Inflation Expectations and Consumption: Evidence from 1951

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Abstract

We use rich microdata from the 1951 Survey of Consumer Finances to study inflation expectations and consumption in the United States around the start of the Korean War. Since the Treasury required the Federal Reserve to hold nominal interest rates constant, increases in expected inflation corresponded to reductions in the real interest rate (similar to a zero lower bound episode). The survey includes measures of actual spending on durables, cars, and homes in 1950, and expected expenditures in these categories in 1951, at extensive and intensive margins. Consumption in 1950 increases with expected inflation, while expected consumption in 1951 decreases.

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1 Introduction

On March 15, 2020, the Federal Reserve cut its policy rate target to 0 to 0.25%, bringing the United States economy back to the zero lower bound (ZLB). The constraints imposed by the ZLB in the Great Recession brought expectations to the forefront of policy discussions.[1] In theory, an increase in household inflation expectations can boost current consumption by reducing the real interest rate. Theory suggests this mechanism should be particularly effective at the ZLB, as offsetting movements in the nominal interest rate are unlikely. Recent evidence that the natural rate of interest has fallen has led to speculation that the ZLB will bind more frequently (Holston et al., 2017), leading to increased need for expectations-based stabilization policies.

The empirical evidence on inflation expectations and consumption, however, is mixed. For example, Bachmann et al. (2015) use data from the Michigan Survey of Consumers and find a *negative* impact of expected inflation on reported "readiness to spend" on durables at the ZLB, and no impact in non-ZLB years. Burke and Ozdagli (2013) use data from the RAND American Life Panel and find that higher inflation expectations stimulate durables consumption only for consumers with at least some college education and with a mortgage. They find almost no effect on consumption of nondurable goods and services for any households. These and other papers on inflation expectations and consumption are summarized in Appendix Table A.1.[2]

In this paper, we contribute evidence on inflation expectations and consumption in a less-studied historical episode—January and February of 1951—using rich microdata from the Survey of Consumer Finances (SCF). This episode is especially interesting in light of economic and political conditions surrounding the Korean War.[3] When the United States

[1] Coibion et al. (2018) review a burgeoning literature on inflation expectations as a policy tool.

[2] While most papers on the relationship between inflation expectations and consumption use recent data, Eggertsson (2008) and others argue that inflation expectations played an important role in the recovery from the Great Depression, when nominal interest rates were also near zero. For example, Romer (1992) argues that monetary expansion in the form of huge gold flows in the mid-1930s stimulated the economy by raising inflation expectations and reducing real interest rates. As survey data on U.S. inflation expectations is not available for the Depression era, Romer assumes rational expectations to construct an ex ante real interest rate series. See Binder (2016) for a discussion of the assumptions used to estimate inflation expectations when survey data is unavailable, including in the Great Depression.

[3] Understanding expectations and other drivers of consumption in the Korean War is also critical for our understanding of fiscal multipliers. Hall (2009) and Ramey (2011) note that excluding the Korean War data leads to imprecise estimates of aggregate multipliers because there is too little variation in defense spending otherwise. Dupor and Guerrero (2017) find that excluding the Korean War period greatly increases their estimate of the local multiplier.

entered the war in June 1950, both defense spending and inflation escalated quickly.[4] By February 1951, annual consumer price index (CPI) inflation had risen to 9.4%, up from a rate of -1.3% a year earlier.

Despite rising inflation, the Treasury opposed attempts by the Fed to raise short-term interest rates. This followed precedent set in World Wars I and II, when interest rates were pegged low to facilitate government financing.[5]. President Harry Truman and Fed officials, including Chairman Thomas McCabe, disputed publicly about this interest rate peg (Hetzel and Leach, 2001).[6] Treasury and Fed officials negotiated for the Fed to continue to support the price of five-year notes for a short time. It was not until the Treasury-Fed Accord, issued on March 4, 1951, that monetary policy was separated from government debt management (Romero, 2013). Thus, though the U.S. economy was not at the ZLB at the start of 1951, this episode was "ZLB-like" in the sense that movements in expected inflation were not offset by movements in nominal interest rates due to constraints on the Fed. At the ZLB, the Fed cannot readily lower interest rates; in early 1951, it could not readily raise them.

The wartime economy and memories of World War II had dramatic effects on expectations. Friedman and Schwartz (1963, p. 597-8), using the difference between yields on bonds and stocks to proxy for expected inflation, describe a "changed pattern of anticipations":

> "in the immediate postwar years, the public at large anticipated a substantial decline in prices at some future date. The mildness of the 1948-49 recession and the failure of prices to retreat more than slightly from their postwar highs must have weakened that expectation, and the outbreak of the Korean War gave it the coup de grace. In its place, there arose a fear of the renewal of wartime shortages and price rises."

We contribute additional evidence on inflation expectations directly from consumer survey data. SCF respondents are asked categorical questions about their expectations of prices in general, prices of durables, and prices of cars. The survey also collects detailed demographic information and asks respondents several questions about their awareness of recent

[4]Defense spending authorizations totaled $14.5 billion for the fiscal year ending June 30, 1950. By mid-January 1951, defense spending authorizations for the 1951 fiscal year (July 1950 to June 1951) already approached $43 billion, three times the prior year amount. In the budget transmitted to Congress on January 15, 1951, President Truman proposed over $63 billion in defense spending authorizations for FY 1952.

[5]In particular, the yield on long-term Treasury bonds was capped at 2.5%, and ceilings were also imposed at other points along the yield curve, from early 1942 until March 1951 (Chaurushiya and Kuttner, 2003)

[6]"Not since Pearl Harbour," reported *The Economist* on November 18, 1950, "has this central bank organisation been in a position to do its duty, except by accident." From "FRB's War of Independence," p. 809.

regulatory policy changes. This allows us to provide the first analysis of demographic heterogeneity in inflation expectations in this time period, contributing to a growing literature on how expectations vary with consumers' characteristics and experiences (Bryan and Venkatu, 2001; Bruin et al., 2010; Malmendier and Nagel, 2015; Binder and Makridis, 2020). Specifically, we find that males, respondents in metropolitan areas, and respondents who believe another world war is likely have significantly higher inflation expectations than other respondents. But we find no statistically significant differences in inflation expectations by race, education, or income. Using survey respondents' open-ended explanations for their inflation expectations, we show that respondents' beliefs about the implementation and efficacy of price and wage controls were an important determinant of inflation expectations. A rise in inflation expectations from January to February came as fewer consumers believed that price controls would be effective at suppressing inflation.

The SCF data is especially well-suited for analyzing inflation expectations and consumption because it includes questions about both expected and recent actual consumption of several categories of goods (durables, cars, and homes), at both the extensive and intensive margins, as well as "readiness to spend" questions (i.e. whether the respondent reports that it is a good or bad time to spend on cars and durables). Our data also has remarkably detailed and thorough information about respondents' income, debts, and assets that allows us to infer respondents' total consumption. As Table A.1 shows, the literature on inflation expectations and consumption has examined a variety of different consumption-related measures, with different results.

We find, in general, that consumers with higher inflation expectations shift consumption forward intertemporally—that is, they consume more in 1950 and/or expect to consume less in 1951. In particular, higher inflation expectations are associated with a statistically significant increase in durables consumption and total consumption in 1950 and a statistically significant decrease in expected car consumption in 1951. The magnitude of the effect is relatively modest: for example, a one standard deviation increase in expected inflation is associated with a 3 percentage point increase in the likelihood of buying durables in 1950. On the intensive margin, we estimate that for a one standard deviation increase in inflation expectations, respondents shift $222 of total consumption forward from 1951 to 1950. We find no statistically significant relationship between expected inflation and "readiness to spend."

While our work complements the literature on inflation expectations and consumption summarized in Table A.1, we note that the early-1951 and Great Recession ZLB episodes

differ in several ways that are relevant for inflation expectations and consumption. First, the Korean War was not recessionary. Burke and Ozdagli (2013) suggest that in recent years, positive effects of inflation expectations on consumption may have been offset by a positive comovement of inflation and unemployment expectations, as documented in Kamdar (2018), Coibion et al. (2019), and Binder (2020). But we show that in 1951, inflation expectations and income expectations were uncorrelated. Second, forced saving during World War II meant that a large fraction of households possessed liquid assets in 1950 and 1951, and household indebtedness was comparatively low. Consumers may therefore have had greater capacity to shift consumption intertemporally than they did in the Great Recession.[7] Third, consumers in 1951 would have experienced more volatile inflation in the recent past, and may have been more attentive to inflation-related news since such news was related to the war. Coibion et al. (2018) note that households seem to be inattentive to inflation and monetary policy announcements in recent years, since inflation has been so low. These differences make it plausible that the response of consumption to expected inflation would be larger in 1951 than in the Great Recession.

The remainder of the paper is structured as follows. Section 2 provides background information on economic conditions and policies at the start of the Korean War. Section 3 describes the SCF data. Section 4 characterizes inflation expectations in 1951, and their associations with respondent characteristics. Section 5 presents the analysis of inflation expectations and actual and expected consumption. Section 6 examines heterogeneity in response and the role of credit constraints, and Section 7 concludes.

2 Economic Conditions and Policies at the Start of the Korean War

The Korean War began with the North Korean invasion of South Korea on June 25, 1950. As Rockoff (2012) notes, the outbreak of war was unexpected: tensions had been high in 1948, but the US had withdrawn occupying troops from South Korea in 1949 due to a (mistaken) belief that the situation had stabilized. The United Nations Security Council voted almost immediately to provide military assistance to South Korea. On June 30, U.S. ground troops entered South Korea on President Truman's orders.

[7]Burke and Ozdagli (2013) argue that the response of consumption to inflation expectations in the Great Recession ZLB episode may have been muted since durable goods consumption seems to have been less sensitive to interest rates in those years (Zandweghe and Braxton, 2013; Binder, 2018), possibly due to high household indebtedness (Di Maggio et al., 2014; Sufi, 2015).

