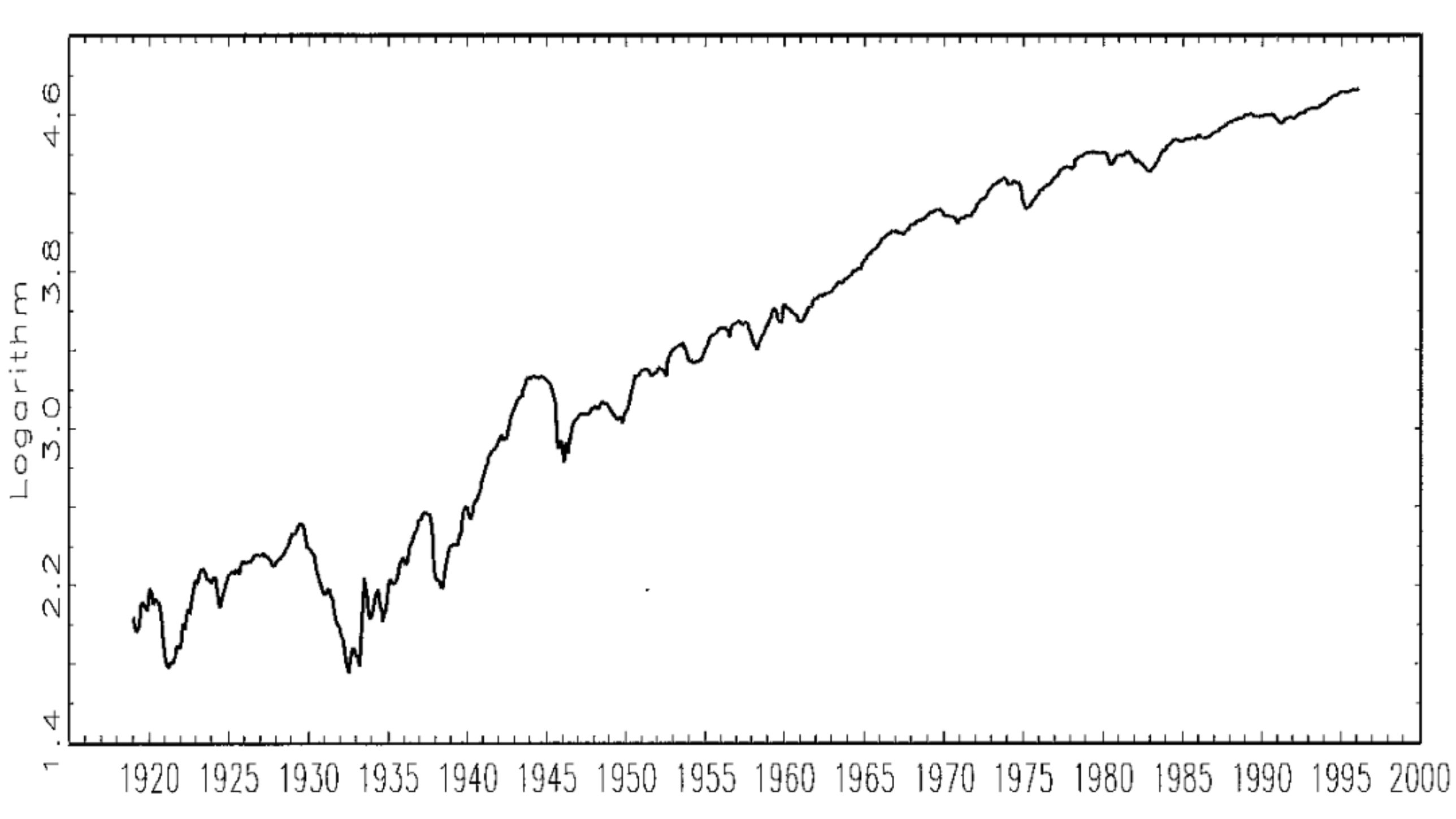
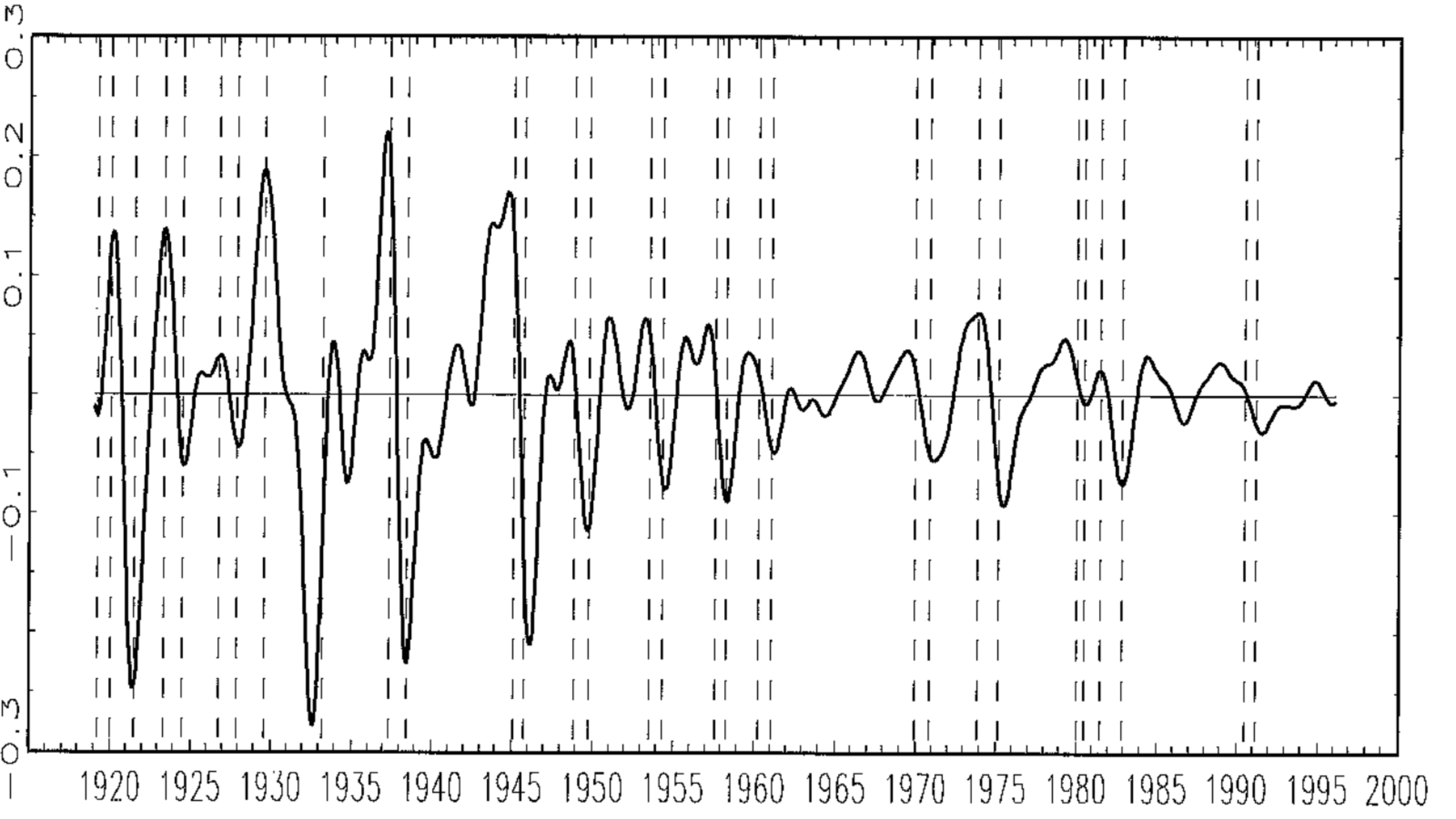
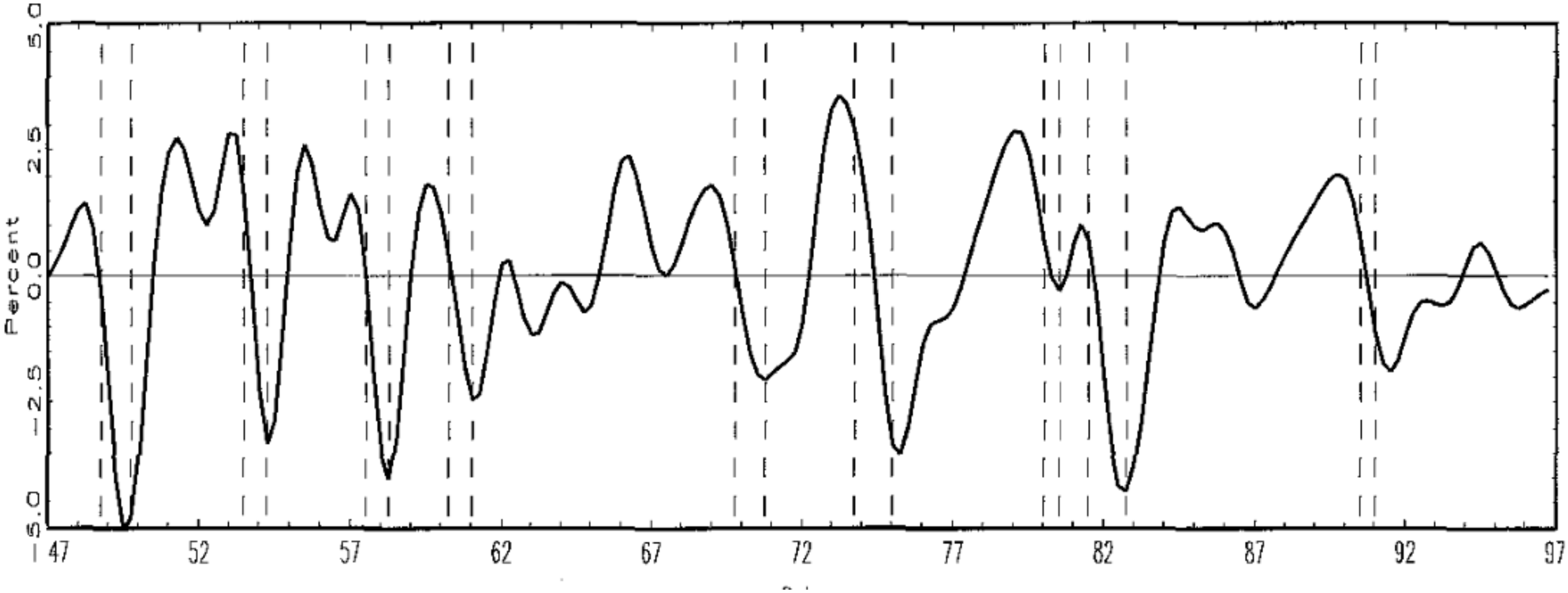
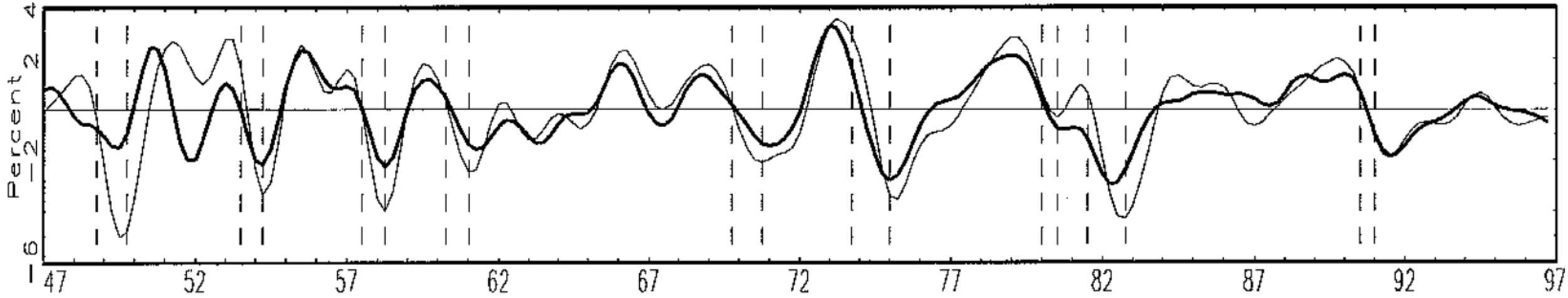
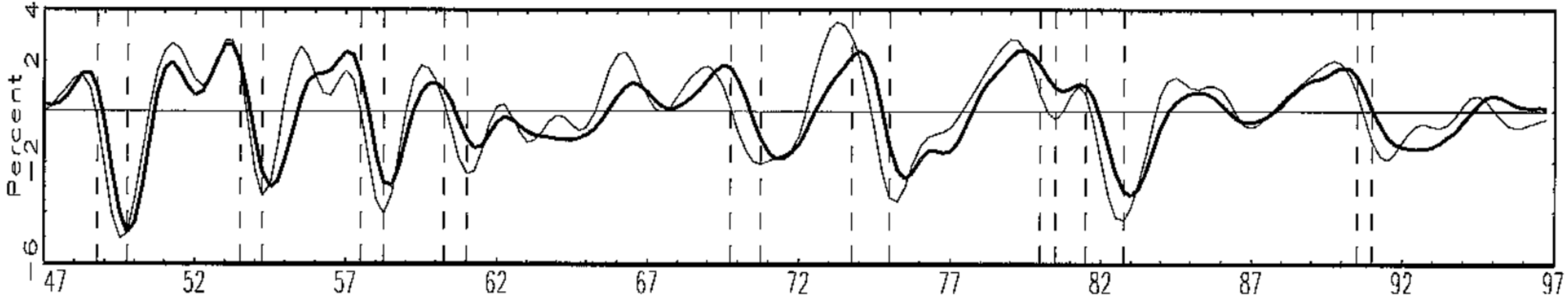
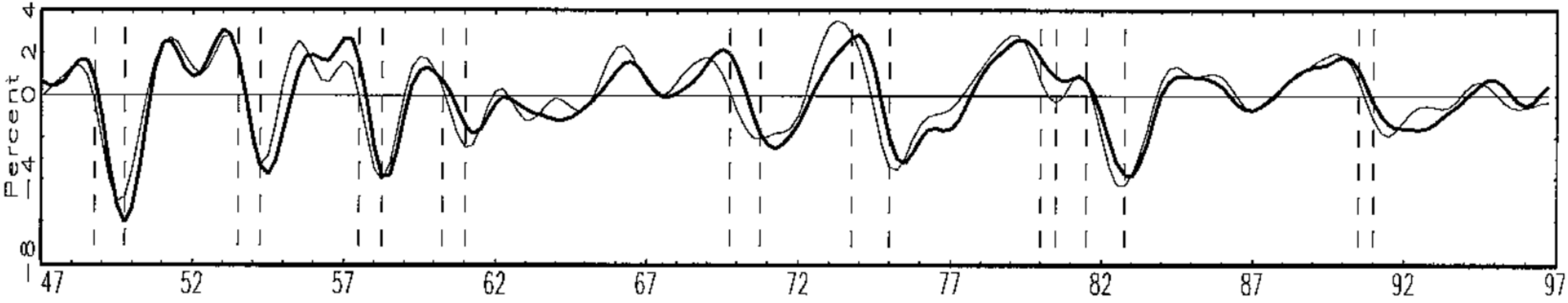

