

# Consumption in the Great Recession

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## KEY FINDINGS

- With the recession, disposable income first rose and then, starting in the third quarter of 2008, fell precipitously. The falloff in disposable income was delayed because government transfers to households increased by 18.6% from the last quarter of 2007 to the last quarter of 2009.
- Unlike prior recessions, the Great Recession is characterized by a decline in all consumption components, including nondurables. The Great Recession is also noteworthy because, unlike the five prior recessions, consumption remained below the pre-recession level even 15 quarters after the start of the recession.
- After the recession formally ended, the Index of Consumer Sentiment recovered sharply for the top income quartile, but not for the bottom income quartile.

The particular trauma of severe downturns is that declining consumer spending, itself a reaction to the economy's contraction, also undermines the prospects for recovery. Consumption is, in other words, a fundamental determinant of business cycles—a kind of litmus test of economic health. But it's not just an important determinant of future economic performance. We also look to consumption as an omnibus measure of the set of socioeconomic conditions that underlie consumer behavior, such as job opportunities, price fluctuations, access to credit, and financial security. In this recession brief, we offer an interpretation of recent consumption data in order to determine the extent of the economic damage and its unequal distribution across the American populace.

We focus on the peculiar, striking, and even idiosyncratic features of consumption in the Great Recession, features that may assist us in understanding what makes the Great Recession indeed so “great.” We discuss five distinctive features that, taken together, allow us to achieve some insight into the staying power of the current downturn.

1. First, we explore the relationship between disposable income and consumption, with the key question being whether the increase in government transfers during the early period of the recession worked to temper the decline in consumption.

2. Next, we ask whether the decline in consumption was an across-the-board affair or, alternatively, was concentrated in the durables sector. The 2001 recession was shallow in the sense that only spending on durables

declined. To what extent is the current downturn in consumption more widespread?

3. We then consider the trendline in consumption over the course of the Great Recession as well as prior recessions. Has consumption remained depressed in the current downturn for a substantially longer time period than in prior downturns? Is there any evidence of a pickup in services spending? Because a rapid and substantial increase in services spending was an important force behind prior recoveries, we're naturally interested in whether there's any hint of rising service spending now.

4. Fourth, we ask whether there's greatly increased insecurity about the future, as the decline in consumption may be partly driven by individual perceptions that prospects for employment and income have deteriorated. Because prudent consumers will respond to increased uncertainty by delaying consumption, an economic crisis can become a self-fulfilling prophecy. We ask how important such uncertainty is in the present downturn.

5. Finally, we examine how individuals perceive their economic situation, distinguishing in particular between worries about growing debt, a loss of wealth, and a loss of work. Does most everyone view themselves as worse off in some way? Or do some sectors of the population view themselves as relatively protected from economic problems?

The theme of this piece is that the Great Recession is distinctive because, for each of the five questions above, the answers tend

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to the bleak and suggest major problems in maintaining consumption. The growth in government transfers didn't stem the overall decline in consumption because it didn't address the falloff in consumption at the top of the income distribution. Unlike prior recessions, the falloff in consumption was unusually broad, affecting not just the consumption of durable goods but also that of nondurable ones. This decline has also proven to be remarkably long-lasting in comparison to declines in prior recessions. The associated dropoff in consumer confidence was equally spectacular, and the recovery in confidence is far from complete even today. Worse yet, individual perceptions of economic deterioration were widespread, with no income, age, or racial group spared, even though each was affected in different ways. We lay out each of these five results in more detail below.