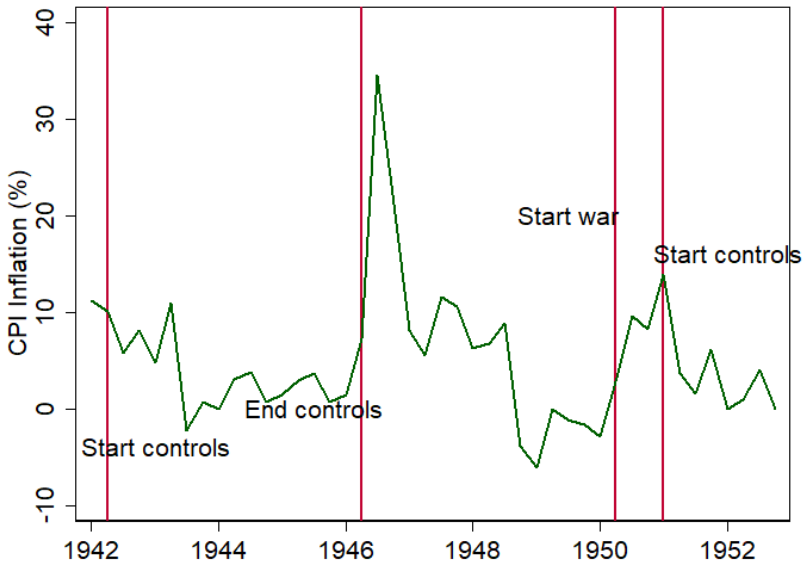
Economists and policymakers had braced for a severe slump after World War II, and many feared a return to the Great Depression. Instead, the U.S. experienced only a mild contraction in late 1945 and early 1946, quickly followed by a boom as production—especially of automobiles and household durables that could not be purchased during the war—surged to meet pent-up demand. A second mild recession from November 1948 to October 1949 was followed by a quick recovery. As shown in Figure 1, inflation rose sharply after WWII price controls were lifted in 1946, then declined in the recession.[8]

Memories of the economic disruption of World War II were still quite fresh in 1950. World War II rationing had focused on food, fuel, and especially durable goods. The first goods to be rationed had been rubber tires, in early January 1942, followed by automobiles in February. Sugar, coffee, processed food, gasoline, fuel oils, typewriters, bicycles, stoves, and other items soon followed. Outside of food items, most World War II rationing was designed to preserve raw materials—especially rubber, fuel, and metals—for the war effort. Many rationed goods—particularly durables—were almost completely unavailable for civilian purchase from 1942 to 1945. For example, no automobiles were produced for civilian purchase between February 1942 and August 1945, because production was forbidden by rationing and every U.S. auto factory was converted to war production. Most U.S. rationing orders were lifted by the end of 1945, with the notable exception of sugar, which remained rationed until June 1947. The backlog of demand was so great by 1945 that in some cases it took years for production to catch up with consumer demand. An American wanting to buy a car in 1946 could easily wait a year for a car to buy, even with cash on hand to pay for it.

After a decade of Depression followed by World War, Americans were initially unsure what to expect from the post-WWII economy—times had not been "normal" since 1929. Caplan (1956, p. 27-28) explains that amidst the boom from 1946-8, there were "widespread doubts as to the solidity of the boom" with "the carry-over of the deflationary psychology of the thirties...Once the postwar backlogs of demand for construction and durables were satisfied, would the 'normal' levels of demand be adequate to maintain full employment without massive programs by government?" But, he adds, "The mildness of the 1948-1949 experience...led to the development of a new state of mind: the Age of Inflation thesis. This is the notion that the long-run propensity of the economy is inflationary." The recovery from the 1949 recession began so swiftly and with such inflationary pressure that by January 1950, the President's Council of Economic Advisors warned that "every effort" should be made to

[8]World War II price controls were in place from April 1942 through June 1946, according to Rockoff (1981) who notes that in the World Wars and the Korean War, inflation was substantially lower during periods of price controls than during the six months preceding the controls.

Figure 1: Consumer Price Index Inflation



Notes: Figure shows quarter-over-quarter annualized rate of change of the Consumer Price Index for All Urban Consumers: All Items in U.S. City from the U.S. Bureau of Labor Statistics. Vertical lines indicate start of WWII price controls, end of WWII price controls, start of Korean War, and start of Korean War price controls, using price control dates from Rockoff (1981).

avoid greater price increases (Ginsburg, 1952).

Inflationary pressure intensified as the Korean War began. Ginsburg (1952, p. 518, 520) argues that "The increased prices exacted during this period were mostly speculative and unjustified. Demand was financed by accumulated liquid assets and credit expansion, not by sudden increases in buying power resulting from defense spending or government deficits. Consumer goods and services were still in plentiful supply...[but] consumers manifested in the market their anticipations of future shortages and price increases—and thus, in large measure, brought about with their fears the very conditions against which they sought to insure themselves...As a nation, we were reacting to the facts of 1950 with the fears and impulses of 1944."

Indeed, rampant "scare-buying" in July of 1950 led *The Economist* to report in August that "the economy of the United States is so strong that the new programmes of military expansion need cause no serious trouble unless Congress and the public between them make trouble inevitable. If the public chooses to show a little self-control, other controls will be unnecessary. The domestic market will not be short of consumer goods, there will be enough to satisfy all normal demands...But the public did not begin by showing self-control. It

began by buying up all the types of goods which memories of 1942 suggested that it would be hard to get in an emergency. Sugar is the supremely ridiculous example."[9] No formal rationing was immediately introduced, however, and the scare-buying eased. The focus on sugar is telling, since sugar was the last good subject to WWII rationing in the US.

Indeed, the "outbreak of the [Korean] war produced a wave of buying of items that had been in short supply during World War II" (Rockoff, 2012, p. 252). This consumption boom in the third quarter of 1950 affected all types of items that had been subject to WWII rationing, both perishable goods such as sugar and durable goods such as automobiles.

Figure 2 shows relatively larger rises of personal consumption expenditures on durables and motor vehicles than of overall personal consumption expenditures from the second to the third quarter of 1950. Figure 3 highlights the behavior of defense spending and consumption around this era. Federal government spending on national defense as a share of GDP ramped up rapidly, from 7.2% in the second quarter of 1950 to 12% a year later, and peaked at 16% in the third quarter of 1952. For comparison, after 1953, the share has averaged 7.1%. Perotti (2014) note that in the third and fourth quarters of 1950, the expected present value of future defense spending rose by 63 and 41 percent of GDP, respectively—an order of magnitude greater than any subsequent revision. Personal consumption expenditures on durable goods also rose as a share of GDP from 10.3% in the second quarter of 1950 to 12.1% in the third quarter—the highest share on record.[10]

New regulatory policies from the Federal Reserve in September and October of 1950 helped to dampen durable and housing consumption. Regulation W set higher downpayments and reduced the maturities of loans for durable goods, while Regulation X restricted the terms of mortgages (Perotti, 2014).

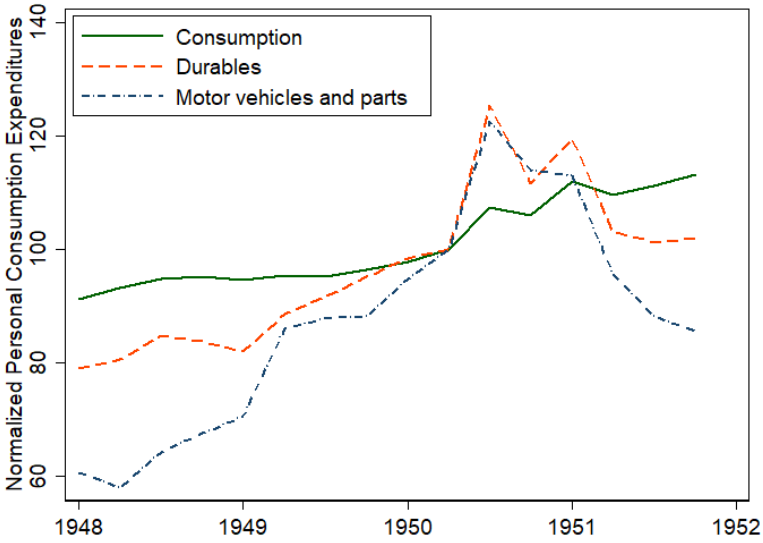
Also in September of 1950, Congress enacted the Defense Production Act (DPA), providing President Truman broad powers to impose credit, price, and wage controls. The President, however, did not immediately impose such controls; in fact, he "vigorously opposed the so-called 'Baruch Plan' for an immediate freeze of prices and wages" (Durham, 1952, p. 2). *The Economist* described an "astonishing spectacle of Congress trying to thrust on the President more and greater powers than he had asked or wanted."[11] Moreover, a provision of the DPA stipulated that "voluntary methods" of controls should be attempted before mandatory controls. These began on December 19, 1950, when manufacturers and

[9] "Paying for Korea," August 26, 1950, p. 409-410.

[10] Quarterly data on personal consumption expenditures on durable goods as a share of GDP is available since 1947Q1 and has mean 7.5% and standard deviation 3.1% from 1947Q1 to 2020Q1.

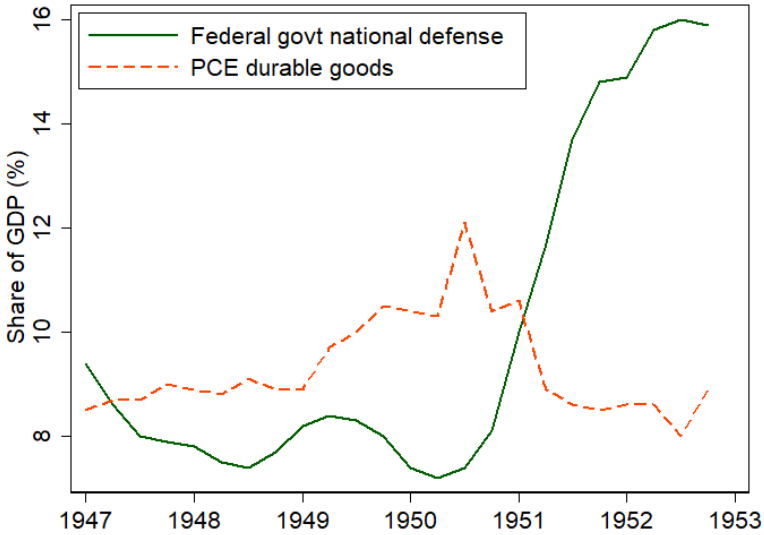
[11] "Paying for Korea," August 26, 1950, p. 409-410.