Logarithm
4.6
3.8
3.0
2.2
1.4
1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000

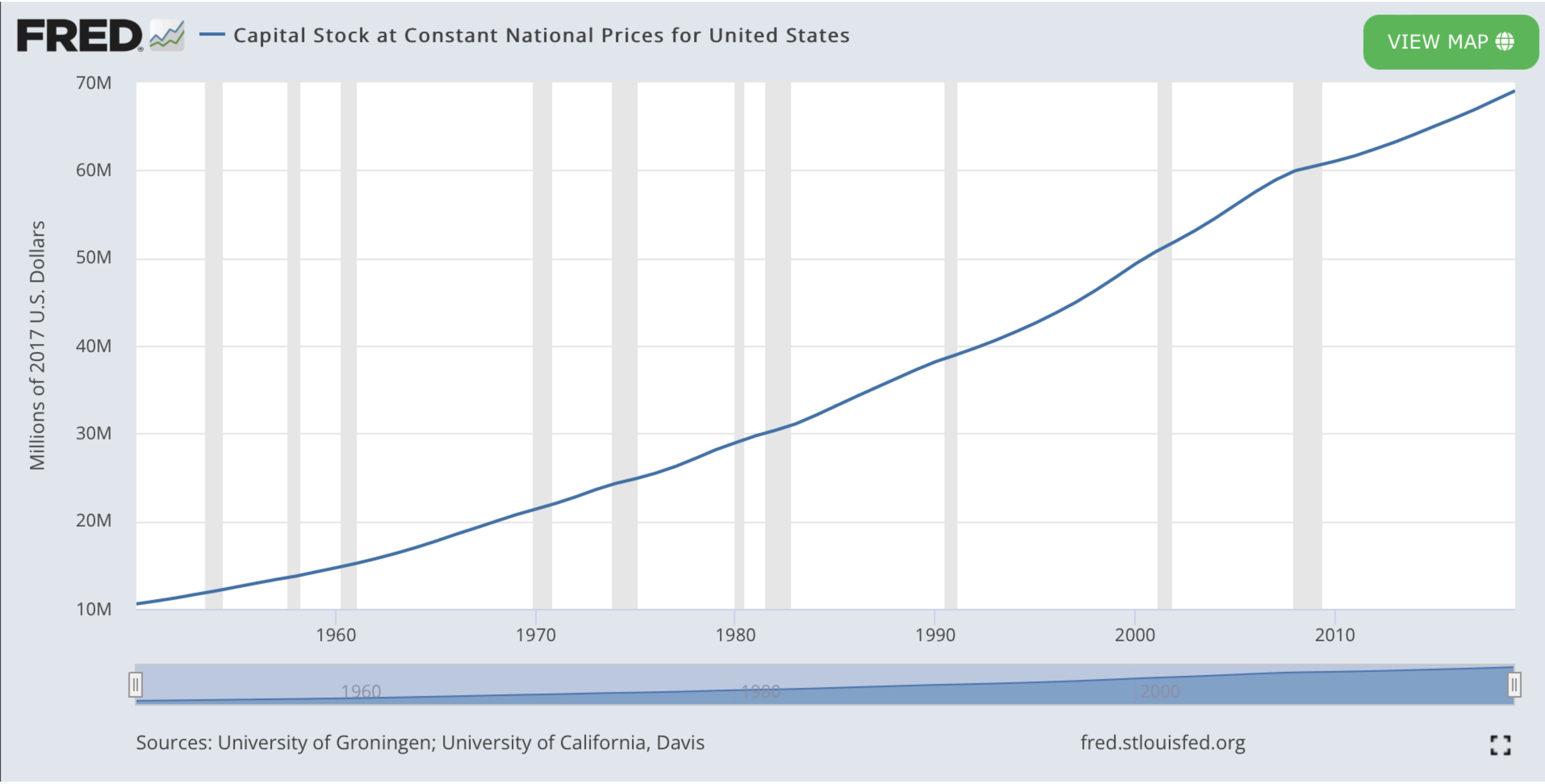

0.3
0.2
0.1
−0.1
−0.3
1920
1925
1930
1935
1940
1945
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000

