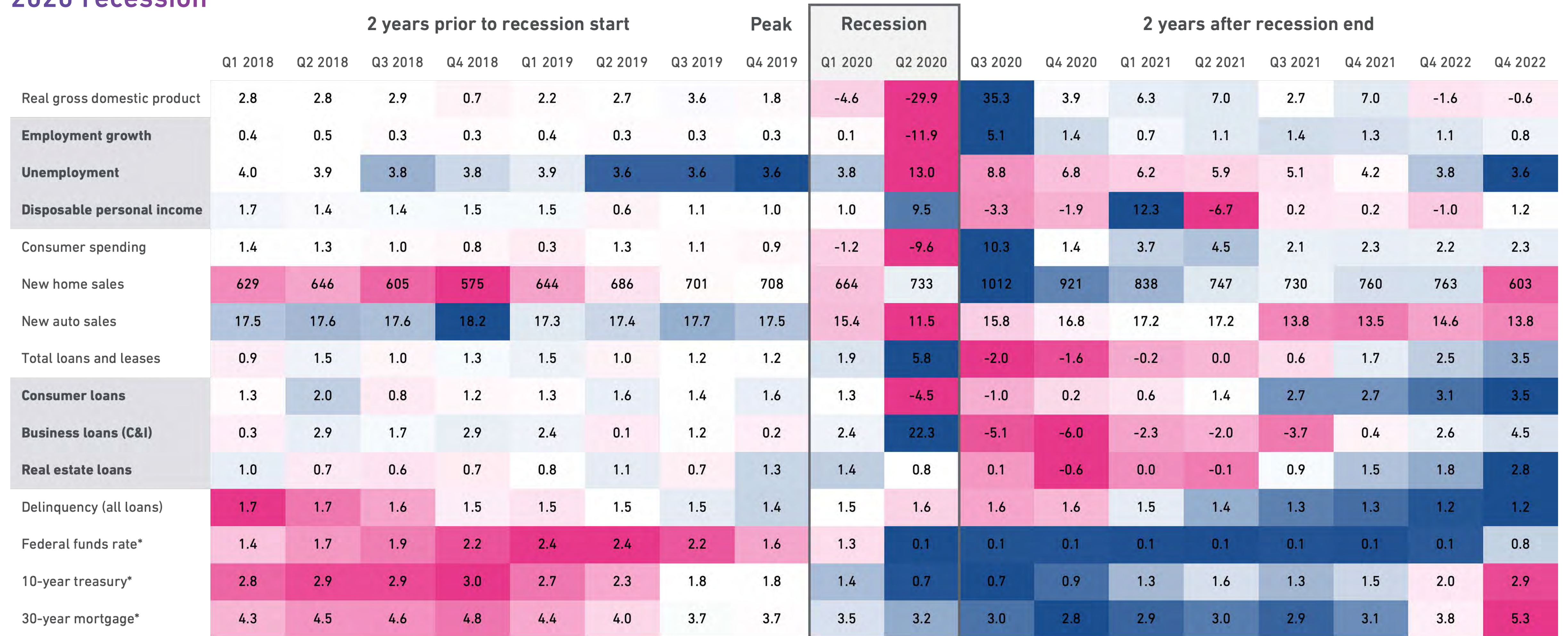


Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Census, Federal Reserve, Freddie Mac

TIMELINE HEATMAP

2020 recession

THE "AVERAGE" RECESSION



Weaker growth



Higher rates*

Stronger growth



Lower rates*

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Census, Federal Reserve, Freddie Mac

A DEEPER DIVE INTO THE DATA

LABOR MARKET

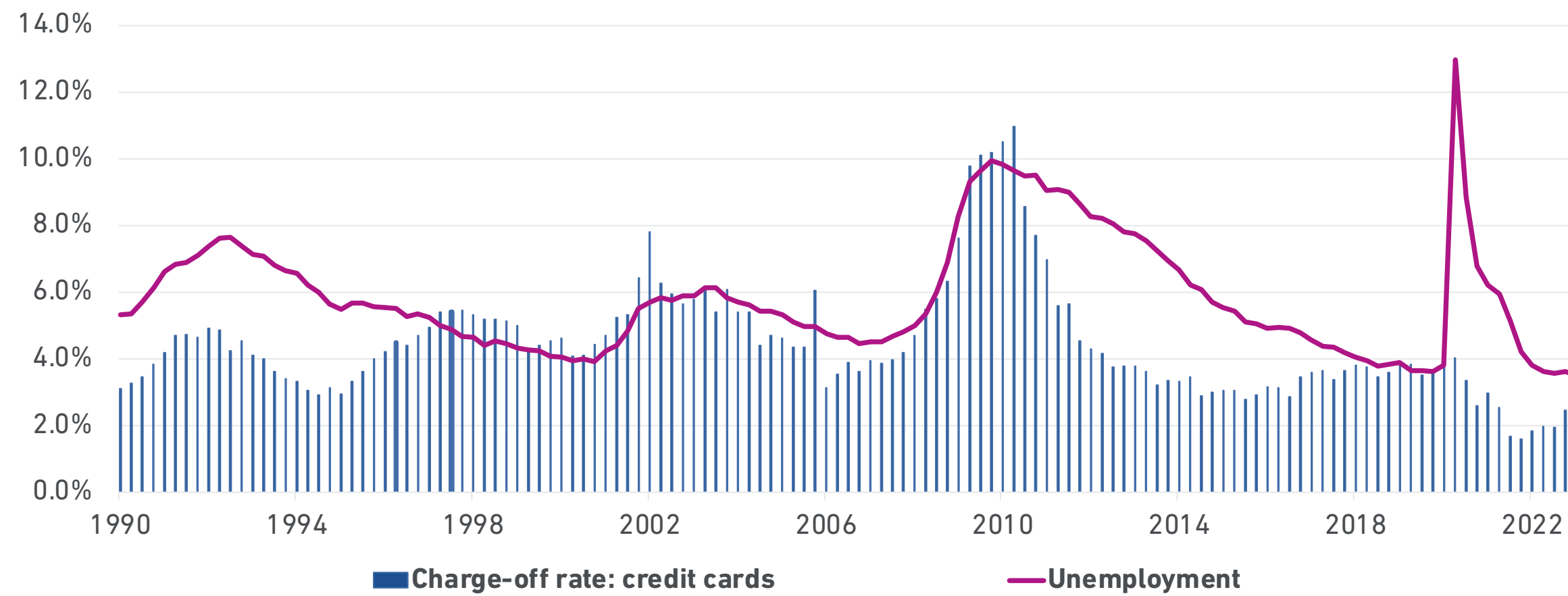
Unemployment

When people lose their jobs, it reduces their ability to spend or access credit and increases their likelihood of delinquency. That's why the unemployment rate has remained front and center for the financial services industry and organizations that serve consumers. While there are other predictors of delinquency, the unemployment rate has historically served as a key indicator (chart 10).

The unemployment rate is one of the economic variables that does not peak during a recession, but after. In the last five downturns, unemployment peaked an average of 3 quarters after the recession ended. During that time, the unemployment rate rose an average of 4.3 pp, and took an average of 19 quarters (excluding the 2001 downturn as it did not recover before the next recession) to return to its pre-recession level (charts 11, 12). The greatest increase among the demographic groups was seen among 16 to 19-year-olds, Hispanics or Latinos, and men (charts 13, 14, 15). Unemployment for part-time workers tends to be less impacted by recessions than full-timers, with the one major exception being during the 2020 recession (chart 16). In terms of overall timing, initial claims, which measure when someone first files for unemployment benefits, tends to peak first, followed by continued claims, which measures when someone continues to file for benefits, and then by the overall unemployment rate.

CHART 10

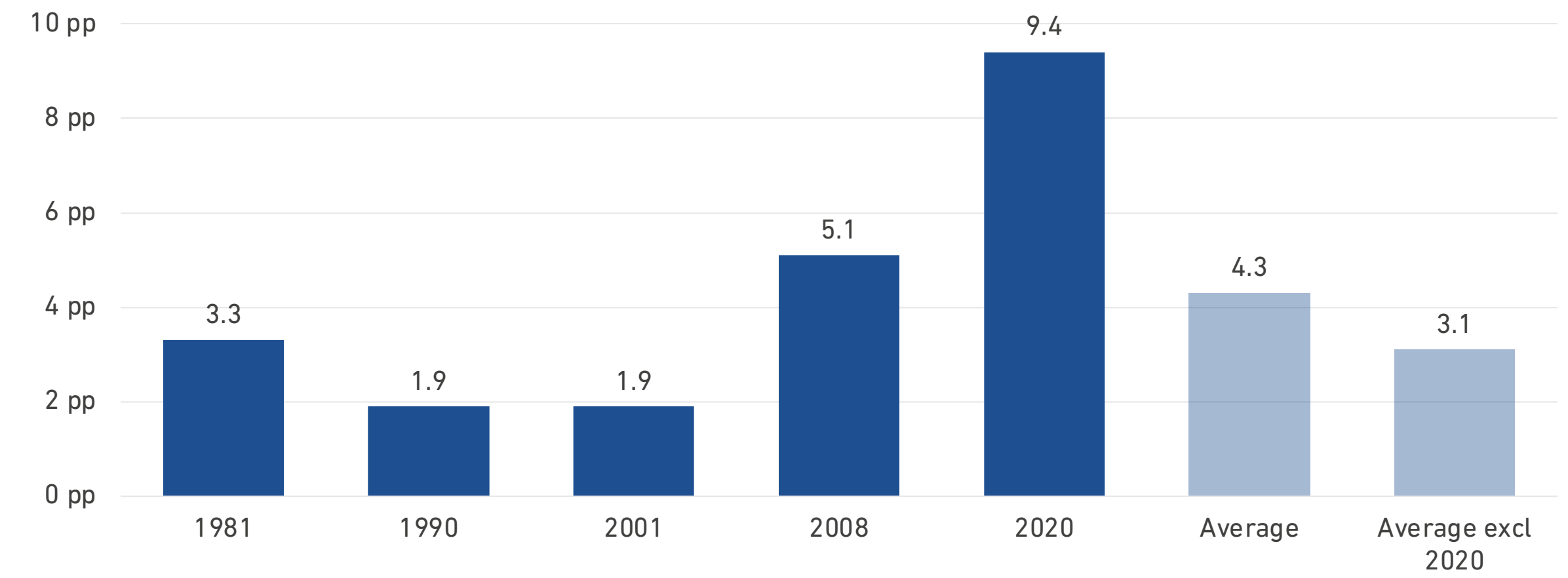
Unemployment rate and credit card charge-off rate



Source: Federal Reserve and Bureau of Labor Statistics

CHART 11

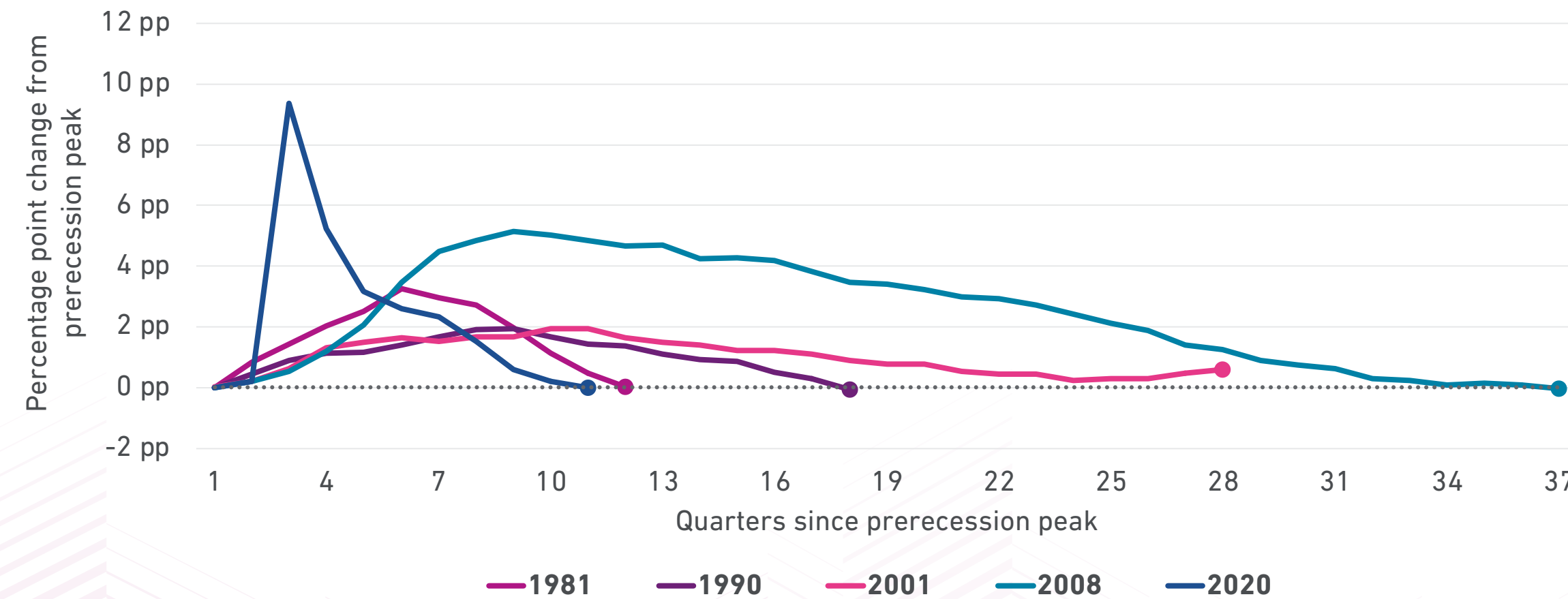
Increase (pp) in unemployment rate



Source: Bureau of Labor Statistics and author's calculation

CHART 12

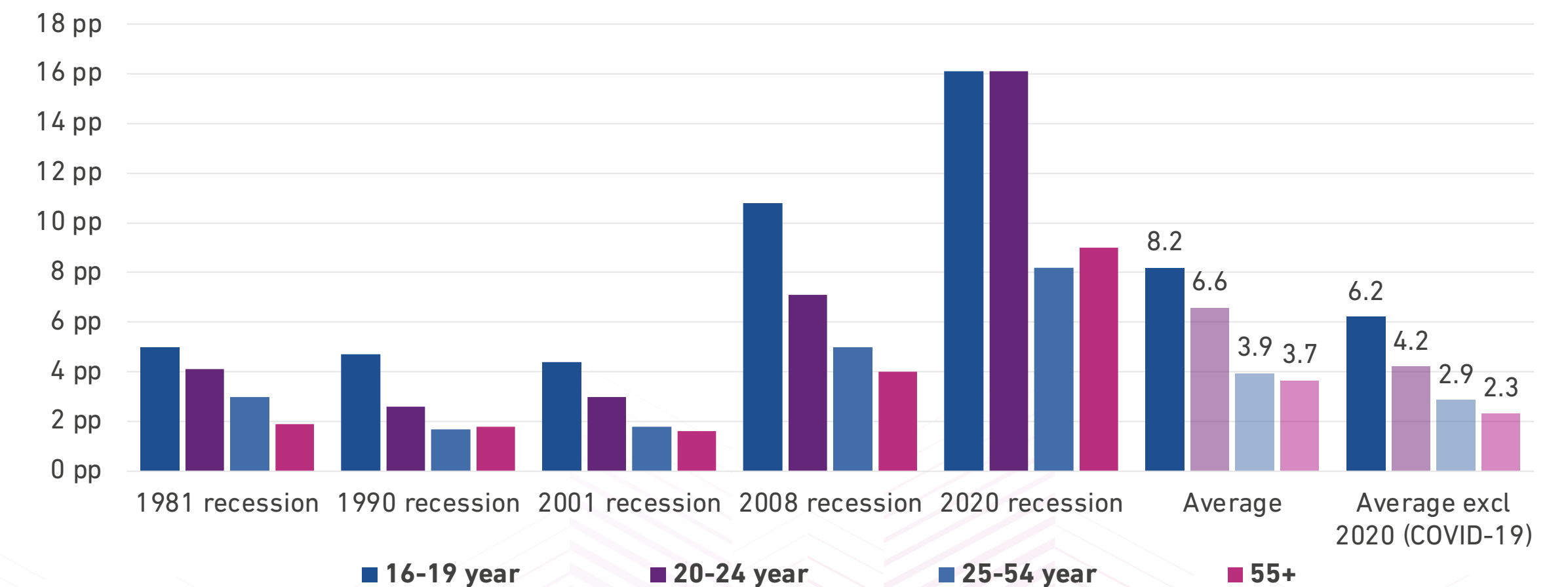
Recession recovery: unemployment



Source: Bureau of Labor Statistics and author's calculation

CHART 13

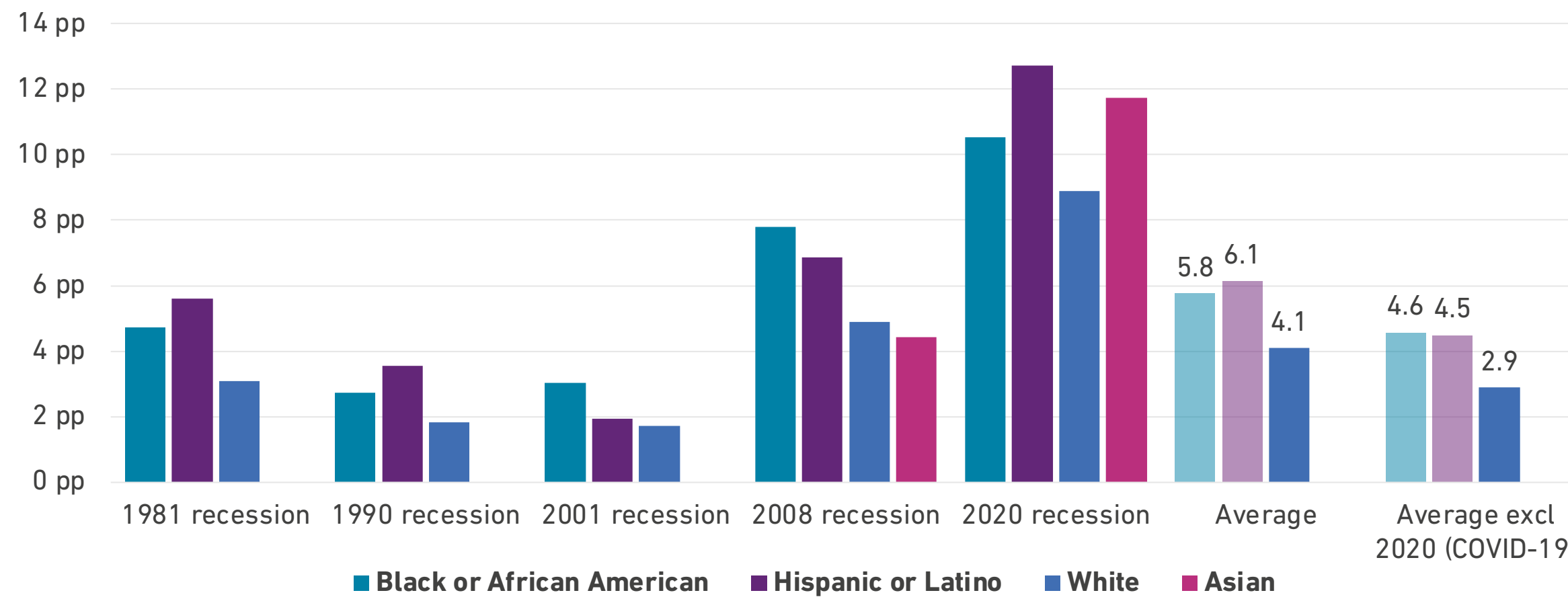
Percentage point increase in unemployment rate from prerecession peak by age



Source: Bureau of Labor Statistics and author's calculation

CHART 14

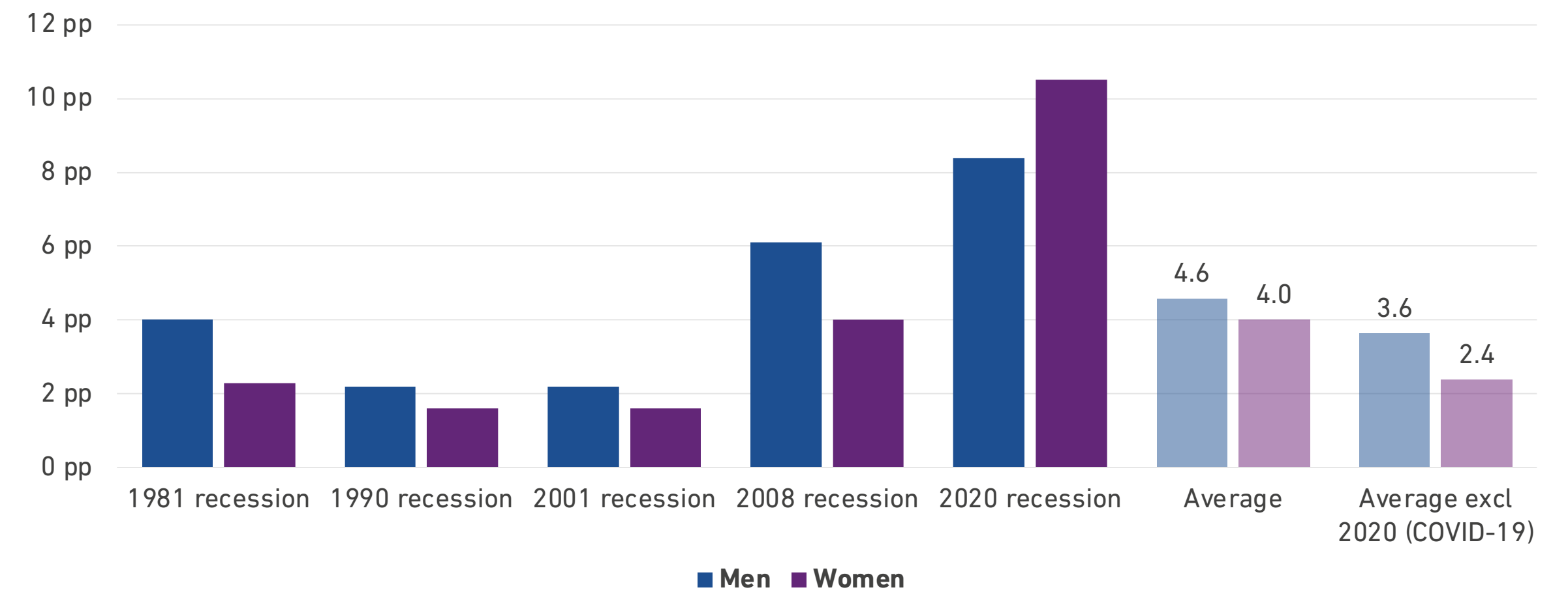
Percentage point increase in unemployment rate from precession peak by race