Figure 2: Personal Consumption Expenditures



Notes: Data from U.S. Bureau of Economic Analysis on personal consumption expenditures, personal consumption expenditures on durable goods, and personal consumption expenditures on motor vehicles and parts. All series are normalized to 100 in 1950Q2.

Figure 3: Durables Consumption and National Defense Spending as Shares of GDP



Notes: Data from U.S. Bureau of Economic Analysis, account codes DDURRE and A824RE.

distributors were asked to refrain from price increases unless needed to compensate for higher costs, and to give the government seven days' notice of price increases.

As adherence to these voluntary controls was not universal, a General Ceiling Price Regulation (GCPR), issued on January 26, 1951, froze prices at the highest prices charged by individual sellers from December 19 to January 25 (Durham, 1952). In contrast to the relatively piecemeal approach to price controls used in World War II, which many believed to have been counterproductive, the 1951 price controls were applied across the board (Rockoff, 2012, p. 253). A first glance at Figure 1 suggests that the price and wage freeze was reasonably effective. However, the price controls produced significant problems in the steel market (culminating in attempted nationalization of the steel mills followed by a major steelworkers strike in 1952), and Rockoff (2012, p. 253) speculates that the price indices for this period may be misleading due to evasion of price controls. The large income tax increases passed in late September 1950 and excess profit tax enacted on businesses in January 1951 may also have exerted downward pressure on prices.

Peterson (1952, p. 250-251) notes that "Perceiving the worsening international situation at the close of 1950 and studying the defense program, most consumers in the early weeks of 1951 rushed into the market places to buy goods which they feared might soon be in short supply. They then observed that the shelves were quickly refilled with merchandise. In fact, there was more on the shelves than ever before. Their awareness of this made people less eager to spend and more willing to save. Beginning in February, consumer spending fell from the high levels reached in July and August 1950 and January 1951." In addition, if "Operation Roundup," begun in early February 1950, helped convince Americans that the conflict would not expand into another all-out global war, military developments may also have contributed to the end of panic buying.

In the first months of the war, tensions between the Fed and Treasury grew and were publicly reported. For a detailed narrative account, see Hetzel and Leach (2001). *The Economist* reported on August 26, 1950[12]:

> The Treasury wants easy money because it makes it cheaper to carry the government debt, which is bound to increase during the coming months. The FRB wants dearer money as a restraint on the expansion of bank credit, and because it believes high interest rates have an essential part to play in relieving inflationary pressures... The raising of the discount rate[13] seems to be a warning to the

[12] "Uneasy Money," August 26, 1950, p. 411.

[13] The Federal Reserve Bank of New York raised the discount rate from 1.5% to 1.75% in August 1950.

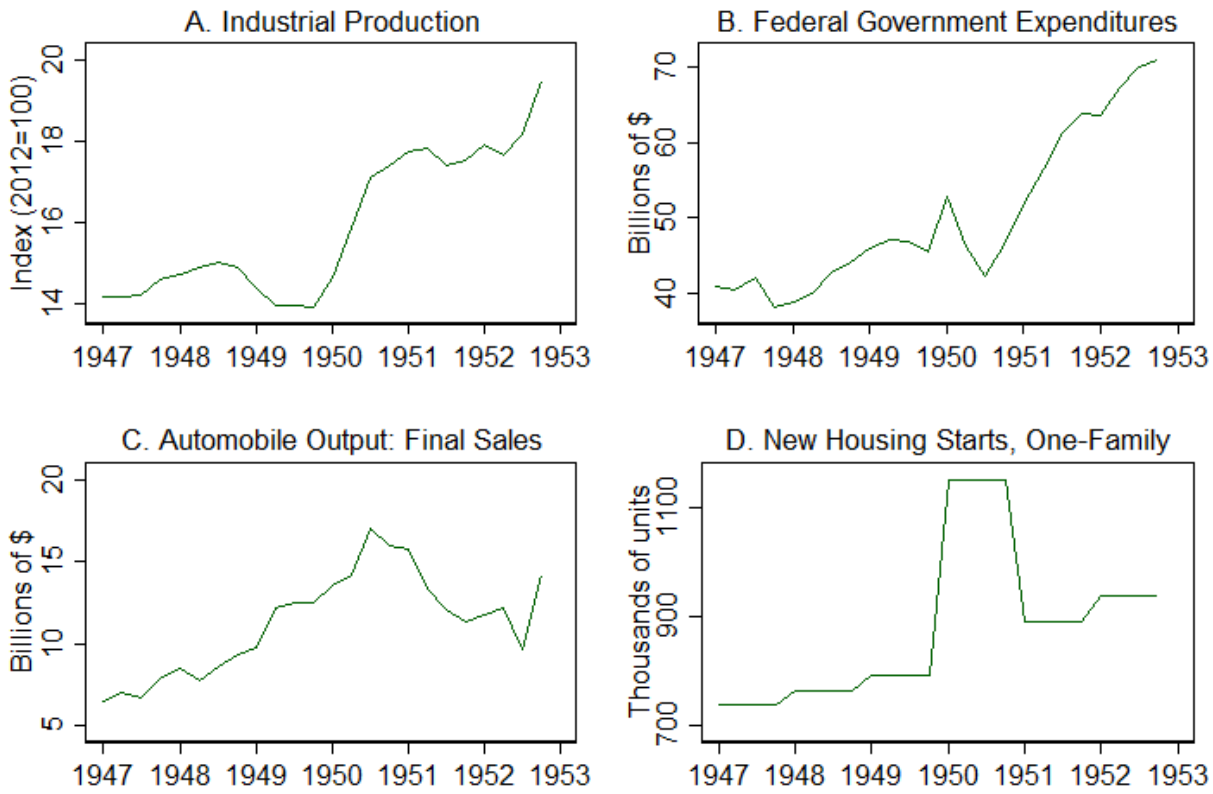
> Treasury that it can no longer count on FRB support for government securities at current prices, and that the FRB is digging in its toes for the final round of the long tug-of-war on credit policy. The Treasury has now replied with a warning of its own which, in effect, tells the FRB that it is expected to do its duty by the new issue.

The next month, *The Economist*[14] reported that "the barely suppressed struggle between the Federal Reserve authorities (who are plainly alarmed at the 20 per cent increase in private bank loans since early June) and the Secretary of the Treasury (who is apparently prepared to defend the ruling and almost ludicrously low rate on Government securities to the last ditch) now seems to have reached the limits of good administrative order." On November 18, the same outlet reported[15] that "The battle now stands undecided...Should the Federal Reserve System lose in this dispute, its future as a semi-public, independent agency will be thrown into question. The prophecy is heard that, within five years, it would become a subordinate adjunct of the Treasury."

The Fed-Treasury Accord in March 1950 reestablished and reinforced the independence of the Federal Reserve. But the tensions between the Fed and Treasury in the months leading up to March 1950 are clear, and the Fed was clearly constrained from raising interest rates during a period when inflationary pressure was clearly building.

[14] "Monetary Policy and Inflation," September 30, 1950, p. 561.
[15] "FRB's War of Independence," November 18, 1950, *The Economist*, p. 810.

Figure 4: Economic Conditions, 1947-52



Notes: Panel A data on seasonally-adjusted industrial production index from the Board of Governors of the Federal Reserve. Panel B data on federal government current expenditures (seasonally adjusted annual rate) from the U.S. Bureau of Economic Analysis. Panel C data on Automobile output: final sales (seasonally adjusted annual rate) from the U.S. Bureau of Economic Analysis. Panel D data on number of new private nonfarm one-family housing units started (annual) from National Bureau of Economic Research Macrohistory Database.

3 Data

The 1951 Survey of Consumer Finance (SCF) was conducted by the Economic Behavior Program of the Survey Research Center at the University of Michigan. Respondents were drawn from a national sample of dwelling units. Interviews were conducted with the head of each spending unit, or "group of related people living in the same dwelling unit who pool their incomes for their major items of expense" (codebook pg. 2). There were 1581 respondents in January and 1679 in February. We exclude 143 respondents who took the survey in March or later, since we know little about the timing of their survey and are interested in

the period prior to the Fed-Treasury accord. The survey contains detailed information on respondents' demographics, employment, income and assets, recent and planned consumption, expectations and sentiment, and knowledge of key new regulations. Appendix Table A.2 summarizes the demographic characteristics of the sample. Since the head of household was typically male, 83% of respondents are male.

Here we describe the key survey questions related to price change expectations and consumption. Appendix B provides more detailed descriptions of other survey variables used in our analysis.

3.1 Expectations

SCF respondents answered several questions about their expectations of price changes in the next year. First, respondents were asked about prices in general: "What do you think will happen to the prices of things you buy during 1951 — in general, do you think they will go up, or down, or stay about where they are now?" Respondents were also asked for their expectations of "the prices of large household items like furniture, refrigerators, radios, and things like that between now and a year from now" (which we refer to as durables) and the prices of cars. For the question about prices in general, respondents are also asked, "Why will they do that?" and can provide up to two open-ended responses. For respondent i, let π_i^g, π_i^d, π_i^c refer to expectations regarding prices in general, prices of durables, and prices of cars. These are categorical variables taking three possible values: 1 if i expects prices to fall, 2 if i expects prices to remain the same (or is uncertain), and 3 if i expects prices to rise.

The SCF also includes an "inflation concern" variable that the surveyors coded based on the overall level of concern that the respondent expressed about inflation in response to a series of questions about the respondent's perceptions and expectations. This is also a categorical variable: the respondent may have little or no concern about inflation, be somewhat concerned, or be very much concerned. Summary statistics of and correlations between each of these inflation expectations variables will be documented in Section 4.