### Personal Consumption and Personal Disposable Income

We start by asking whether trends in consumption spending during the Great Recession are similar to trends in personal disposable income. In figure 1, we plot trends in per-capita personal consumption expenditure and personal disposable income over the Great Recession period. What is remarkable about this graph is that, while per-capita consumption declines monotonically until the middle of 2009, disposable income first rises and then, starting in the third quarter of 2008, falls precipitously (a 6 percentage point decline from peak to trough). The breakdown of disposable income into its three components (transfers, wages, and financial income) reveals that the delayed decline in disposable income is explained entirely by a strong increase in government transfers to households (+18.6 percent from the last quarter of 2007 to the

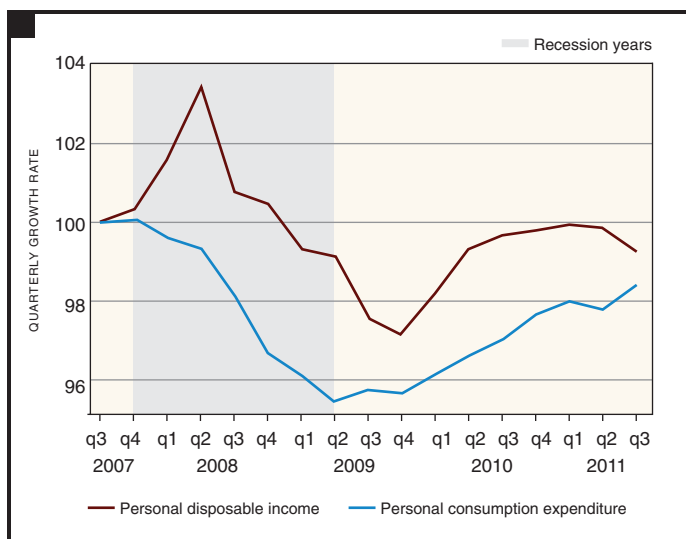
last quarter of 2009). The two main means-tested programs, other than Medicaid, that experienced substantial increases in expenditures were the Supplemental Nutrition Assistance Program (i.e., "food stamps") and the Earned Income Tax Credit (i.e., EITC). The Unemployment Insurance program also increased substantially because of the rise in unemployment and the extensions in the length of those benefits.

These transfers, which benefit primarily households at the lower end of the income distribution, assisted in propping up consumption at that lower end. The overall decline in consumption, as shown in figure 1, was nonetheless quite dramatic because the sharp declines in financial income at the higher end of the distribution lowered consumption among the better off. Although one might expect the wealthy to smooth their consumption during downturns by drawing on their "buffer wealth," the extreme wealth destruction in the early periods of the recession may have motivated them to rebuild their buffer stock rather than engage in consumption. It follows that government transfers alone were not enough to stem the sharp decline in consumption.

### A Decline in All Consumption Components

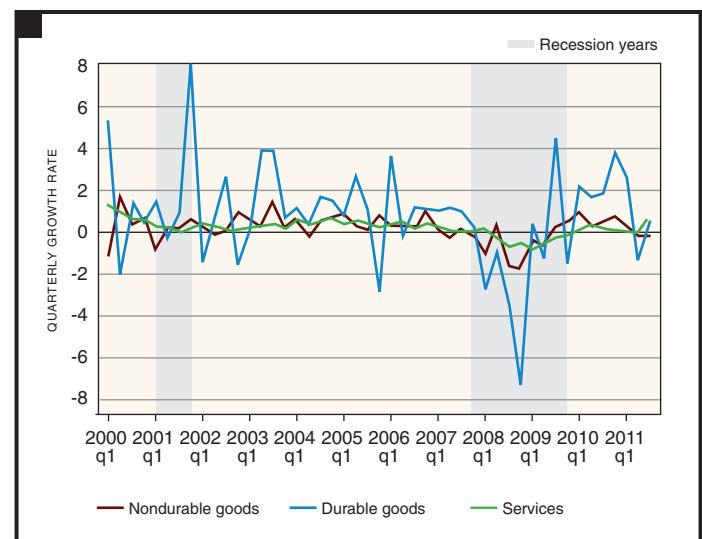
In figure 2, we zoom out of the Great Recession period and look at the macro picture for consumption components over the last 12 years. In particular, we plot the quarterly growth of the three components of personal consumption expenditure (durables, nondurables, and services) over the 2000–2011 period. By definition, durable goods are those expected to last more than three years, whereas nondurable goods (e.g., food, clothing) have a shorter expected lifetime.