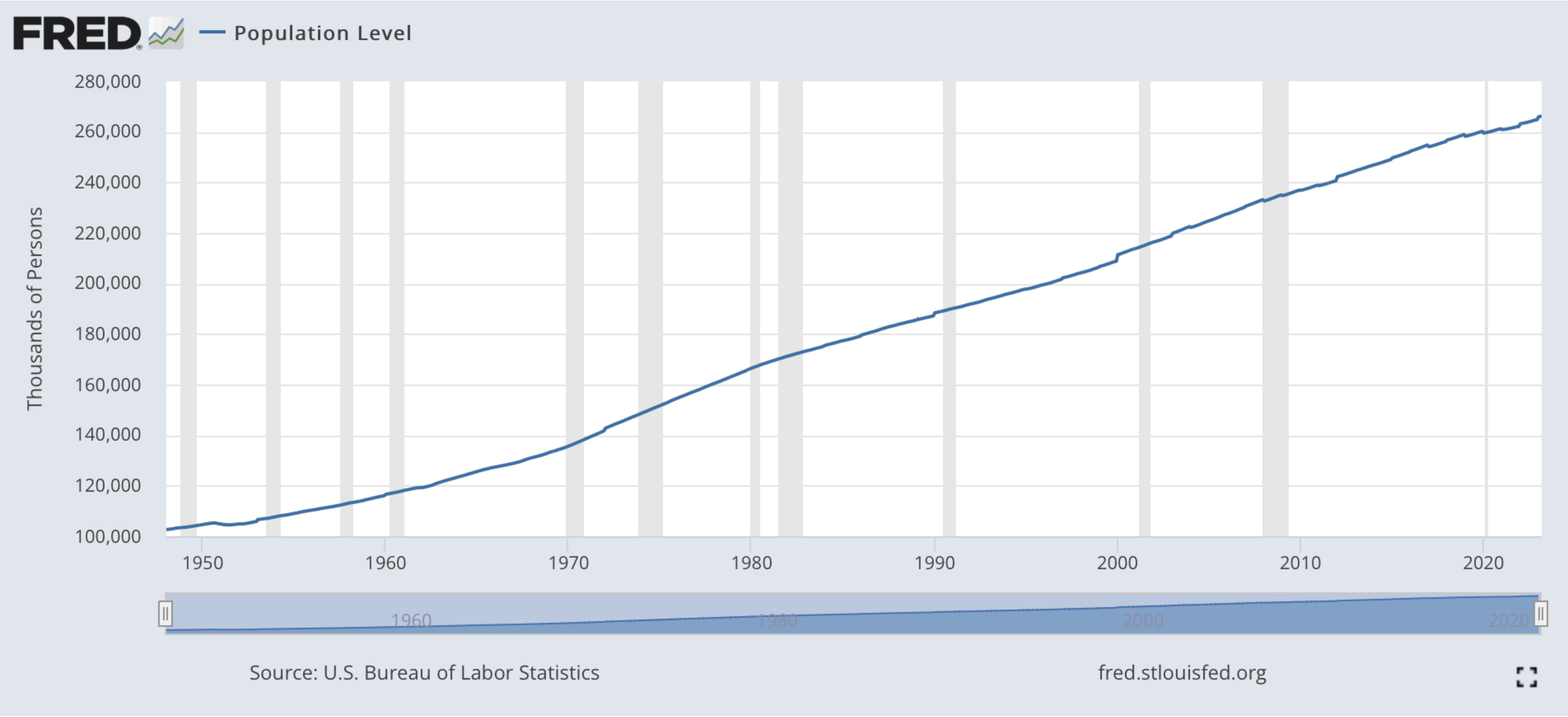

Percent
5.0
2.5
0.0
-2.5
-5.0
47
52
57
62
67
72
77
82
87
92
97

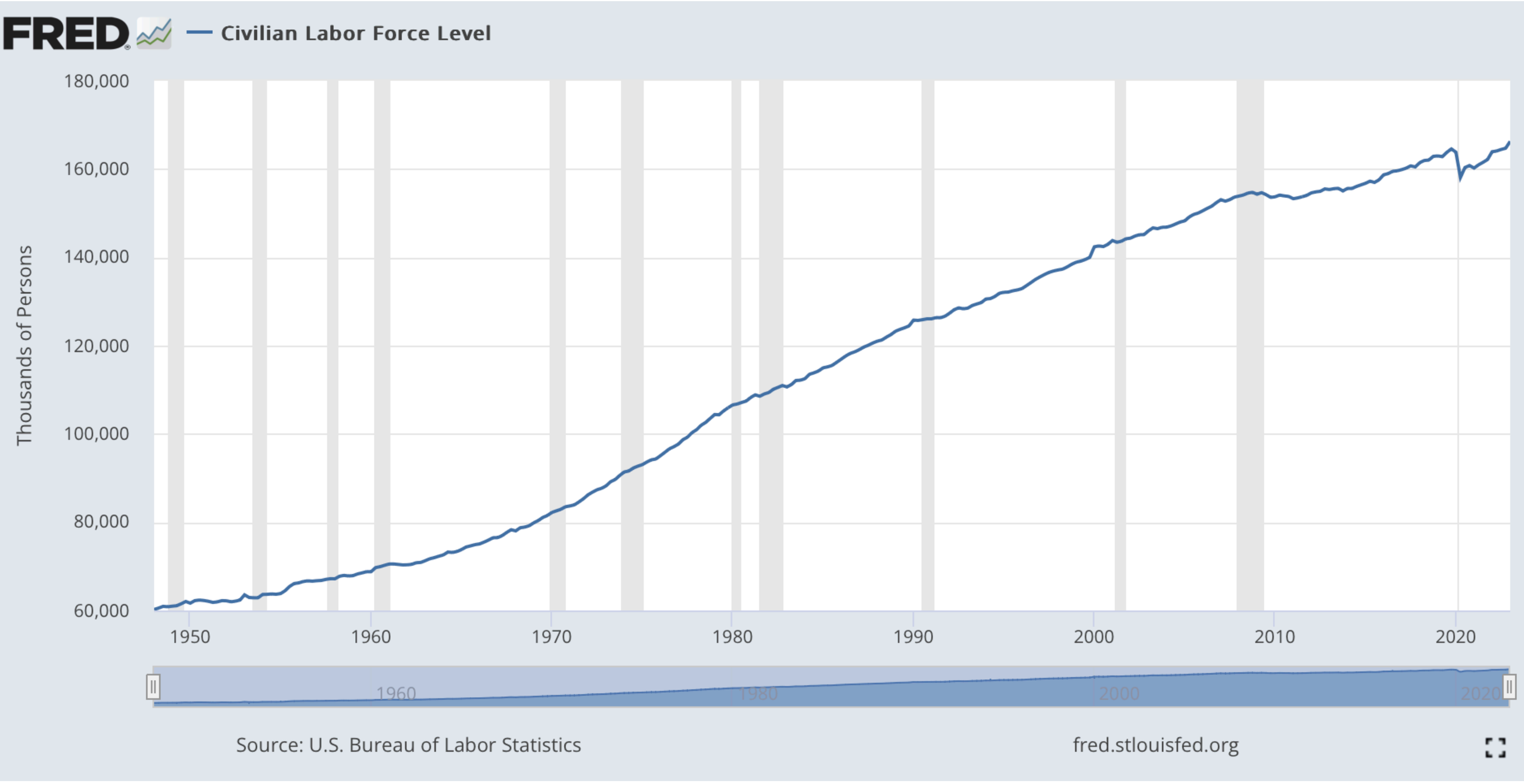

Percent
4
2
−2
−6
47
52
57
62
67
72
77
82
87
92
97

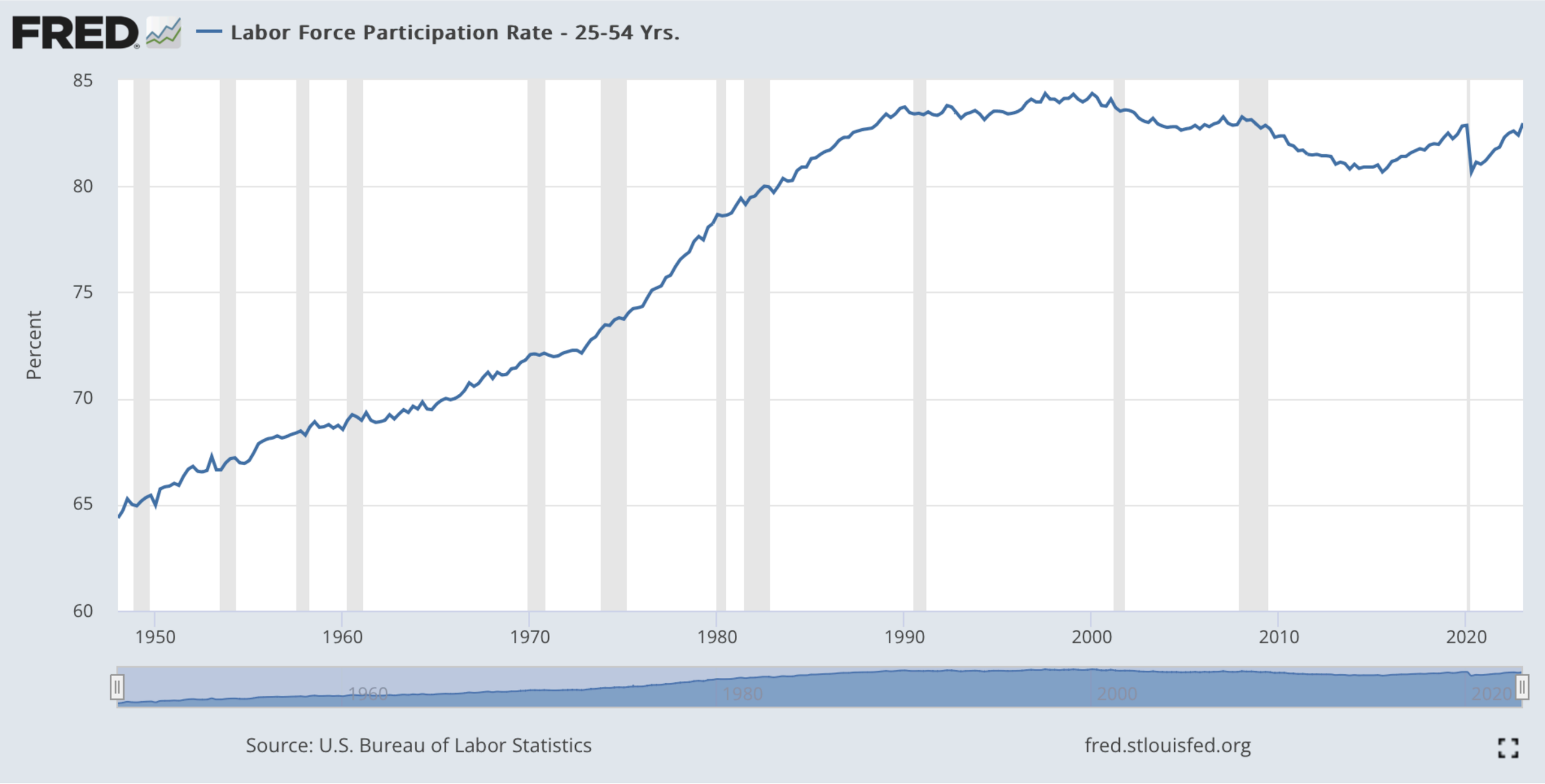

Percent
4
2
−2
−6
47
52
57
62
67
72
77
82
87
92
97

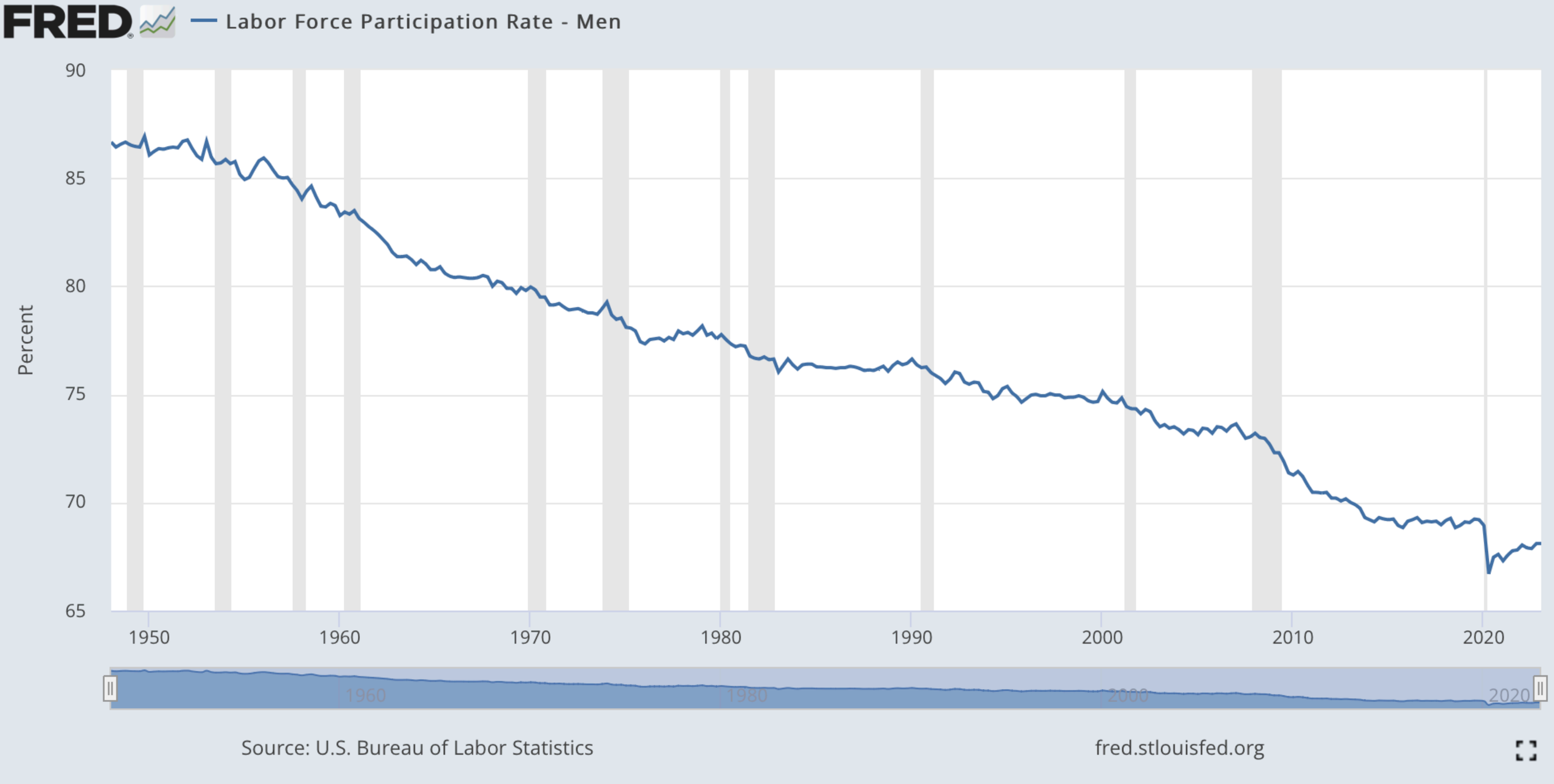

Percent
4
2
0
−4
−8
47
52
57
62
67
72
77
82
87
92
97

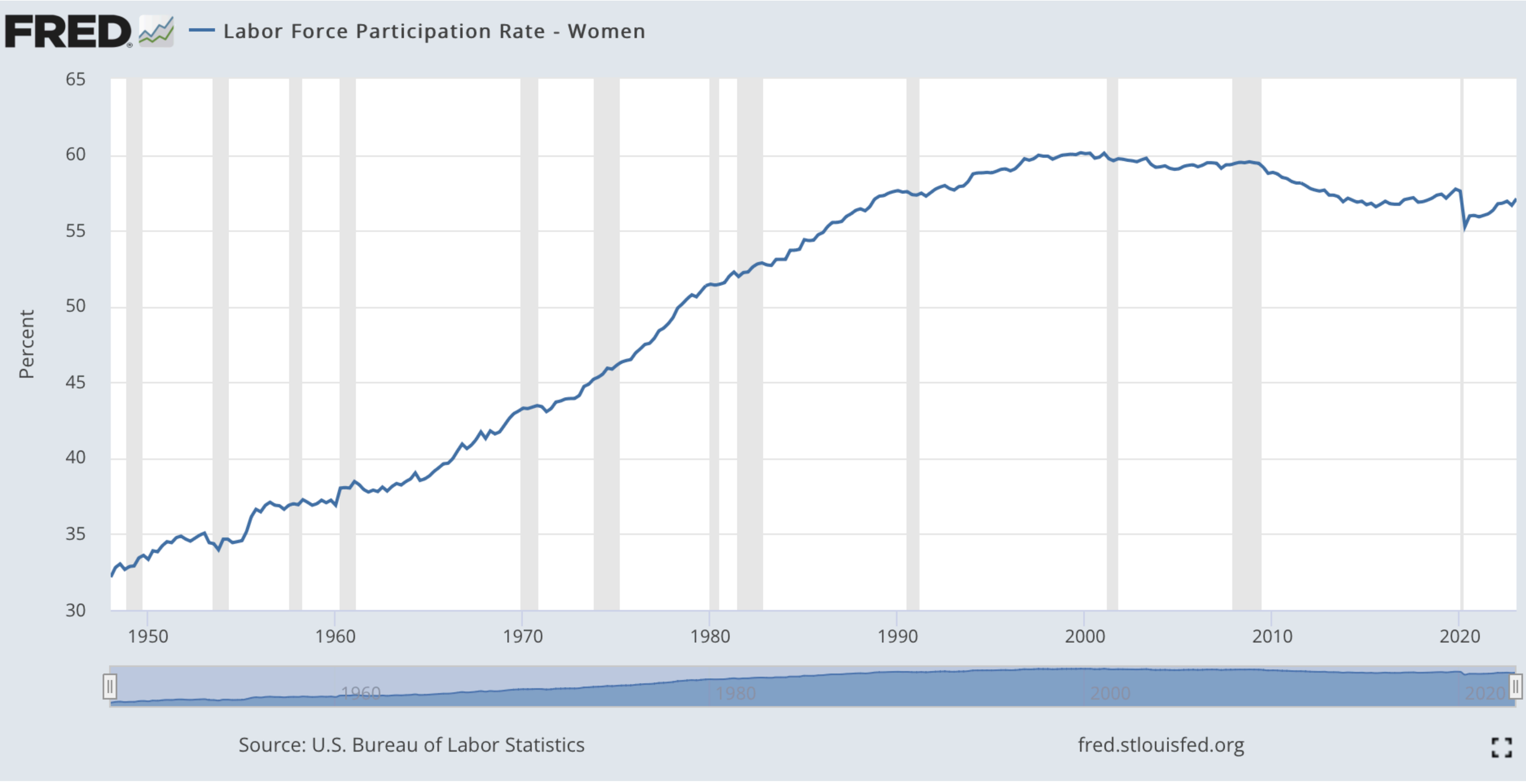

FRED
Capital Stock at Constant National Prices for United States
VIEW MAP
70M
60M
50M
40M
30M
20M
10M
Millions of 2017 U.S. Dollars
1960
1970
1980
1990
2000
2010
Sources: University of Groningen; University of California, Davis
fred.stlouisfed.org


FRED
Population Level
Thousands of Persons
280,000
260,000
240,000
220,000
200,000
180,000
160,000
140,000
120,000
100,000
1950
1960
1970
1980
1990
2000
2010
2020
Source: U.S. Bureau of Labor Statistics
fred.stlouisfed.org


FRED
Civilian Labor Force Level
Thousands of Persons
180,000
160,000
140,000
120,000
100,000
80,000
60,000
1950
1960
1970
1980
1990
2000
2010
2020
Source: U.S. Bureau of Labor Statistics
fred.stlouisfed.org


FRED
Labor Force Participation Rate - 25-54 Yrs.