Source: Bureau of Labor Statistics and author's calculation

CHART 15

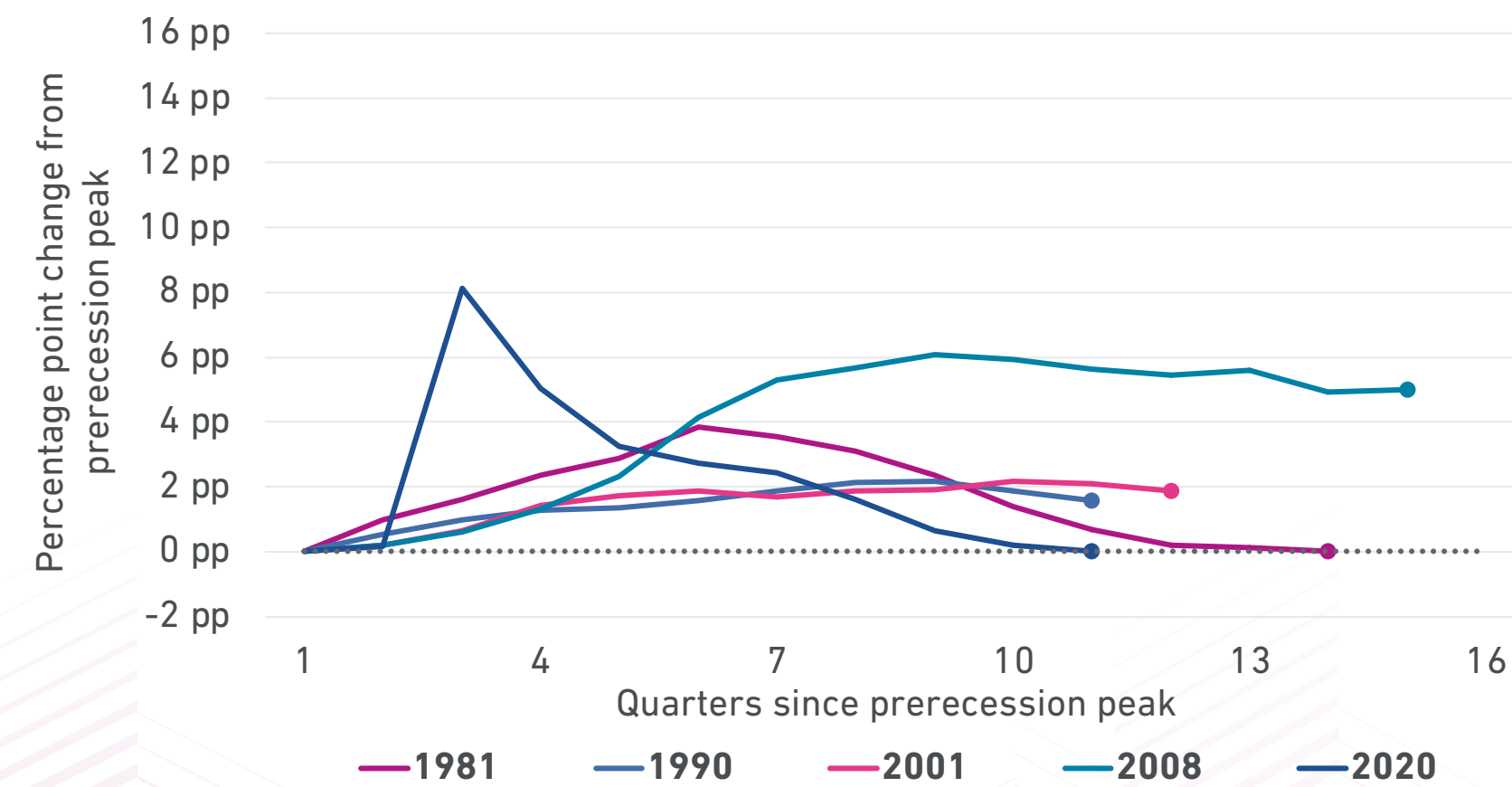
Percentage point increase in unemployment rate from precession peak by gender



Source: Bureau of Labor Statistics and author's calculation

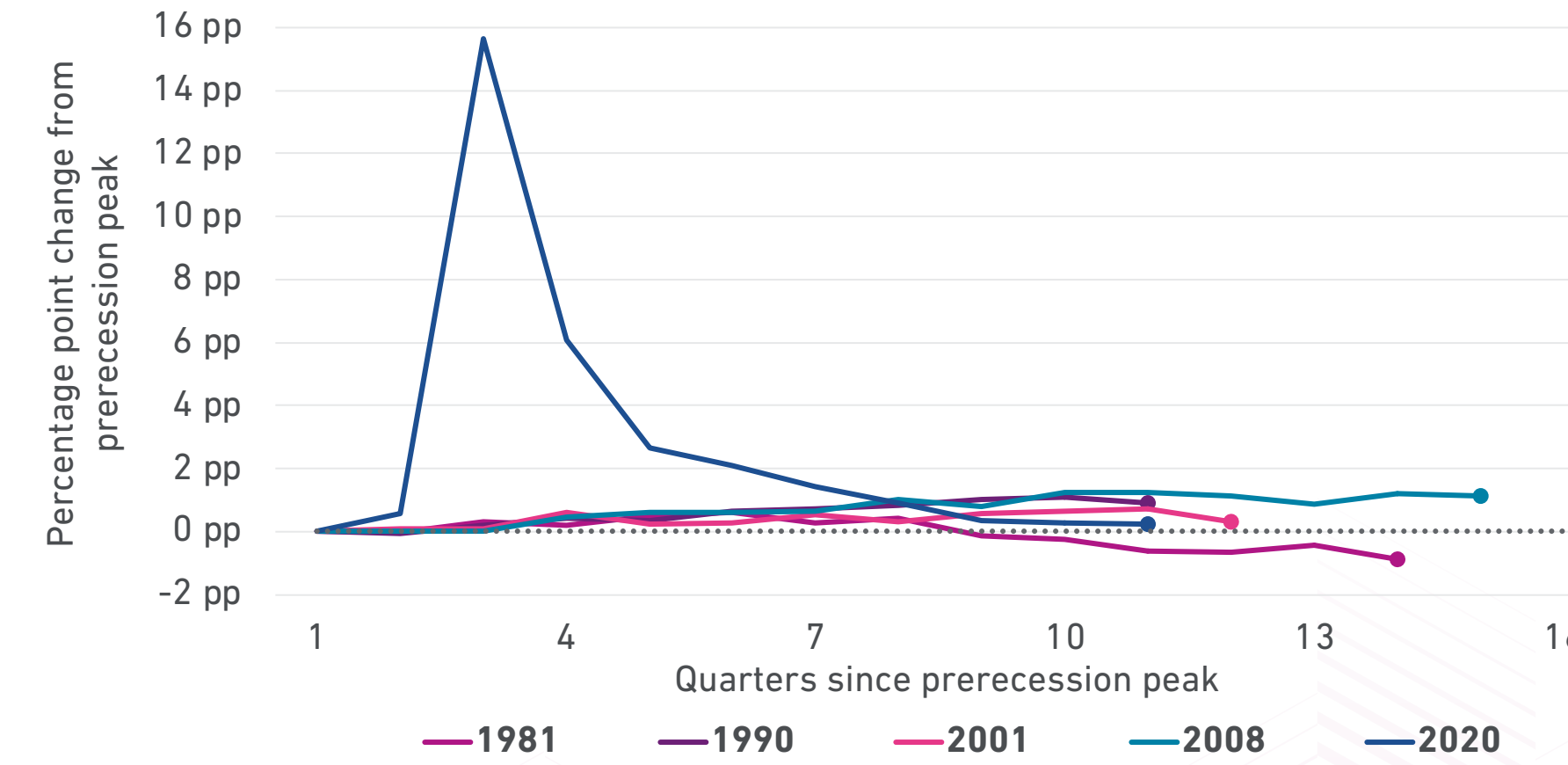
CHART 16

Unemployment for full-time workers



Source: Bureau of Labor Statistics and author's calculation

Unemployment for part-time workers



TIMELINE HEATMAP

1981 recession

Unemployment

2 years prior to recession start

Peak

Recession

2 years after recession end

	Q4 1979	Q1 1980	Q2 1980	Q3 1980	Q4 1980	Q1 1981	Q2 1981	Q3 1981	Q4 1981	Q1 1982	Q2 1982	Q3 1982	Q4 1982	Q1 1983	Q2 1983	Q3 1983	Q4 1983	Q1 1984	Q2 1984	Q3 1984	Q4 1984
Initial claims (in thsd)	415.6	422.9	586.6	523.8	419.6	416.2	419.6	451.3	516.5	541.3	589.6	618.5	594.9	490.8	471.5	416.8	387.5	345.4	363.5	382.8	402.5
Continued claims (in thsd)	2604.9	2846.7	3504.6	3783.2	3325.4	2976.9	2889.3	2948.2	3314.2	3577.8	3984.2	4258.4	4554.0	3854.0	3624.6	3107.6	2801.9	2476.7	2387.0	2394.5	2551.4
Unemployment rate	6.0	6.3	7.3	7.7	7.4	7.4	7.4	7.4	8.2	8.8	9.4	9.9	10.7	10.4	10.1	9.4	8.5	7.9	7.4	7.4	7.3
Full-time workers	5.6	6.0	7.2	7.7	7.4	7.4	7.3	7.3	8.3	8.9	9.7	10.2	11.1	10.9	10.4	9.7	8.7	8.0	7.5	7.4	7.3
Part-time workers	7.6	7.6	7.7	7.5	7.4	7.8	7.9	8.1	8.0	8.4	8.3	8.6	8.7	8.3	8.5	7.9	7.8	7.5	7.4	7.6	7.2
Men	5.3	5.8	7.2	7.7	7.2	7.2	7.2	7.1	8.1	8.9	9.5	10.3	11.1	10.8	10.4	9.7	8.7	7.9	7.4	7.3	7.1
Women	6.8	6.9	7.4	7.6	7.6	7.7	7.7	7.8	8.4	8.8	9.3	9.5	10.1	9.9	9.6	8.9	8.3	7.8	7.6	7.6	7.5
16-19 year	16.2	16.5	17.9	18.7	18.1	19.2	19.2	19.0	20.9	22.2	22.8	23.8	24.0	23.1	23.4	22.5	20.5	19.5	18.7	18.9	18.4
20-24 year	9.5	10.1	12.0	12.3	12.0	11.8	12.3	12.0	13.0	13.9	14.5	15.1	16.1	15.9	15.0	14.0	13.0	12.0	11.3	11.5	11.1
25-54 year	4.3	4.7	5.6	6.0	5.7	5.6	5.5	5.7	6.5	7.0	7.6	8.2	8.9	8.7	8.4	7.7	7.0	6.4	6.0	6.0	5.8
55+ year	2.9	3.0	3.3	3.4	3.4	3.6	3.3	3.6	3.9	4.4	5.0	5.1	5.5	5.5	5.6	5.1	4.8	4.5	4.5	4.4	4.4
Black	12.1	12.9	14.3	14.9	15.1	14.8	15.1	15.7	16.9	17.7	18.4	19.1	20.4	20.4	20.5	19.3	17.8	16.7	15.9	15.9	15.2
Hispanic	9.0	8.9	10.2	11.0	10.3	10.7	9.9	9.9	11.2	12.0	13.5	14.5	15.3	15.5	14.4	12.8	12.0	11.1	10.8	10.5	10.5
White	5.2	5.5	6.5	6.8	6.5	6.6	6.5	6.4	7.2	7.8	8.3	8.8	9.5	9.2	8.8	8.1	7.4	6.8	6.4	6.4	6.3

Higher unemployment

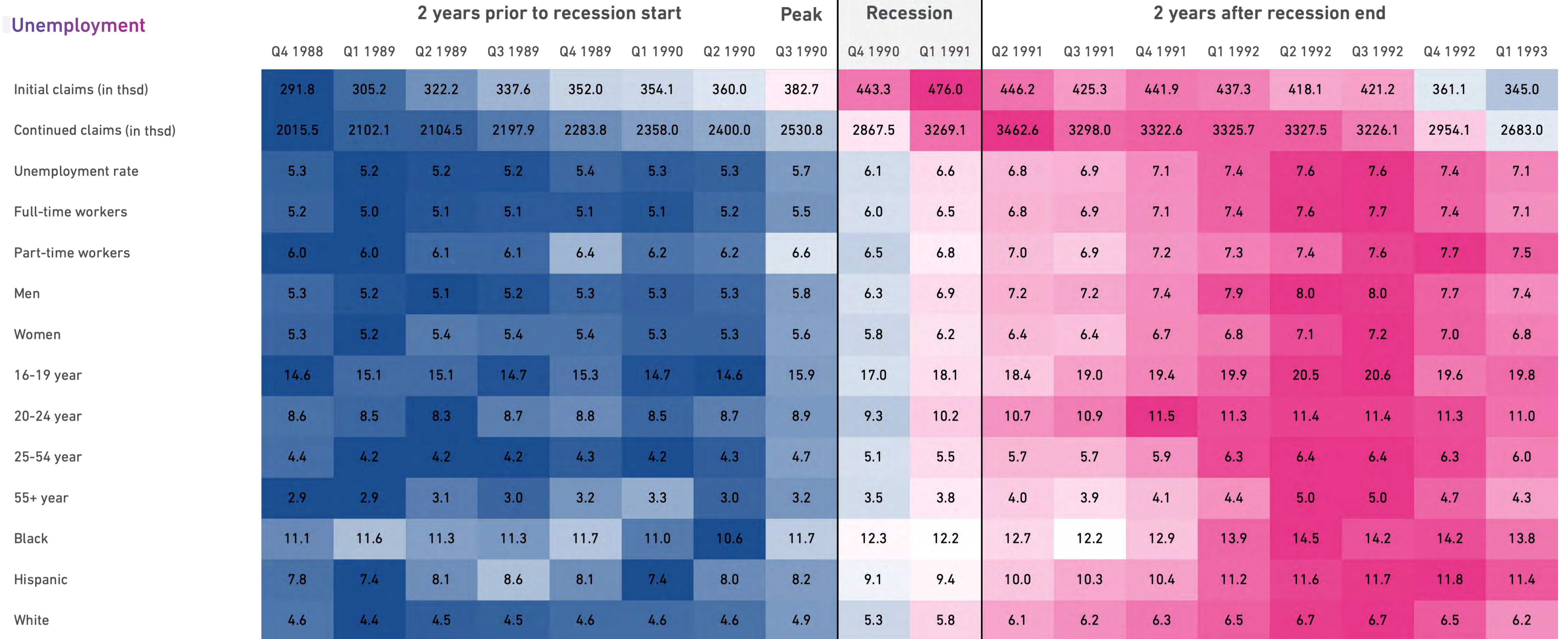
Lower unemployment



TIMELINE HEATMAP

1990 recession

Unemployment



Higher unemployment



Lower unemployment



TIMELINE HEATMAP

2001 recession

Unemployment

2 years prior to recession start

Peak

Recession

2 years after recession end

	Q2 1999	Q3 1999	Q4 1999	Q1 2000	Q2 2000	Q3 2000	Q4 2000	Q1 2001	Q2 2001	Q3 2001	Q4 2001	Q1 2002	Q2 2002	Q3 2002	Q4 2002	Q1 2003	Q2 2003	Q3 2003	Q4 2003
Initial claims (in thsd)	301.4	293.2	284.1	285.8	280.8	301.9	328.5	367.8	396.2	412.2	445.9	408.2	406.8	396.2	403.7	412.4	427.1	402.2	367.4
Continued claims (in thsd)	2214.7	2179.6	2095.8	2111.9	2011.4	2106.8	2218.6	2496.6	2831.0	3147.2	3591.0	3574.8	3675.5	3524.7	3505.1	3470.0	3686.2	3596.2	3376.4
Unemployment rate	4.3	4.2	4.1	4.0	3.9	4.0	3.9	4.2	4.4	4.8	5.5	5.7	5.8	5.7	5.9	5.9	6.1	6.1	5.8
Underemployment rate	7.5	7.4	7.2	7.1	7.0	7.0	6.9	7.3	7.6	8.3	9.4	9.4	9.6	9.6	9.7	10.0	10.2	10.3	10.0
Full-time workers	4.1	4.1	3.9	3.9	3.8	3.9	3.8	4.1	4.3	4.8	5.5	5.8	6.0	5.8	6.0	6.0	6.3	6.2	6.0
Part-time workers	5.1	4.8	4.9	4.9	4.8	4.9	4.5	4.9	5.0	5.0	5.5	5.1	5.2	5.4	5.2	5.5	5.6	5.6	5.2
Men	4.2	4.1	4.0	3.9	3.8	3.9	3.9	4.3	4.5	4.8	5.6	5.8	5.9	5.9	6.0	6.1	6.5	6.4	6.1
Women	4.4	4.4	4.1	4.2	4.1	4.2	3.9	4.2	4.3	4.8	5.4	5.5	5.7	5.6	5.6	5.6	5.8	5.8	5.6
16-19 year	13.8	13.8	13.7	13.3	12.6	13.5	13.0	13.8	13.9	15.1	16.3	16.4	16.6	16.7	16.3	17.4	18.2	17.5	16.4
20-24 year	7.5	7.5	7.5	7.5	7.6	6.7	6.8	7.4	8.1	8.4	9.4	9.9	9.4	9.5	9.8	9.4	10.4	10.4	9.9
25-54 year	3.2	3.2	3.1	3.1	3.0	3.1	3.0	3.3	3.5	3.9	4.5	4.7	4.9	4.7	4.9	4.9	5.1	5.1	5.0
55+ year	2.9	2.8	2.6	2.7	2.4	2.6	2.7	2.7	2.6	3.1	3.6	3.7	4.0	3.8	3.9	4.0	4.3	4.1	3.9
Black	7.6	8.3	8.1	7.9	7.5	7.6	7.3	8.1	8.1	8.7	9.8	10.1	10.5	9.8	10.6	10.5	11.1	11.0	10.6
Hispanic	6.8	6.6	6.1	5.8	5.6	5.8	5.6	6.0	6.4	6.5	7.4	7.4	7.5	7.4	7.9	7.8	8.0	7.7	7.2
White	3.8	3.7	3.5	3.5	3.4	3.5	3.5	3.7	3.9	4.2	4.9	5.0	5.1	5.1	5.1	5.1	5.4	5.4	5.1

Higher unemployment

Lower unemployment



TIMELINE HEATMAP

2008 recession

Unemployment

2 years prior to recession start

Peak

Recession

2 years after recession end

	Q1 2006	Q2 2006	Q3 2006	Q4 2006	Q1 2007	Q2 2007	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011
Initial claims (in thsd)	296.1	313.2	316.6	322.1	315.9	313.4	315.4	338.3	350.7	369.6	431.8	519.7	621.0	612.6	557.8	503.5	478.7	462.7	462.3	432.3	412.6	420.5
Continued claims (in thsd)	2506.6	2398.0	2453.1	2468.8	2536.1	2475.8	2543.6	2636.5	2856.6	3011.9	3360.2	4115.1	5273.6	6423.3	6056.5	5479.8	4792.1	4663.0	4489.2	4230.7	3850.1	3762.8
Unemployment rate	4.7	4.6	4.6	4.4	4.5	4.5	4.7	4.8	5.0	5.3	6.0	6.9	8.3	9.3	9.6	9.9	9.8	9.6	9.5	9.5	9.0	9.1
Underemployment rate	8.3	8.2	8.3	8.1	8.1	8.2	8.4	8.6	9.1	9.6	10.8	12.7	15.0	16.3	16.6	17.1	16.9	16.8	16.6	16.7	16.0	16.0
Full-time workers	4.7	4.6	4.5	4.4	4.5	4.4	4.6	4.7	4.9	5.3	6.1	7.1	8.9	10.0	10.4	10.8	10.7	10.4	10.2	10.3	9.7	9.7
Part-time workers	5.0	5.2	5.2	4.9	4.8	4.8	4.8	5.2	5.2	5.2	5.7	5.8	5.8	5.9	6.3	6.0	6.5	6.5	6.4	6.1	6.4	6.4
Men	4.7	4.7	4.6	4.5	4.6	4.6	4.7	4.9	5.1	5.5	6.4	7.5	9.2	10.4	10.7	11.0	10.9	10.6	10.3	10.2	9.6	9.6
Women	4.8	4.6	4.7	4.4	4.4	4.4	4.6	4.7	4.8	5.1	5.6	6.2	7.3	8.0	8.4	8.7	8.6	8.6	8.6	8.7	8.5	8.5
16-19 year	15.5	14.8	16.0	14.9	14.9	16.0	15.7	16.1	16.8	18.1	19.5	20.3	21.7	23.4	25.0	26.9	26.0	25.9	25.7	25.8	24.7	24.4
20-24 year	8.2	8.0	8.2	8.3	7.8	7.6	8.5	8.7	9.1	9.6	10.6	11.5	13.2	14.8	15.2	15.8	15.8	15.7	15.0	15.5	15.2	14.7
25-54 year	3.9	3.8	3.8	3.5	3.7	3.6	3.8	3.9	4.0	4.4	5.0	5.9	7.4	8.3	8.7	8.9	8.8	8.6	8.5	8.5	8.0	8.1
55+ year	2.9	3.0	3.0	3.0	3.2	3.1	3.2	3.1	3.3	3.2	4.0	4.8	5.8	6.7	6.8	7.0	7.0	7.0	7.1	7.1	6.6	6.7
Black	9.3	9.0	9.1	8.4	8.1	8.4	7.9	8.7	8.9	9.2	10.6	11.7	13.4	14.9	15.0	15.9	16.5	15.8	15.8	15.8	15.7	16.3
Hispanic	5.4	5.2	5.3	5.0	5.2	5.6	5.8	6.0	6.5	7.2	7.8	9.0	11.0	11.9	12.7	12.7	12.8	12.3	12.2	12.7	11.9	11.7
White	4.1	4.1	4.0	3.9	4.0	4.0	4.2	4.2	4.4	4.7	5.3	6.3	7.6	8.4	8.8	9.1	8.9	8.8	8.6	8.7	8.1	8.0
Asian	3.3	3.4	2.8	2.8	3.0	3.1	3.2	3.7	3.3	3.8	4.1	4.6	6.5	7.2	7.7	7.7	8.1	7.3	7.3	7.3	6.9	6.7

Higher unemployment

Lower unemployment



TIMELINE HEATMAP

2020 recession

Unemployment

2 years prior to recession start

Peak

Recession

2 years after recession end

	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
Initial claims (in thsd)	227.2	221.8	207.5	221.2	222.0	219.1	205.4	223.5	867.6	2729.3	1042.5	794.5	756.6	488.0	352.2	248.7	226.7	214.9
Continued claims (in thsd)	1964.8	1763.8	1602.1	1681.5	1851.9	1688.8	1543.8	1709.5	2457.9	18498.0	14124.3	6514.5	4488.5	3562.8	2682.3	2054.0	1722.5	1434.1
Unemployment rate	4.0	3.9	3.8	3.8	3.9	3.6	3.6	3.6	3.8	13.0	8.8	6.8	6.2	5.9	5.1	4.2	3.8	3.6
Underemployment rate	8.0	7.8	7.5	7.6	7.5	7.3	7.0	6.9	7.6	20.7	14.5	11.9	11.0	10.1	8.8	7.7	7.1	6.9
Full-time workers	3.9	3.8	3.7	3.7	3.8	3.5	3.5	3.5	3.7	11.7	8.6	6.8	6.3	6.0	5.2	4.2	3.7	3.5
Part-time workers	4.5	4.2	4.4	4.6	4.2	4.2	4.2	3.9	4.5	19.6	10.0	6.6	6.0	5.4	4.8	4.3	4.2	4.2
Men	4.0	4.1	3.8	3.9	3.9	3.7	3.7	3.6	3.8	12.0	8.5	6.9	6.3	6.1	5.3	4.2	3.9	3.7
Women	4.0	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.8	14.1	9.1	6.6	6.1	5.7	4.9	4.2	3.8	3.6
16-19 year	13.8	12.8	12.7	12.4	13.1	12.8	12.5	12.3	12.6	28.4	17.3	14.5	13.8	10.9	11.0	11.2	10.4	10.6
20-24 year	6.9	7.0	6.8	7.1	7.3	6.4	6.6	6.5	7.2	22.6	14.8	11.0	9.9	9.9	8.7	7.2	7.4	6.8
25-54 year	3.4	3.3	3.1	3.2	3.2	3.0	3.0	3.1	3.2	11.3	7.9	6.1	5.6	5.4	4.7	3.8	3.3	3.1
55+ year	3.1	2.9	3.0	2.9	2.8	2.7	2.6	2.6	2.8	11.6	7.7	5.8	5.0	4.9	3.9	3.2	2.9	2.7
Black	7.0	6.2	6.3	6.4	6.8	6.2	5.5	5.7	6.4	16.3	13.1	10.4	9.5	9.4	8.2	7.1	6.6	6.0
Hispanic	4.9	4.7	4.6	4.5	4.5	4.1	4.2	4.2	4.9	17.0	11.3	8.9	8.2	7.3	6.2	5.2	4.5	4.3
White	3.5	3.5	3.4	3.4	3.3	3.2	3.3	3.2	3.3	12.1	7.9	6.0	5.6	5.2	4.5	3.7	3.3	3.2
Asian	3.0	2.7	3.3	3.0	3.1	2.2	2.8	2.6	3.3	14.3	10.6	6.7	5.9	5.7	4.7	3.8	3.1	2.8

Higher unemployment

Lower unemployment



A DEEPER DIVE INTO THE DATA

LABOR MARKET

Total nonfarm jobs and industry employment

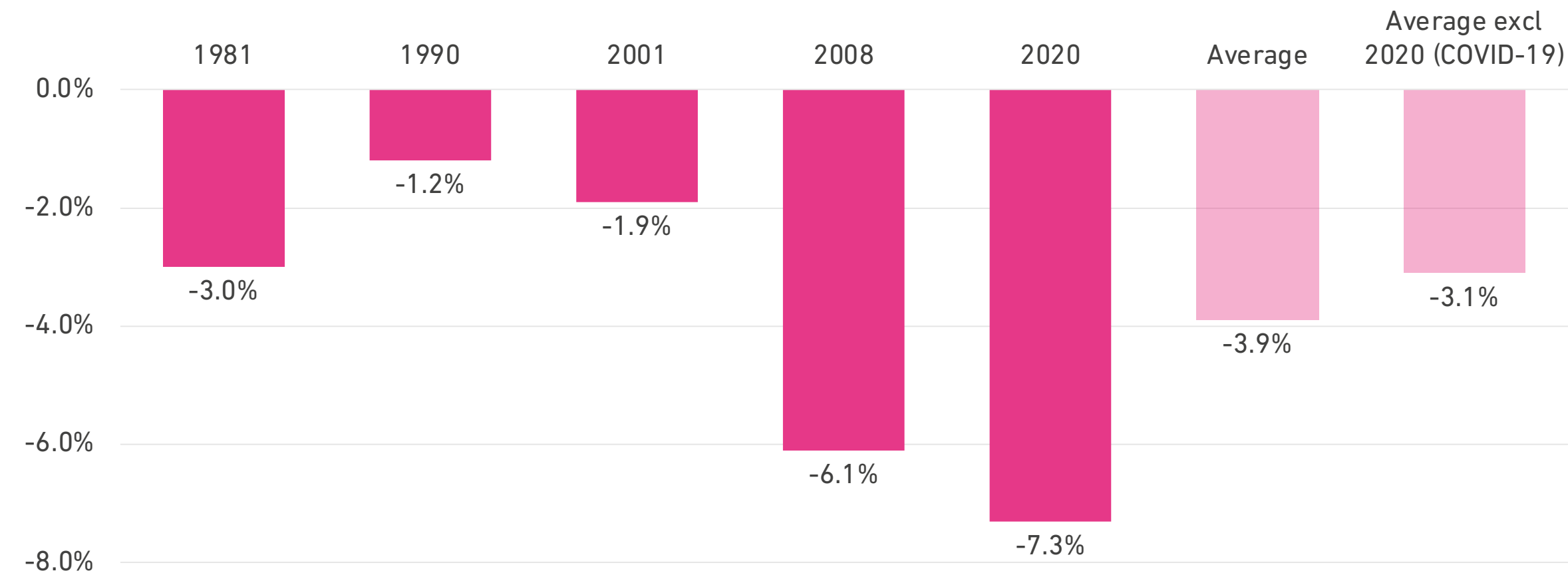
Similar to the unemployment rate, the level of nonfarm employment is a vital determinate for the health of the labor market and economy. Industry employment, especially, can provide a view into how state- or regional-level economies may perform during downturns as some areas have high levels of industry concentration.