FIGURE 1. Consumption and Disposable Income



Source: BEA, NIPA tables 2.1, 2.3.4, and 2.3.5.

FIGURE 2. Growth Rate of Consumption Components



Source: BEA, NIPA tables 2.1, 2.3.4, and 2.3.5.

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Two important points come out of figure 2. First, the graph shows the well-known fact that spending on durables is much more volatile than spending on nondurables or services, with wide upward and downward swings at the onset of booms and recessions, respectively. Second, the last two recessions differ dramatically in terms of the impact on consumption. The 2001 recession, induced by the deflating of the dot-com bubble, was very shallow: only durables declined in real terms during this recession. In contrast, the Great Recession, which began with the burst of the housing bubble and the global financial crisis that ensued, is characterized by a decline in real terms in *all* consumption components. At the beginning of the recession, the fall is precipitous for expenditures on durables, and it is substantial for nondurables. Although consumption growth recovered in the second half of 2009 and through 2010, the growth in expenditures on both durables and nondurables slowed down again in 2011. The upshot is that the Great Recession, unlike the 2001 recession, has involved an across-the-board decline in many types of consumption, not just that of durables.

#### A Long-Lasting Decline in Consumption

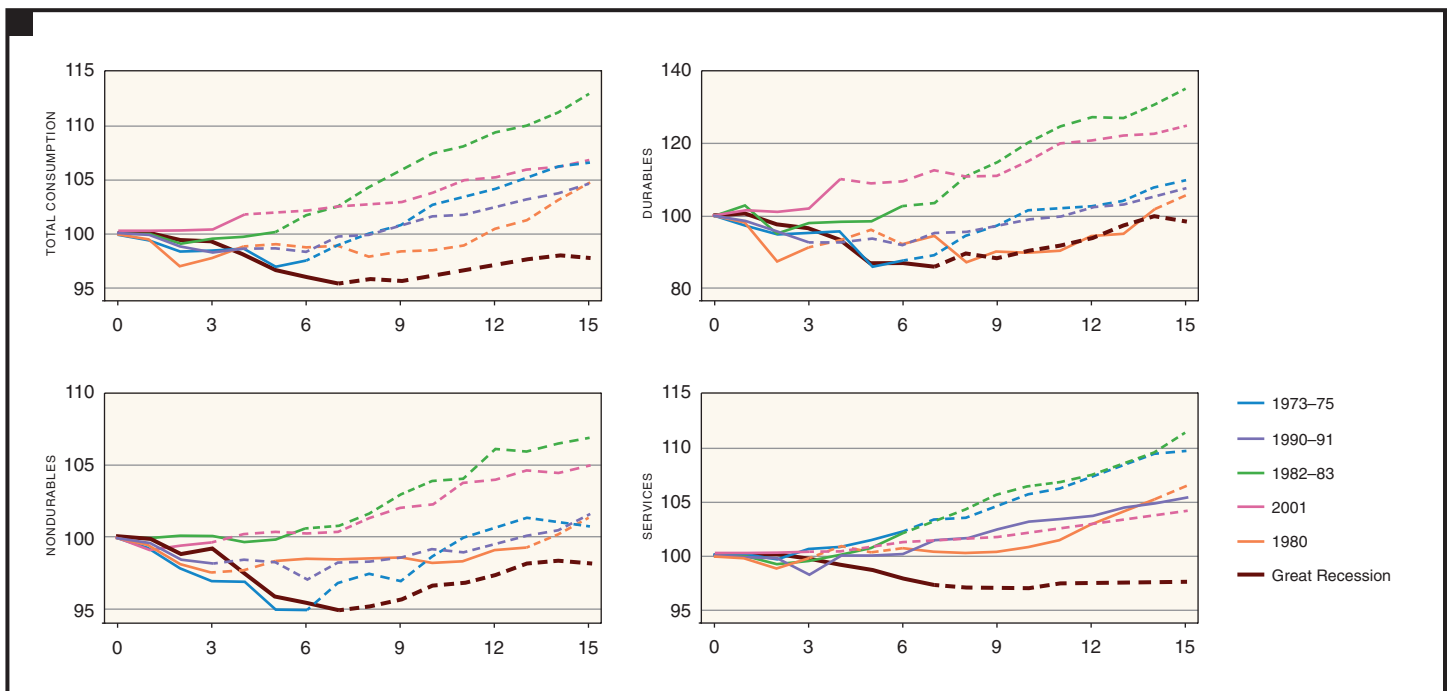
The Great Recession is one of the longest on record. To put this in perspective and to appreciate the popular reference to this recession as “Great,” we plot in figure 3 the Great Recession next to all the U.S. recessions that have occurred since the early 1970s. In each graph, consumption is plotted over