3.2 Consumption

The SCF collects a variety of information about spending attitudes and actual and planned consumption. One question asks, "Is this a good or bad time to buy autos and large household items?" We refer to this as "readiness to spend," following Bachmann et al. (2015), who study responses to similar questions from the Michigan Survey of Consumers (MSC). As a follow-up

to the readiness to spend question, the SCF respondents are asked, "Why do you think this is a good or bad time to buy such items?" Respondents can provide up to two open-ended explanations. We discuss our coding of these explanations in Section 5.1, with greater detail in Appendix B.5.

For several categories of expenditures—homes, cars, and large household appliances[16]—we have information on both the intensive and the extensive margin of actual spending (in 1950) and expected spending (in 1951). We let dummy variables H_{i0}, C_{i0}, and D_{i0} indicate that household i purchased a home, car, or other durable, respectively, in 1950. Dummy variables H_{i1}, C_{i1}, and D_{i1} indicate that the household expects to purchase a home, car, or other durable in 1951. For each spending category, we only define the spending variables if the respondent provides responses for both 1950 and 1951. Continuous variables $Home_{i0}$, Car_{i0}, and Dur_{i0} denote the dollar amount of actual spending on homes, cars, or durables by household i in 1950, and $Home_{i1}$, Car_{i1}, and Dur_{i1} denote the expected dollar amount of spending in 1951. We also define total spending on durables, cars, and homes: $TotDur_{it} = Home_{it} + Car_{it} + Dur_{it}$, $t \in \{0, 1\}$.

Table 1 summarizes the spending and expected spending dummy variables, and the mean actual or expected spending amount (conditional on nonzero amount). About 44% of respondents bought durables in 1950, 26% bought a car, and 6% bought a house. Smaller shares—23%, 9%, and 4%—expected to buy these things in 1951. The smaller share of planned purchases in 1951 should not be interpreted as reflecting trends in spending. Across the early years of the SCF, the share of respondents planning spending in the coming year is consistently lower than the share of respondents who report having purchased the same goods in the past year (except in 1947, when civilian production was still hampered by the war, leading to widespread shortages). A comparison of actual versus expected purchases across time is reported in Table A.4.

Respondents are not explicitly asked about total (including non-durable) consumption; however, we construct an estimate of total consumption in 1950 ($Cons_{i0}$) using respondents' reported income and changes in savings and debts. In subsequent regression analysis, for each continuous spending or expected spending variable $S \in \{Dur, Car, Home, TotDur, Cons\}$, we use the inverse hyperbolic sine transformation of S, which we denote using lowercase letters ($s \in \{dur, car, home, totdur, cons\}$), defined:

$$s_{it} = \ln(S_{it} + \sqrt{S_{it}^2 + 1}) \tag{1}$$

[16]Respondents are specifically asked about "large items as furniture, a refrigerator, radio, television set, household appliances and so on."

Table 1: Recent and expected spending summary statistics

	1950		1951	
	Bought	Conditional spending	Expects to buy	Conditional spending
Durables	0.44	366 (346)	0.23	360 (393)
Cars	0.26	1493 (931)	0.09	1717 (947)
Homes	0.06	11232 (8080)	0.04	10680 (6897)
Total durables	0.61	2010 (4293)	0.28	2220 (4562)

Notes: The left columns of the table summarize the share of SCF respondents who report having bought durables, a car, a home, or any in 1950, and the dollar amount that they spent, conditional on nonzero value. The right columns summarize the share who expect to buy durables, a car, a home, or any in 1951, and the dollar amount of expected spending conditional on expecting to buy. Standard deviations in parentheses.

The inverse hyperbolic sine transformation approximates the natural logarithm, but has the benefit of retaining zero-valued observtions (note that $s_{it} = 0$ when $S_{it} = 0$), which is important in our application since the spending variables are frequently zero (Bellemare and Wichman, 2019).

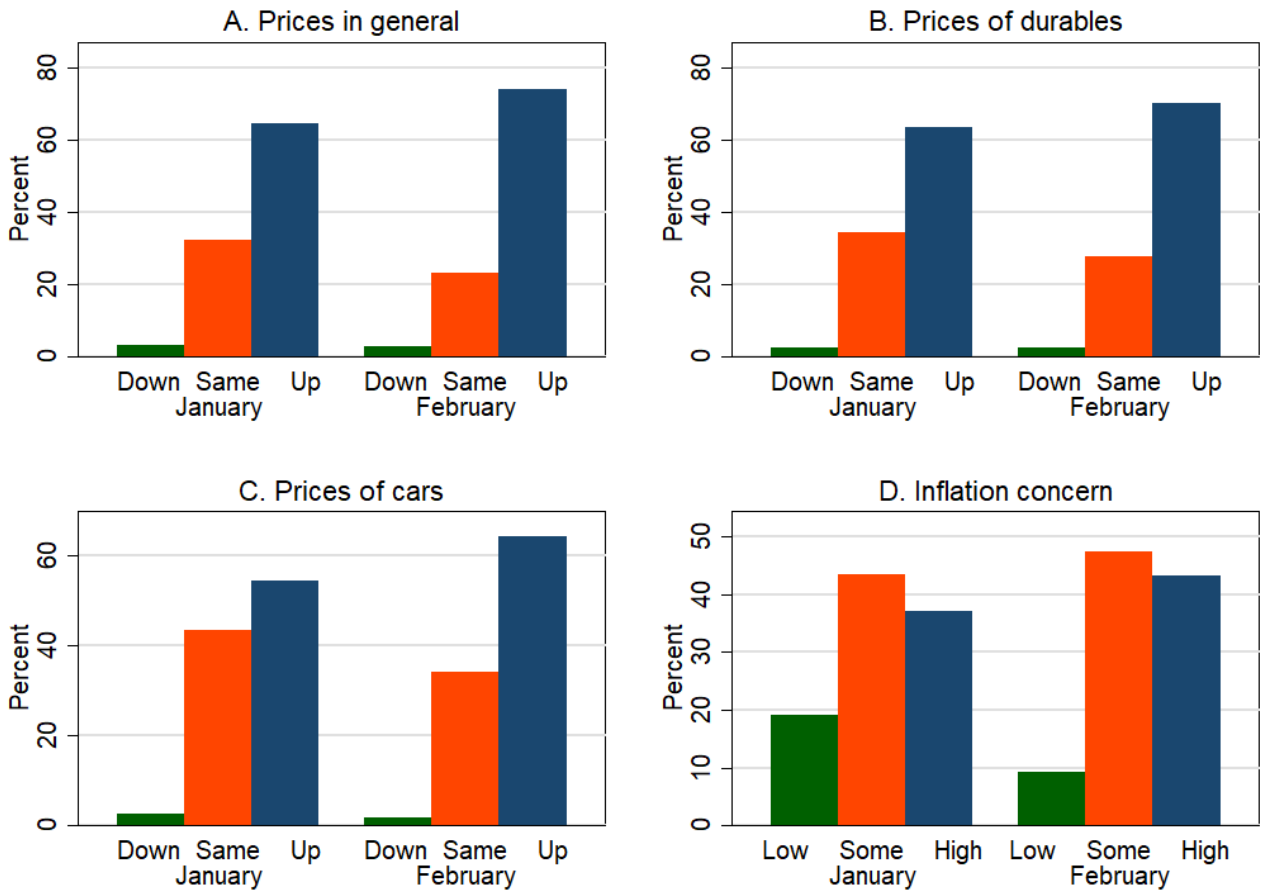
4 Inflation Expectations in 1951

Figure 5 displays expectations of inflation, auto prices, and appliance prices by survey month. For each category, the most common forecast is that prices will rise, and least common is that prices will fall. More respondents expect prices to rise in February than in January. For example, 65% of January respondents and 74% of February respondents expect prices in general to rise; expectations for durables are similar. For cars, 54% in January and 64% in February expect prices to rise.

The figure also displays the share of consumers with low, medium, and high concern about inflation by month. In January, 19% of respondents express little or no concern and 37% high concern. By February, only 9% express little or no concern and 43% high concern. As shown in Table 2, the inflation expectations and inflation concern variables are closely but not perfectly correlated across respondents. Since these variables are non-continuous and ordinal, the correlation coefficients shown are polychoric correlation coefficients (see Olsson (1979)).

For most of our analysis, we use a continuous proxy for the expected inflation of respondent i, $ExpInf_i$, constructed using polychoric factor analysis of π_i^g, π_i^d, π_i^c, and inflation concern (Holgado-Tello et al., 2010). $ExpInf$ is the first factor, normalized to have mean 0 and standard deviation 1. The eigenvalue of this first factor is 1.23; all other factors have

Figure 5: Expectations and concern about inflation



Notes: Data from 1951 SCF. Panels A through C display the share of consumers in January and February who expected prices in general, prices of durables, and prices of appliances, respectively, to go down, stay the same, or rise. Panel D shows the share of consumers in January and February who expressed little to no concern, some concern, or high concern about inflation.

Table 2: Polychoric correlations between inflation expectation variables

	General	Durables	Cars
General	1.00		
Durables	0.44	1.00	
Cars	0.33	0.52	1.00
Concern	0.15	0.19	0.17

Notes: Table shows correlation coefficients between expectations of prices in general, prices of durables (appliances), car prices, and concern about inflation. All of these variables are ordinal variables with three possible values, thus table shows polychoric correlation coefficients (see Olsson (1979)).

eigenvalues near zero. Appendix Table A.3 summarizes the factor loadings for $ExpInf$ on the ordinal variables. The loadings are similar for π_i^g, π_i^d, and π_i^c, with the loading for π_i^d slightly higher, and the loading on inflation concern the lowest. In Appendix C, we show that results are robust to using alternative measures of expected inflation, including two that exclude the inflation concern variable.