In the prior five recessions, the labor market lost an average of 3.9% of all nonfarm jobs (charts 17, 18), with the largest impact falling on the goods-producing industries of manufacturing, mining and logging, and construction, which declined on average by -11.5%, -14.5%, and -11.8%, respectively (chart 19). The industries that have fared the best are education and health services (+0.5%) — the only industry that tend to grow during recessions — government (-0.6%) and financial activities (-1.9%). **Overall, job losses take an average of 14 quarters to recover, with some industries failing to recover at all (charts 20, 21).**

While the goods-producing sectors have historically borne the brunt of recession job losses, longer run shifts are also to blame. As the United States has moved to a service-based economy, the composition of jobs has shifted in tandem. Employment in goods-producing industries sits 13% lower than it did in 1980, while government employment has risen by 40%, and jobs in the service sector have more than doubled over the same time period (chart 22).

CHART 17

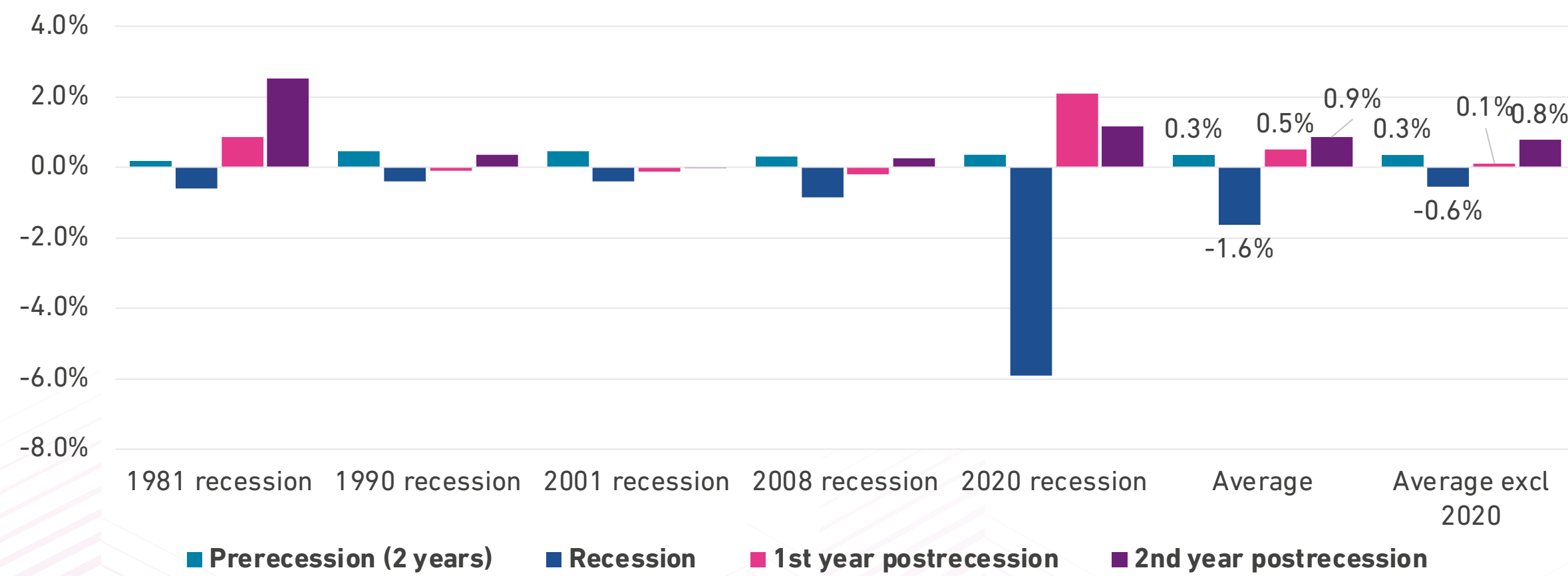
Decrease (%) in nonfarm payrolls



Source: Bureau of Labor Statistics and author's calculation

CHART 18

Total nonfarm payrolls: average quarterly growth



Source: Federal Reserve H.8 (data retrieved June 2023) and author's calculation

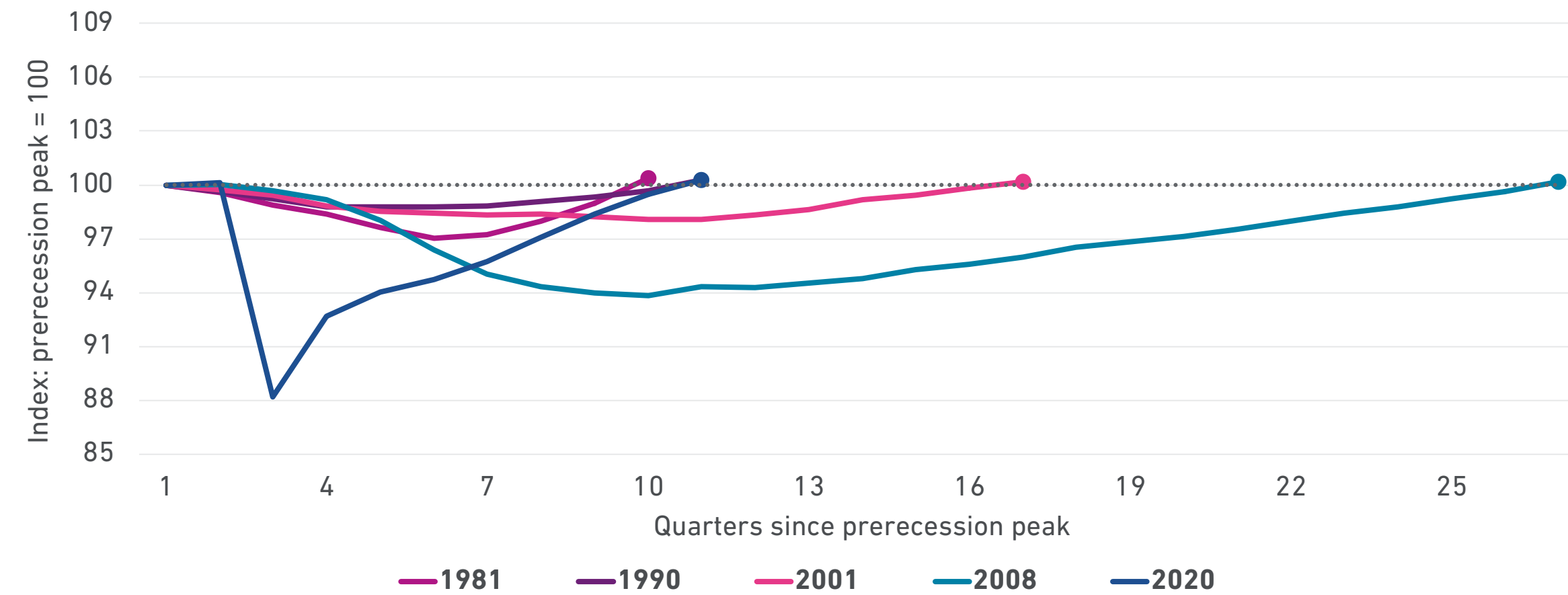
CHART 19

	Larger decline than national average	National average	Smaller decline than national average	Growth			
Peak impact % change	1981 recession	1990 recession	2001 recession	2008 recession	2020 recession	Avg % change	Avg % change (excl 2020)
Total nonfarm payrolls	-3.0	-1.2	-1.9	-6.1	-11.8	-4.8	-3.1
Leisure and hospitality	-0.2	-0.7	-0.6	-4.4	-39.5	-9.1	-1.5
Financial activities	0.8	-1.6	0.9	-7.4	-2.3	-1.9	-1.8
Professional and business services	0.4	-1.9	-5.2	-8.8	-9.4	-5.0	-3.9
Education and health services	2.3	2.6	3.0	3.7	-8.9	0.5	2.9
Construction	-7.8	-12.5	-2.4	-27.6	-8.5	-11.8	-12.6
Manufacturing	-10.9	-5.1	-16.1	-16.7	-8.7	-11.5	-12.2
Trade, transportation and utilities	-1.7	-2.5	-3.9	-8.1	-9.2	-5.1	-4.0
Information	-5.0	-2.2	-15.2	-12.1	-9.0	-8.7	-8.6
Government	-1.2	-0.2	2.0	1.3	-5.0	-0.6	0.5
Mining and logging	-20.0	-13.9	-6.2	-9.8	-22.4	-14.5	-12.5
Other services	2.1	-1.2	2.2	-3.2	-19.0	-3.8	0.0

Source: Bureau of Labor Statistics and author's calculations

CHART 20

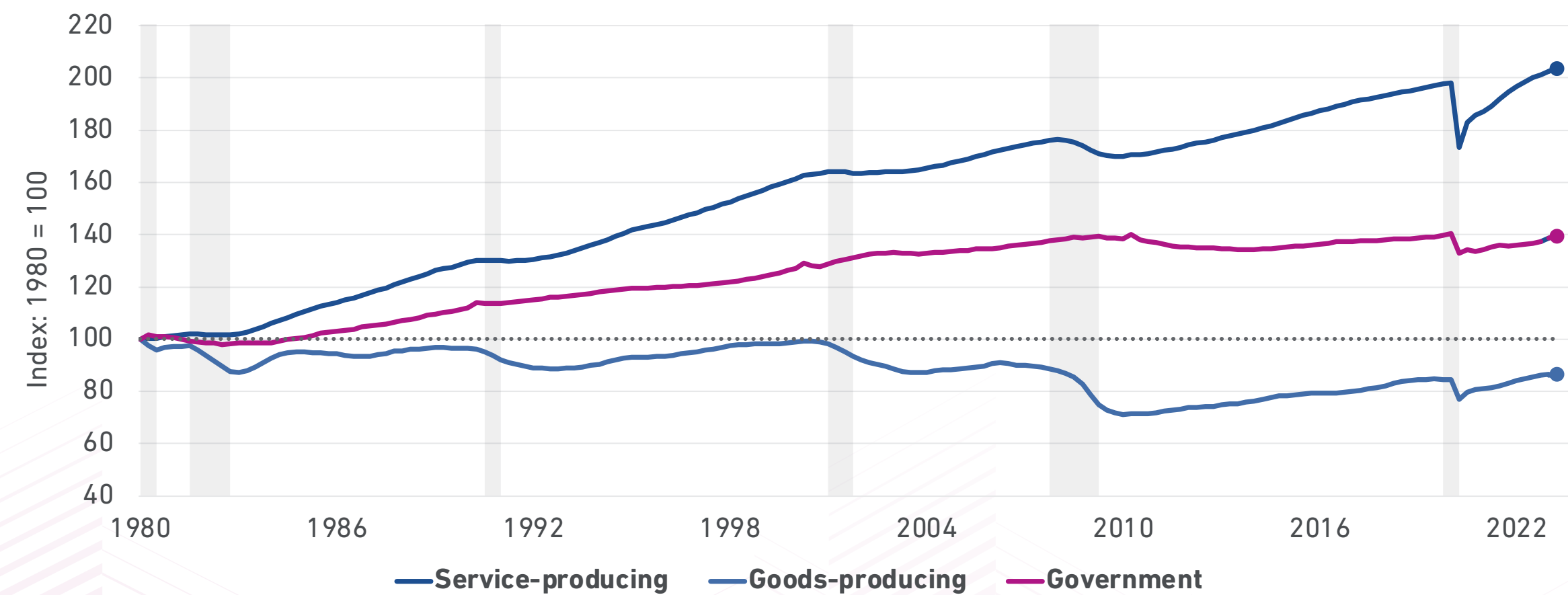
Recession to recovery: nonfarm payrolls



Source: Bureau of Labor Statistics and author's calculation

CHART 22

Nonfarm payrolls: services versus goods versus government



Source: Bureau of Labor Statistics and author's calculation

CHART 21

Quarters from prerecession peak to recovery

	1981 recession	1990 recession	2001 recession	2008 recession	2020 recession	Avg qtrs to recovery	Avg qtrs (excl 2020)
Total nonfarm payrolls	9	10	16	26	10	14	15
Leisure and hospitality	3	6	7	17	TBD	*	8
Financial activities	0	10	0	35	7	10	11
Professional and business services	0	7	17	20	7	10	11
Education and health services	0	0	0	0	11	2	0
Construction	10	19	12	47	8	19	22
Manufacturing	DNR	DNR	DNR	DNR	8	*	*
Trade, transportation and utilities	8	14	22	29	7	16	18
Information	8	14	DNR	DNR	7	*	*
Government	11	2	0	0	TBD	*	3
Mining and logging	DNR	DNR	16	12	TBD	*	*
Other services	0	9	0	24	TBD	*	8

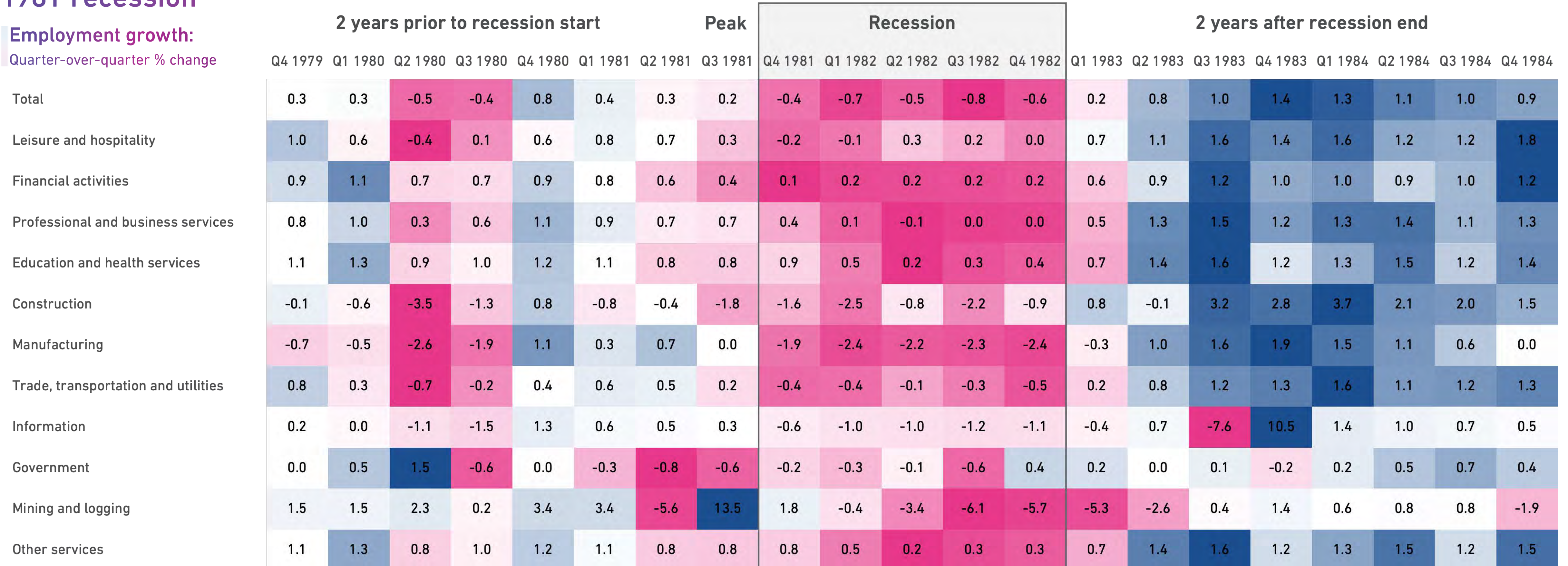
Did not recover (DNR)	Slower than national average or to be determined (TBD)	National average	Faster than national average	No recovery needed (Continued to grow)
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Source: Bureau of Labor Statistics and author's calculations

TIMELINE HEATMAP

1981 recession

Employment growth:
Quarter-over-quarter % change



Source: Bureau of Labor Statistics

TIMELINE HEATMAP

1990 recession

Employment growth:
Quarter-over-quarter % change

2 years prior to recession start

Peak

Recession

2 years after recession end

	Q4 1988	Q1 1989	Q2 1989	Q3 1989	Q4 1989	Q1 1990	Q2 1990	Q3 1990	Q4 1990	Q1 1991	Q2 1991	Q3 1991	Q4 1991	Q1 1992	Q2 1992	Q3 1992	Q4 1992	Q1 1993
Total	0.8	0.8	0.5	0.3	0.5	0.7	0.3	-0.1	-0.4	-0.4	-0.4	0.0	0.0	0.0	0.3	0.2	0.4	0.6
Leisure and hospitality	2.2	1.8	-0.8	-1.0	3.1	1.0	-0.4	0.3	-0.1	-0.1	-0.5	0.0	0.5	0.7	0.5	0.8	0.9	0.4
Financial activities	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2	-0.3	-0.1	-0.5	-0.4	-0.2	-0.1	0.3	0.3	0.6	0.7
Professional and business services	1.3	1.4	0.9	0.6	0.9	1.5	0.4	0.0	-0.8	-0.5	-0.6	0.3	0.4	0.5	1.1	0.8	1.2	1.4
Education and health services	0.8	1.0	1.8	1.7	0.0	0.3	1.2	1.3	1.1	1.4	1.0	1.0	1.0	0.8	0.6	0.8	0.7	0.8
Construction	0.0	0.1	0.4	0.5	0.3	1.3	-1.5	-1.7	-2.7	-3.2	-2.4	-1.5	-1.6	-0.6	-0.8	-0.4	0.7	1.6
Manufacturing	0.5	0.3	-0.1	-0.4	-0.4	-0.2	-0.3	-0.9	-1.1	-1.4	-0.9	-0.3	-0.3	-0.8	0.0	-0.3	-0.2	0.2
Trade, transportation and utilities	0.4	0.8	0.6	0.3	-0.1	0.7	0.0	-0.2	-0.2	-0.7	-0.8	-0.1	-0.2	-0.2	0.0	-0.2	0.1	0.5
Information	0.9	0.3	0.6	-2.3	2.2	1.4	0.5	0.2	-0.1	0.0	-0.3	-0.4	-0.5	-0.7	-0.1	-0.1	0.5	0.2
Government	0.9	0.5	0.4	0.5	0.5	0.8	1.7	-0.1	-0.2	0.1	0.2	0.3	0.3	0.4	0.3	0.5	0.0	0.3
Mining and logging	-1.3	-0.8	-0.3	-0.1	1.5	0.6	0.9	-0.4	-0.6	-0.3	-1.4	-2.0	-2.5	-1.8	-1.3	-2.0	-0.4	-0.6
Other services	1.5	1.3	1.2	0.9	1.1	1.3	0.6	0.1	0.2	-0.2	-0.4	-0.2	-0.1	-0.5	0.2	0.5	0.8	1.1