Percent
85
80
75
70
65
60
1950
1960
1970
1980
1990
2000
2010
2020
Source: U.S. Bureau of Labor Statistics
fred.stlouisfed.org


FRED
Labor Force Participation Rate - Men
Percent
90
85
80
75
70
65
1950
1960
1970
1980
1990
2000
2010
2020
Source: U.S. Bureau of Labor Statistics
fred.stlouisfed.org

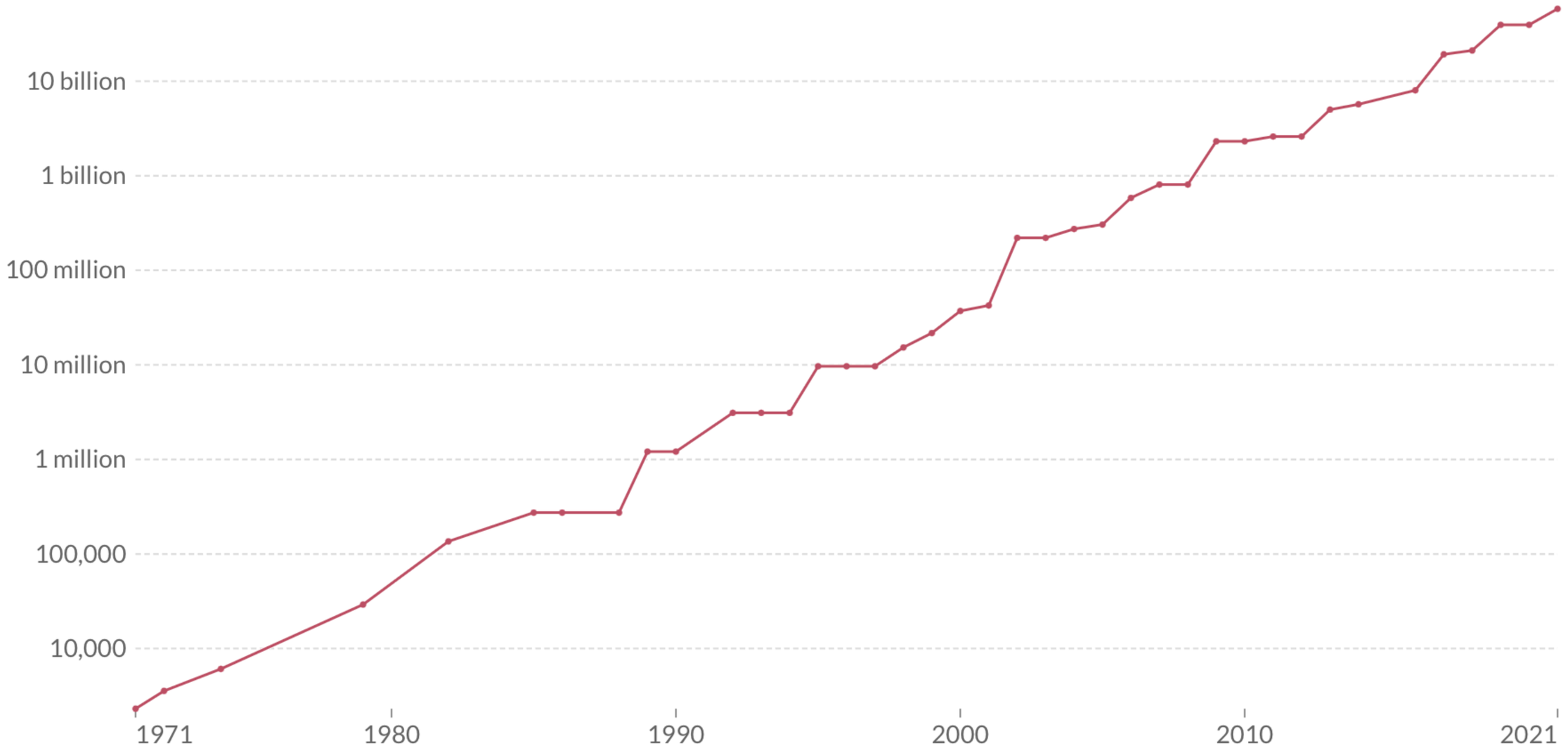

FRED
Labor Force Participation Rate - Women
Percent
65
60
55
50
45
40
35
30
1950
1960
1970
1980
1990
2000
2010
2020
Source: U.S. Bureau of Labor Statistics
fred.stlouisfed.org

Moore's law: The number of transistors per microprocessor

The number of transistors that fit into a microprocessor. The observation that the number of transistors on an integrated circuit doubles approximately every two years is called Moore's law.

Our World in Data

LINEAR LOG



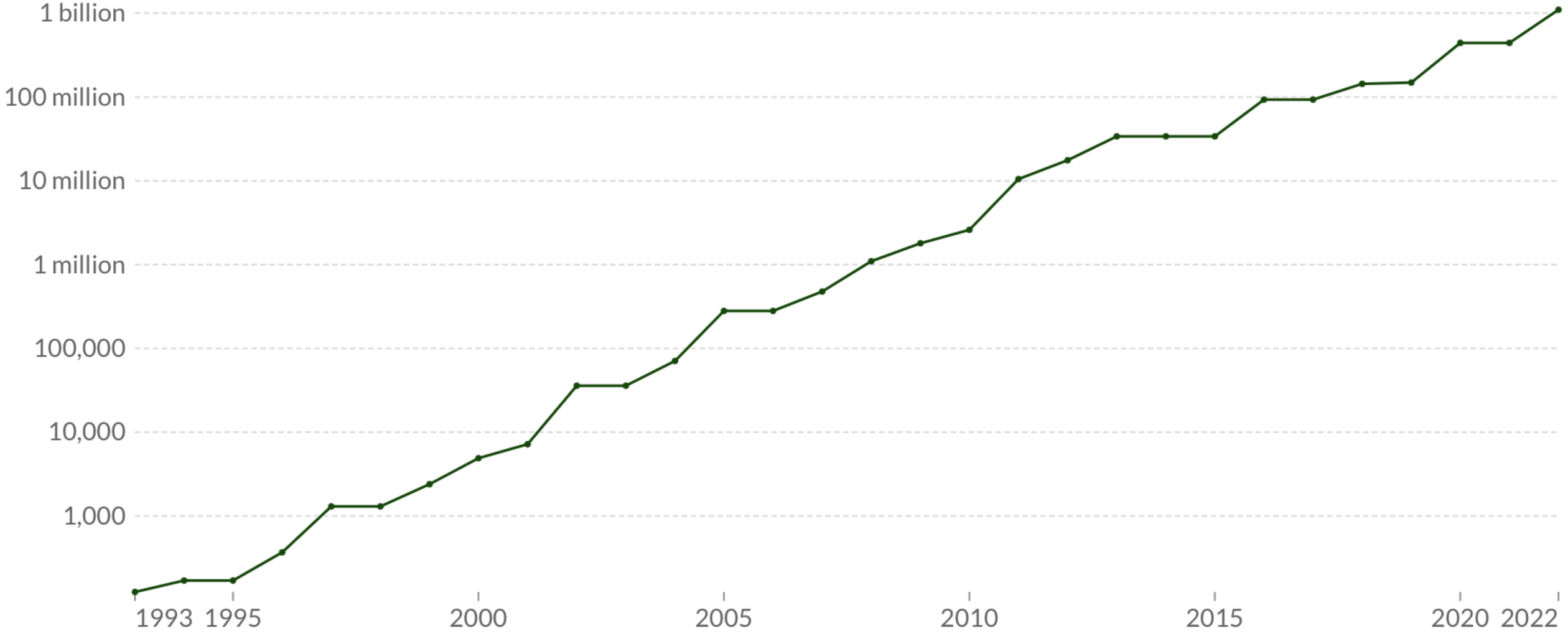
Source: Karl Rupp, Microprocessor Trend Data (2022)

Computational capacity of the fastest supercomputers

The number of floating-point operations carried out per second by the fastest supercomputer in any given year. This is expressed in gigaFLOPS, equivalent to 10^9 floating-point operations per second.