4.1 Self-reported Reasons for Expectations

After respondents answer the question "What do you think will happen to the prices of things you buy during 1951?," they are asked, "Why will they do that?" Respondents can provide up to two explanations. The SCF has coded these open-ended responses into approximately 80 categories. As detailed in Appendix B.1, we have grouped these into larger categories to facilitate analysis:

- "Demand" includes explanations like "people (will) have lots of money to spend," "influx of defense workers will increase demand," "purchasing power will fall," etc.
- "Weather" includes explanations about weather, crops, or livestock.
- "Scarce or ample goods" includes explanations like "goods scarce, will be scarce" or "production ample."
- "Material/labor costs" includes explanations like "production costs (will rise)," "wages will rise or are high," "materials are (will be) scarce," "labor shortage; workers being drafted," or their opposites like "production costs (will fall)."
- "Controls" includes explanations involving whether wage or price controls will be implemented or whether they will be effective.
- "Profiteering" includes explanations like "businesspeople will get as high profits as possible" or "business will lower prices, will not raise them (voluntary)."
- "Other policy or war related" includes explanations related to trade, taxes, war in general, or government policy or actions in general.

Respondents who are uncertain whether prices will rise or fall also provide explanations in each of these categories. For example, an explanation that "it depends whether goods or scarce or abundant" is categorized as "scarce or ample goods." Since less than half a percent

of respondents provide weather/crops/livestock related reasons, we leave this category out of subsequent tables and figures.

Table 3 summarizes the frequency of each category of explanation by survey month. The final column shows the share of consumers who provide no explanation or say that they don't know— overall, this is 25% of respondents. Why did inflation expectations rise from January to February? Consumers became less likely to believe that price controls would be implemented or would be effective. In January, among consumers who expected prices to rise, 12% explained that price controls would not be effective, versus 20% in February. In January, among consumers who expected prices to fall, 51% cited price controls as an explanation, versus just 26% in February.

Table 3: Explanations for inflation expectations

month	demand	goods	costs	controls	profit	other	dk
Expect prices to fall							
Jan	31.9	0.0	2.1	51.1	0.0	4.3	19.1
Feb	42.6	0.0	4.3	25.5	4.3	8.5	27.7
Expect prices to stay the same or are uncertain							
Jan	14.3	6.4	9.3	57.1	6.4	8.7	18.3
Feb	15.1	4.4	5.5	50.4	3.1	10.1	26.0
Expect prices to rise							
Jan	11.2	19.2	20.6	12.4	15.8	17.4	27.8
Feb	10.6	14.1	23.0	20.0	11.9	17.5	25.2

Notes: The table summarizes the percent of respondents who provide each explanation for their inflation expectations by month. Respondents are grouped based on whether they expect prices in general to fall, stay the same, or rise. Note that "goods" refers to explanations about scarce or ample goods, "costs" refers to material or labor costs, "profit" to profiteering, "other" to other policy or war related explanations, and "dk" to respondents who provide no explanation or say that they do not know.

4.2 Expectations and Household Characteristics

In recent years, inflation expectations vary with respondent demographics and other household characteristics and experiences (Bryan and Venkatu, 2001; Bruin et al., 2010; Malmendier and Nagel, 2015). We examine the extent to which this is true in the 1951 data. In the first column of Table 4, we regress $ExpInf$ on dummy variables indicating that the respondent is male, white, lives in a metro area, has kids, has a college degree, has a veteran in the household, and owns a home. We also include controls for household income and household net debt, and a month fixed effect. The only statistically significant results

are that respondents in metropolitan areas have higher inflation expectations, and those in January have lower inflation expectations: $ExpInf$ has a mean of -0.13 in January and 0.12 in February.

Subsequent columns also include controls for the respondent's perceptions and expectations of their household's financial situation: whether the respondent believes the household is better off financially compared to a year ago, believes the household is earning more money compared to a year ago, and expects higher income next year (see Appendix B.4 for details). Another variable indicates whether the respondent expects the U.S. to be in a world war in a year or two (see Appendix B.2). Finally, to proxy for the respondent's financial literacy and attentiveness to financial news, we include control variables indicating whether the respondent can describe recent housing regulations and can describe Regulation W (see Appendix B.3). In column (2), the dependent variable is again $ExpInf$, while in (3), (4), and (5), it is π^g, π^d, and π^c, respectively.

With these additional controls, we see that respondents living in metropolitan areas and males tend to have higher inflation expectations, driven by their higher expectations of car price rises. Recall that $ExpInf$ is normalized to have a mean of zero and standard deviation of one, so living in a metropolitan area and being male are each associated with an 0.1 standard deviation increase in inflation expectations. Veterans are less likely to expect car price rises.

Notably, we find no statistically significant differences in inflation expectations by race, education, or income. About 51% of respondents know about Regulation W and 28% about the housing regulations (and knowledge does not vary significantly from January to February), but this knowledge is not statistically significantly associated with inflation expectations. These null results are in contrast to more recent years, when demographic patterns in inflation expectations are more pronounced, and male, high-income, and college-educated respondents have lower expectations (Binder, 2015, 2017a), and inflation expectations are closely related to consumers' financial and macroeconomic literacy (Binder and Rodrigue, 2018). A possible explanation is that inflation was higher and more volatile in the 1940s and early 1950s, so widespread attentiveness to inflation may have been higher—this is the case in higher-inflation economies like Argentina and Ukraine in recent years (Coibion and Gorodnichenko, 2015; Cavallo et al., 2017).

Nor do we find statistically significant effects of perceptions and expectations of the household's financial situation on $ExpInf$. This is notable because, in recent years, consumers who lack a sophisticated model of how the economy works may simply associate high

inflation with "bad times" (Kamdar, 2018; Coibion et al., 2019; Binder, 2020). Thus, higher inflation expectations may correspond to negative consumer sentiment.

Respondents who expect another world war in a year or two have significantly higher inflation expectations, with an effect size similar to that of living in a metropolitan area. Note that 62% of January respondents and 49% of February respondents believed that the United States would probably, very likely, or definitely be in a world war in a year or two. But greater optimism about the prospect of a world war is not enough to explain the difference in inflation expectations between January and February: the coefficient on the January dummy maintains similar magnitude and significance when controlling for expectations of impending world war.

We also check whether respondents' *explanations* for their inflation expectations vary with household characteristics, and find that they do. Table 5 displays probit regressions in which the dependent variable indicates that the respondent chose a particular explanation: demand, scarce or ample goods, material/labor costs, controls, profiteering, or other policy. In column (7), we see that respondents who are white, male, higher income, homeowners, and more informed about regulations are more likely to provide at least one explanation (that is, less likely to say that they do not know or give no explanation.) This is consistent with these groups being more informed about or attentive to the economy. These same groups, as well as college-educated respondents, are also more likey to discuss wage or price controls in their explanations.

Another interesting result is that respondents in January were more likely to provide explanations involving scarcity of goods or business profiteering. This is consistent with Peterson's (1952) claim that consumers in the first few weeks of 1951 perceived a deteriorating international situation and rushed to buy goods that they feared would be in short supply. Peterson adds that the fear of goods shortages was alleviated as consumers observed the shelves quickly refilled. Appendix Table A.5 shows similar regressions with the sample limited to respondents who expect prices to rise. Here we see similar results, but also note that January respondents were less likely to mention (ineffective or lack of) controls as an explanation for expected price increases.

Table 4: Inflation expectations and respondent characteristics

	(1) ExpInf	(2) ExpInf	(3) π^g	(4) π^d	(5) π^c
white	0.016	-0.000	-0.056	0.036	-0.002
	(0.083)	(0.091)	(0.100)	(0.097)	(0.096)
metro	0.095**	0.105**	0.004	0.061	0.156***
	(0.039)	(0.043)	(0.055)	(0.055)	(0.054)
has kids	0.019	-0.000	-0.086	0.011	0.021
	(0.038)	(0.042)	(0.053)	(0.053)	(0.052)
college	0.011	0.002	0.019	-0.039	-0.054
	(0.046)	(0.052)	(0.067)	(0.066)	(0.064)
male	0.046	0.111*	0.041	0.045	0.177***
	(0.053)	(0.058)	(0.070)	(0.069)	(0.067)
vet	-0.036	-0.048	-0.067	0.037	-0.107*
	(0.044)	(0.047)	(0.058)	(0.058)	(0.056)
income (thousands)	0.000	-0.003	0.001	-0.003	-0.004
	(0.005)	(0.006)	(0.007)	(0.006)	(0.006)
homeowner	0.004	0.034	-0.024	0.012	0.020
	(0.037)	(0.041)	(0.052)	(0.052)	(0.050)
net debt (thousands)	-0.004	-0.006*	-0.001	-0.007*	-0.005
	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)
January	-0.258***	-0.286***	-0.273***	-0.208***	-0.231***
	(0.036)	(0.040)	(0.050)	(0.050)	(0.049)
finances better		0.014	0.072	0.111*	0.074
		(0.045)	(0.059)	(0.059)	(0.057)
earnings better		0.069	0.069	0.011	0.006
		(0.045)	(0.057)	(0.057)	(0.055)
expect higher inc		-0.030	-0.104*	0.018	0.016
		(0.043)	(0.054)	(0.054)	(0.053)
expect world war		0.117***	0.089*	0.138***	0.065
		(0.041)	(0.051)	(0.051)	(0.049)
know housing regs		0.014	0.029	-0.040	0.025
		(0.049)	(0.062)	(0.062)	(0.061)
know reg W		0.042	-0.058	0.065	0.029
		(0.045)	(0.056)	(0.056)	(0.055)
N	3017	2539	2660	2630	2614
R^2	0.02	0.03	0.01	0.01	0.01

Notes: Robust standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. In columns (1) and (2), dependent variable is a continuous measure of expected inflation constructed using factor analysis (see text) and normalized to have mean zero and standard deviation one. In columns (3) through (4), dependent variable takes value 1 if respondent expects prices (in general, of durables, or of cars, respectively) to fall, 2 if respondent expects prices to stay the same (or is uncertain), and 3 if respondent expects prices to rise; these are ordered probit regressions. Regressions include a constant term.