Weaker growth



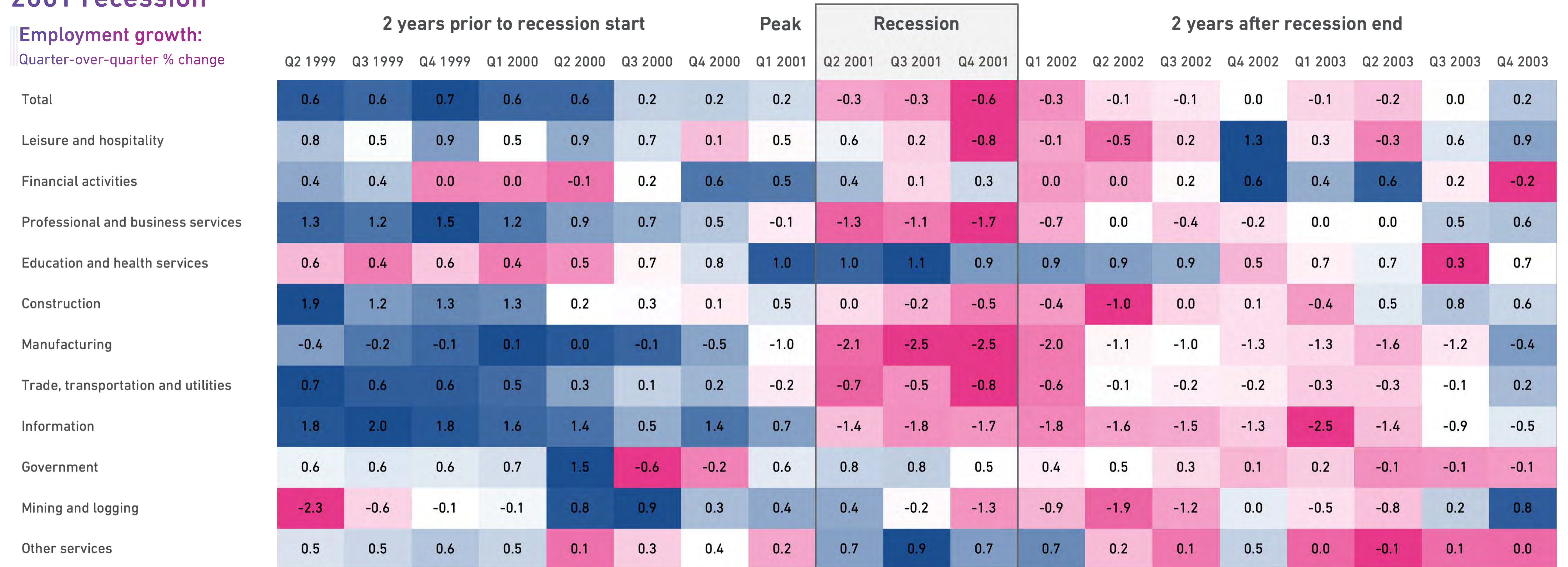
Stronger growth



TIMELINE HEATMAP

2001 recession

Employment growth:
Quarter-over-quarter % change



Weaker growth



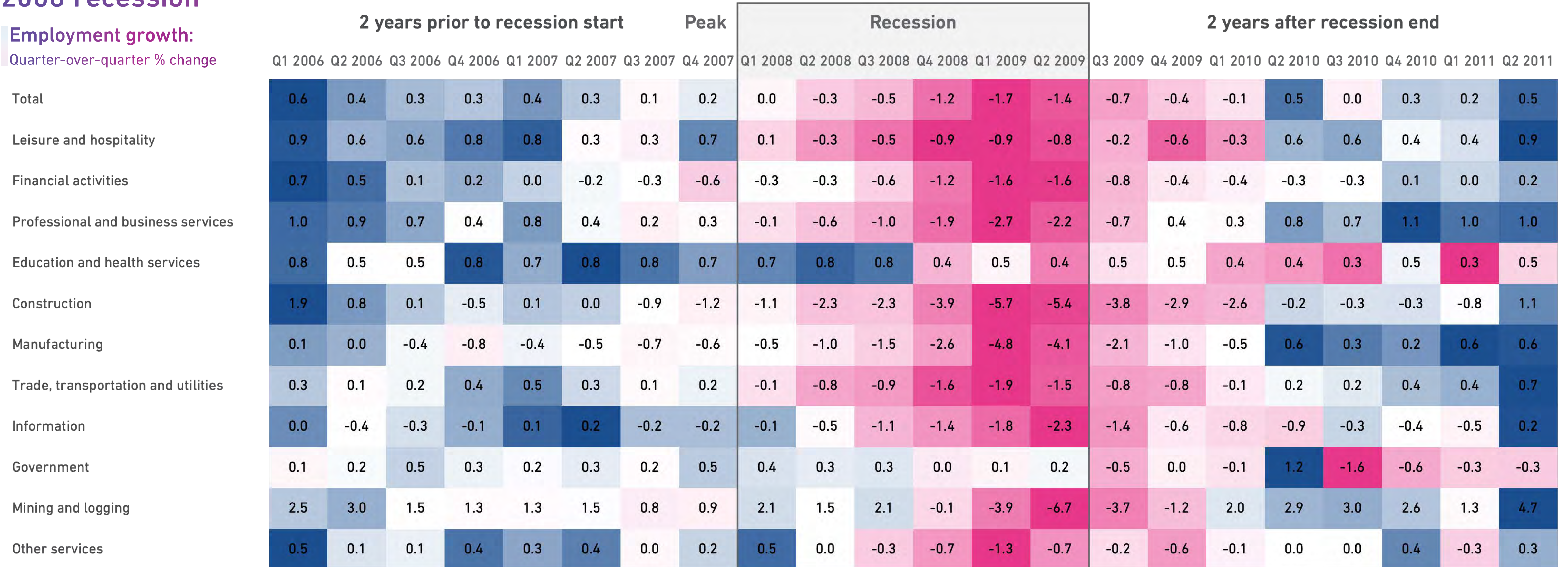
Stronger growth



TIMELINE HEATMAP

2008 recession

Employment growth:
Quarter-over-quarter % change



TIMELINE HEATMAP

2020 recession

Employment growth:
Quarter-over-quarter % change

	2 years prior to recession start							Peak	Recession		2 years after recession end							
	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q4 2022	Q4 2022
Total	0.4	0.5	0.3	0.3	0.4	0.3	0.3	0.3	0.1	-11.9	5.1	1.4	0.7	1.1	1.4	1.3	1.1	0.8
Leisure and hospitality	0.4	0.2	0.4	0.3	0.8	0.0	0.4	1.0	-0.5	-39.2	24.4	4.0	0.1	5.1	5.5	3.7	2.7	1.3
Financial activities	0.4	0.5	0.5	0.4	0.4	0.6	0.5	0.4	0.5	-2.8	0.5	0.7	0.2	0.3	0.7	0.9	0.7	0.7
Professional and business services	0.6	0.7	0.5	0.3	0.2	0.6	0.4	0.1	-0.1	-9.3	3.4	2.4	1.9	0.9	1.7	2.1	1.6	0.9
Education and health services	0.6	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.4	-9.3	3.9	1.1	0.5	0.7	0.4	0.6	0.5	0.9
Construction	1.3	1.4	1.2	0.6	0.3	1.0	0.7	0.1	0.4	-8.9	4.7	1.4	0.3	0.7	0.5	1.6	1.2	1.0
Manufacturing	0.6	0.6	0.5	0.4	0.4	-0.1	0.0	-0.2	-0.2	-8.5	3.2	0.9	0.6	0.2	1.1	1.2	1.0	1.0
Trade, transportation and utilities	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.1	-9.2	5.4	2.0	1.0	0.6	0.9	1.3	1.4	0.6
Information	0.2	0.6	0.0	0.4	-0.2	0.4	0.4	0.5	0.7	-9.6	1.1	1.9	2.1	2.0	2.8	2.0	1.5	2.2
Government	0.1	0.2	0.0	0.1	0.3	0.2	0.1	0.5	0.6	-5.5	1.1	-0.5	0.5	0.6	0.5	-0.1	0.1	0.2
Mining and logging	2.2	2.7	1.4	0.6	0.3	-0.9	-1.9	-2.1	-3.3	-12.6	-5.9	-1.2	-1.3	1.6	1.0	1.8	1.8	3.1
Other services	0.2	0.4	0.0	0.2	0.3	0.5	0.2	0.1	0.0	-19.1	10.5	1.0	-0.1	1.3	2.1	1.4	0.9	0.8



A DEEPER DIVE INTO THE DATA

LENDING ACTIVITY

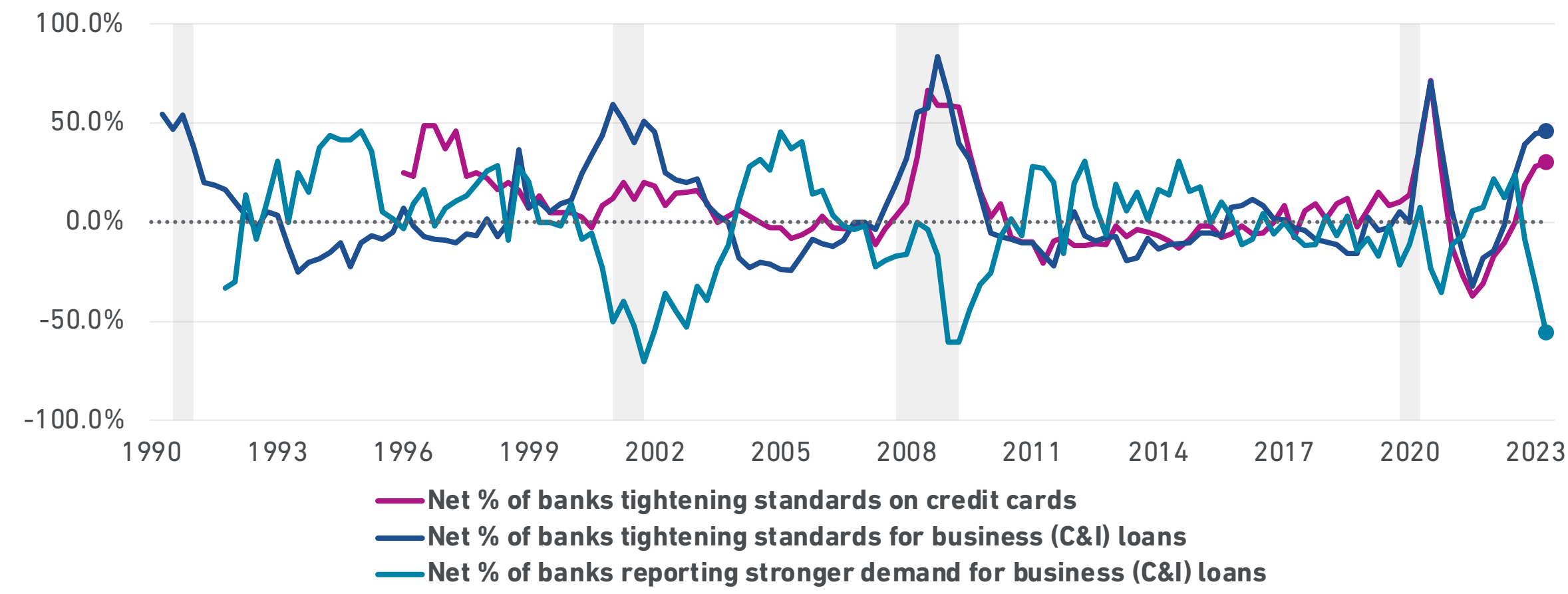
Credit growth for consumer loans, business loans, and real estate loans

In times of stress, financial institutions begin to tighten lending standards while consumers and businesses take more precautionary measures to protect their finances. This two-sided relationship results in fewer loans being made and an overall softening of lending activity around periods of recession (charts 23, 24). Because of the key role that credit serves in the economy, weaker lending activity can also drive a slowdown and elongate a recession — such as what occurred after the Great Recession of 2008.

In the prior five recessions, quarterly credit growth slowed from 1.9% in the two years lead up to the recession to -0.1% in the year following a recession (chart 25, 26). Lending activity tends to slow the most for consumer loans during recessions, while it slows the most for business loans and real estate loans in the year after (charts 27, 28, 29, 30).

CHART 23

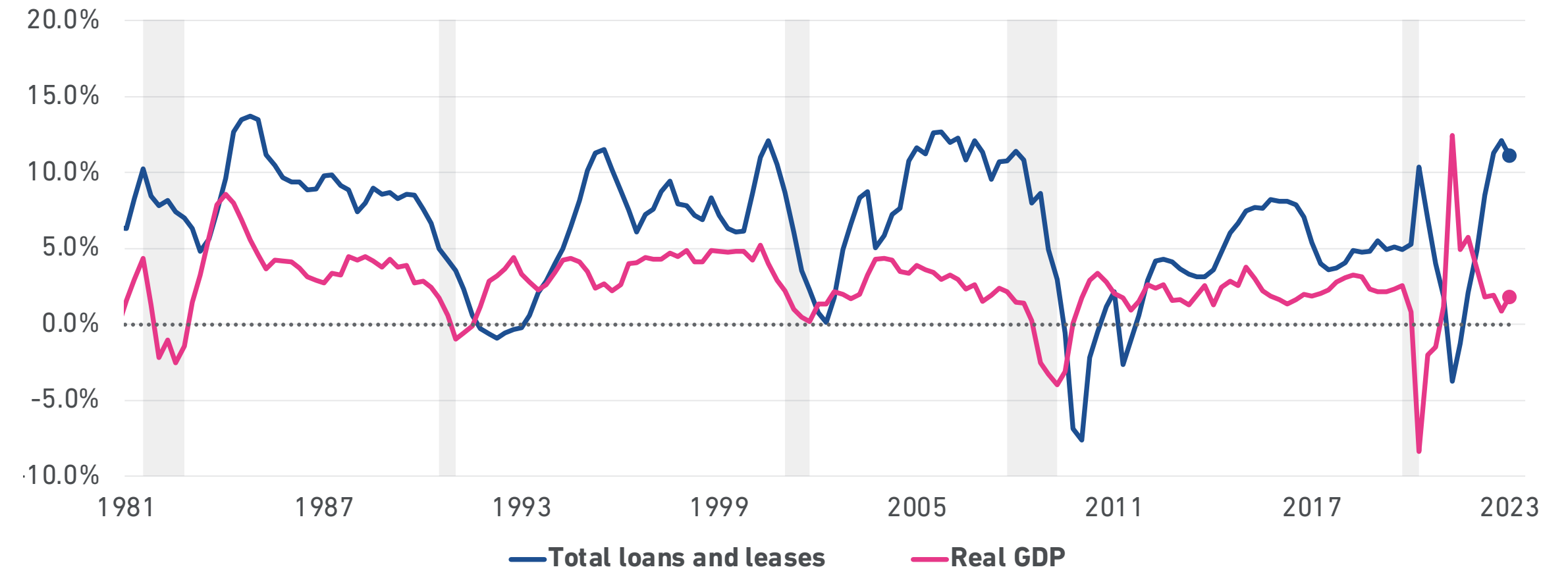
Credit tightening and demand



Source: Federal Reserve Senior Loan Officer opinion survey

CHART 24

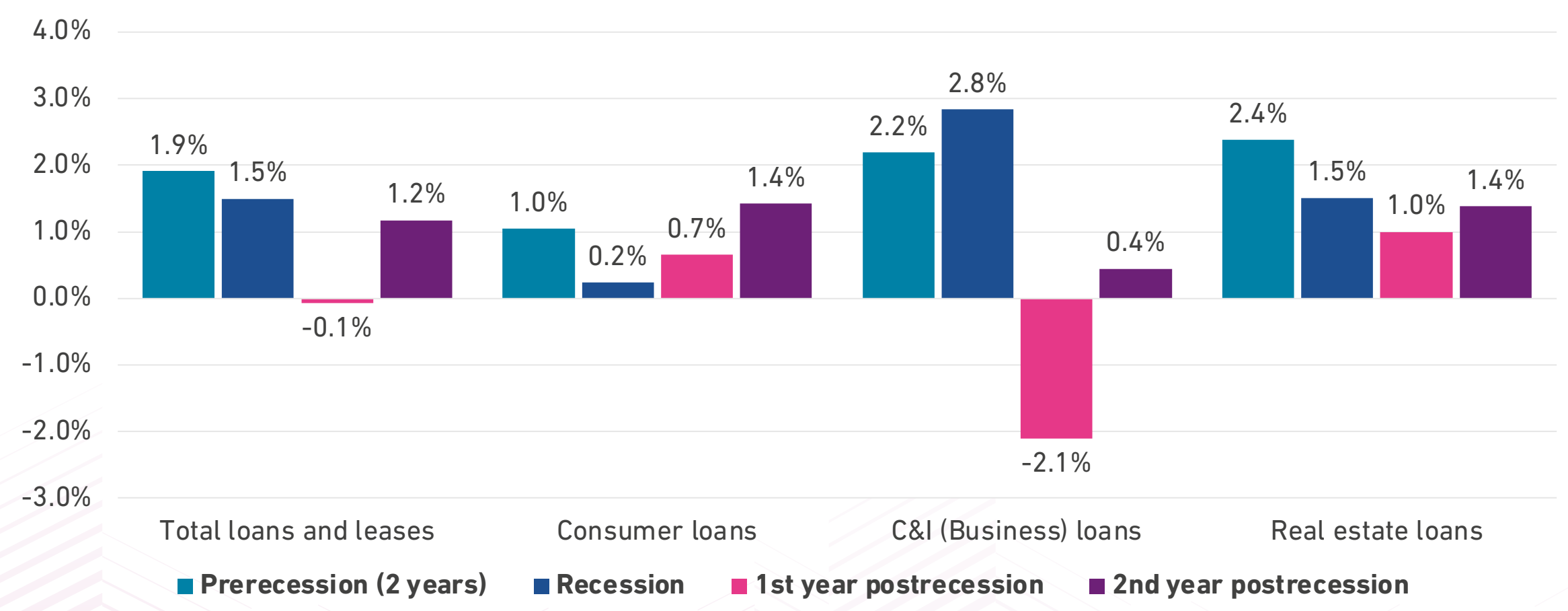
Total loans and leases and real GDP: 12-month % change



Source: Federal Reserve H.8 (data retrieved June 2023) and Bureau of Economic Analysis

CHART 25

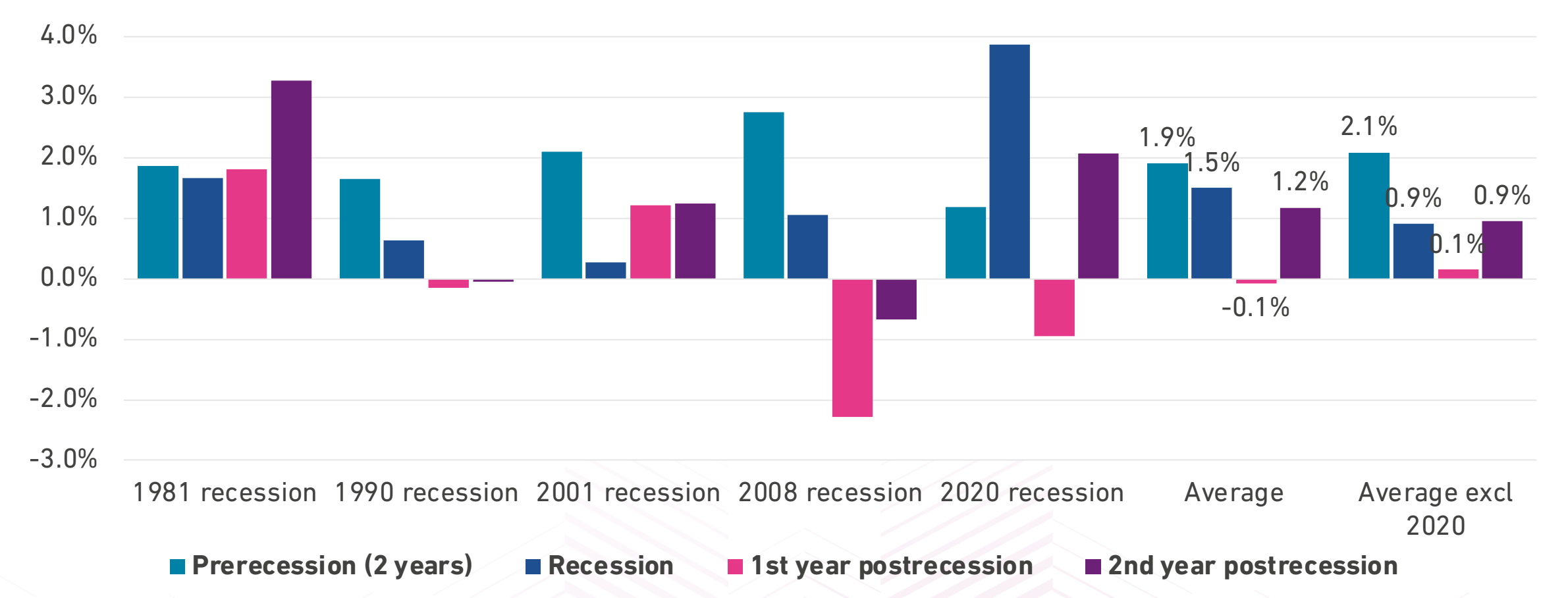
Average quarterly growth across loan types surrounding periods of recession



Source: Federal Reserve H.8 (data retrieved June 2023) and author's calculation

CHART 26

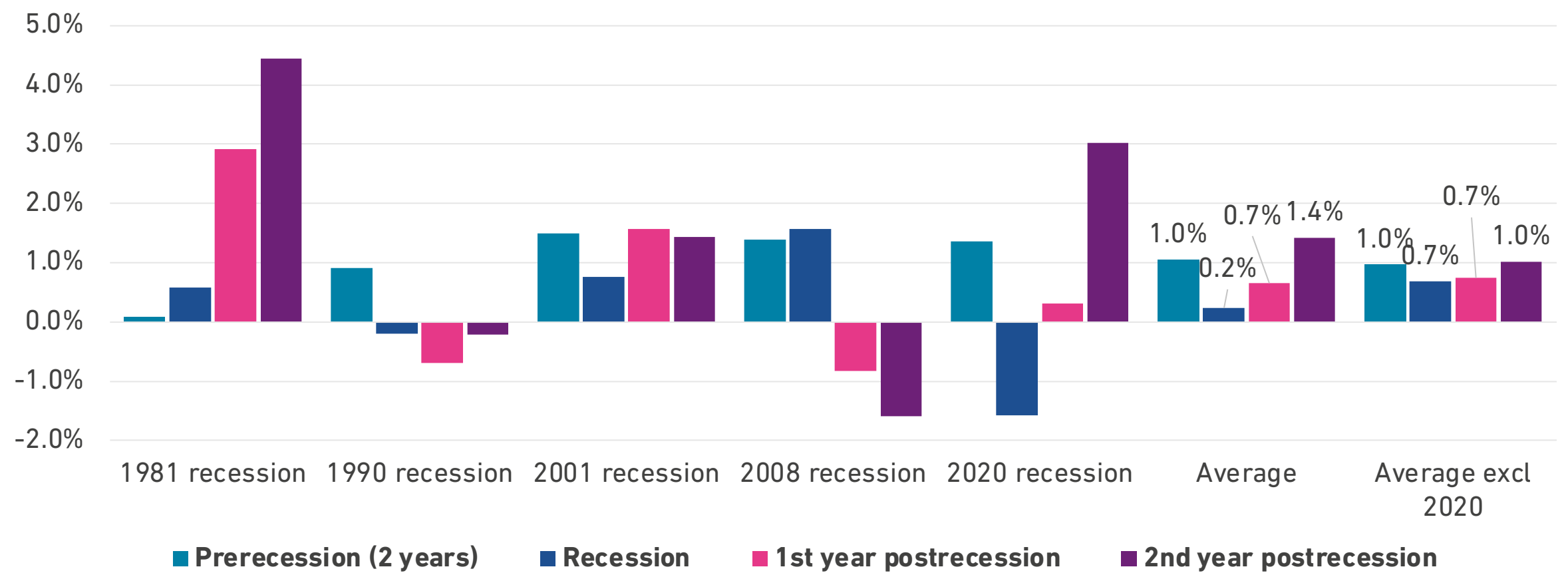
Total loans and leases, commercial banks: average quarterly growth



Source: Federal Reserve H.8 (data retrieved June 2023) and author's calculation

CHART 27

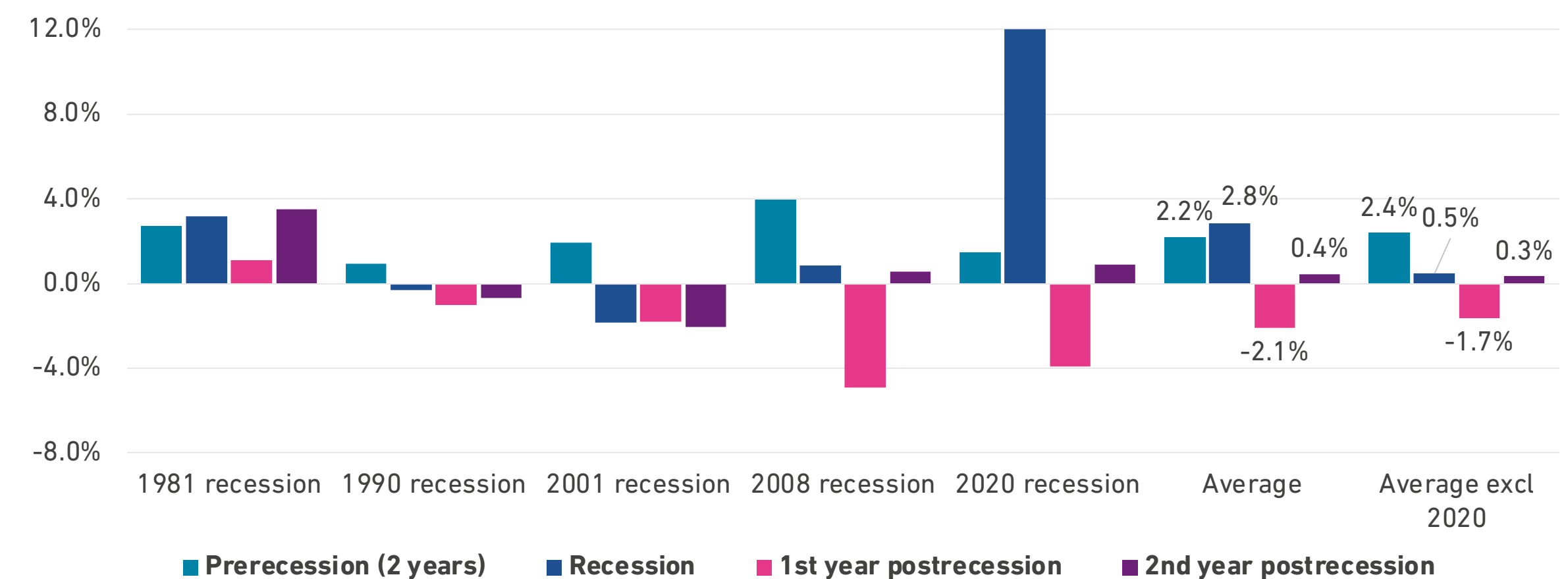
Consumer loans, commercial banks: average quarterly growth



