Economic *SYNOPSES*
short essays and reports on the economic issues of the day
2013 ■ Number 11

The Macroeconomy of the U.S. States: On the Road to Recovery?

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The Federal Open Market Committee's statement on March 20[1] expressed its continuing concern that, in the absence of appropriate policy accommodation, economic growth and the unemployment rate might fail to recover to pre-recession levels. While this description captures the country's overall progress, significant differences exist across U.S. states in their individual paths to recovery. This essay compares states' economic performance in the aftermath of the housing crisis. One could argue that comparing the economic evolution across states may not provide a useful benchmark of analysis. Aside from the geographical and demographic distinctions, each state specializes in different types of economic activities and its sources of income can vary widely from those of other states. Some activities may have fared better than others during the recent recession. Nevertheless, the regional variation provides a perspective on the relative economic performance of different states: Some states could be responding very well to the accommodative monetary policy, whereas others might need different policy actions.

To compare the macroeconomic performance of U.S. states, the essay's only focus is the evolution of the real per capita personal income and all-industry real per capita gross domestic product (GDP)[2] as measured by the National Bureau of Economic Analysis. Each variable is adjusted by dividing by the civilian noninstitutional population in the state. These two measures are different because income considers all sources of income (mainly wages/salaries and proprietors' income) not necessarily earned in the state, whereas GDP measures the value of goods and services produced in the state.

Recoveries from economic recessions that include large declines in home values—as in the most recent recession—are generally slow and weak; they often are attributed to negative wealth effects associated with housing. House price data for states during the recent recession can be used to determine whether improvements in home values are a necessary condition for a state's recovery. Here I use state-level house price data from the Federal Housing Finance Agency (FHFA)[3] for this analysis. The table separates the data for each variable into two distinct episodes: the Great Recession (2008:Q1–2009:Q2) and the recovery (2009:Q2–2012:Q3).

Despite the recent recovery in house prices, most state economies have yet to recover from the Great Recession.

For house prices, the first episode considers the state peak of house prices and the official end of the recession (2009:Q2), whereas the second episode includes the end of 2012. For each variable, the analysis considers the percentage change between the start and the end of the period in both episodes. The last column for each variable measures the percentage change between the initial level and the last observation. Consider, for example, the entire United States; during the Great Recession, real per capita income changed from 100 (a normalized value) to 93.9—that is, a 6.1 percent decline. After the recession, the level of income increased to 96.7—or by 3.0 percent. Since the economy has to recover from a lower per capita income level, an income growth of more than 6.1 percent is required for a full recovery.

How has the general population been affected by these changes? U.S. citizens have lost about 3.3 percent of their income since the start of the recession. In some cases, analyzing economic activity yields less pessimistic outcomes. For the nation overall, the level of real GDP fell by 4.2 percent during the recession but grew by 3.0 percent during the recovery. The current deficit is only 1.4 percent, which is substantially lower than the overall loss of income. As the table shows, these numbers vary significantly across states. With few exceptions, the measures of income, economic activity, and house prices are below 2008 levels in most states. Weak income growth, mainly driven by high

State-Level Income, GDP, and House Price Index (HPI)