Table 5: Explanations for inflation expectations and respondent characteristics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	demand	goods	costs	controls	profit	other	dk
white	0.012	0.123	0.220*	0.381***	0.085	0.159	-0.364***
	(0.127)	(0.126)	(0.127)	(0.122)	(0.141)	(0.132)	(0.099)
metro	-0.001	-0.099	-0.145**	0.050	0.167**	-0.035	0.047
	(0.068)	(0.069)	(0.065)	(0.058)	(0.072)	(0.067)	(0.061)
has kids	0.116*	0.091	-0.029	0.042	-0.049	-0.138**	-0.016
	(0.066)	(0.066)	(0.062)	(0.057)	(0.073)	(0.064)	(0.059)
college	0.036	-0.081	0.034	0.219***	0.034	0.031	-0.027
	(0.081)	(0.084)	(0.076)	(0.069)	(0.089)	(0.078)	(0.077)
male	-0.021	-0.047	0.188**	0.186**	0.175*	0.154*	-0.349***
	(0.089)	(0.086)	(0.087)	(0.077)	(0.101)	(0.089)	(0.074)
vet	0.089	-0.061	-0.129*	0.094	-0.082	-0.065	0.038
	(0.072)	(0.072)	(0.070)	(0.062)	(0.081)	(0.072)	(0.063)
income (thous. $)	0.009	0.001	0.008	0.010	-0.006	0.005	-0.034***
	(0.007)	(0.008)	(0.007)	(0.007)	(0.008)	(0.007)	(0.011)
homeowner	0.042	-0.126*	-0.027	0.076	0.257***	0.034	-0.098*
	(0.064)	(0.065)	(0.060)	(0.055)	(0.068)	(0.062)	(0.058)
net debt (thous. $)	0.001	0.002	-0.008*	-0.005	0.005	0.001	0.005
	(0.005)	(0.007)	(0.004)	(0.004)	(0.006)	(0.005)	(0.005)
January	0.045	0.143**	-0.063	0.039	0.154**	-0.046	-0.084
	(0.063)	(0.061)	(0.059)	(0.054)	(0.067)	(0.061)	(0.055)
finances better	0.024	0.117*	0.029	-0.094	-0.249***	0.079	0.140**
	(0.072)	(0.071)	(0.066)	(0.062)	(0.083)	(0.071)	(0.066)
earnings better	0.008	0.072	0.040	0.091	0.027	-0.108	-0.130**
	(0.072)	(0.070)	(0.066)	(0.062)	(0.078)	(0.071)	(0.064)
expect higher inc	0.075	-0.001	0.102	0.076	-0.041	-0.056	-0.168***
	(0.068)	(0.066)	(0.063)	(0.058)	(0.075)	(0.066)	(0.060)
expect world war	-0.058	0.021	-0.028	-0.019	0.067	-0.089	0.000
	(0.063)	(0.063)	(0.059)	(0.055)	(0.069)	(0.061)	(0.056)
know housing regs	-0.050	-0.009	0.121*	0.191***	0.042	0.099	-0.323***
	(0.078)	(0.077)	(0.071)	(0.065)	(0.082)	(0.075)	(0.073)
know reg W	0.206***	-0.004	0.009	0.232***	0.069	0.100	-0.230***
	(0.071)	(0.068)	(0.066)	(0.061)	(0.078)	(0.069)	(0.061)
N	2662	2663	2660	2663	2661	2660	2660
Pseudo-R^2	0.01	0.01	0.02	0.05	0.03	0.01	0.07

Notes: Probit regressions with robust standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Dependent variable indicates that the respondent provided the indicated category of explanation for his or her inflation expectation. Note that "goods" refers to explanations about scarce or ample goods, "costs" refers to material or labor costs, "profit" to profiteering, "other" to other policy or war related explanations, and "dk" to respondents who provide no explanation or say that they do not know. Regressions include a constant term.

5 Consumption and Expected Inflation

In this section, we study the drivers of consumption in 1950 and 1951, especially the association between inflation expectations and consumption. First, we focus on spending attitudes or "readiness to spend," and respondents self-reported explanations for their readiness to spend. Then, we focus on recent and planned consumption, at both the extensive and intensive margins.

5.1 Readiness to Spend

Recall that SCF respondents were asked whether "this is a good or bad time to buy autos and large household items." Nearly half (48%) of respondents said that it was a bad time, 16% said that it depends or were not sure, and 36% said that it was a good time.[17]

Respondents provided up to two open-ended explanations for their readiness to spend. As with the explanations for price change expectations, the SCF uses a large number of response codes for these explanations (see Appendix B.5). We group these response codes into the following categories (and subcategories): shortages; prices (subcategories: prices high or rising, price controls, price uncertainty); conditions (subcategories: times in general, personal situation); credit restrictions; expected tire, gas, or oil rationing; and other policy or war-related responses. Appendix Table A.6 summarizes the share of respondents providing each category and subcategory of explanation. The most commonly-mentioned explanations are prices (57.6%), shortages (29%), and conditions (22.8%). Only 1.2% mention credit restrictions and 0.2% mention expected tire, gas, or oil rationing. Of respondents mentioning prices as an explanation, the vast majority (98%) mention high or rising prices, while only 2.5% mention price controls and 0.2% mention price uncertainty. Of respondents mentioning conditions as an explanation, 74% mention their personal situation and 28% mention good or bad times in general.

Figure 6 summarizes spending attitudes and explanations for spending attitudes by month. Overall readiness to spend was similar in January and February. Reported explanations differed slightly by month, and differed substantially by spending attitude. Among consumers who thought it was a bad time to spend in January, 73% mentioned prices (71% mentioned high or rising prices). In February, 77% mentioned prices (75% high or rising prices). Consumers who thought that "it depends" were most likely to explain that

[17]Note that 2.8% of respondents said it was a very bad time and 1.7% of respondents said it was a very good time; these small response categories are grouped with "bad" and "good" responses, respectively.

it depended on conditions, especially on their personal situation, particularly in January. Consumers who thought that it was a good time to spend were most likely to cite shortages (present or expected): 56% in January and 53% in February. In January, 47% of these respondents mentioned prices (46% high or rising prices) and in February, 46% mentioned prices (45% high or rising prices).

Like Bachmann et al. (2015), we use an ordered probit model to study how "readiness to spend" is related to expected inflation. Let y_i be a categorical variable equal to 1 if i says that it is a good time to buy, 0 if i says it depends, and -1 if i says that it is a bad time to buy. We assume that an unobserved, continuous measure of readiness to spend, y_i^*, depends on inflation expectations and a vector $\mathbf{x_i}$ of control variables, including a month fixed effect.

$$y_i^* = \beta_1 ExpInf_i + \mathbf{x_i}\gamma + \epsilon_i, \tag{2}$$

We assume that the discrete survey responses have the following relationship with y_i^*:

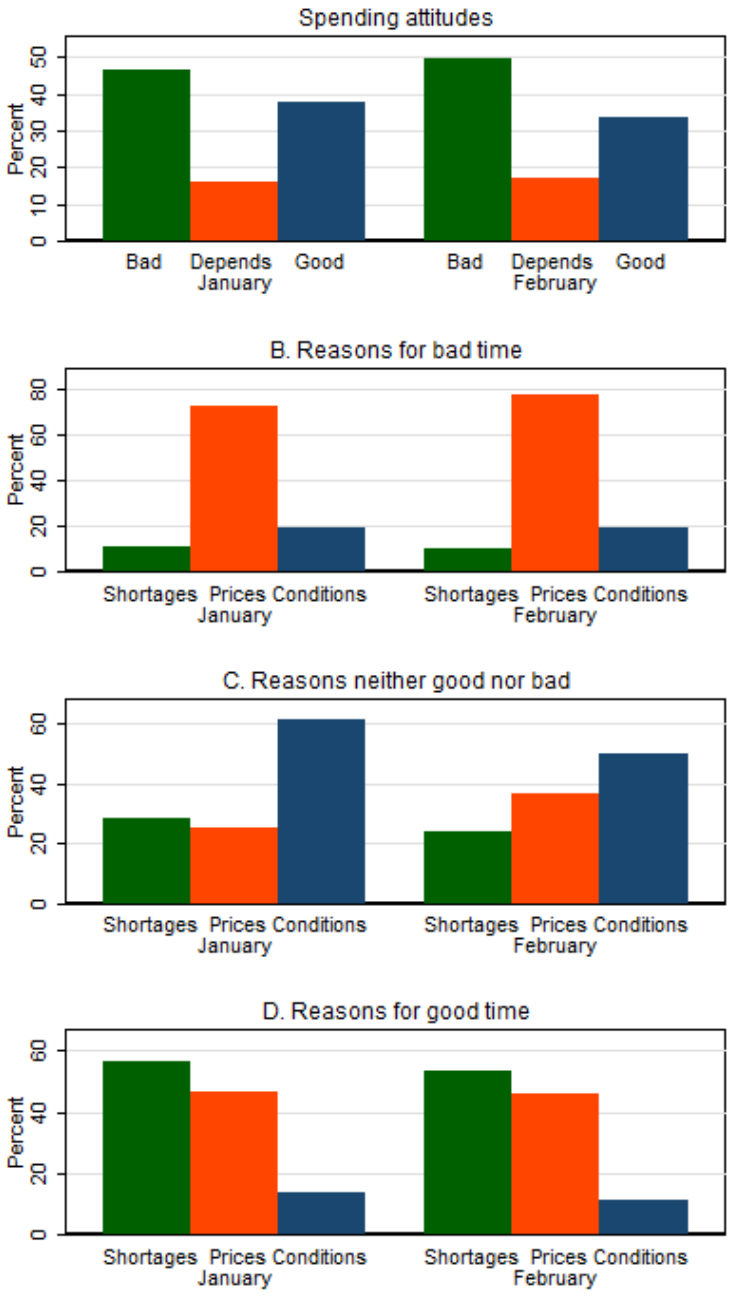
$$y_i = \begin{cases} -1, & \text{if } y_i^* \leq \alpha_1 \\ 0, & \text{if } \alpha_1 < y_i^* \leq \alpha_2 \\ 1, & \text{if } y_i^* > \alpha_2 \end{cases} \tag{3}$$

Results are reported in Table 6. Column (1) includes demographic controls, while column (2) also includes controls related to perceptions and expectations of the household's financial situation, expectation of another world war, and knowledge of regulations. In both cases, the coefficient on $ExpInf$ is positive but statistically insignificant. We do find that respondents with higher income and who took the survey in January have more favorable spending attitudes, while homeowners and those expecting a world war have less favorable attitudes. Moreover, knowledge of Regulation W is associated with more favorable spending attitudes. The marginal effect size implies that respondents who know about Regulation W are 8 percentage points more likely to say it is a good time to spend, and 8 percentage points less likely to say it is a bad time.[18]

In columns (3), (4), and (5), the dependent variables are dummy variables indicating that the respondent provides a price-related, shortage-related, or conditions-related explanation,

[18]In an alternative specification, we replace $ExpInf$ with the categorical spending measures: dummy variables indicating that the respondent expects prices of appliances and prices of autos to rise or to fall. The only statistically significant estimate is a negative coefficient on the indicator that the respondent expects appliance prices to fall—respondents who expect appliances to fall are 23 percentage points less likely to say that it is a good time to spend. However, only 74 respondents expect appliance prices to fall.