Source: Federal Reserve H.8 (data retrieved June 2023) and author's calculation

CHART 28

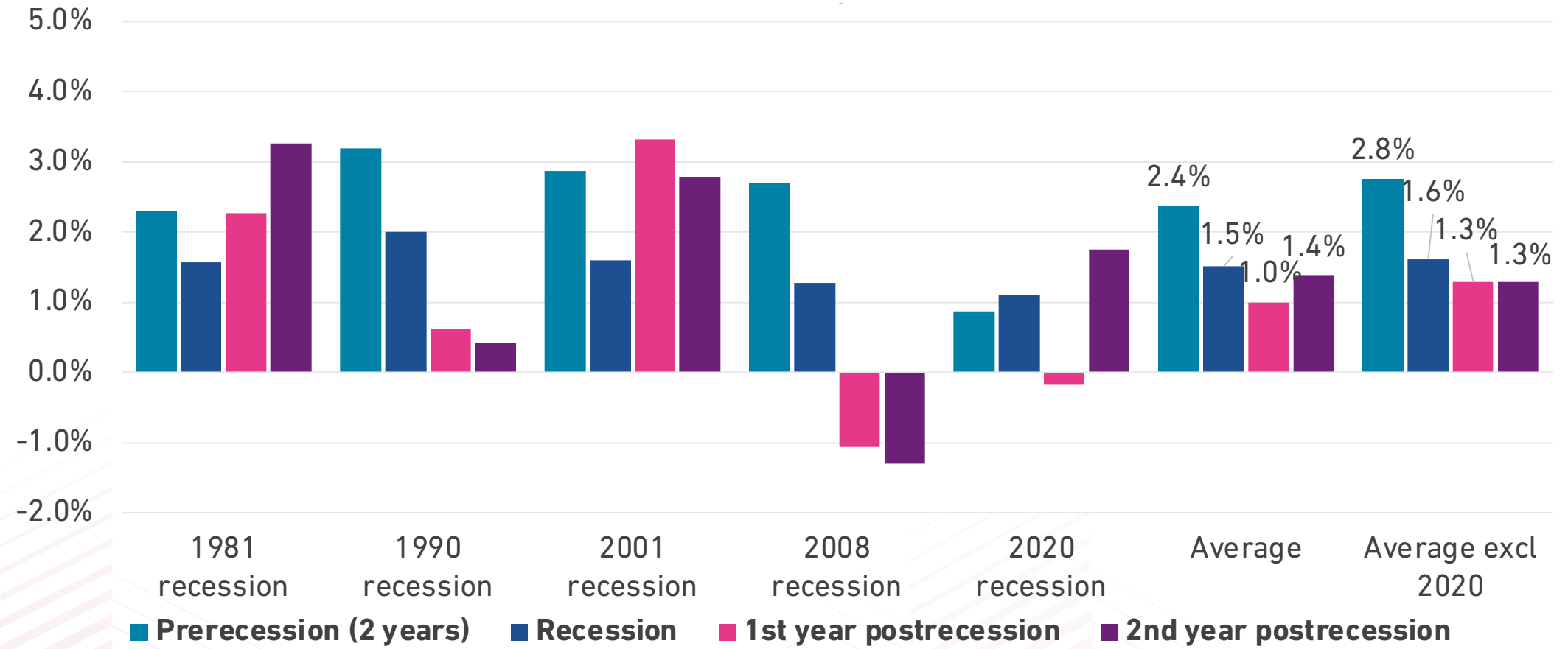
Commercial and industrial loans, commercial banks: average quarterly growth



Source: Federal Reserve H.8 (data retrieved June 2023) and author's calculation

CHART 29

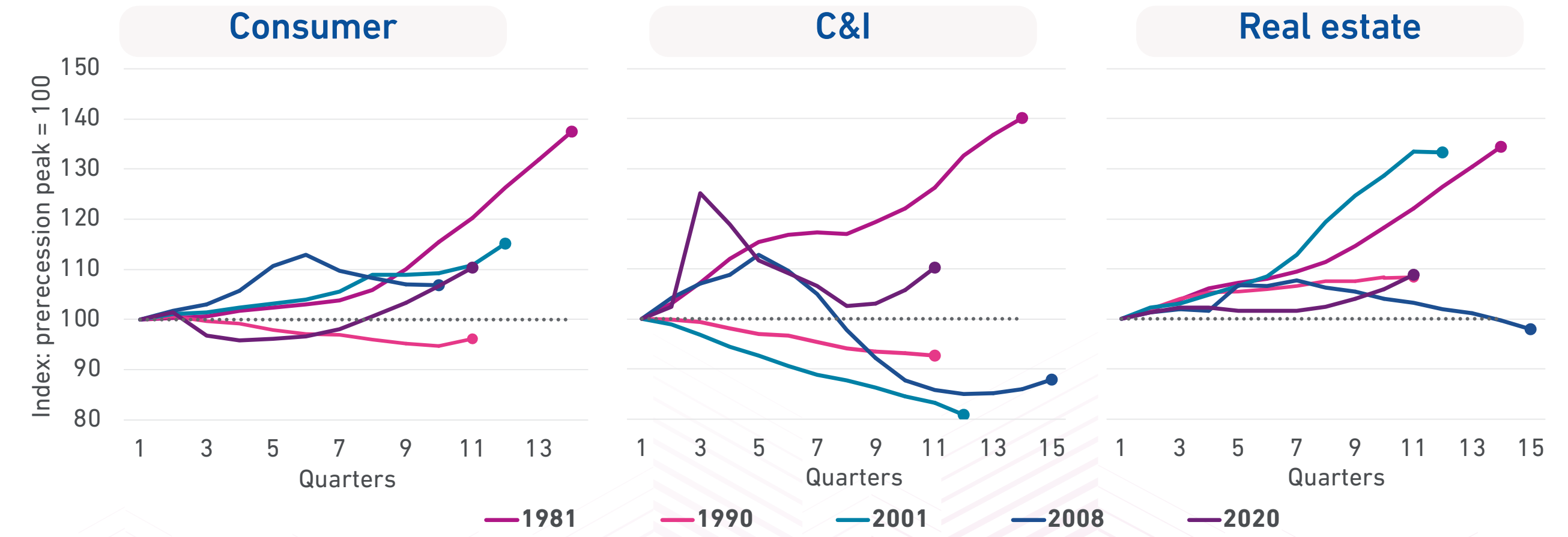
Real estate, commercial banks: average quarterly growth



Source: Federal Reserve H.8 (data retrieved June 2023) and author's calculation

CHART 30

Recessionary change in lending (precession peak to 2 years after recession ends)



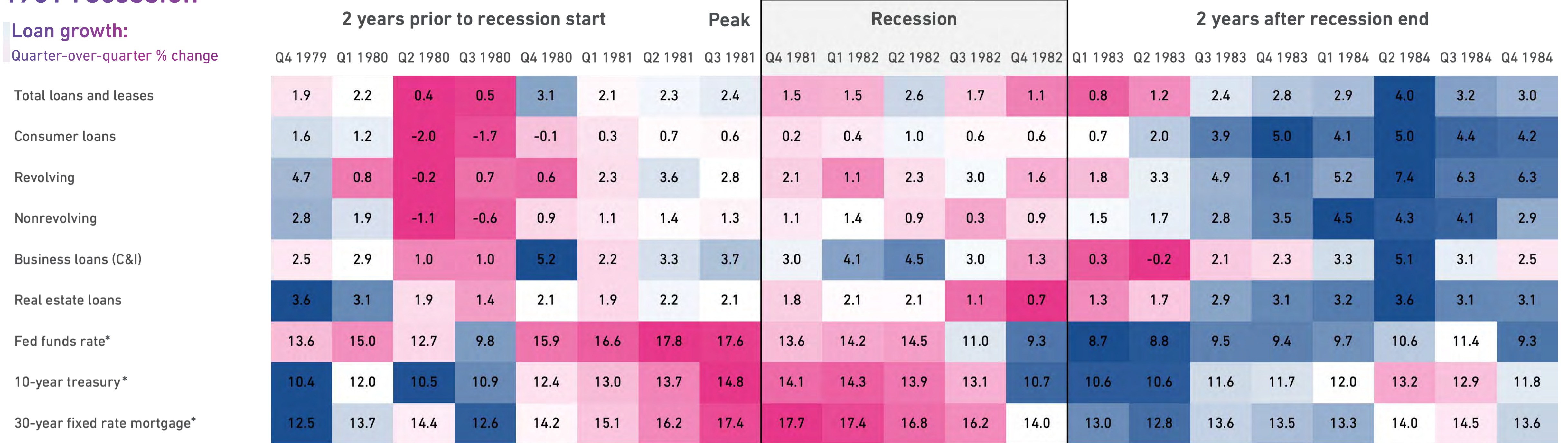
Source: Federal Reserve Board of Governors – H.8, and author's calculation

TIMELINE HEATMAP

1981 recession

Loan growth:

Quarter-over-quarter % change



Weaker growth



Higher rates/tightness*

Stronger growth



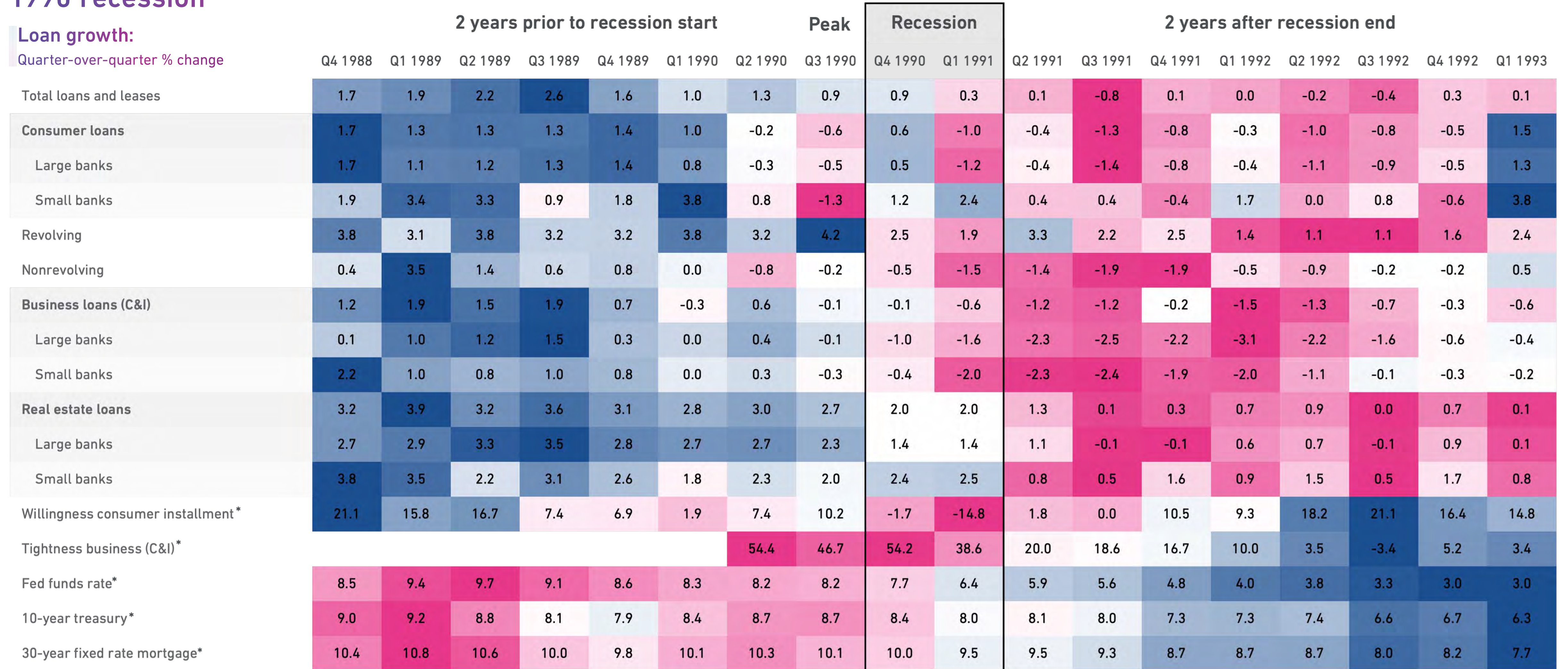
Lower rates/tightness*

TIMELINE HEATMAP

1990 recession

Loan growth:

Quarter-over-quarter % change



Source: Federal Reserve and Freddie Mac

TIMELINE HEATMAP

2001 recession

Loan growth:
Quarter-over-quarter % change

	2 years prior to recession start							Peak	Recession			2 years after recession end							
	Q2 1999	Q3 1999	Q4 1999	Q1 2000	Q2 2000	Q3 2000	Q4 2000	Q1 2001	Q2 2001	Q3 2001	Q4 2001	Q1 2002	Q2 2002	Q3 2002	Q4 2002	Q1 2003	Q2 2003	Q3 2003	Q4 2003
Total loans and leases	1.1	1.4	2.7	3.2	3.3	2.4	1.3	1.4	0.8	-0.1	0.1	0.0	0.2	1.6	3.2	1.6	1.8	1.9	-0.3
Consumer loans	0.0	-0.4	0.8	2.8	2.5	2.5	2.1	1.6	1.1	0.4	0.8	0.8	0.9	1.6	3.1	0.0	0.4	1.4	3.9
Large banks	-0.8	-0.6	0.4	3.0	1.9	2.7	1.9	1.9	1.0	0.1	0.7	1.1	0.3	0.9	3.5	0.0	0.0	0.6	4.2
Small banks	6.3	0.7	3.9	1.7	7.2	1.6	3.5	-1.0	2.1	2.0	2.1	-1.8	5.5	5.6	0.2	0.1	3.4	6.4	2.4
Revolving	0.7	2.4	1.0	1.4	2.3	3.6	3.0	3.1	2.0	-0.3	0.5	0.8	1.7	1.5	1.3	1.1	0.7	0.4	0.1
Nonrevolving	2.7	2.2	1.8	1.8	2.6	4.1	3.1	2.4	2.1	2.4	3.8	2.1	1.9	1.6	0.8	1.6	2.2	1.7	1.6
Business loans (C&I)	0.7	2.2	2.7	2.3	3.4	2.0	1.0	1.1	-1.1	-2.0	-2.5	-1.9	-2.2	-2.0	-1.2	-1.8	-1.9	-1.6	-2.9
Large banks	2.3	3.3	2.7	3.0	2.9	1.9	0.5	0.7	-1.5	-2.2	-3.0	-2.4	-3.1	-2.5	-1.0	-1.3	-1.4	-0.2	-1.9
Small banks	3.2	3.6	3.8	4.1	4.9	2.9	2.2	1.4	0.8	-0.2	-0.8	-0.4	-1.2	0.7	0.3	-0.3	0.2	0.7	1.0
Real estate loans	1.4	2.3	4.4	4.7	4.4	3.1	1.2	1.5	2.2	0.8	1.8	1.7	1.8	4.0	5.9	4.3	3.2	3.8	-0.2
Large banks	0.6	2.1	4.8	4.8	4.4	2.7	0.5	0.8	2.2	0.2	0.6	0.4	1.2	3.8	7.3	4.8	3.6	4.5	-1.5
Small banks	3.5	3.1	3.7	4.5	4.5	4.1	2.8	3.0	2.3	2.0	4.3	4.3	2.8	4.2	3.3	3.5	2.7	2.5	2.4
Willingness consumer installment *	14.5	7.5	7.8	3.8	-3.7	1.9	1.8	-5.6	0.0	0.0	-7.1	-5.7	0.0	5.6	5.6	5.3	3.7	14.5	14.3
Tightness credit card *	13.3	4.8	4.9	4.8	2.6	-2.6	8.3	11.8	20.0	11.4	20.0	18.2	8.6	14.7	15.2	16.2	9.7	0.0	2.9
Tightness business (C&I) *	10.0	5.4	9.1	10.9	24.6	33.9	43.9	59.6	50.9	40.4	50.9	45.5	25.0	21.4	20.0	22.0	8.9	3.4	0.0
Fed funds rate *	4.7	5.1	5.3	5.7	6.3	6.5	6.5	5.6	4.3	3.5	2.1	1.7	1.8	1.7	1.4	1.3	1.2	1.0	1.0
10-year treasury *	5.5	5.9	6.1	6.5	6.2	5.9	5.6	5.0	5.3	5.0	4.8	5.1	5.1	4.3	4.0	3.9	3.6	4.2	4.3
30-year fixed rate mortgage *	7.2	7.8	7.8	8.3	8.3	8.0	7.6	7.0	7.1	7.0	6.8	7.0	6.8	6.3	6.1	5.8	5.5	6.0	5.9



Source: Federal Reserve and Freddie Mac

TIMELINE HEATMAP

2008 recession

Loan growth:

Quarter-over-quarter % change

	2 years prior to recession start								Peak	Recession						2 years after recession end							
	Q1 2006	Q2 2006	Q3 2006	Q4 2006	Q1 2007	Q2 2007	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	
Total loans and leases	2.5	3.0	2.3	3.8	1.8	1.4	3.3	3.9	2.4	0.9	0.7	4.5	-1.1	-1.0	-2.8	-2.2	-1.9	4.8**	-1.1	-0.6	-0.9	-0.2	
Consumer loans	0.0	2.0	-0.2	1.9	0.9	0.9	3.1	2.4	1.7	1.2	2.6	4.7	2.0	-2.8	-1.4	-1.1	0.0	36.9**	-1.7	-1.7	-3.4	0.4	
Large banks	0.1	1.8	-0.4	2.8	0.5	0.6	1.7	2.8	2.1	1.1	2.8	5.6	1.5	-3.6	-1.7	-1.2	0.1	39.8**	-2.1	-2.1	-4.4	0.5	
Small banks	-0.6	3.3	1.1	-3.5	3.9	3.3	11.4	0.2	-0.6	2.1	1.9	-0.7	4.9	1.9	-0.3	-0.7	-0.8	30.0**	1.4	0.3	2.8	0.2	
Revolving	7.1	1.4	0.7	1.6	1.7	1.7	2.0	2.7	2.0	0.6	-0.3	-0.6	-1.3	-2.7	-1.7	-2.8	-2.6	-2.0	-2.0	-2.2	-1.6	-0.1	
Nonrevolving	2.3	0.8	0.6	0.9	0.9	1.4	1.6	1.2	1.0	1.2	0.4	-0.2	-0.1	-0.2	-0.4	0.0	0.2	0.3	0.9	4.1	6.3	1.2	
Business loans (C&I)	3.4	4.1	3.8	2.3	2.8	3.4	5.5	6.3	4.2	2.7	1.7	3.6	-2.8	-4.2	-6.8	-5.7	-4.9	-2.1	-0.9	0.0	1.1	2.1	
Large banks	3.4	3.4	2.1	2.1	2.6	3.1	5.4	5.6	2.9	2.3	1.5	2.4	-3.5	-4.4	-7.8	-6.6	-5.1	-2.2	-0.8	-0.1	1.3	2.9	
Small banks	1.3	2.9	3.5	-0.4	2.9	3.2	5.0	4.7	3.7	2.4	1.9	2.8	-2.2	-2.0	-2.4	-1.9	-2.5	-0.7	-0.2	-0.3	0.3	1.2	
Real estate loans	2.6	3.0	2.4	6.4	1.7	0.5	1.9	3.1	1.4	0.5	-0.2	5.0	-0.2	1.1	-1.4	-0.8	-1.2	-0.8	-1.2	-0.9	-1.4	-1.7	
Large banks	2.2	2.8	2.3	8.5	1.8	1.9	1.6	2.9	1.0	-0.3	-1.3	7.3	-1.3	1.8	-1.6	-0.7	-0.9	-0.8	-1.2	-0.7	-1.4	-1.9	
Small banks	3.5	3.2	2.6	3.1	1.3	-2.3	2.1	3.1	1.8	1.8	1.6	1.1	1.8	-0.1	-0.8	-0.9	-1.8	-0.7	-1.3	-1.1	-1.4	-1.3	
Willingness consumer installment loans*	11.5	14.5	7.7	1.9	1.8	7.8	0.0	-6.0	-15.1	-22.6	-34.0	-47.2	-16.0	-5.9	-6.0	-1.9	9.6	14.0	22.6	20.0	20.4	28.8	
Tightness credit card*	3.1	-2.6	-3.0	-2.9	0.0	-11.1	-3.1	3.2	9.8	32.4	66.7	58.8	58.8	58.1	35.3	15.8	2.8	9.1	-7.9	-10.0	-10.0	-20.5	
Tightness business (C&I)*	-10.7	-12.3	-8.9	0.0	0.0	-3.8	7.5	19.2	32.1	55.4	57.7	83.6	64.2	39.6	31.5	14.0	-5.5	-7.1	-8.8	-10.5	-10.5	-16.4	
Fed funds rate*	4.5	4.9	5.2	5.2	5.3	5.3	5.1	4.5	3.2	2.1	1.9	0.5	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	
10-year treasury*	4.6	5.1	4.9	4.6	4.7	4.8	4.7	4.3	3.7	3.9	3.9	3.2	2.7	3.3	3.5	3.5	3.7	3.5	2.8	2.9	3.5	3.2	
30-year fixed rate mortgage*	6.2	6.6	6.6	6.2	6.2	6.4	6.6	6.2	5.9	6.1	6.3	5.8	5.1	5.0	5.2	4.9	5.0	4.9	4.4	4.4	4.8	4.7	



Source: Federal Reserve and Freddie Mac

**Removed from impact calculations due to break in the data

TIMELINE HEATMAP

2020 recession

Loan growth:

Quarter-over-quarter % change

	2 years prior to recession start							Peak	Recession		2 years after recession end							
	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
Total loans and leases	0.9	1.5	1.0	1.3	1.5	1.0	1.2	1.2	1.9	5.8	-2.0	-1.6	-0.2	0.0	0.6	1.7	2.5	3.5
Consumer loans	1.3	2.0	0.8	1.2	1.3	1.6	1.4	1.6	1.3	-4.5	-1.0	0.2	0.6	1.4	2.7	2.7	3.1	3.5
Large banks	0.9	0.6	0.4	1.1	1.4	1.5	1.1	1.8	1.4	-4.9	-1.2	0.3	0.4	0.9	2.4	2.7	3.1	3.4
Small banks	2.8	7.3	1.9	1.3	0.8	1.9	2.3	0.8	0.7	-3.0	-0.4	0.1	1.2	2.9	3.6	2.7	3.3	5.7
Revolving	1.4	0.0	1.3	1.2	1.0	0.9	1.0	0.2	0.7	-8.0	-2.2	-0.9	-0.2	0.7	2.2	3.0	3.5	4.2
Nonrevolving	1.3	1.1	1.1	1.3	1.3	1.1	1.3	1.3	1.0	0.3	1.3	0.9	1.3	1.5	1.3	1.2	1.3	1.5
Business loans (C&I)	0.3	2.9	1.7	2.9	2.4	0.1	1.2	0.2	2.4	22.3	-5.1	-6.0	-2.3	-2.0	-3.7	0.4	2.6	4.5
Large banks	0.3	1.7	1.7	3.2	2.4	-0.3	1.6	-0.3	2.6	16.8	-8.3	-6.3	-2.4	-2.4	-2.6	1.3	3.6	5.0
Small banks	1.0	7.5	2.8	2.4	0.9	1.9	2.2	1.1	0.7	34.1	6.3	-3.4	-1.7	-1.0	-8.1	-3.8	-0.8	2.3
Real estate loans	1.0	0.7	0.6	0.7	0.8	1.1	0.7	1.3	1.4	0.8	0.1	-0.6	0.0	-0.1	0.9	1.5	1.8	2.8
Large banks	0.2	-0.2	-0.2	-0.1	0.2	0.3	0.0	0.9	0.5	0.1	-0.2	-1.6	-0.9	-1.7	0.0	0.8	0.8	1.8
Small banks	2.1	1.8	1.8	1.6	1.7	1.9	1.6	1.8	2.4	1.7	0.4	0.4	1.1	1.6	1.8	2.2	2.6	3.8
Willingness consumer installment loans*	9.5	9.2	9.7	14.0	1.6	4.9	5.0	1.7	5.0	-20.0	-41.0	3.4	7.9	24.6	24.2	15.5	18.0	18.6
Tightness credit card*	1.9	9.4	12.0	-2.2	6.4	15.2	8.5	10.4	13.6	38.5	71.7	26.7	-12.8	-27.1	-37.3	-31.1	-17.0	-10.4
Tightness business (C&I)*	-10.0	-11.3	-15.9	-15.9	2.8	-4.2	-2.8	5.4	0.0	41.5	71.2	37.7	5.5	-15.1	-32.4	-18.2	-14.5	-1.5
Fed funds rate*	1.4	1.7	1.9	2.2	2.4	2.4	2.2	1.6	1.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8
10-year treasury*	2.8	2.9	2.9	3.0	2.7	2.3	1.8	1.8	1.4	0.7	0.7	0.9	1.3	1.6	1.3	1.5	2.0	2.9
30-year fixed rate mortgage*	4.3	4.5	4.6	4.8	4.4	4.0	3.7	3.7	3.5	3.2	3.0	2.8	2.9	3.0	2.9	3.1	3.8	5.3