Our World in Data

LINEAR LOG



Source: TOP500 Supercomputer Database (2023)

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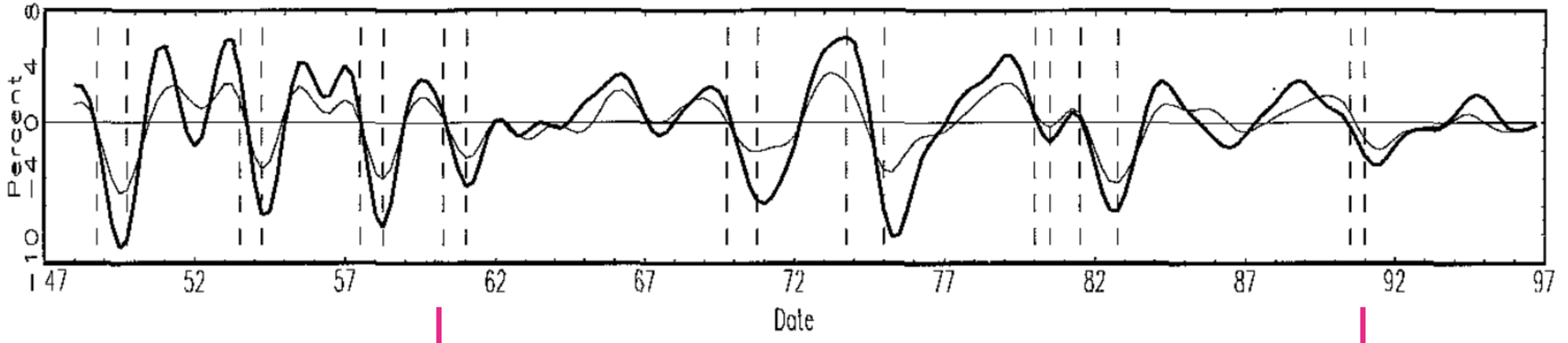


Fig. 3.31. Factor utilization in manufacturing.

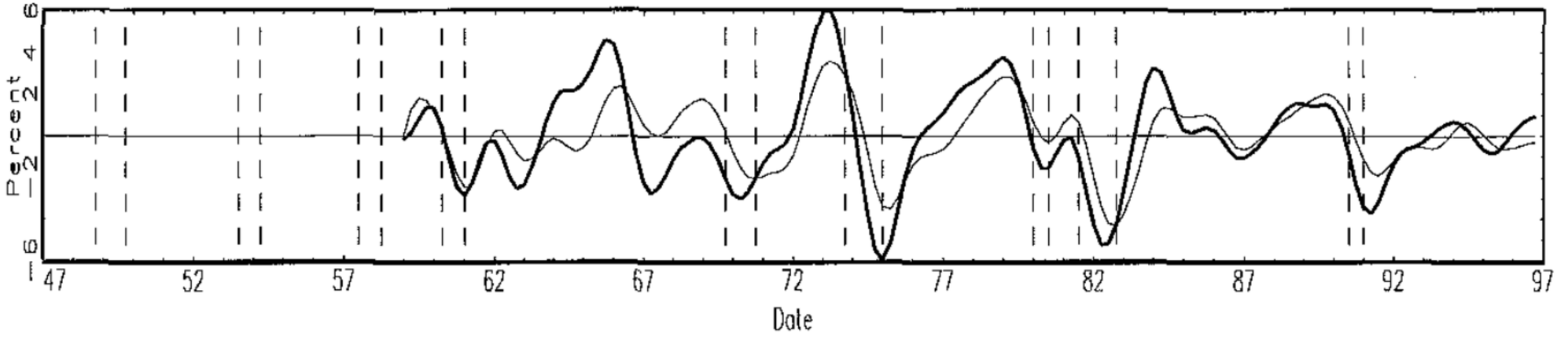
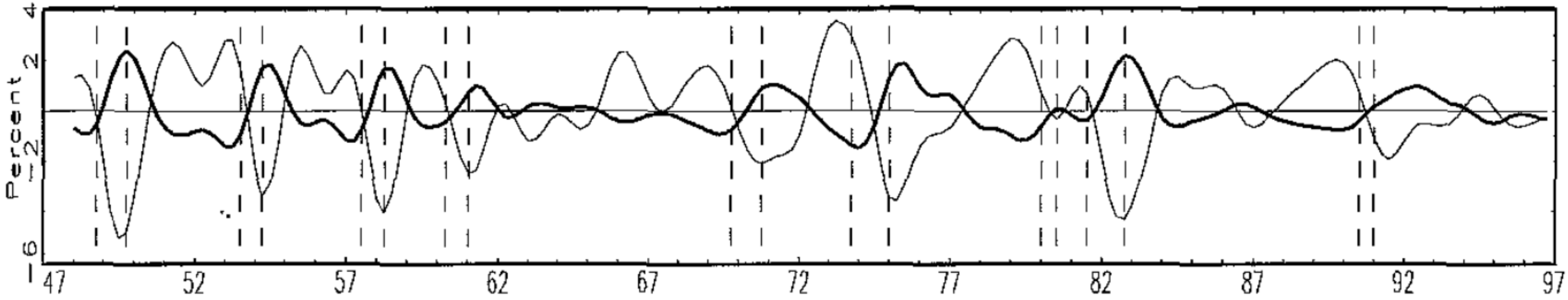
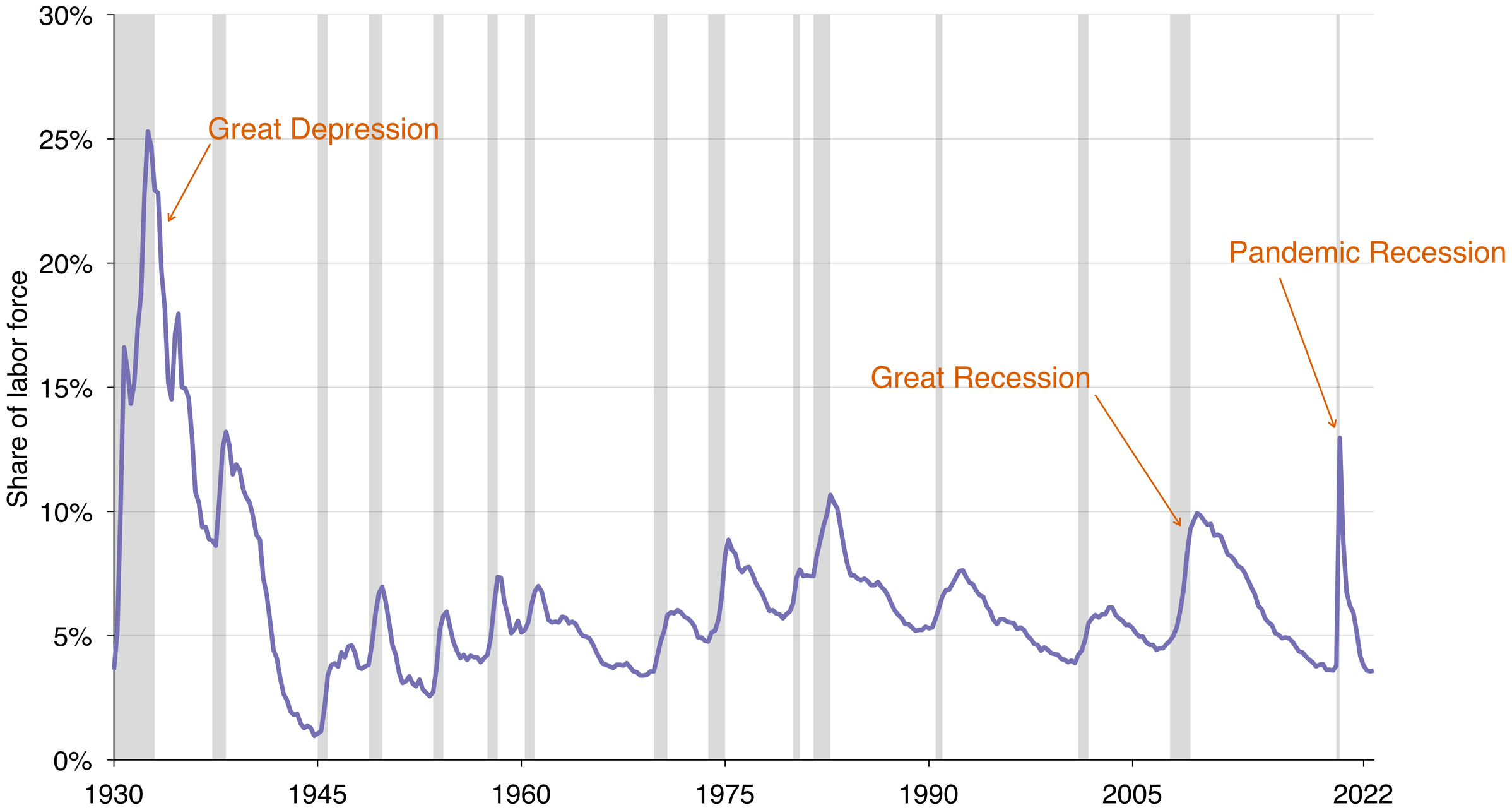
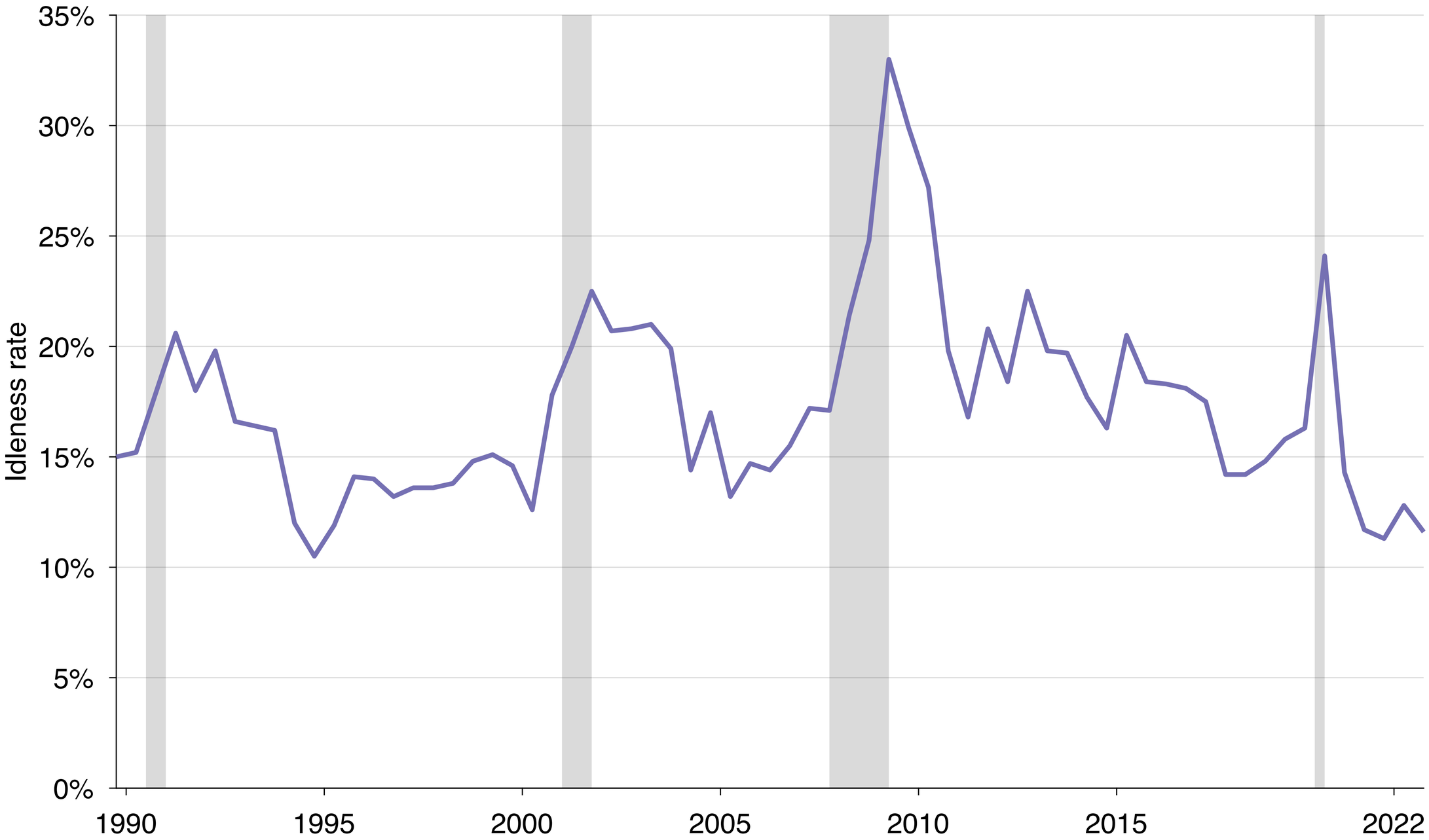
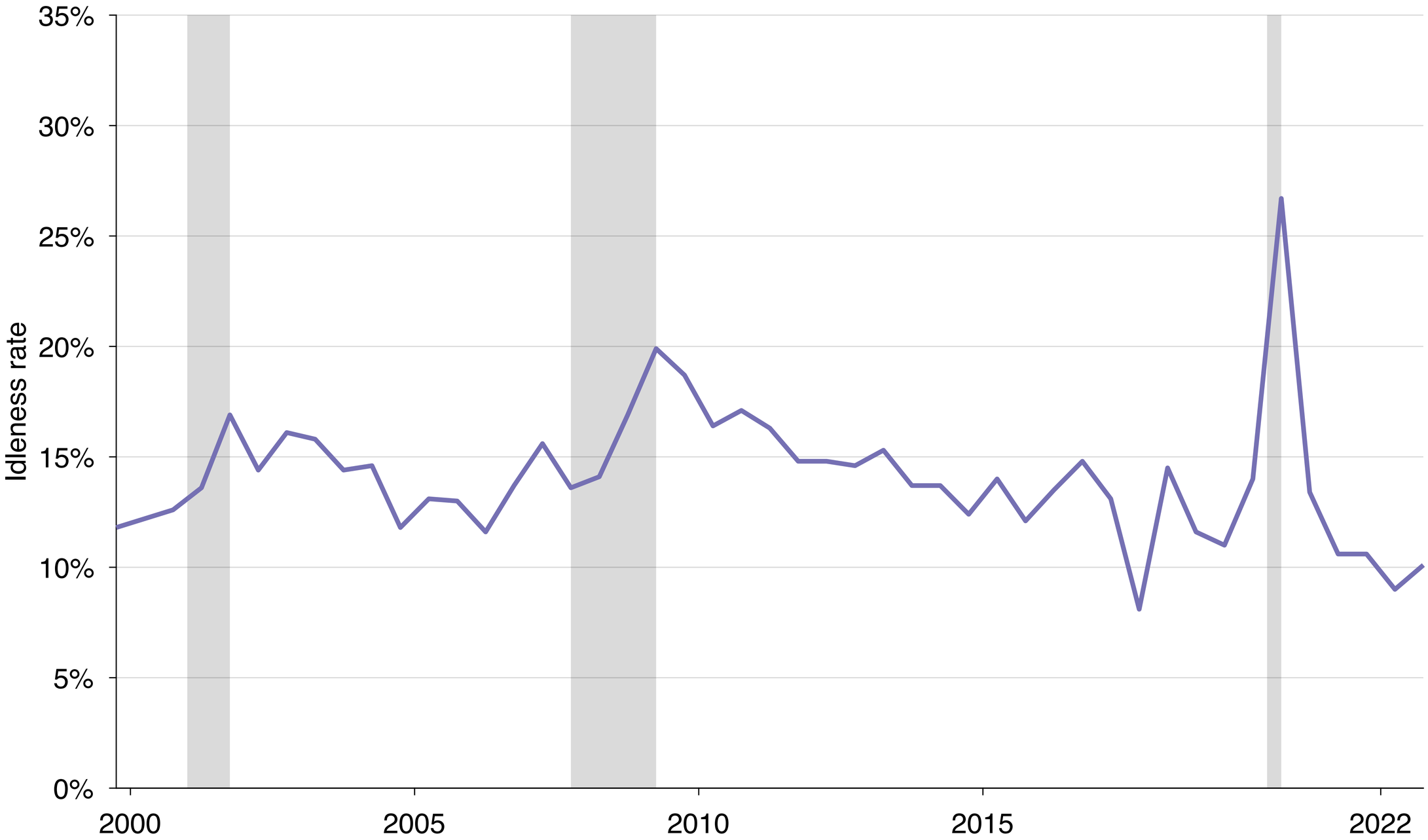