15 quarters from the onset of the recession (normalized to be 100 in the quarter immediately preceding the start of each recession). Solid lines turn into dashed lines when the recession officially ends.

A number of facts emerge from looking at the top-left panel of figure 3. First, unlike the 1980 or 1973–75 busts—when consumption fell dramatically at the start of the recession—during the Great Recession, the fall in consumption has been initially more muted. Moreover, for the Great Recession, consumption remains below the pre-recession levels for a longer period than any other recessions represented in the graph. The historical comparison illustrates that an economic bust is defined not only by the extent of the fall in the components of Gross Domestic Product (GDP) but also by the time it takes to fully recover. In the 1980 recession, the U.S. economy experienced a more dramatic single-quarter fall in consumer spending, but the recovery was also quite rapid.

Trends in total consumption mask considerable heterogeneity in the behavior of its three components. In fact, because there is so much heterogeneity, we’ve had to change the y-axis scale for durables, allowing it to range from 80 to 140 (instead of 95 to 115). As shown in figure 3, spending on durables falls substantially, while the fall in nondurable spending is more moderate, and spending on services falls monotonically but at a substantially lower rate. It is the rapid and significant

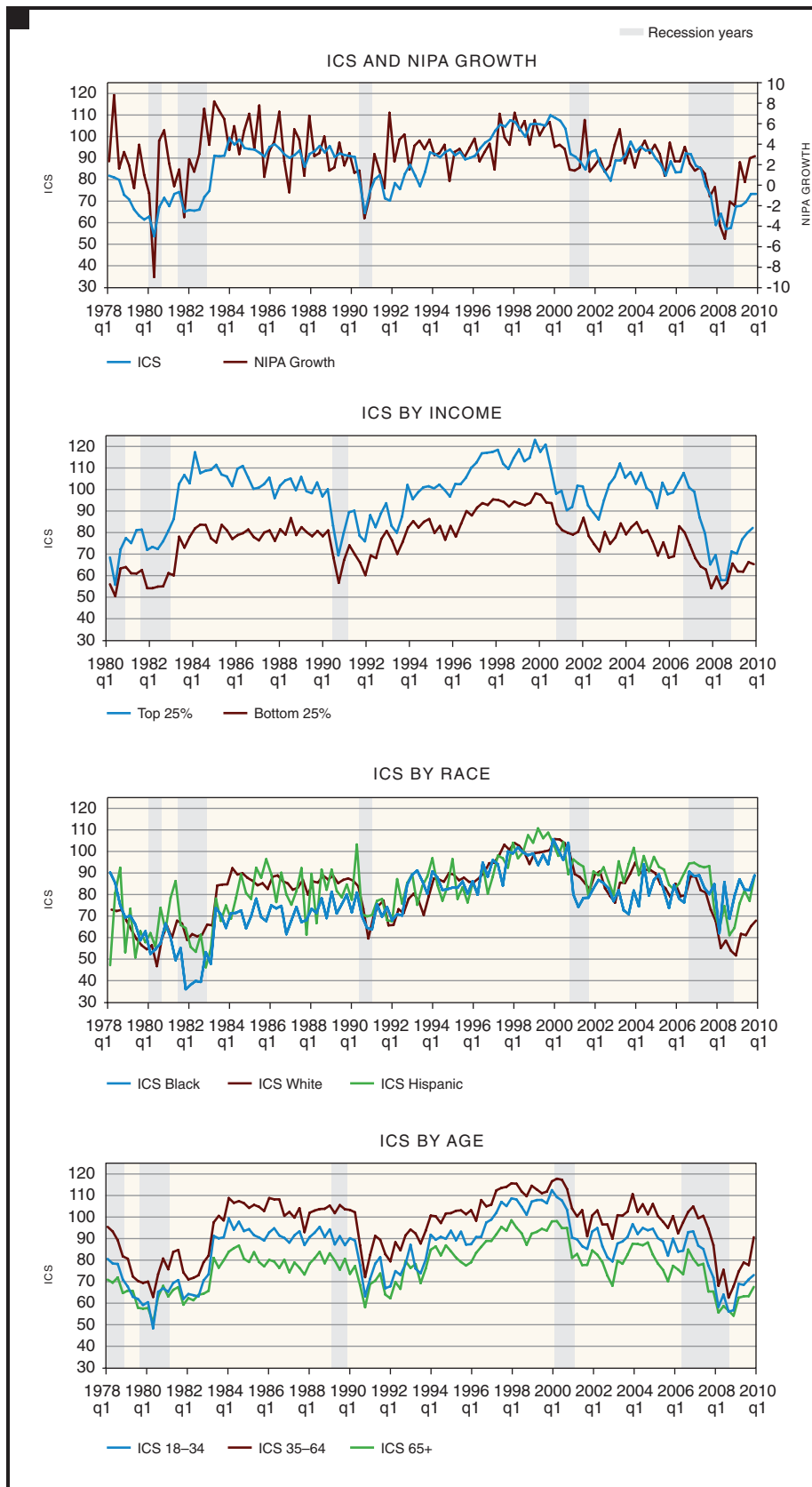
FIGURE 3. Consumption During Recessions (Quarters from Start)



Source: BEA, NIPA tables 2.1, 2.3.4, and 2.3.5.

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FIGURE 4. Consumption Growth, Consumer Confidence, and Heterogeneity



Source: BEA NIPA Table 2.3.1 and Michigan Consumer Sentiment Survey.