Weaker growth

Stronger growth

Higher rates/tightness*

Lower rates/tightness*

Source: Federal Reserve and Freddie Mac

A DEEPER DIVE INTO THE DATA

DELINQUENCY

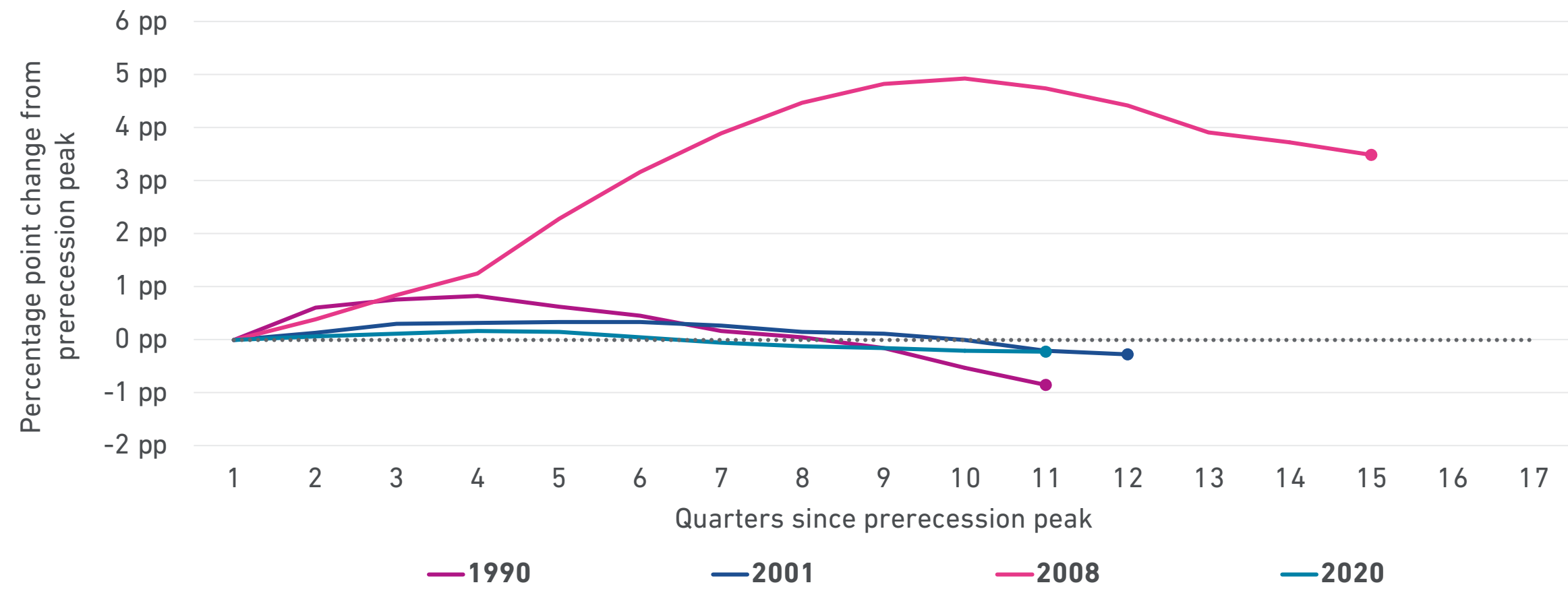
30+ DPD and charge-offs for consumer, business and real estate loans

Delinquency serves as a key metric in tracking the health of households and businesses and is one area that can show the actual effects of financial hardship for consumers. Expected higher levels of delinquency and default can also cause lenders to tighten credit standards and reduce their overall exposure to more sensitive segments of the market.

In the last four recessions, 30+ DPD delinquency on all loans increased by an average 1.6 pp (chart 31). The largest percentage point increase was seen in real estate (2.3 pp), followed by business (1.4 pp) and consumer loans (0.5 pp) (charts 32, 33, 34, 35). In terms of timing, overall delinquencies tend to peak two quarters after the end of a recession; however, consumer loans exhibited their peak, on average, during the recession.

CHART 31

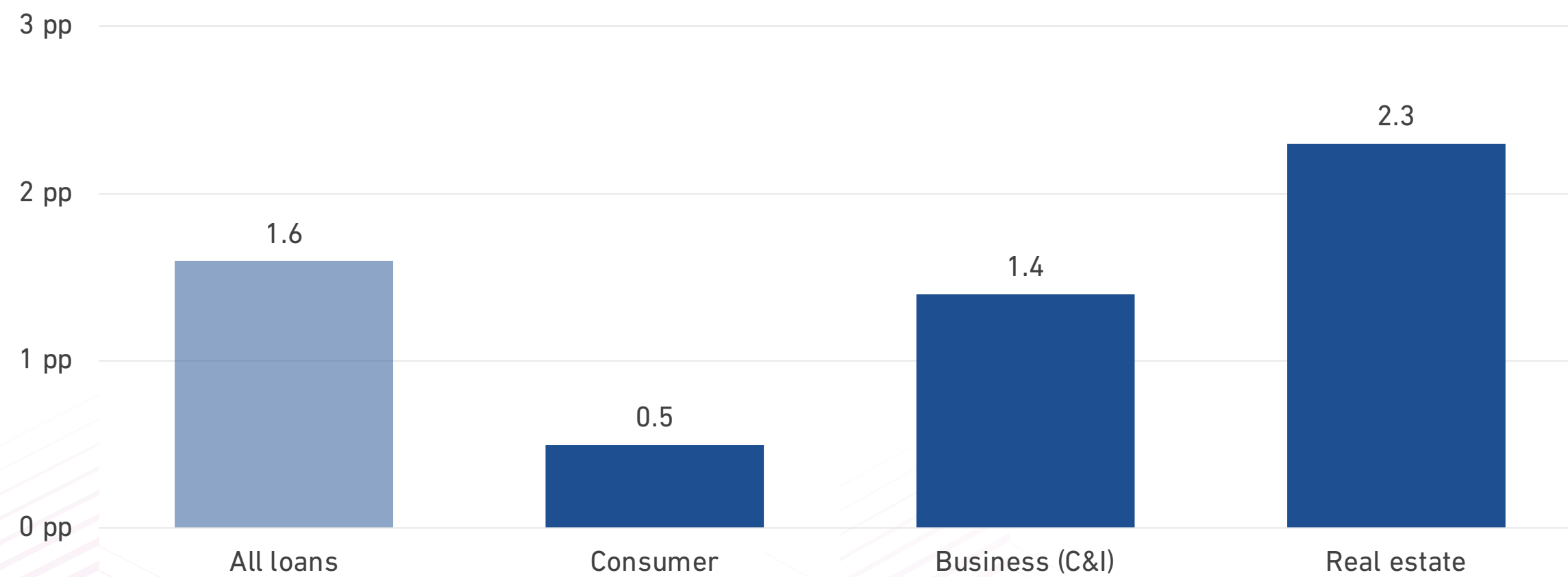
Recession recovery: delinquency on all loans



Source: Federal Reserve and author's calculations

CHART 32

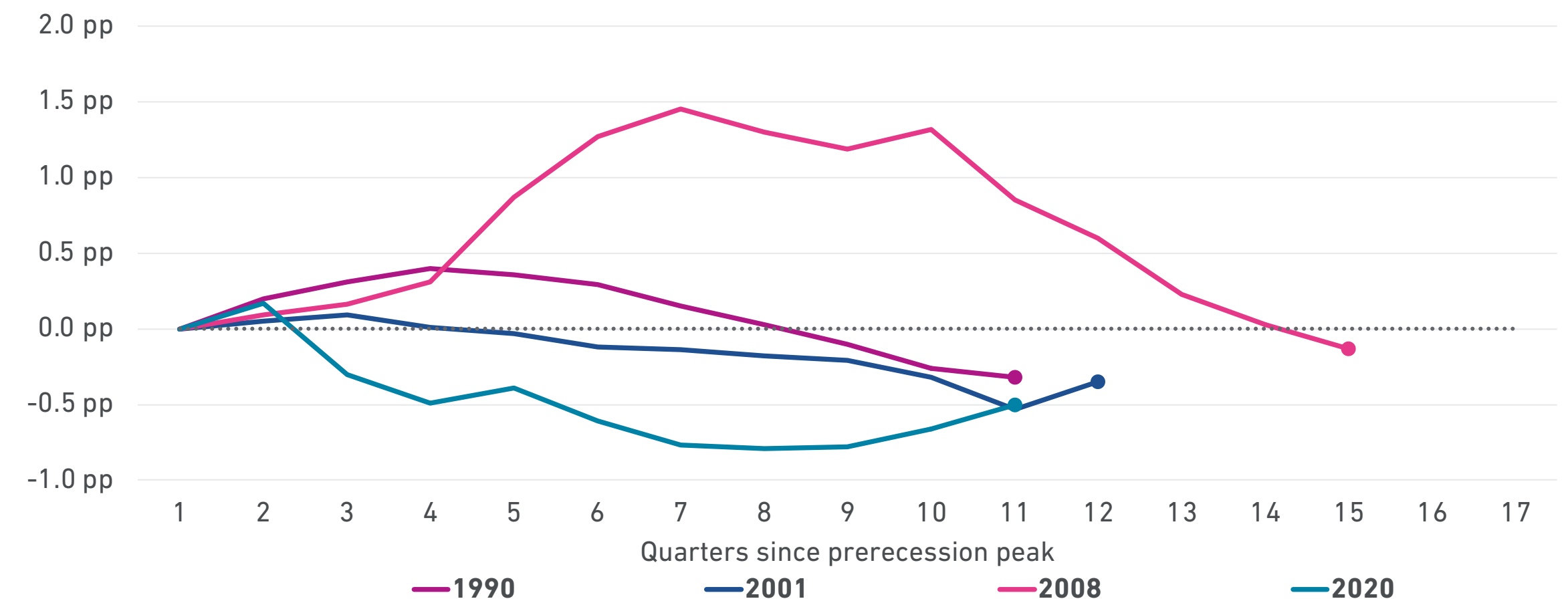
Increase (pp) in delinquency: all loans



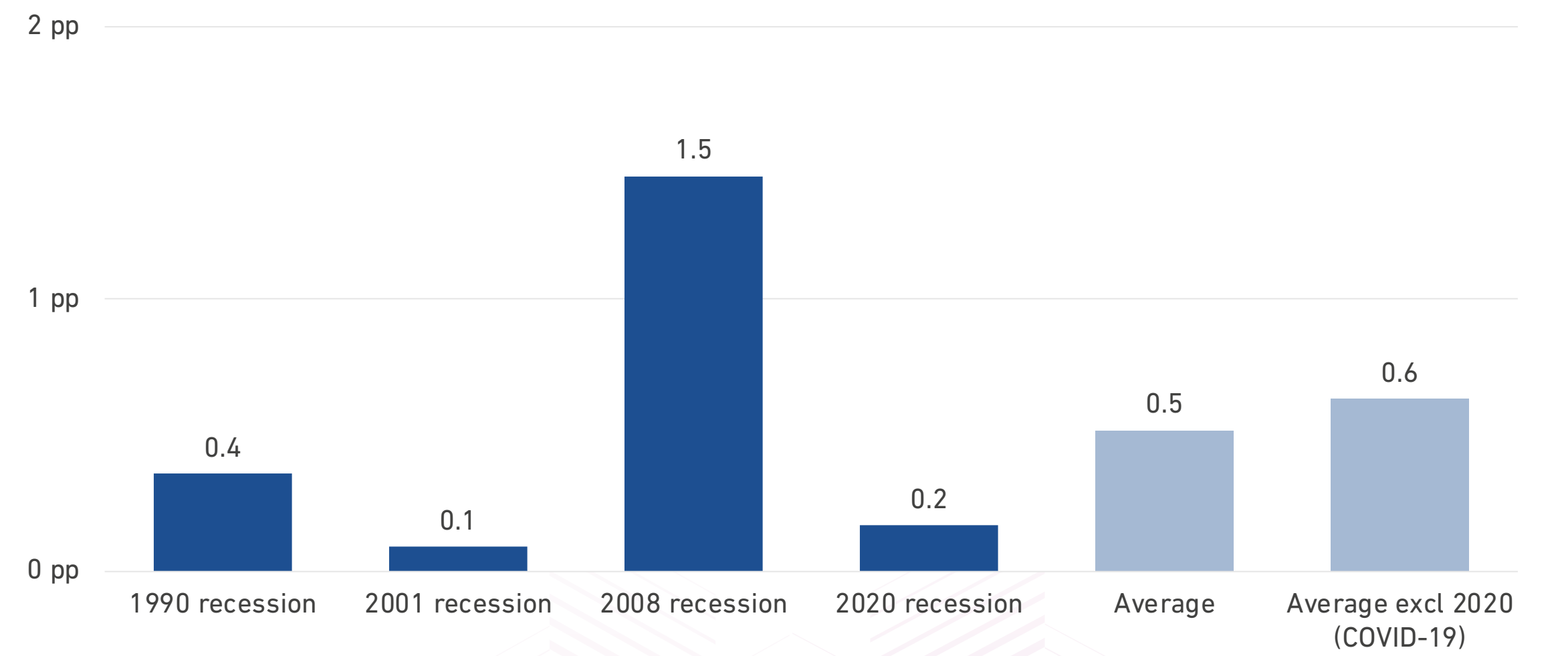
Source: Federal Reserve and author's calculations

CHART 33

Recession recovery: delinquency on consumer



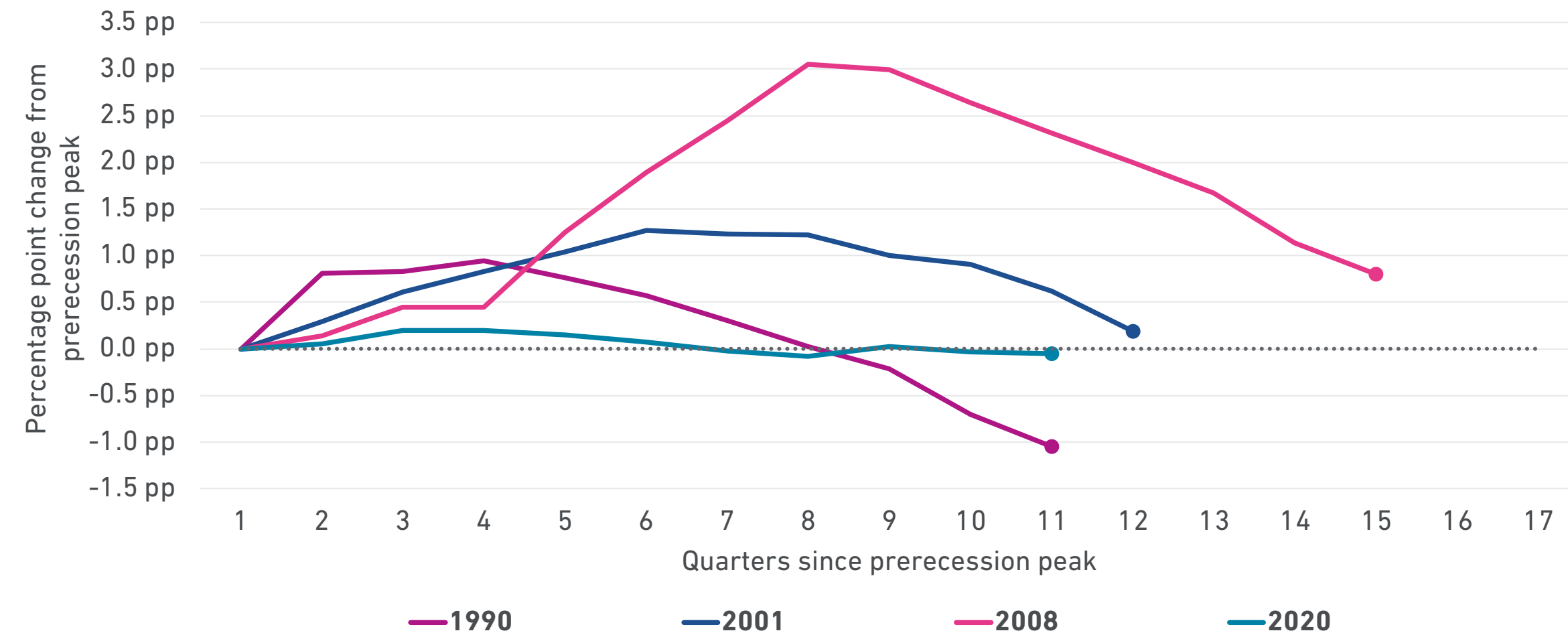
Increase (pp) in delinquency: consumer loans



Source: Federal Reserve and author's calculations

CHART 34

Recession recovery: delinquency on business



Increase (pp) in delinquency: business loans

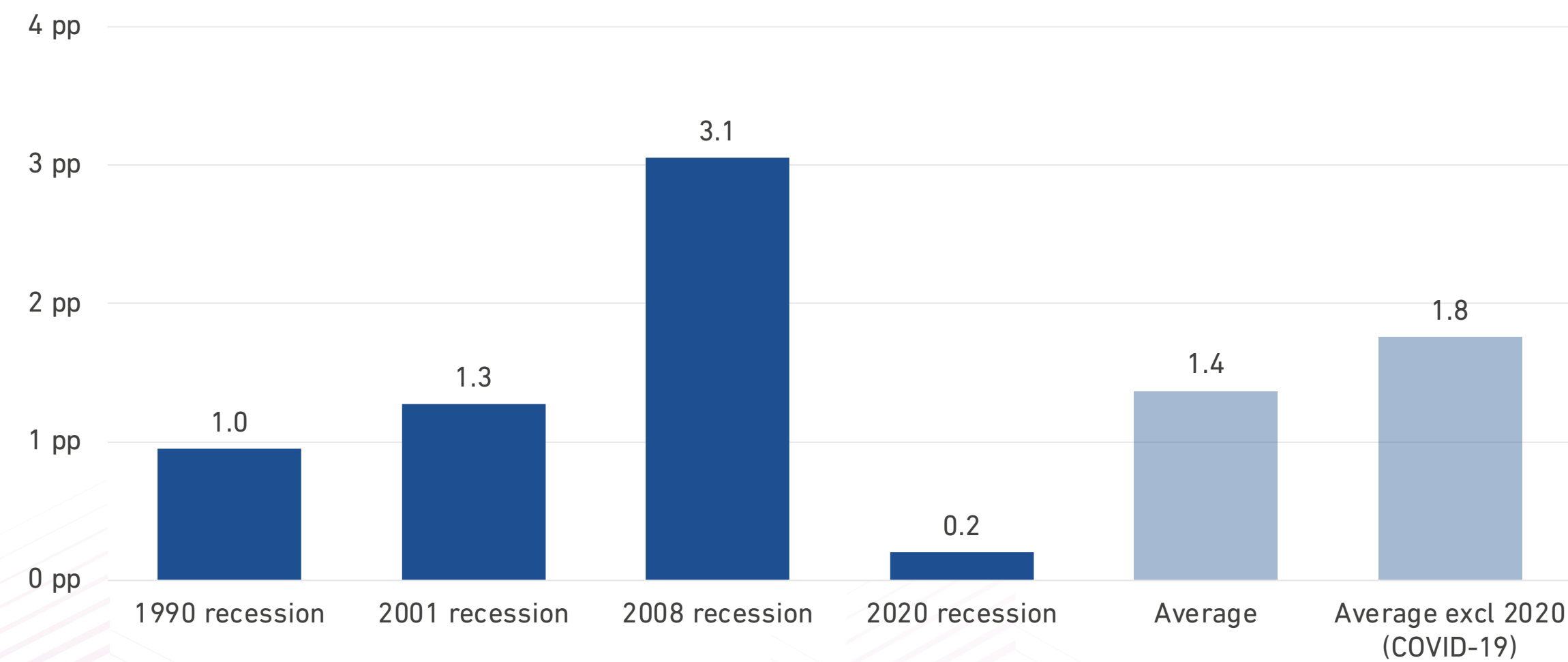
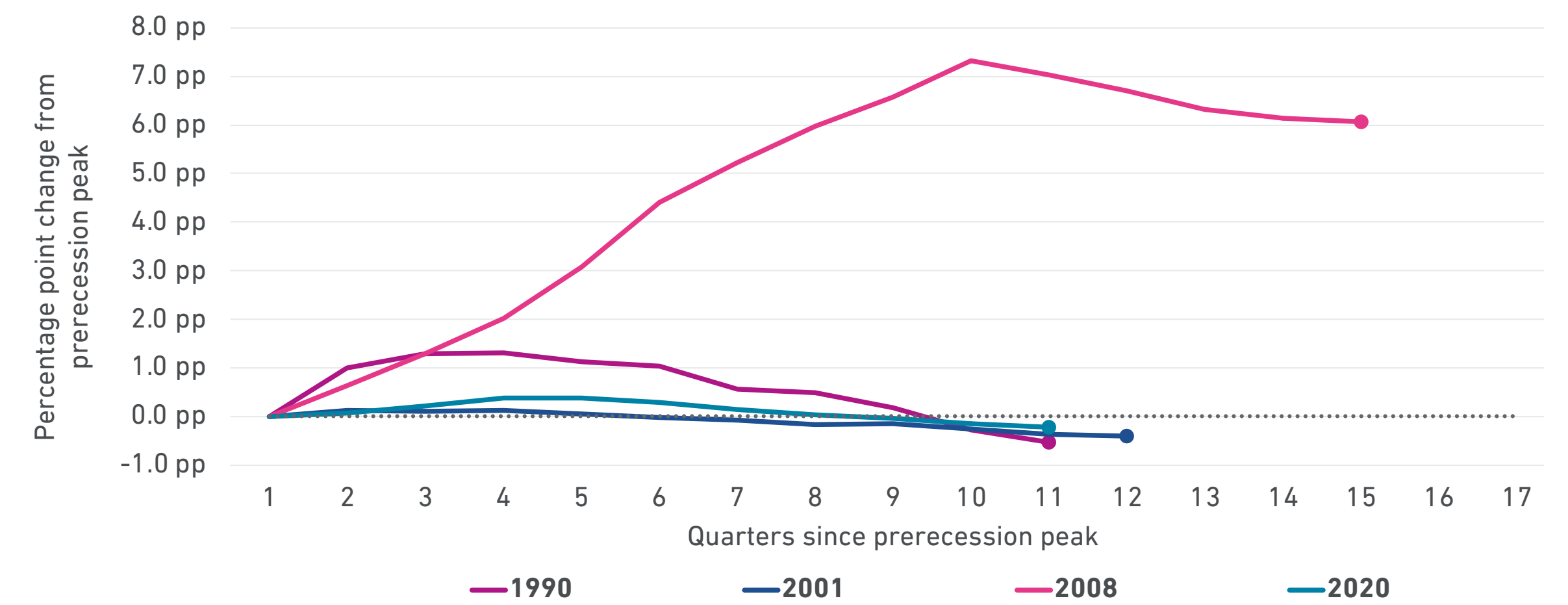
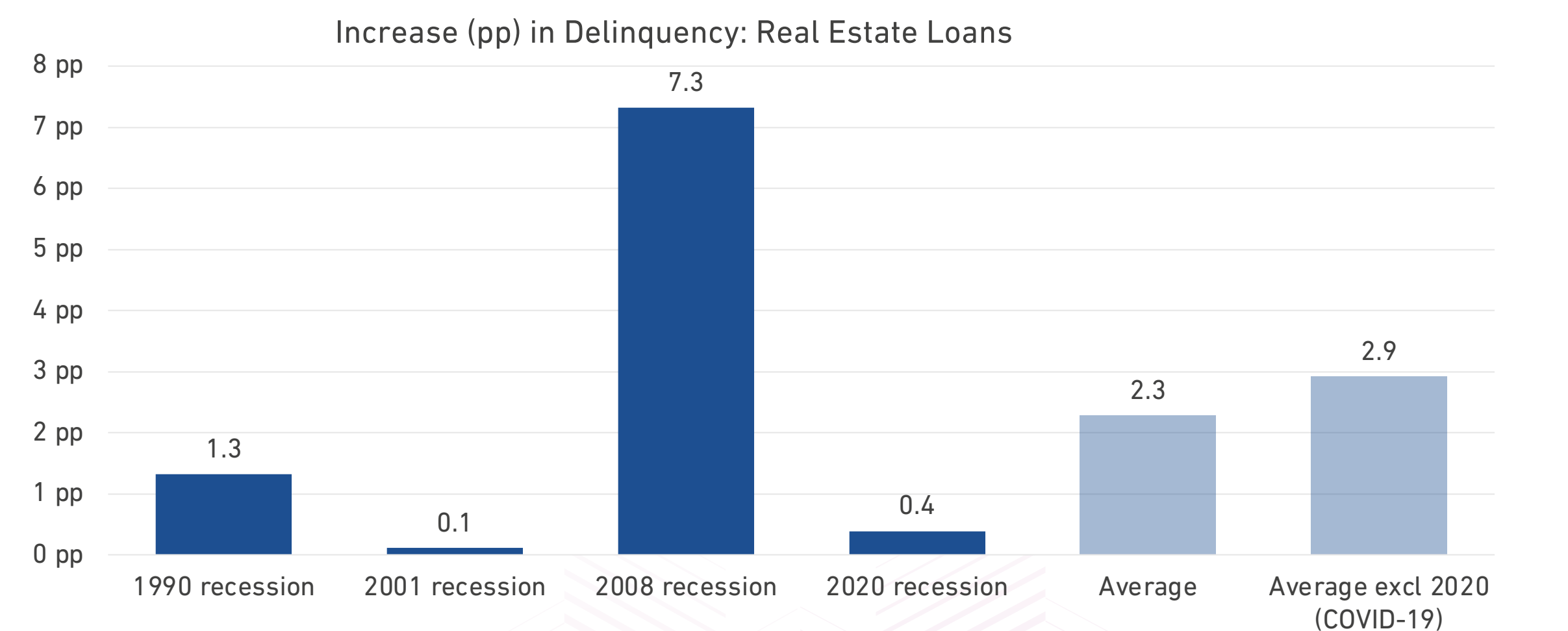