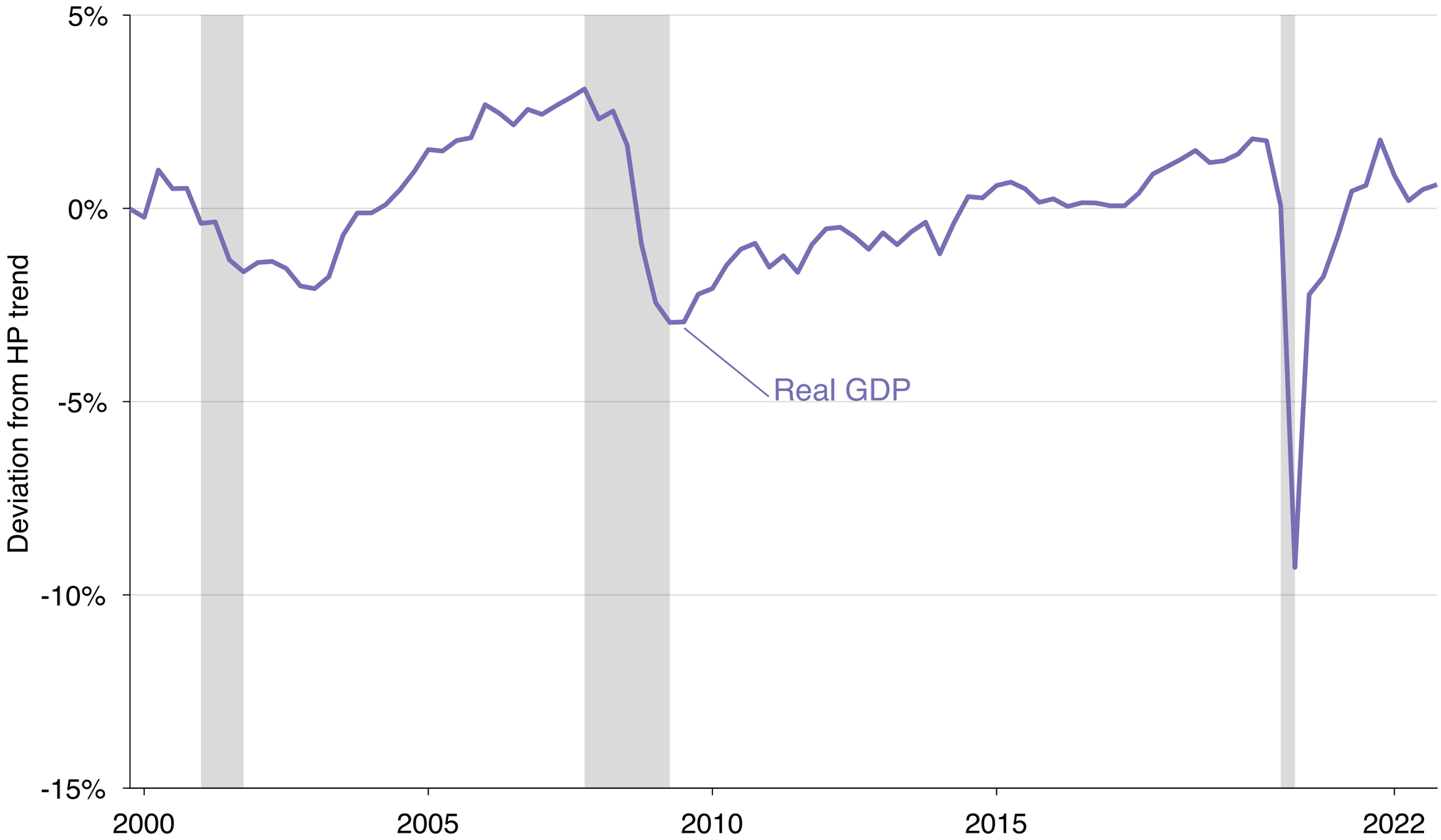
Fig. 3.32. Total factor productivity.