recovery in services spending that helps the recovery of total consumption in previous recessions (see the bottom-right panel of figure 3). In the Great Recession, however, spending on services declines monotonically and fails to recover altogether, which stands out as a further peculiar feature of the current period.

### The Sharp Falloff in Consumer Confidence

The length and severity of the Great Recession are likely to make consumers less confident and more uncertain. We care about uncertainty because economic theory implies that, when consumers are uncertain, they will delay purchases of durable goods and save for precautionary reasons. It follows that uncertainty can reduce spending and thereby exacerbate an economy's downward plunge. The key question we next take on is whether the Great Recession has brought on unusually large increases in uncertainty.

We measure consumer confidence with the University of Michigan's Index of Consumer Sentiment (ICS). The index reflects the respondents' responses to five general questions about perceptions of current and future financial situations, of current and future business conditions, and of favorability of conditions for durable purchases. The index ranges from a minimum of 0 to a maximum of 200.

One fundamental aspect of the consumer confidence data is that, in the case of the U.S. economy, growth in personal spending is trailed closely by consumer confidence, as illustrated by the historical trends in the top panel of figure 4. We have measured personal spending in figure 4 via the National Income and Product Accounts (NIPA). During the Great Recession, figure 4 shows that the ICS declines dramatically, right on the heels of the decline in personal spending. The depth of the decline is rivaled only by the low level of consumer confidence reached

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during the recession of the early 1980s. In other words, similar to its impact on actual consumption, the recession marks a complete turnaround in consumer confidence after several decades of relative optimism, which peaked in the late 1990s.