Figure 6: Readiness to spend and explanations for spending attitudes



Notes: Panel A shows the percent of 1951 SCF respondents in January and in February who report that it is a bad time to buy autos and large household items, that it depends, or that it is a good time. Panels B, C, and D show the percent of respondents each month who cite shortages, prices, or conditions as an explanation for their spending attitudes. In Panel B, the sample is respondents who say that it is a bad time to spend; in C, respondents who say it depends; and in D, respondents who say it is a good time.

respectively, for her readiness to spend. Respondents with higher $ExpInf$ are more likely to provide price-related explanations: a one standard deviation increase in $ExpInf$ is associated with a 5 percentage point greater likelihood of providing a price-related explanation. Recall that many respondents cited high or rising prices as explanations for both favorable and unfavorable spending attitudes. The other explanations are not correlated with $ExpInf$. However, January respondents and those with knowledge of Regulation W are respectively 6 and 8 percentage points more likely to mention shortages. A more stringent version of Regulation W (with even shorter repayment periods) had been imposed during World War II, as discussed by Richardson (2013), so the reintroduction of Regulation W in fall 1950 may have reminded consumers of wartime shortages.

Using more recent data, Bachmann et al. (2015) find that higher inflation expectations are associated with lower readiness to spend at the ZLB. They find no effect away from the ZLB. In contrast, Duca et al. (2018) find that higher inflation expectations are associated with greater readiness to spend, especially at the ZLB. D'Acunto et al. (2016, 2018) find that higher inflation expectations are associated with greater readiness to spend using recent data from Germany and Poland, while D'Acunto et al. (2019) find a positive association only for high-IQ men in Finland.[19]

The mixed results in the literature, and our statistically insignificant estimates in columns (1) and (2), may reflect how consumers interpret "good or bad time to spend" questions. For example, consumers might have different time horizons in mind; some might reflect on their recent past spending, others on planned spending in the next few days, and others on planned spending in the next months. Bachmann et al. show that aggregate "readiness to spend" on the Michigan Survey is correlated positively with aggregate actual spending in the months following the survey, but the Michigan Survey does not ask respondents about their recent or planned spending. With the SCF data, however, we can directly check how reported "readiness" reflects the recent and planned spending of individuals.

Table 7 summarizes the share of SCF respondents who bought or expect to buy durables or cars in 1950 or 1951, and the mean actual or expected dollar amount of such spending, by respondents' reported readiness to spend. Respondents who say it is a good time to spend are both more likely to have purchased cars or durables in 1950 and more likely to intend to purchase them in 1951. Mean spending and planned spending is also greater for consumers who say it is a good time to spend. The last row shows the percent increase in share or dollar

[19]We continue to find a statistically significant coefficient on $ExpInf$ when we limit the sample to subgroups such as college-educated respondents.

Table 6: Ordered probit regressions of readiness to spend on inflation expectations

	(1) Readiness	(2) Readiness	(3) Price	(4) Shortages	(5) Conditions
ExpInf	0.01	0.03	0.14***	0.01	-0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)
white	0.13	0.04	0.11	0.06	0.05
	(0.11)	(0.12)	(0.13)	(0.14)	(0.14)
metro	0.07	0.02	0.13*	-0.05	-0.09
	(0.06)	(0.07)	(0.08)	(0.08)	(0.09)
has kids	0.05	0.06	-0.09	0.06	-0.01
	(0.06)	(0.07)	(0.07)	(0.08)	(0.08)
college	0.07	-0.08	0.11	0.17*	-0.17
	(0.08)	(0.09)	(0.09)	(0.10)	(0.11)
male	-0.02	-0.06	0.21**	-0.01	-0.03
	(0.08)	(0.09)	(0.10)	(0.10)	(0.11)
vet	0.01	-0.02	0.13	-0.09	-0.09
	(0.07)	(0.08)	(0.08)	(0.09)	(0.09)
income (thous. $)	0.06***	0.04***	-0.00	0.01	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
homeowner	-0.21***	-0.22***	0.14*	-0.09	-0.04
	(0.06)	(0.07)	(0.07)	(0.08)	(0.08)
net debt (thous. $)	0.01	0.01	-0.01	-0.01	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
January	0.12**	0.15**	-0.15**	0.19***	0.04
	(0.06)	(0.06)	(0.07)	(0.07)	(0.07)
finances better		0.03	-0.04	0.04	0.07
		(0.08)	(0.08)	(0.08)	(0.09)
earnings better		0.06	-0.01	0.03	-0.15*
		(0.07)	(0.08)	(0.08)	(0.09)
expect higher inc		0.10	0.06	0.18**	-0.03
		(0.07)	(0.07)	(0.08)	(0.08)
expect world war		-0.14**	0.06	0.06	-0.04
		(0.06)	(0.07)	(0.07)	(0.08)
know housing regs		0.08	0.03	0.14	-0.02
		(0.08)	(0.09)	(0.09)	(0.10)
know reg W		0.22***	-0.16**	0.25***	0.14*
		(0.07)	(0.08)	(0.08)	(0.08)
N	1666	1425	1425	1425	1425
Pseudo-R^2	0.02	0.03	0.02	0.03	0.01

Notes: Ordered probit regressions (columns 1 and 2) and probit regressions (columns 3-5) with robust standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Dependent variable in (1) and (2) is readiness to spend on autos and large household items. In columns (3), (4), and (5), dependent variables are dummy variables indicating that the respondent provides a price-related, shortage-related, or conditions-related explanation, respectively, for her readiness to spend. $ExpInf$ is a continuous proxy for expected inflation constructed using polychoric factor analysis as described in the text.

amount from respondents in the "bad" category to the "good" category. Actual spending on durables in 1950 is 21.1% greater for respondents in the "good" category, and planned spending on durables in 1951 is 75% greater for respondents in the "good" category. For cars, actual spending is 55% greater and planned spending 67% greater for respondents in the "good" relative to the "bad" category.

Table 7: Recent and planned spending by readiness to spend

	Durables 1950		Durables 1951		Cars 1950		Cars 1951	
Readiness	Share	$	Share	$	Share	$	Share	$
Bad	0.39	135.92	0.19	42.10	0.23	298.20	0.07	95.88
Depends	0.39	137.12	0.20	44.62	0.28	501.85	0.07	112.84
Good	0.45	164.57	0.28	73.64	0.29	463.11	0.11	161.65
% Increase	15.4	21.1	47.4	74.9	26.1	55.3	57.1	68.6

Notes: Table summarizes the share of SCF respondents who bought or expect to buy durables or cars in 1950 or 1951, and the mean actual or expected dollar amount of such spending, by respondents' reported readiness to spend. The last row shows the percent increase in share or dollar amount from respondents in the "bad" category to the "good" category.

Thus, when consumers report that it is a "good time to spend," some may mean that it is good to have recently spent, while others mean that it will be good to spend soon, and many consumers rely on factors other than expected inflation, like anticipated shortages or their personal financial situation, to make such an evaluation. It is therefore hard to detect a strong association between expected inflation and readiness to spend. In the next subsection, we study inflation expectations and actual and planned consumption.

5.2 Recent and Planned Consumption

Inflation expectations may matter for durables consumption at both the extensive and the intensive margins. With the SCF data we are able to study both margins. Table 8 reports the results of probit regressions in which the dependent variable is a dummy variable indicating that the respondent bought durables in 1950, expects to buy durables in 1951, bought a car in 1950, expects to buy a car in 1951, bought a home in 1950, or expects to buy a home in 1951. The independent variable of interest is $ExpInf$, and the control variables are the same as in Tables 4 and 6.

In the first column, we see that consumers with higher inflation expectations are statistically significantly more likely to have bought durables in 1950. The marginal effect size implies that a one standard deviation increase in $ExpInf$ is associated with a 8% (or 3 per-

centage point) increase in likelihood of purchasing durables in 1950. In the second column, for which the dependent variable indicates that the respondent expects to buy durables in 1951, the coefficient on $ExpInf$ is negative but not statistically significant. For cars and homes we see the same pattern of higher expected inflation associated with greater probability of purchasing in 1950 and lower probability in 1951, though the coefficient is statistically significant with $p < 0.05$ only for cars in 1951, and at $p < 0.1$ for homes in 1950. The signs of the coefficient estimates on $ExpInf$ in all columns are consistent with respondents shifting consumption forward in time in response to higher expected inflation, which is theoretically consistent.[20] Note also that knowledge of regulation W is positively associated with recent and planned consumption.

In the SCF data we can observe not only whether a respondent makes or expects to make a purchase in a particular category, but also the dollar amount of the actual or expected purchase. As discussed in Section 3.2, we transform these dollar amounts using the inverse hyperbolic sine transformation. Table 9 shows regressions of the transformed variables on $ExpInf$. Due to the censoring of the dependent variables at 0, we use tobit regression analysis. As in Table 8, the statistically significant results are that durables spending in 1950 increases with expected inflation and expected car spending in 1951 decreases with expected inflation. If we focus only on the intensive margin, by restricting the sample to respondents who did spend or plan to spend in a particular category and year, then we find no statistically significant association between $ExpInf$ and consumption.