CHART 35

Recession recovery: delinquency on real estate loans



Increase (pp) in delinquency: real estate loans

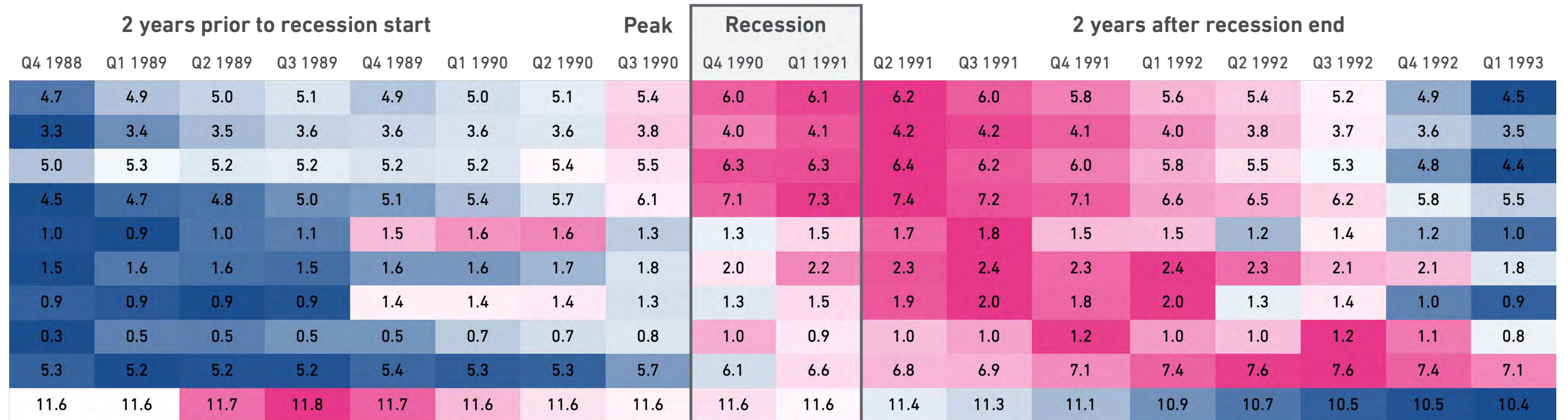


Source: Federal Reserve and author's calculations

TIMELINE HEATMAP

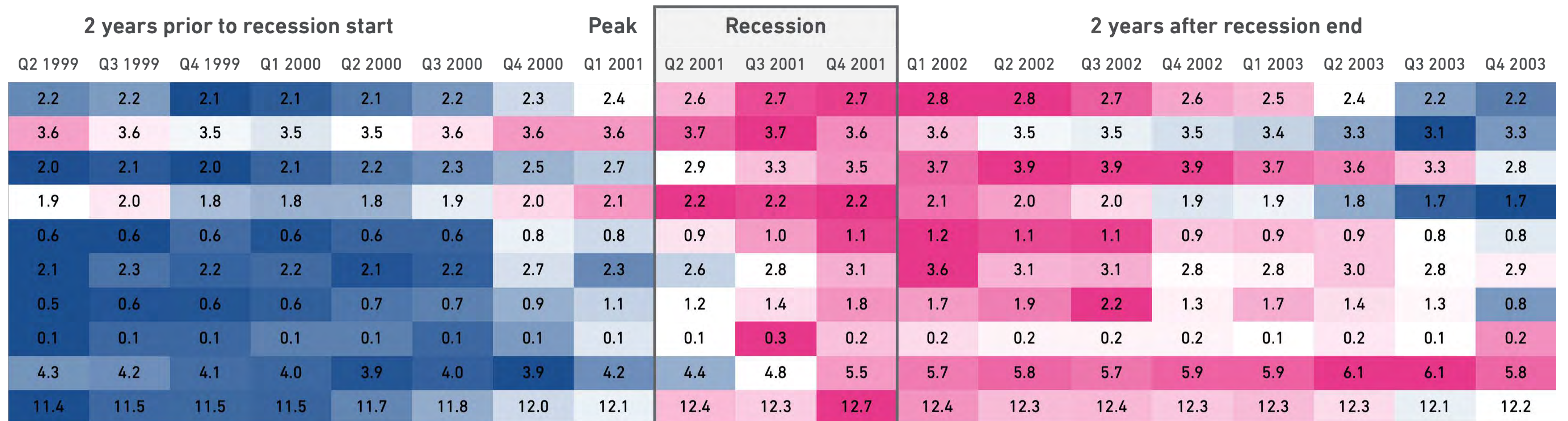
1990 recession

Delinquency rate



2001 recession

Delinquency rate



Higher rates

Lower rates

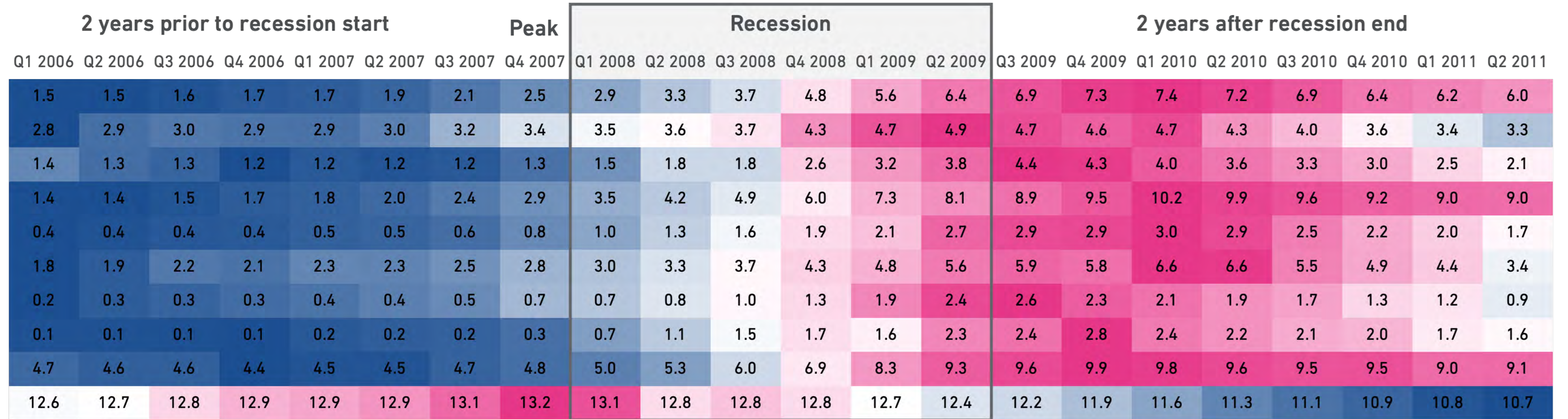


Source: Federal Reserve and Bureau of Labor Statistics

TIMELINE HEATMAP

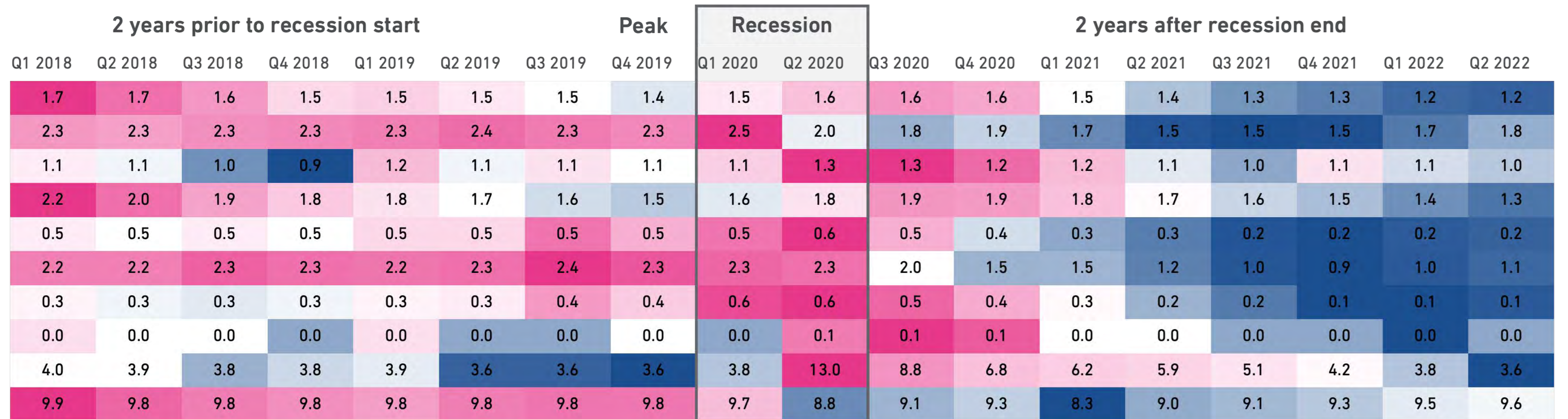
2008 recession

Delinquency rate



2020 recession

Delinquency rate



Source: Federal Reserve and Bureau of Labor Statistics



A DEEPER DIVE INTO THE DATA

CONSUMER SPENDING

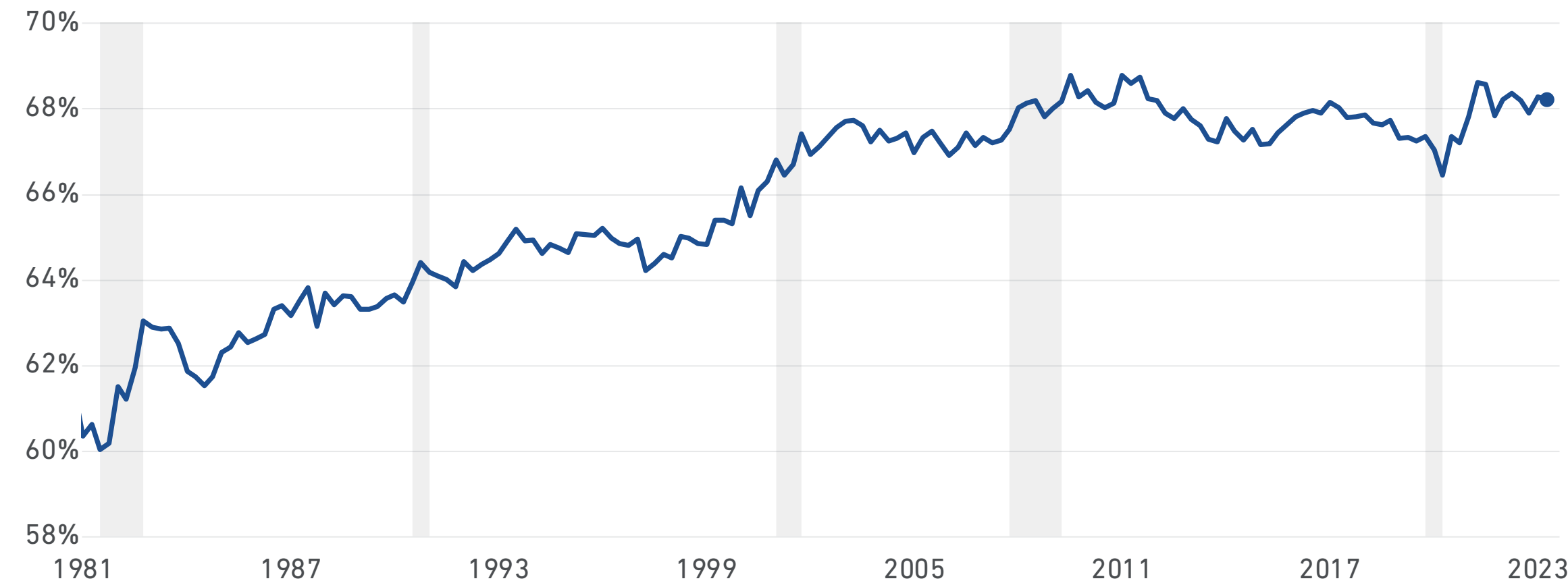
Goods versus services

Consumer spending is the primary driver of the US economy, making up more than two-thirds of gross domestic product (charts 36, 37) and is vital for the financial services industry. In good times, consumers are able to take out loans to travel, furnish and buy a new home, and generally maintain their spending habits. However, as stress in the economy increases and job losses mount, consumers pull back on expenditures, putting downward pressure on lending and overall economic activity. This dynamic can become exacerbated by tighter credit conditions, which limits access to credit and the ability to smooth consumption during hardship.

Across recessionary periods since 1981 (excluding 2020), average quarterly consumer spending growth slowed from 1.8% in the lead up to recession to 0.7% during the recession (chart 38, 39). This impact fell more acutely on goods spending, which fell to 0% growth during a recession and took longer to recover than spending in the service sector (39, 40, 41, 42).

CHART 36

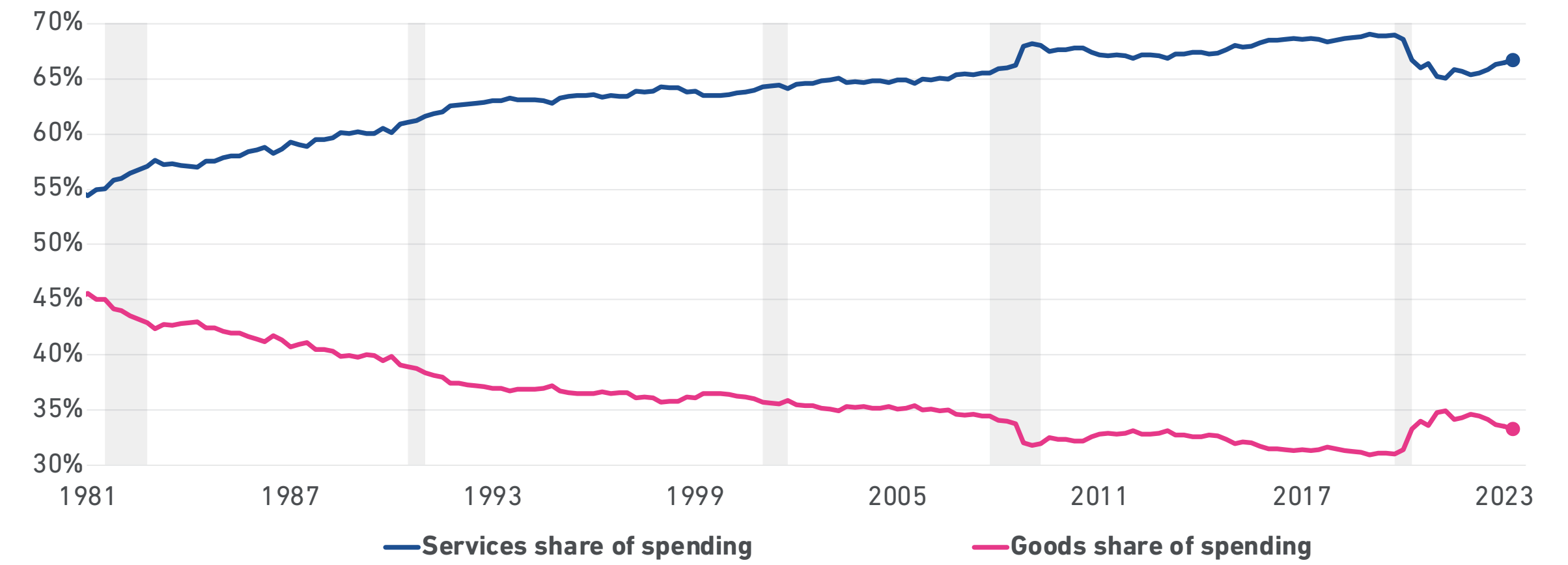
Consumer spending as a share of gross domestic product



Source: Bureau of Economic Analysis and author's calculation

CHART 37

Services versus goods share of consumer spending



Source: Bureau of Economic Analysis and author's calculation

CHART 38

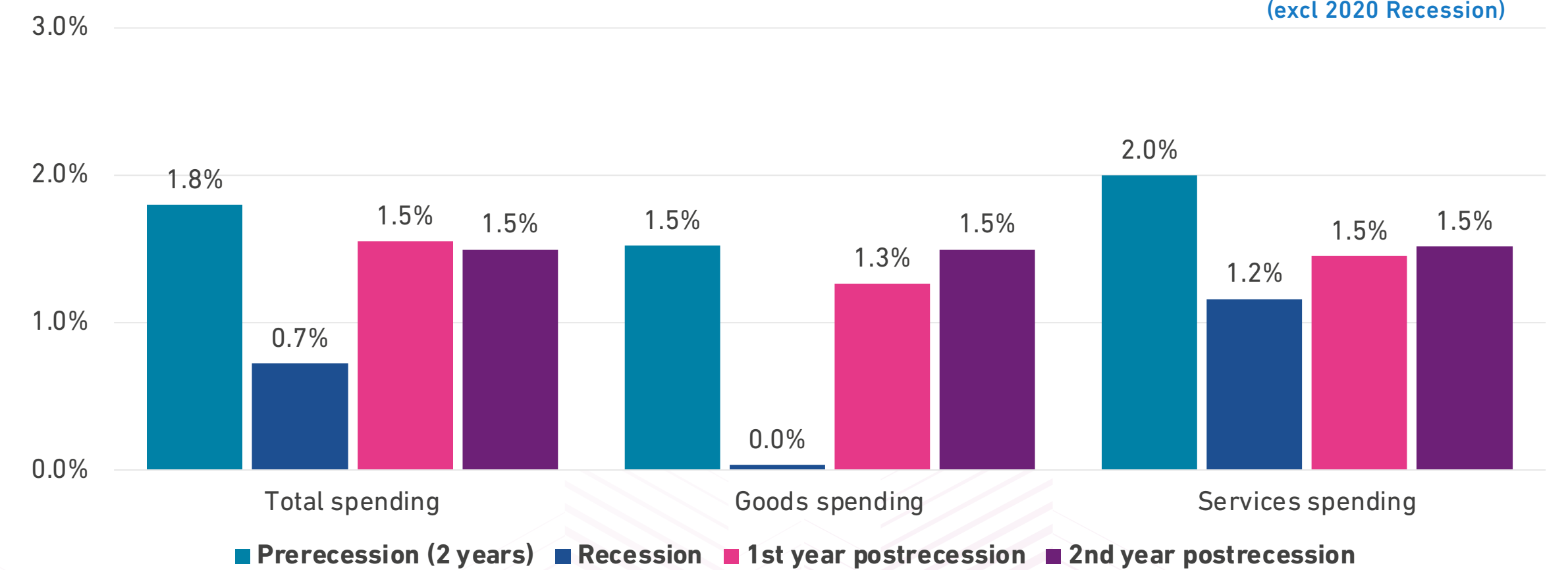
Total consumer spending: average quarterly growth



Source: Bureau of Economic Analysis and author's calculation

CHART 39

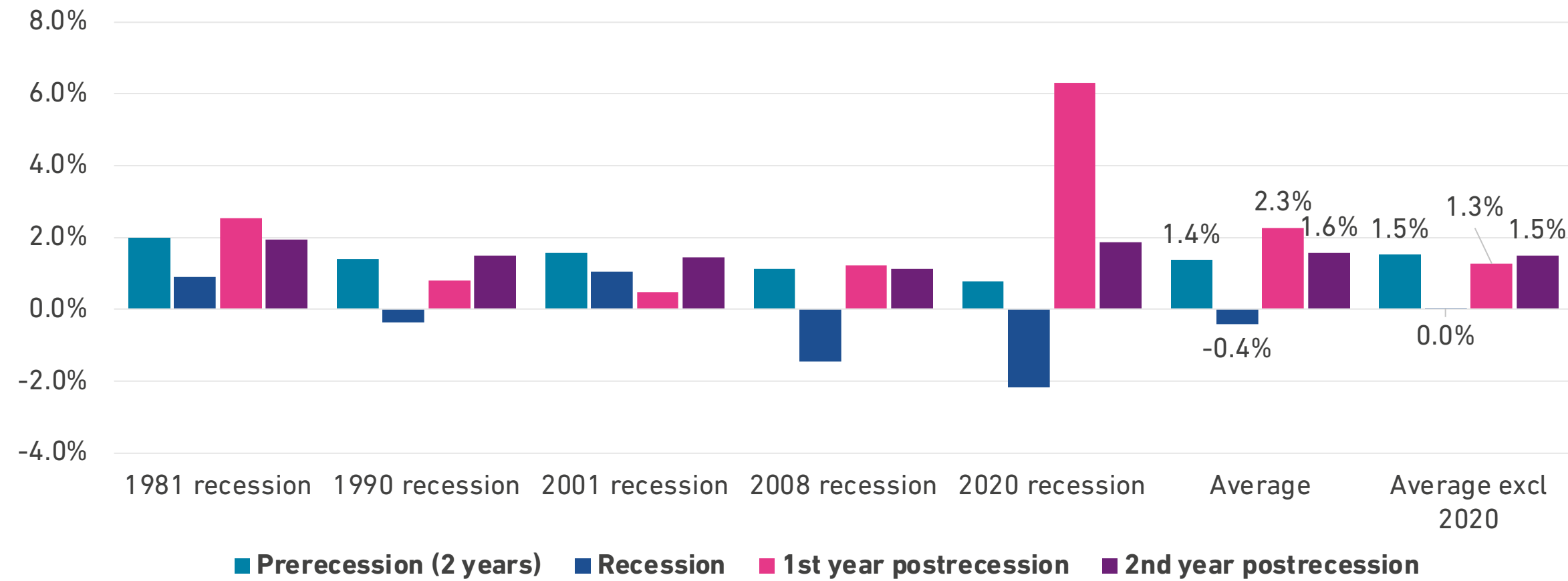
Average quarterly growth in consumer spending surrounding periods of recession (excl 2020 Recession)