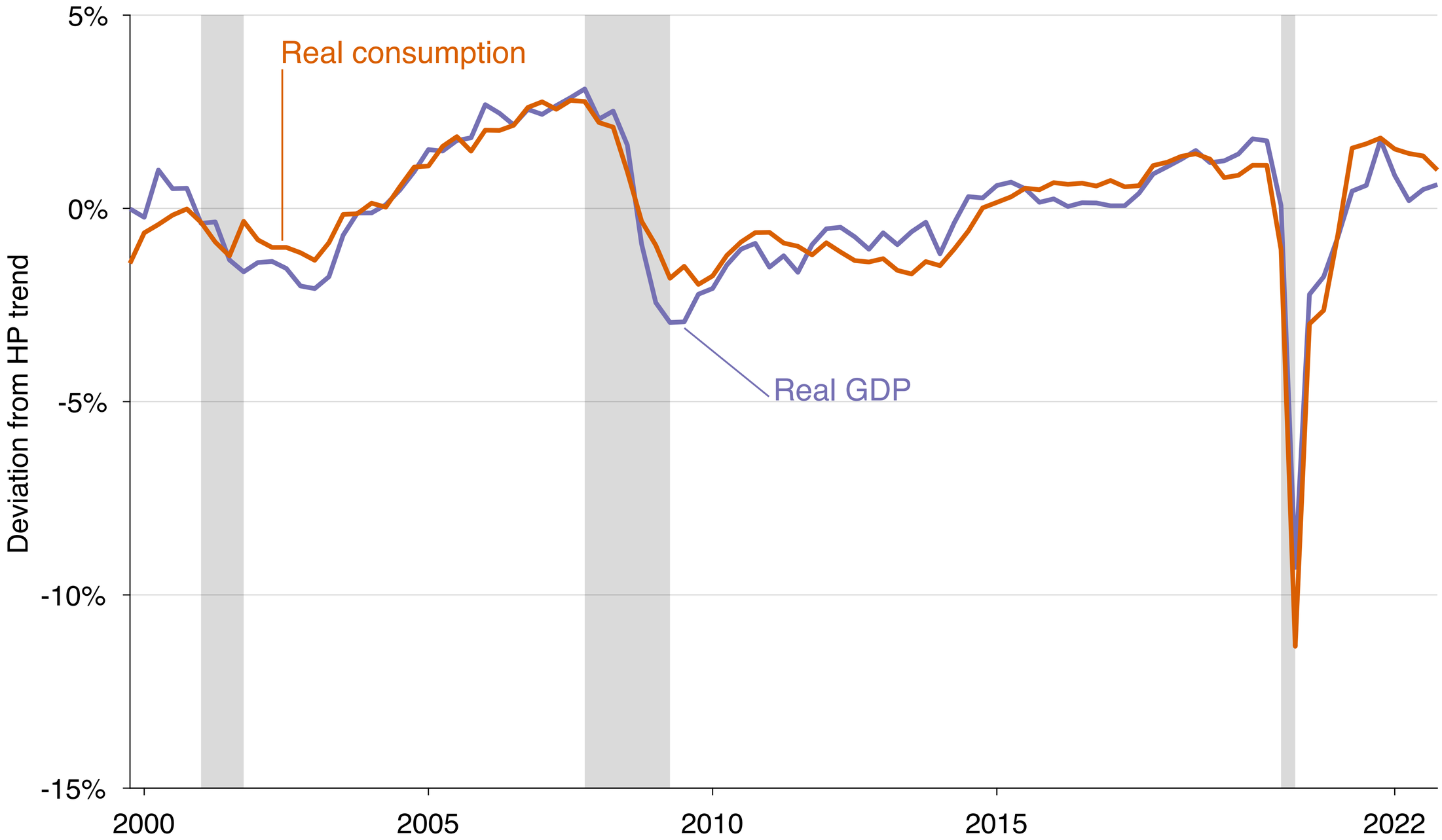

Percent
4
2
-2
-6
47
52
57
62
67
72
77
82
87
92
97

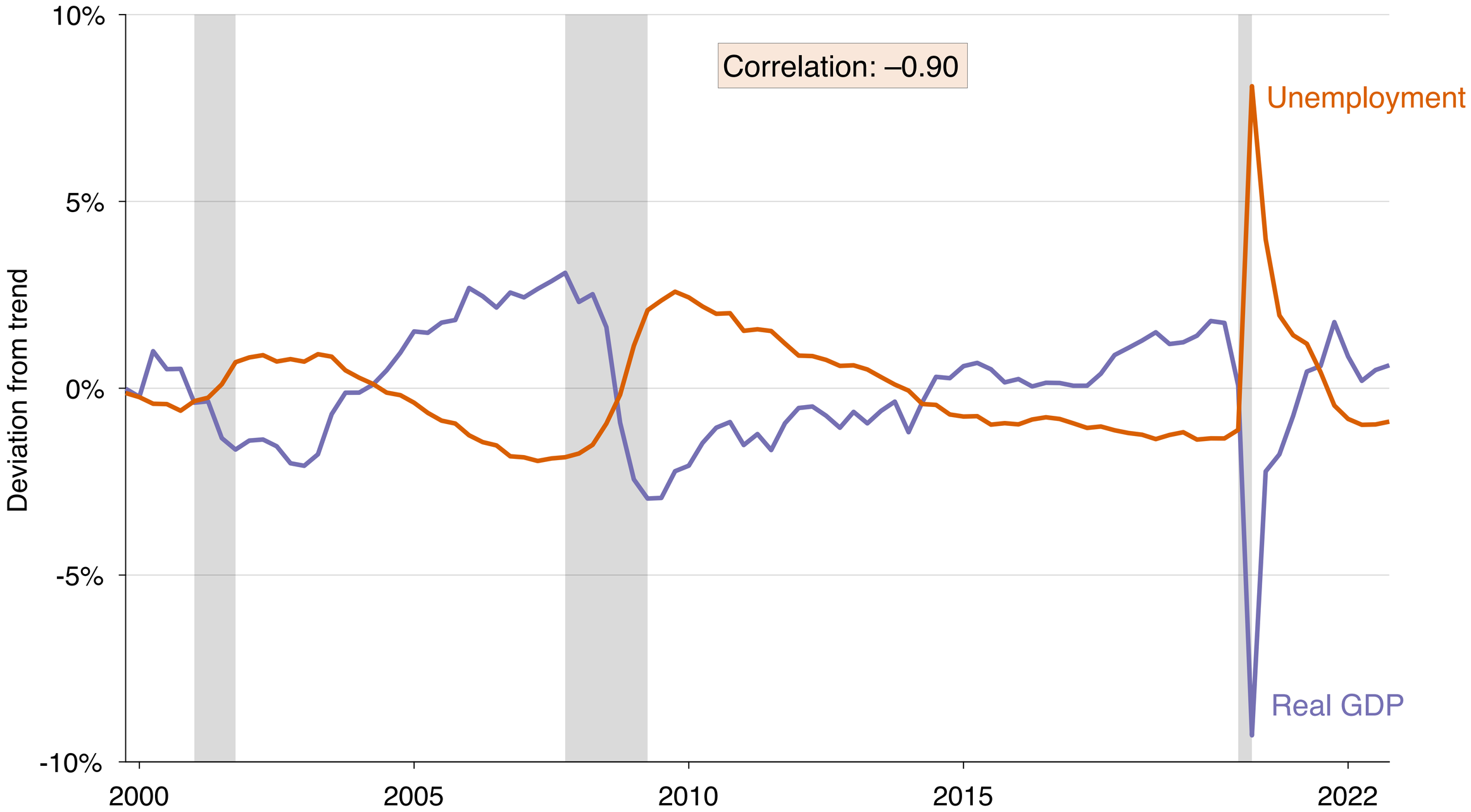

30%
25%
20%
15%
10%
5%
0%
Share of labor force
1930
1945
1960
1975
1990
2005
2022
Great Depression
Great Recession
Pandemic Recession