Aggregate indices are likely to conceal potential differences in perceptions among sociodemographic groups. In times of economic growth, consumer confidence is predictably lower among respondents who are poorer, older, and of Hispanic or African American origin. But recessions tend to narrow between-group differences.

The gap between the reported confidence level of respondents from the bottom and of respondents from the top income quartiles narrows due to the higher rate of decline in consumer confidence of high-income respondents. As the second panel of figure 4 shows, the decline is most abrupt for the Great Recession, in which the confidence of respondents from the top income quartile lost 50 points between the first quarter of 2007 and the last quarter of 2008. For comparison, the level of consumer confidence for respondents from the bottom income quartile dropped by approximately 20 points in the same period. After the recession formally ends, it's notable that consumer confidence recovers sharply for the top quartile but not for the bottom quartile, a divergence that is consistent with the objective economic experiences of

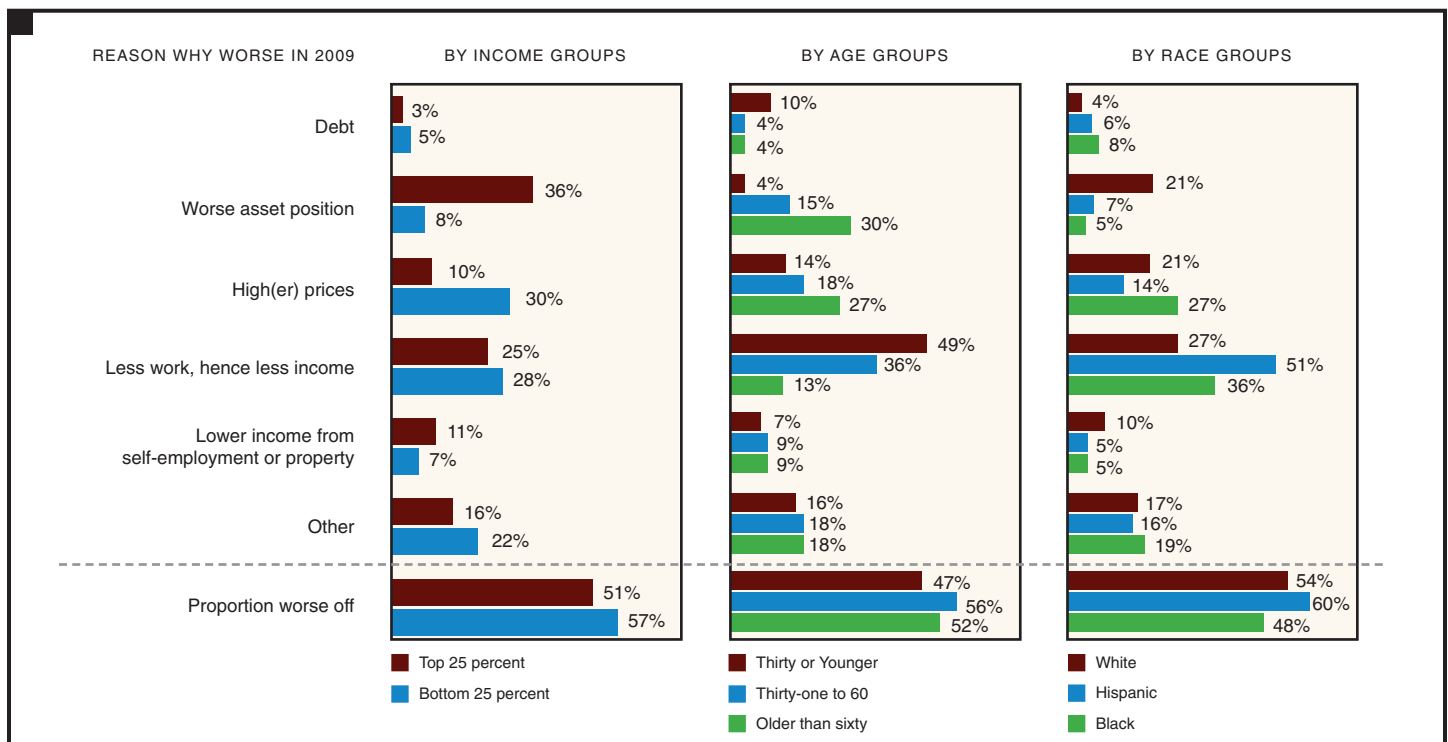
these two groups. The same pattern of convergence and then divergence also appears for age groups.