	Real per capita income change (%)			Real per capita GDP change (%)			HPI (FHFA) change (%)		
State	08:Q1–09:Q2	09:Q2–12:Q3	08:Q1–12:Q3	08–09	09–12	08–11	Peak–09:Q2	09:Q2–12:Q4	Peak–12:Q4
United States	–6.1	3.0	–3.3	–4.2	3.0	–1.4	–9.5	–7.2	–16.0
Alabama	–4.5	3.0	–1.7	–4.8	–1.4	–6.1	0.1	–7.6	–7.5
Alaska	–4.1	1.6	–2.5	–11.7	6.0	–6.4	–1.6	2.1	0.4
Arizona	–7.9	0.0	–7.9	–8.3	2.3	–6.2	–27.9	–15.9	–39.3
Arkansas	–3.6	3.0	–0.7	–3.1	1.2	–1.9	–1.2	–3.2	–4.4
California	–7.1	2.0	–5.3	–5.8	–0.2	–5.9	–33.5	–4.7	–36.7
Colorado	–7.6	2.7	–5.2	–5.8	2.2	–3.7	–1.8	–3.2	–4.9
Connecticut	–8.5	4.2	–4.7	–4.2	1.2	–3.1	–9.5	–8.5	–17.2
DC	–3.2	1.4	–1.8	–1.1	–0.2	–1.2	–10.8	7.6	–4.1
Delaware	–5.0	1.9	–3.2	1.7	1.8	3.5	–8.1	–11.7	–18.9
Florida	–8.7	1.9	–6.9	–4.5	–3.9	–8.2	–29.3	–17.4	–41.6
Georgia	–6.3	1.2	–5.1	–5.4	2.3	–3.2	–4.6	–17.5	–21.2
Hawaii	–2.9	2.4	–0.5	–4.1	–6.2	–10.1	–12.2	–3.0	–14.8
Idaho	–8.4	2.3	–6.3	–4.8	1.6	–3.3	–7.2	–15.9	–22.0
Illinois	–7.0	2.9	–4.3	–2.9	3.3	0.3	–8.9	–10.7	–18.7
Indiana	–5.5	4.9	–0.9	–5.5	5.2	–0.5	–1.5	–2.8	–4.2
Iowa	–4.4	7.2	2.4	–2.0	6.2	4.0	0.3	1.1	1.4
Kansas	–6.2	2.2	–4.1	–3.9	2.4	–1.6	–0.3	–1.7	–2.0
Kentucky	–2.2	3.0	0.7	–2.5	3.6	1.0	–0.2	–1.2	–1.4
Louisiana	–4.3	2.6	–1.8	–7.3	15.4	7.0	0.2	–0.3	–0.1
Maine	–1.1	3.3	2.1	0.2	–2.0	–1.7	–5.0	–6.6	–11.2
Maryland	–2.9	2.1	–0.8	–0.9	–1.0	–1.9	–15.6	–9.2	–23.3
Massachusetts	–5.0	3.0	–2.2	–2.2	4.0	1.7	–12.7	–2.8	–15.1
Michigan	–5.9	5.3	–0.9	–5.7	6.4	0.3	–16.8	–9.3	–24.6
Minnesota	–7.0	5.2	–2.2	–3.4	4.0	0.4	–9.6	–10.0	–18.6
Mississippi	–2.4	2.9	0.5	–4.8	0.5	–4.3	–1.9	–5.7	–7.4
Missouri	–4.1	1.2	–3.0	–3.2	0.7	–2.5	–3.0	–5.7	–8.6
Montana	–6.3	5.4	–1.2	–4.4	2.8	–1.7	–0.9	–4.7	–5.6
Nebraska	–6.2	6.3	–0.3	–0.9	3.0	2.1	–0.4	0.6	0.2
Nevada	–11.9	–2.9	–14.5	–7.5	–3.5	–10.8	–36.6	–26.1	–53.1
New Hampshire	–5.2	4.4	–1.0	–0.6	4.0	3.3	–10.9	–8.5	–18.5
New Jersey	–6.3	1.7	–4.7	–3.9	–2.3	–6.1	–11.7	–9.8	–20.4
New Mexico	–3.6	1.6	–2.1	–5.0	–1.6	–6.5	–5.1	–9.5	–14.1
New York	–6.7	3.4	–3.5	–2.1	3.5	1.4	–6.6	–6.2	–12.4
North Carolina	–5.4	0.8	–4.6	–1.3	–0.7	–2.0	–0.9	–9.3	–10.2
North Dakota	–5.1	21.4	15.2	–1.1	15.0	13.7	3.4	15.5	19.5
Ohio	–4.2	5.6	1.2	–4.2	3.2	–1.1	–4.7	–6.2	–10.6
Oklahoma	–9.0	6.5	–3.0	–10.0	3.0	–7.3	1.4	0.3	1.7
Oregon	–6.3	3.0	–3.5	–4.0	7.6	3.3	–10.8	–12.7	–22.2
Pennsylvania	–3.5	3.8	0.2	–2.7	2.3	–0.5	–2.5	–4.9	–7.3
Rhode Island	–3.9	4.0	–0.1	–0.2	1.3	1.1	–17.0	–10.6	–25.8
South Carolina	–5.1	1.8	–3.4	–3.9	–1.3	–5.1	–1.0	–9.9	–10.8
South Dakota	–7.7	7.8	–0.5	–2.5	3.6	1.0	2.5	2.1	4.7
Tennessee	–4.6	4.5	–0.3	–3.0	2.9	–0.2	–0.8	–5.5	–6.3
Texas	–7.8	5.3	–2.9	–9.2	6.8	–3.0	1.7	0.1	1.9
Utah	–7.0	1.1	–6.0	–4.1	6.0	1.7	–9.3	–9.0	–17.4
Vermont	–2.8	5.6	2.6	–2.1	2.6	0.4	–2.1	–0.5	–2.6
Virginia	–4.0	2.1	–2.0	–0.3	–1.7	–2.0	–9.4	–6.0	–14.8
Washington	–5.8	1.5	–4.4	–3.0	0.7	–2.4	–10.5	–12.7	–21.8
West Virginia	0.9	4.1	5.0	1.2	6.0	7.2	–1.3	–2.5	–3.7
Wisconsin	–3.7	3.1	–0.7	–1.7	3.4	1.7	–3.3	–6.3	–9.3
Wyoming	–12.7	7.9	–5.9	–14.4	1.7	–12.9	0.1	–2.7	–2.6

unemployment, could be a key determinant in the current decline of house prices as highlighted by the economic performance of the Sunbelt states (i.e., Arizona, California, Florida, and Nevada). In these states, house prices declined more than 36 percent, and income and GDP are still far from 2008 levels. While these states appear to be the anomaly, the general pattern in the data reveals a positive correlation between income or GDP and house prices (see the charts). Despite the recent recovery in house prices, most state economies have yet to recover from the Great Recession. ■

Notes

[1] Federal Open Market Committee statements can be found at http://www.federalreserve.gov/newsevents/press/monetary/20130320a.htm.

[2] Data for state-level GDP are available at an annual frequency; the last data observation is 2011.

[3] The FHFA House Price Index (HPI) is published by the FHFA using data provided by the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac). The index is a weighted repeat-sales index; it measures average price changes in repeat sales or refinancings of the same single-family properties.

Changes in Income and GDP Versus House Price Index (2008:Q1–2012:Q4)