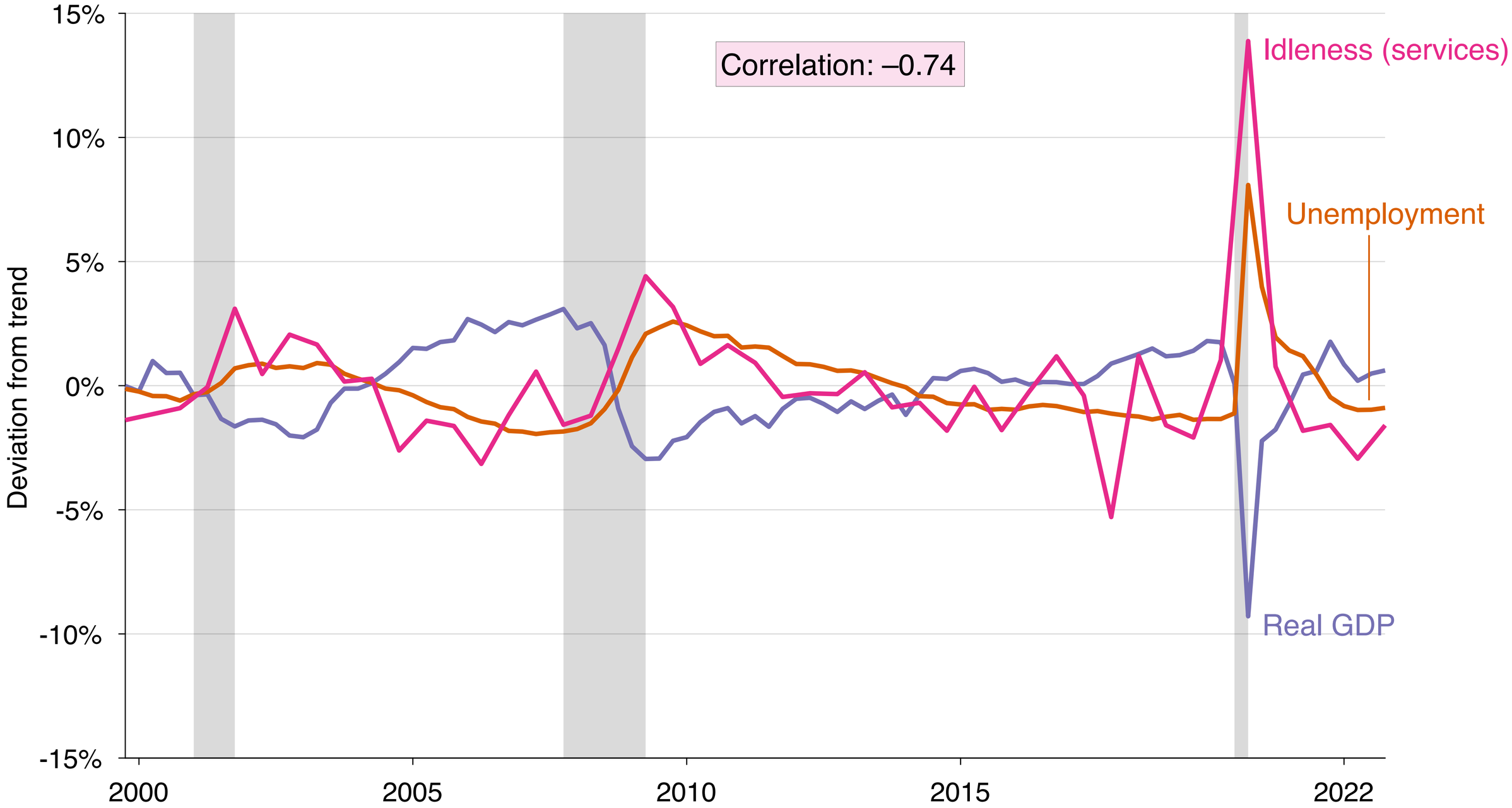

35%
30%
25%
20%
15%
10%
5%
0%
Idleness rate
1990
1995
2000
2005
2010
2015
2022

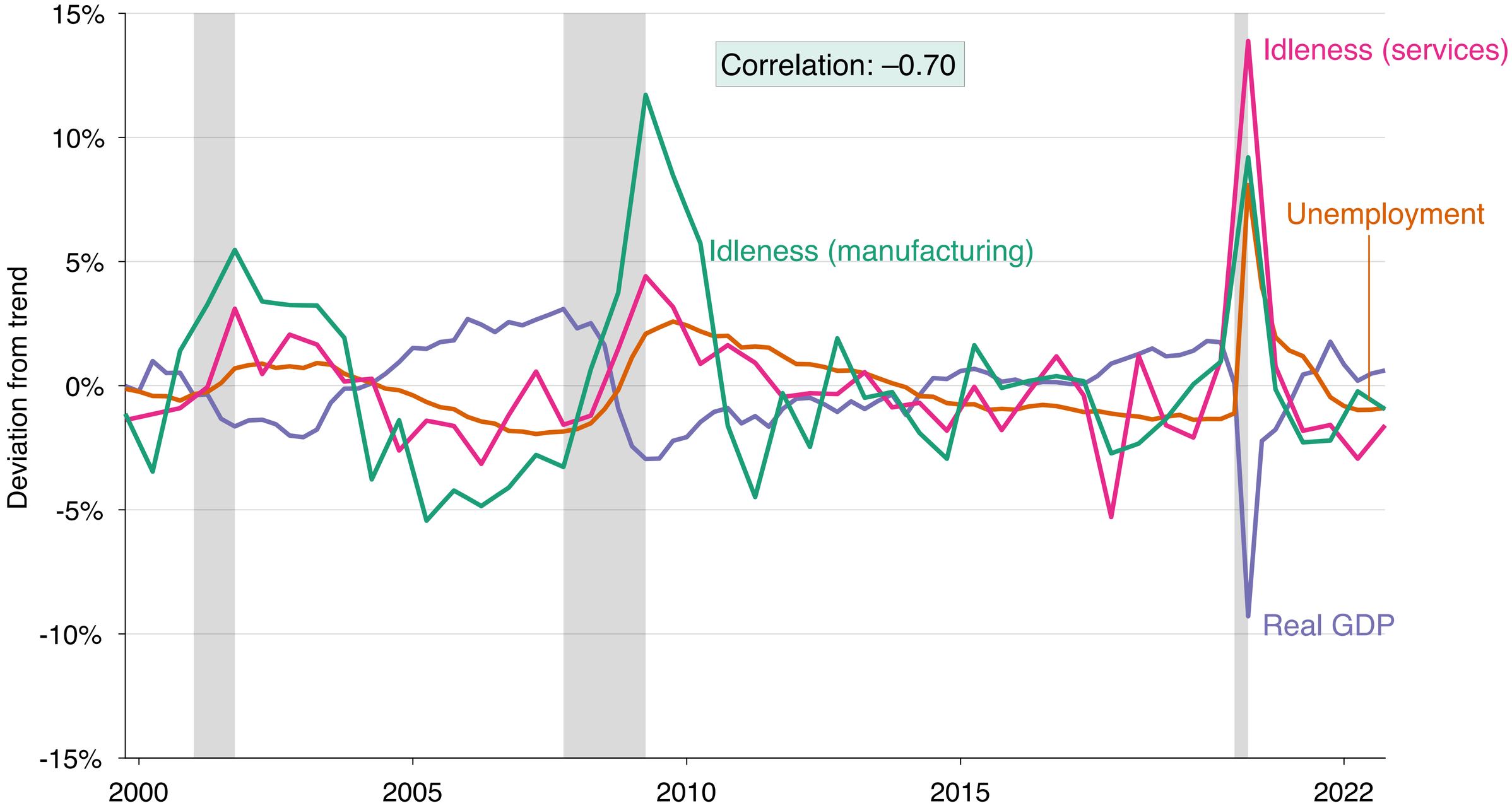

35%
30%
25%
20%
15%
10%
5%
0%
Idleness rate
2000
2005
2010
2015
2022

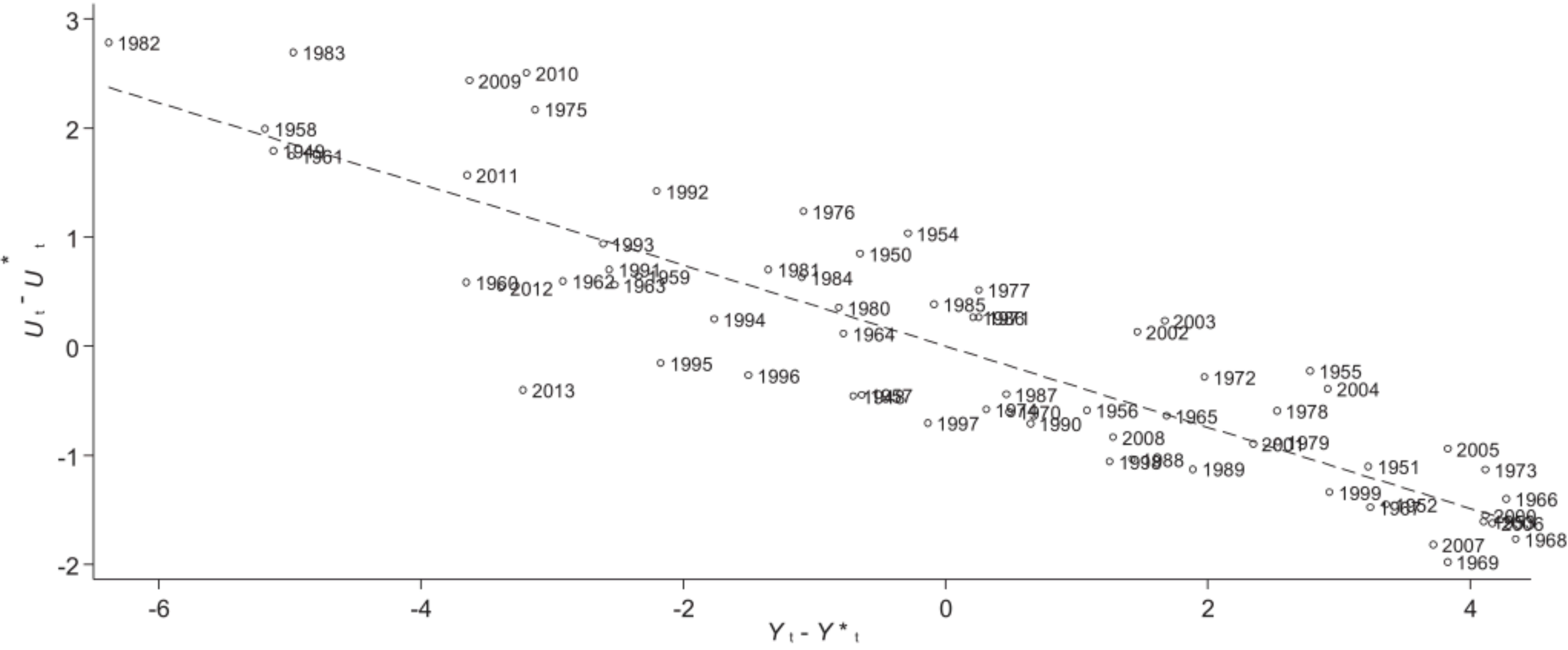

5%
0%
-5%
-10%
-15%
Deviation from HP trend
2000
2005
2010
2015
2022
Real GDP

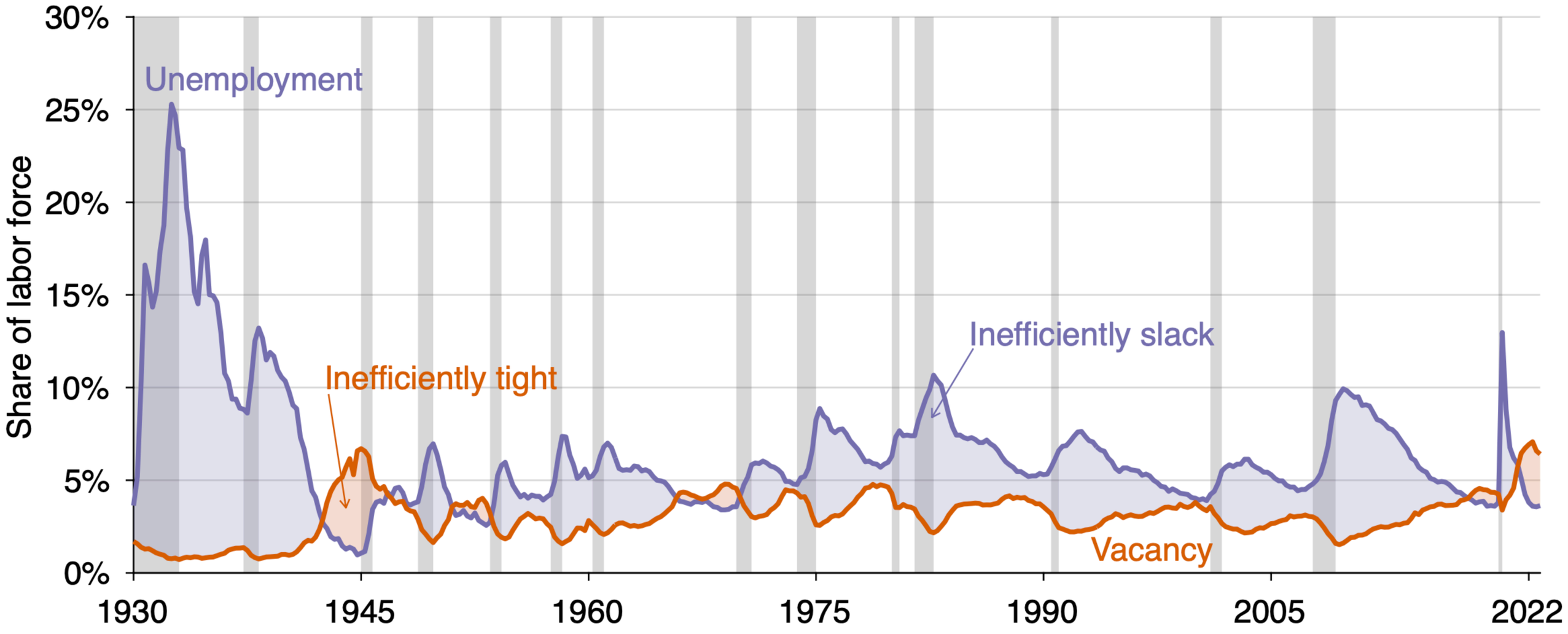

5%
0%
-5%
-10%
-15%
Deviation from HP trend
Real consumption
Real GDP
2000
2005
2010
2015
2022


10%
5%
0%
-5%
-10%
Deviation from trend
Correlation: –0.90
Unemployment
Real GDP
2000
2005
2010
2015
2022


15%
10%
5%
0%
-5%
-10%
-15%
Deviation from trend
2000
2005
2010
2015
2022
Correlation: –0.74
Idleness (services)
Unemployment
Real GDP


15%
10%
5%
0%
-5%
-10%
-15%
Deviation from trend
2000
2005
2010
2015
2022
Correlation: –0.70
Idleness (services)
Unemployment
Idleness (manufacturing)
Real GDP


3
2
1
0
-1
-2
-6
-4
-2
0
2
4
$U_t - U^*_t$
$Y_t - Y^*_t$
1982
1983
2009
2010
1975
1958
1949
1961
2011
1992
1976
1954
1993
1950
1991
1981
1984
1960
2012
1962
1963
1959
1977
1980
1985
1994
2003
2002
1964
1995
1996
1955
1972
2004
2013
1987
1956
1965
1978
1997
1990
2008
1979
2005
1989
1951
1973
1999
1966
1968
2007
1969


30%
25%
20%
15%
10%
5%
0%
Share of labor force
Unemployment
Inefficiently tight
Inefficiently slack
Vacancy
1930
1945
1960
1975
1990
2005
2022