As a final point, it is worth noting the peculiar trend in consumer confidence among Black respondents during the Great Recession. Their confidence level increased at a remarkable rate compared to that of White and Hispanic respondents. The effect is robust to differences in income, age, and education. Its timing, from the second quarter of 2008 onward, may reflect a complex mixture of economic concerns and of political hopes associated with the last presidential election. This relative optimism resulting from the apparent "Obama effect" overshadows, without necessarily improving, the concrete economic consequences of the recession.

### Widespread Financial Difficulties

Behind the decline in consumer confidence lies a concrete deterioration in the financial situations of individuals. Sixty percent of the individuals in the Michigan consumer sentiment sample reported that their financial situation in 2009 was worse than in the previous year. For comparison, only half that number expressed that opinion in 2006. In figure 5, we stratify the sample by income (top and bottom quartile), age (less than 30, 31 to 60, and older than 60), and race (White, Hispanic, and African American). We plot the portion of each group that reports that their situation has worsened

FIGURE 5. Perceptions of Worsening of Financial Situation



Source: Michigan Consumer Sentiment Survey.

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(at the bottom of each panel) and, conditioning on reporting a worse financial situation, display statistics on the reasons respondents provide.

The differences in the reasons provided by specific sociodemographic groups paint a coherent picture of the wide impact the recession has had on Americans, or at least on their perceptions of it. No group is spared, though each is affected in different ways. The historically privileged part of the population—Whites, middle-aged, elderly, and those with high incomes—perceive the recession distinctively as a threat to their wealth, whether in terms of financial assets or, to a lesser extent, of lower income from self-employment and property. “A worse asset position” is the primary reason for 36 percent of the top income quartile, for 30 percent of respondents above 60 years of age, and for 21 percent of Whites. Almost half of Hispanics and of young respondents cite the job market as a reason for their worse financial situation in 2009. Higher prices take precedence among nearly one-third of African Americans and of respondents from the bottom income quartile. In addition, though to a far lesser extent, these two groups are concerned by worsening debt.

### Conclusion

At least when it comes to consumption, the Great Recession has certainly earned its capital letters. We have focused on five quite distinctive features of consumption during the cur-

rent downturn. First, the rise in government transfers in the early period of the recession raised the disposable income of low-income individuals, but such transfers weren't able to overcome the effects of other consumption-reducing forces (such as the destruction of wealth). Second, the deterioration in consumer expenditures lasted longer than in any of the other recessions since the 1970s, and indeed consumer expenditures still haven't fully recovered. Third, consumption has also plunged deeper than in the past, leading Americans not only to postpone costly purchases of durables but also to change their leisure habits and cut back even on subsistence spending. Fourth, there was greatly increased insecurity about the future, an insecurity that's still in evidence. Fifth, the recession affected virtually all consumers, albeit unequally and in different ways. Some, like the wealthy, experienced a serious shock, one that was both immediate and—as it turns out—temporary. For the rest of us, the shock is likely to linger for as long as the problems in the wider economy continue.

Our reading of the available evidence is that the Great Recession was not consumption driven. The fall in consumption occurred after, not before, the financial crisis and the deflation of the housing bubble. However, once the consumption decline was in full swing, it acted to prolong the recession and the continuing downturn. The effects of this consumption decline continue to this day and make a recovery a less certain affair.

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