Source: Bureau of Economic Analysis and author's calculation

CHART 40

Consumer spending on goods: average quarterly growth



Source: Bureau of Economic Analysis and author's calculation

CHART 41

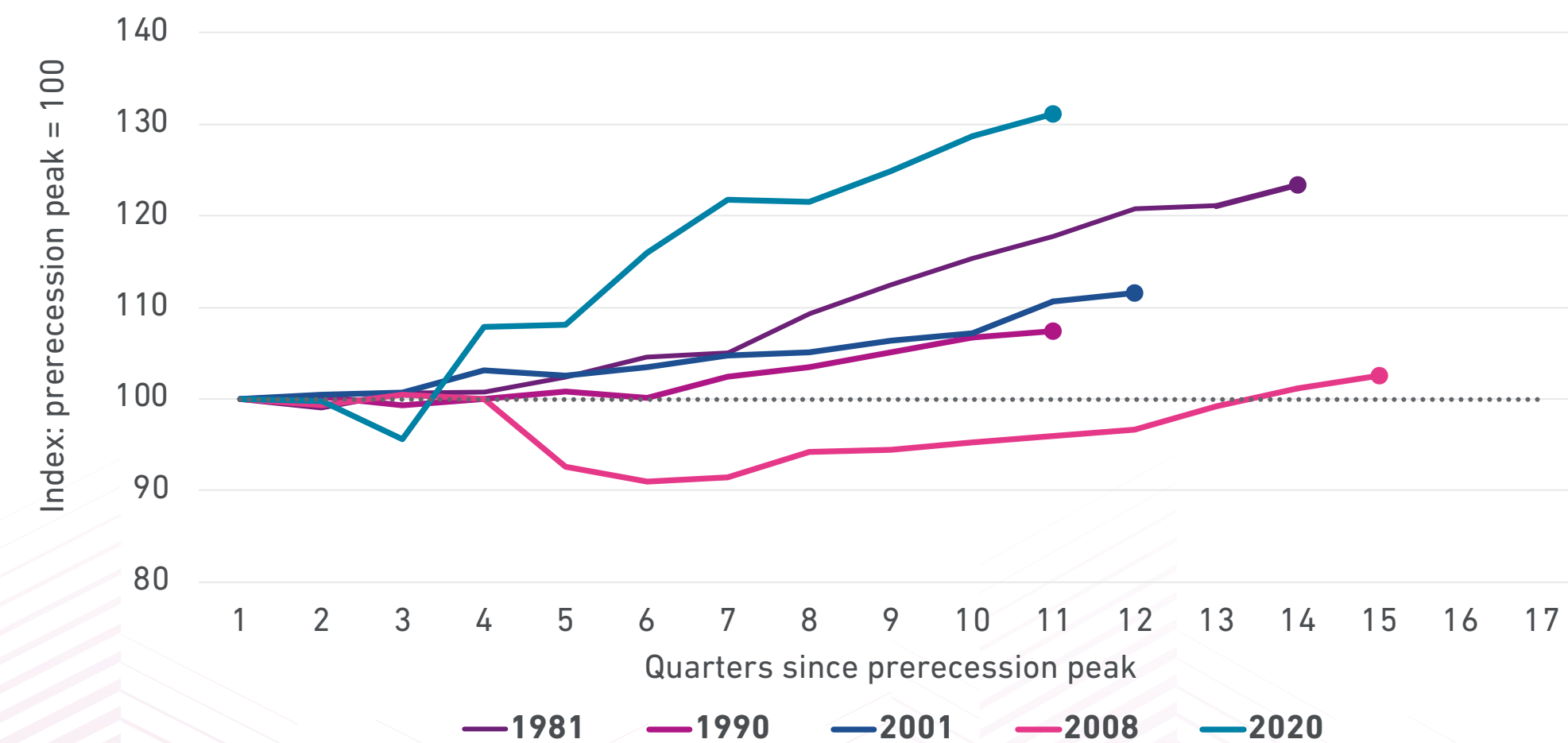
Consumer spending on services: average quarterly growth



Source: Bureau of Economic Analysis and author's calculation

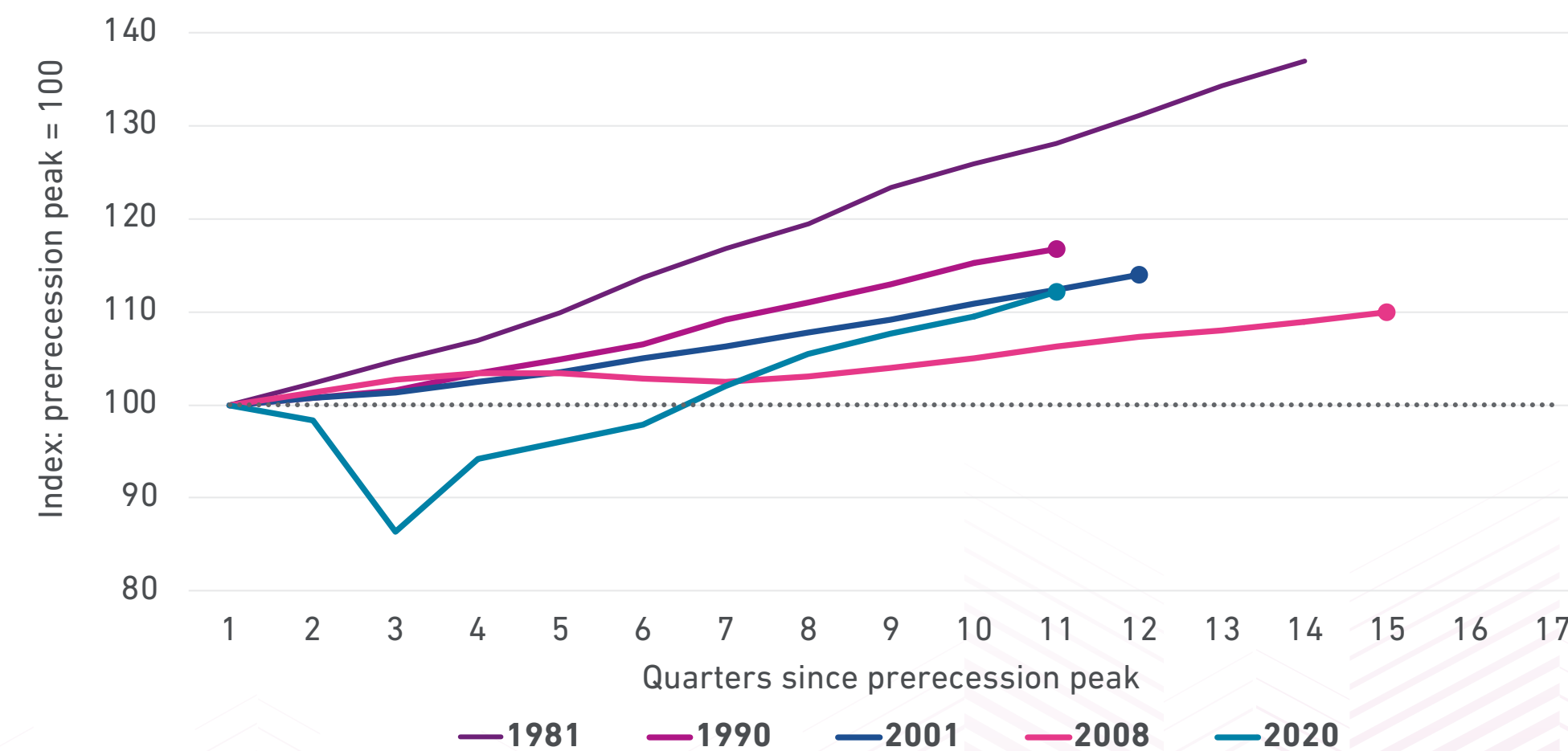
CHART 42

Recession recovery: goods spending



Source: Bureau of Economic Analysis and author's calculation

Recession recovery: services spending



TIMELINE HEATMAP

1981 recession

Spending growth:
Quarter-over-quarter % change

	2 years prior to recession start								Peak	Recession					2 years after recession end							
	Q4 1979	Q1 1980	Q2 1980	Q3 1980	Q4 1980	Q1 1981	Q2 1981	Q3 1981	Q4 1981	Q1 1982	Q2 1982	Q3 1982	Q4 1982	Q1 1983	Q2 1983	Q3 1983	Q4 1983	Q1 1984	Q2 1984	Q3 1984	Q4 1984	
Total spending	2.7	2.9	0.1	3.5	3.9	2.9	1.7	2.1	0.8	2.0	1.3	2.3	2.9	1.8	3.0	3.1	2.3	1.9	2.4	1.5	1.9	
Goods	2.0	3.1	-1.8	3.1	3.2	3.9	0.4	2.0	-1.0	1.6	0.2	1.6	2.1	0.5	4.0	2.9	2.5	2.2	2.5	0.3	1.9	
New motor vehicles	-3.0	1.5	-24.8	17.9	2.2	14.6	-11.7	13.3	-17.0	18.2	-0.8	0.3	13.0	-2.0	20.3	3.6	9.2	4.8	1.7	-3.6	8.1	
Furniture	-1.1	0.2	-4.5	2.6	7.4	0.7	1.1	-2.5	-4.2	-1.8	2.5	-0.2	3.7	3.9	3.2	4.9	3.9	3.9	2.8	2.1	3.3	
Major household appliances	0.2	-0.1	-2.0	1.7	3.1	0.9	-0.5	0.6	-0.7	-2.9	1.1	0.8	1.8	4.7	4.1	4.1	2.4	2.7	2.7	1.9	2.3	
Clothing and footwear	1.4	0.7	0.4	3.3	3.2	3.4	1.4	2.0	-0.1	1.3	-1.0	2.0	1.4	1.4	4.0	2.1	3.3	1.7	2.8	-0.7	2.4	
Jewelry	1.0	9.4	-6.5	2.6	9.4	-0.9	3.0	0.6	-4.0	-1.9	3.1	-2.7	1.8	5.2	4.4	1.4	3.8	3.8	3.9	2.5	1.6	
Services	3.3	2.7	1.8	3.8	4.4	2.1	2.7	2.2	2.3	2.4	2.1	2.8	3.4	2.8	2.2	3.3	2.1	1.7	2.3	2.5	2.0	
Travel	8.0	4.5	0.7	3.5	4.9	2.8	2.7	-2.4	0.1	-0.1	3.0	2.0	-0.2	-0.2	5.4	6.7	5.1	5.3	2.4	-1.7	6.4	
Restaurants	4.9	1.5	0.4	2.3	3.5	4.3	1.0	0.4	0.8	1.6	3.3	2.7	2.2	2.8	1.1	2.2	0.8	3.0	1.1	2.6	0.1	
Telecommunication services	1.0	3.2	-1.4	4.4	2.6	2.8	2.9	3.1	4.9	1.6	4.4	3.1	3.3	2.8	2.3	-0.5	1.3	6.3	0.6	-1.1	2.3	
Motor vehicle maintenance	3.3	-0.6	-2.1	4.0	2.5	4.1	-2.0	5.2	-0.3	-1.6	1.6	2.9	3.1	3.4	3.0	4.0	4.4	3.6	2.4	3.8	4.0	
Physicians services	3.6	3.4	2.1	5.9	6.5	3.2	3.6	4.3	2.0	1.0	1.8	2.9	3.1	3.5	2.7	3.0	3.1	2.8	2.2	2.4	2.6	
Dental services	1.0	3.3	2.0	5.0	7.3	2.7	5.2	3.2	-0.6	2.0	2.4	2.0	1.4	1.8	2.4	3.0	2.4	1.9	1.9	2.1	2.5	

Weaker growth



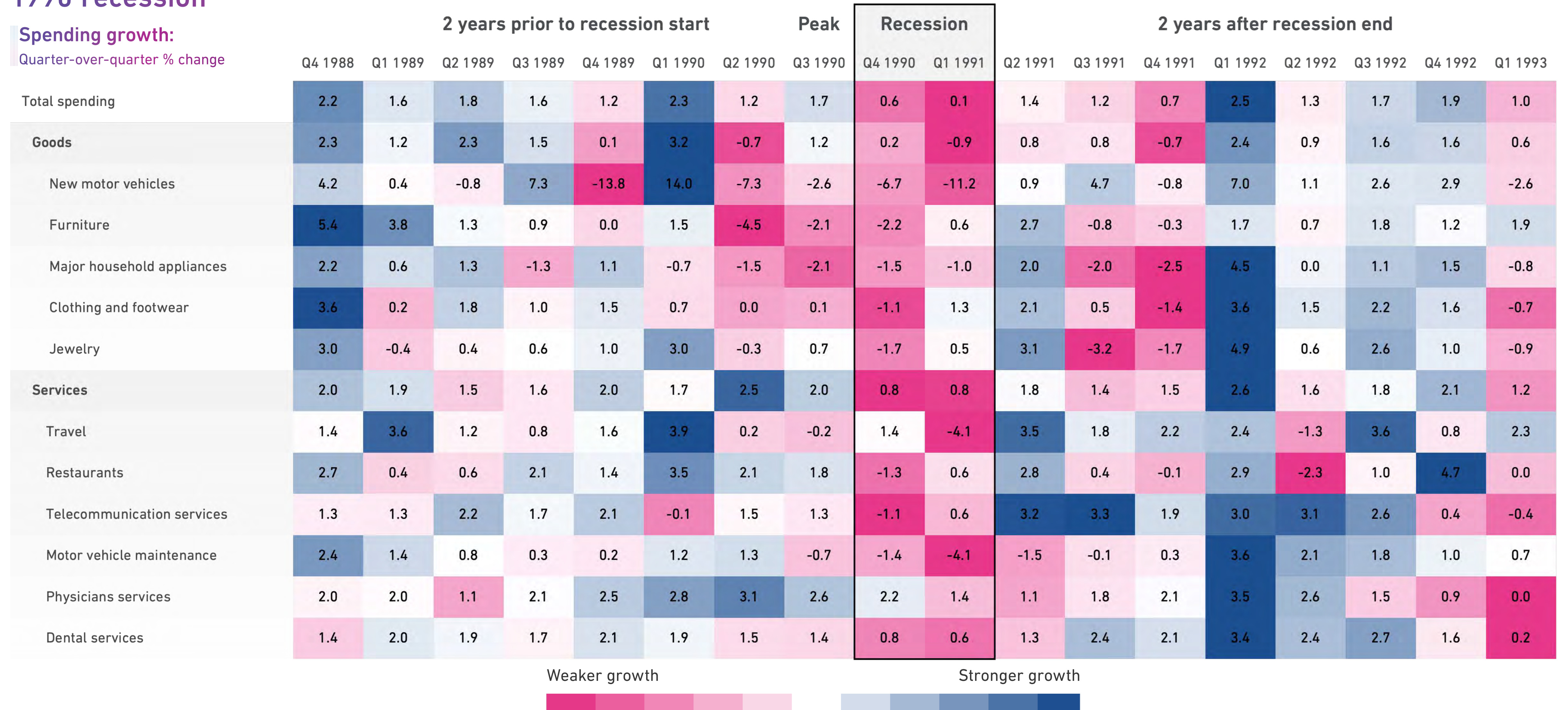
Stronger growth



TIMELINE HEATMAP

1990 recession

Spending growth:
Quarter-over-quarter % change



Source: Bureau of Economic Analysis

TIMELINE HEATMAP

2001 recession

Spending growth:
Quarter-over-quarter % change

	2 years prior to recession start						Peak	Recession			2 years after recession end								
	Q2 1999	Q3 1999	Q4 1999	Q1 2000	Q2 2000	Q3 2000	Q4 2000	Q1 2001	Q2 2001	Q3 2001	Q4 2001	Q1 2002	Q2 2002	Q3 2002	Q4 2002	Q1 2003	Q2 2003	Q3 2003	Q4 2003
Total spending	2.1	1.7	2.1	2.3	1.4	1.6	1.4	1.1	0.7	0.4	1.7	0.4	1.3	1.2	1.0	1.3	1.2	2.1	1.2
Goods	3.1	1.7	2.1	2.3	1.0	1.3	1.0	0.2	0.4	0.2	2.5	-0.6	1.0	1.2	0.4	1.1	0.8	3.3	0.8
New motor vehicles	5.0	1.0	2.0	6.0	-4.3	1.3	-4.8	7.5	-0.9	-1.6	30.1	-11.1	-6.8	11.3	-3.1	-3.4	5.9	3.5	-1.8
Furniture	1.7	3.6	2.7	3.6	2.6	1.1	-1.5	1.3	0.3	0.8	2.6	2.4	0.4	-1.6	1.1	-1.7	3.8	2.5	2.1
Major household appliances	2.8	3.4	1.0	2.8	1.9	0.4	2.4	0.8	0.1	2.0	3.5	1.7	0.9	-1.3	0.9	-1.7	2.7	5.1	0.9
Clothing and footwear	1.5	0.3	0.4	1.0	1.5	0.9	0.8	-1.5	-0.8	-1.1	0.7	0.7	-0.2	-1.1	2.3	-1.4	1.6	2.7	0.2
Jewelry	2.2	2.4	3.8	-1.3	2.2	1.5	-0.8	-1.1	-3.3	-1.4	1.7	3.2	0.3	-1.3	2.9	-0.6	2.5	4.1	3.2
Services	1.6	1.7	2.1	2.4	1.7	1.8	1.7	1.6	0.8	0.5	1.2	1.0	1.4	1.2	1.4	1.3	1.5	1.4	1.4
Travel	0.7	3.6	2.2	3.5	4.4	2.0	0.5	-3.6	-4.7	-9.1	-7.7	6.4	2.3	0.1	1.4	2.3	-0.3	7.8	1.6
Restaurants	1.3	0.8	3.1	2.2	1.1	1.0	0.3	2.0	0.0	0.5	0.7	1.7	0.9	0.7	0.4	1.1	2.6	2.1	2.1
Telecommunication services	3.0	2.6	1.4	1.7	2.4	1.1	0.6	0.4	1.9	1.0	-1.0	-0.1	-0.3	0.8	-0.7	0.3	-0.5	-0.2	-1.2
Motor vehicle maintenance	1.6	1.4	1.3	1.7	1.6	1.7	1.4	1.4	1.0	0.9	0.4	0.1	0.6	0.6	1.3	1.6	1.2	1.2	0.9
Physicians services	1.1	1.8	2.0	2.3	2.0	1.8	1.8	2.9	1.7	1.7	2.6	1.3	2.2	2.3	2.1	1.0	2.8	2.3	2.0
Dental services	1.5	1.8	2.1	2.3	2.2	2.1	2.1	2.3	2.0	2.3	2.5	2.8	2.2	1.3	0.7	-0.4	0.7	1.3	1.7

Weaker growth



Stronger growth



TIMELINE HEATMAP

2008 recession

Spending growth:
Quarter-over-quarter % change

	2 years prior to recession start								Peak	Recession						2 years after recession end						
	Q1 2006	Q2 2006	Q3 2006	Q4 2006	Q1 2007	Q2 2007	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011
Total spending	1.6	1.4	1.4	0.8	1.5	1.1	1.2	1.4	0.7	1.3	0.3	-2.5	-0.9	-0.1	1.4	0.7	1.0	1.1	0.9	1.3	1.2	1.1
Goods	2.0	0.9	1.5	-0.3	1.4	1.3	0.8	1.4	-0.6	1.1	-0.5	-7.4	-1.7	0.5	3.0	0.3	0.9	0.8	0.7	2.5	2.1	1.3
New motor vehicles	5.8	-0.9	2.9	-2.1	3.1	-2.3	-2.3	1.4	-7.6	-7.8	-7.4	-19.3	1.3	3.3	23.9	-12.0	-1.3	8.3	2.5	8.2	3.1	-3.1
Furniture	1.2	-0.6	1.6	-0.4	1.1	-0.4	-0.7	-1.2	-3.7	-2.3	-5.5	-6.0	-2.6	-2.4	-0.3	0.2	1.8	0.1	-0.3	0.2	1.2	0.4
Major household appliances	3.3	-2.0	0.9	-1.0	0.9	-0.8	0.0	-0.4	0.6	0.2	-2.3	-5.0	-1.1	-3.0	-0.2	-0.2	1.7	3.6	-2.5	0.6	0.6	1.6
Clothing and footwear	0.2	0.3	0.7	1.0	0.7	-0.9	-0.2	0.1	-1.0	1.6	-1.8	-4.2	-0.4	-1.1	1.1	0.4	2.3	0.8	0.1	2.2	1.4	1.4
Jewelry	3.6	-0.2	1.3	1.1	0.8	2.0	1.1	0.9	-1.4	-1.3	-1.6	-10.0	-1.9	2.3	1.1	0.9	0.3	-0.6	0.4	3.6	3.4	4.9
Services	1.4	1.7	1.3	1.4	1.6	1.0	1.4	1.4	1.4	1.3	0.7	0.0	-0.5	-0.4	0.6	0.8	1.0	1.2	1.0	0.7	0.8	1.0
Travel	1.9	1.9	0.2	1.9	2.4	0.7	1.1	3.7	1.4	1.7	-0.2	-4.4	-4.3	-2.3	2.7	2.3	0.7	2.8	1.5	0.6	3.7	4.3
Restaurants	2.4	0.0	1.3	2.3	0.1	1.3	1.4	1.7	-0.8	1.2	0.3	0.0	-0.9	-0.7	-0.5	0.4	1.5	1.4	1.0	0.8	1.3	1.4
Telecommunication services	2.6	1.7	-0.7	0.7	1.4	0.7	0.5	0.6	0.3	1.7	0.6	-2.4	-1.3	-1.8	-0.4	0.3	0.8	0.1	1.0	-0.5	1.6	0.5
Motor vehicle maintenance	-0.3	0.0	0.5	1.2	1.3	0.9	0.3	-0.5	-0.6	-1.0	-0.6	-1.3	-2.0	-2.6	0.8	1.0	2.3	-1.6	-0.6	3.5	-0.2	3.9
Physicians services	0.7	1.6	1.3	0.4	2.5	0.1	1.2	1.4	1.5	1.4	1.3	0.9	0.2	1.4	0.4	-0.2	1.3	0.4	2.7	-0.5	1.8	0.6
Dental services	0.8	1.4	1.1	1.5	1.6	1.2	1.8	1.7	1.2	0.8	0.9	0.4	0.5	-1.4	-0.6	0.8	0.7	1.1	1.6	0.4	-0.5	0.1

Weaker growth



Stronger growth



TIMELINE HEATMAP

2020 recession

Spending growth:
Quarter-over-quarter % change

	2 years prior to recession start								Peak	Recession		2 years after recession end							
	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q4 2022	Q4 2022	
Total spending	1.4	1.3	1.0	0.8	0.3	1.3	1.1	0.9	-1.2	-9.6	10.3	1.4	3.7	4.5	2.1	2.3	2.2	2.3	
Goods	0.9	1.0	0.6	0.6	-0.3	1.8	1.1	0.7	-0.2	-4.1	12.7	0.2	7.3	5.0	-0.2	2.8	3.0	1.9	
New motor vehicles	-3.9	-0.3	1.0	2.2	-6.8	3.5	3.6	1.6	-11.4	-3.9	25.5	6.9	8.0	5.9	-18.6	6.5	15.8	-5.2	
Furniture	3.4	3.1	1.0	-0.3	0.2	3.7	3.0	2.1	2.5	3.0	22.4	-1.0	10.4	1.6	-1.5	0.8	3.4	3.4	
Major household appliances	0.2	2.2	0.7	-1.4	-1.0	1.4	2.7	-0.1	-0.6	3.2	13.3	-2.8	10.5	3.8	-1.3	-1.3	4.5	1.1	
Clothing and footwear	0.9	1.3	0.2	0.3	0.1	0.6	0.9	-0.1	-9.1	-21.1	36.0	0.9	10.0	8.3	0.6	0.4	1.6	1.7	
Jewelry	1.5	2.2	-2.1	-1.3	-0.8	1.8	3.0	-1.8	-7.4	-24.0	59.0	0.7	13.9	10.3	2.5	3.4	1.8	-0.5	
Services	1.6	1.4	1.2	0.9	0.6	1.0	1.1	1.0	-1.7	-12.1	9.0	2.0	1.9	4.2	3.4	2.0	1.7	2.5	
Travel	2.5	2.9	0.2	4.2	1.8	0.6	0.4	2.7	-17.8	-77.6	96.8	14.4	14.9	52.4	28.5	8.9	1.2	17.6	
Restaurants	1.5	1.8	2.3	-0.5	1.0	2.6	1.8	0.5	-7.0	-23.7	30.3	-1.2	6.7	14.0	4.4	0.7	1.3	5.6	
Telecommunication services	0.9	1.9	2.3	-0.9	0.5	-0.7	0.5	0.0	-0.6	-1.5	1.0	2.4	2.0	1.8	1.5	1.2	2.8	0.2	
Motor vehicle maintenance	2.4	-3.2	-1.1	0.5	0.9	4.6	2.2	0.9	-2.3	-14.2	9.8	-2.6	-0.5	6.1	6.5	1.2	1.2	3.0	
Physicians services	2.6	-0.1	0.7	0.9	0.5	2.4	1.7	1.8	-0.9	-19.2	17.7	3.0	1.0	2.5	1.6	1.3	0.4	1.0	
Dental services	1.3	-0.8	3.6	-0.1	0.2	3.3	0.1	2.1	-6.2	-34.9	38.4	2.8	1.3	7.7	-0.8	2.3	3.8	1.2	

Weaker growth



Stronger growth