Another way to examine whether higher inflation expectations lead consumers to shift consumption forward intertemporally is to estimate similar regressions in which the outcome variable uses information about both 1950 and 1951 consumption or planned consumption. In the first columns of Table 10, the dependent variable is based on a comparison of durables spending at the extensive margin in 1950 and 1951:

$$y_i = \begin{cases} 0, & \text{if } D_{i0} > D_{i1} \\ 1, & \text{if } D_{i0} < D_{i1}. \end{cases}$$

That is, a zero indicates that the respondent made a purchase "sooner rather than later" and a one indicates the reverse.[21] Columns (2) and (3) are analogous for cars and homes. In the remaining columns, the dependent variable is the difference in spending at the in-

[20] In similar regressions without the control variables, the coefficients on $ExpInf$ are similar in magnitude and statistical significance, though for $H1950$ the coefficient on $ExpInf$ is no longer statistically significant.

[21] Respondents who planned to buy in neither year, or in both years, are omitted in columns (1)-(3).

Table 8: Expected inflation and actual and planned spending on durables, cars, and homes on the extensive margin

	(1)	(2)	(3)	(4)	(5)	(6)
	D1950	D1951	C1950	C1951	H1950	H1951
ExpInf	0.09***	-0.01	0.01	-0.09**	0.08*	-0.06
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)	(0.05)
white	-0.00	-0.07	0.23*	0.06	0.01	0.27
	(0.10)	(0.12)	(0.13)	(0.17)	(0.19)	(0.29)
metro	0.11*	0.06	-0.23***	-0.19**	-0.16	-0.09
	(0.06)	(0.06)	(0.07)	(0.09)	(0.10)	(0.11)
has kids	0.39***	0.17***	0.20***	-0.02	0.16	0.22**
	(0.06)	(0.06)	(0.06)	(0.08)	(0.10)	(0.11)
college	0.07	0.07	-0.01	0.06	-0.25**	-0.43***
	(0.07)	(0.07)	(0.08)	(0.10)	(0.12)	(0.15)
male	0.37***	0.39***	0.76***	0.40***	0.29*	0.25
	(0.08)	(0.09)	(0.12)	(0.15)	(0.17)	(0.17)
vet	0.07	0.06	-0.05	-0.07	0.23**	-0.02
	(0.06)	(0.07)	(0.07)	(0.09)	(0.11)	(0.12)
income (thous. $)	0.03***	0.02**	0.04***	0.03***	0.03**	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
homeowner	0.05	0.04	-0.09	0.16**		
	(0.05)	(0.06)	(0.06)	(0.08)		
net debt (thous. $)	0.00	-0.00	0.00	0.01	0.08***	-0.00
	(0.00)	(0.00)	(0.00)	(0.01)	(0.02)	(0.01)
January	0.09	-0.03	0.08	-0.13	-0.09	-0.09
	(0.05)	(0.06)	(0.06)	(0.08)	(0.10)	(0.10)
finances better	0.09	0.23***	0.03	0.20**	0.02	0.26**
	(0.06)	(0.07)	(0.07)	(0.08)	(0.11)	(0.11)
earnings better	0.12*	0.13**	0.14**	0.13	-0.05	0.04
	(0.06)	(0.07)	(0.07)	(0.09)	(0.11)	(0.11)
expect higher inc	-0.08	0.21***	0.02	0.15*	0.09	0.22**
	(0.06)	(0.06)	(0.06)	(0.08)	(0.11)	(0.10)
expect world war	-0.05	-0.04	0.03	-0.03	0.01	-0.12
	(0.05)	(0.06)	(0.06)	(0.08)	(0.10)	(0.10)
know housing regs	0.05	0.11*	0.15**	-0.12	0.10	0.63***
	(0.06)	(0.07)	(0.07)	(0.10)	(0.11)	(0.12)
know reg W	0.24***	0.21***	0.03	0.32***	0.14	-0.21*
	(0.06)	(0.07)	(0.07)	(0.09)	(0.11)	(0.12)
N	2524	2524	2233	2233	2207	2207
Pseudo-R^2	0.08	0.06	0.07	0.07	0.14	0.09

Notes: Probit regressions with standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Dependent variable is a dummy variable indicating whether the respondent bought durables in 1950, expects to buy durables in 1951, bought a car in 1950, expects to buy a car in 1951, bought a home in 1950, or expects to buy a home in 1951. $ExpInf$ is a continuous proxy for expected inflation constructed using polychoric factor analysis as described in the text. Regressions include a constant term.

Table 9: Expected inflation and actual and planned spending

	(1) dur1950	(2) dur1951	(3) car1950	(4) car1951	(5) home1950	(6) home1951	(7) totdur1950	(8) totdur1951	(9) cons1950	(10) nondur1950
ExpInf	0.45***	0.06	0.08	-1.33**	1.42	-1.34	0.36***	-0.08	0.07***	0.05**
	(0.14)	(0.26)	(0.26)	(0.56)	(0.88)	(1.02)	(0.13)	(0.26)	(0.02)	(0.02)
fin. better	0.55*	1.48***	0.13	2.74**	0.40	4.38*	0.35	1.76***	-0.00	0.00
	(0.31)	(0.56)	(0.58)	(1.26)	(1.85)	(2.30)	(0.29)	(0.57)	(0.04)	(0.05)
earn. better	0.61**	1.65***	1.32**	2.27*	-0.84	0.54	0.86***	1.32**	0.22***	0.11**
	(0.31)	(0.58)	(0.57)	(1.30)	(1.91)	(2.43)	(0.28)	(0.58)	(0.04)	(0.05)
exp higher inc	-0.43	1.54***	0.24	1.73	1.45	4.51**	-0.16	2.31***	-0.02	-0.04
	(0.29)	(0.54)	(0.54)	(1.21)	(1.77)	(2.25)	(0.27)	(0.55)	(0.04)	(0.05)
exp world war	-0.18	-0.26	0.05	-0.35	0.09	-1.82	0.07	-0.19	0.02	-0.04
	(0.28)	(0.51)	(0.52)	(1.15)	(1.68)	(2.09)	(0.25)	(0.52)	(0.04)	(0.04)
know housing	0.33	0.99*	1.17*	-1.90	1.81	12.48***	0.74**	0.66	0.18***	0.11**
	(0.33)	(0.59)	(0.61)	(1.34)	(1.90)	(2.65)	(0.29)	(0.58)	(0.05)	(0.05)
know reg W	1.28***	2.27***	1.03*	5.48***	2.43	-3.64	1.29***	2.92***	0.20***	0.09*
	(0.31)	(0.58)	(0.57)	(1.36)	(1.92)	(2.43)	(0.29)	(0.59)	(0.04)	(0.05)
N	2524	2524	2233	2233	2207	2207	1907	1907	2417	1733
R^2	0.03	0.03	0.03	0.05	0.08	0.05	0.04	0.04	0.16	0.14

Notes: Tobit regressions with standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Dependent variable is the inverse hyperbolic sine of the respondent's spending or expected spending, in dollars, on durables, cars, or homes in 1950 or 1951. $ExpInf$ is a continuous proxy for expected inflation constructed using polychoric factor analysis as described in the text. Regressions full set of controls from Table 4; those of less interest omitted from table to save space.

tensive margin (in dollars) in 1951 and 1950. In all columns, the coefficient on $ExpInf$ is negative, and in most cases statistically significant. This means that respondents with higher inflation expectations are more likely to shift consumption forward intertemporally. The coefficient estimate in column (7) implies that for a one standard deviation increase in inflation expectations, respondents shift $222 of total consumption forward from 1951 to 1950.

Table 10: Expected inflation and intertemporal consumption shifting

	(1) Durables	(2) Cars	(3) Homes	(4) Durables	(5) Cars	(6) Homes	(7) Total
ExpInf	-0.09**	-0.11*	-0.18*	-13.14**	-26.18	-180.95**	-222.41**
	(0.04)	(0.05)	(0.10)	(6.50)	(18.47)	(76.30)	(86.90)
white	0.02	-0.12	-0.11	0.50	-116.48***	275.66	148.29
	(0.19)	(0.26)	(0.60)	(18.69)	(38.88)	(168.93)	(197.40)
metro	-0.06	-0.05	0.25	-18.75	94.25**	-6.12	-41.88
	(0.09)	(0.12)	(0.21)	(15.85)	(42.45)	(193.22)	(222.99)
has kids	-0.12	-0.21*	-0.02	-13.35	-16.72	8.66	-58.59
	(0.09)	(0.11)	(0.20)	(14.38)	(41.09)	(190.89)	(215.10)
college	-0.02	0.10	-0.15	16.47	-71.40	-316.62	-566.95**
	(0.11)	(0.13)	(0.29)	(18.96)	(62.13)	(230.02)	(258.04)
male	0.05	-0.33	0.17	-36.11**	-224.59***	491.33***	-14.94
	(0.14)	(0.26)	(0.41)	(15.09)	(43.03)	(186.89)	(200.65)
vet	-0.06	-0.09	-0.18	-2.00	48.61	-349.50*	-378.84
	(0.10)	(0.13)	(0.23)	(14.37)	(38.64)	(210.90)	(237.27)
income (thousands)	-0.02	0.00	-0.06*	-11.96***	-19.93**	-93.33***	-119.23***
	(0.01)	(0.01)	(0.04)	(4.01)	(9.18)	(36.19)	(41.08)
homeowner	0.06	0.21*		-9.89	35.92	-1339.00***	-1342.56***
	(0.09)	(0.11)		(13.69)	(39.31)	(161.00)	(173.71)
net debt (thousands)	-0.01	0.01	-0.10***	-1.39	5.76	-77.65***	-75.21***
	(0.01)	(0.01)	(0.02)	(1.39)	(4.49)	(23.22)	(23.62)
January	-0.11	-0.17	0.02	5.54	34.89	-221.01	-106.66
	(0.08)	(0.11)	(0.21)	(12.90)	(38.27)	(163.64)	(185.44)
finances better	0.19**	0.19*	0.36*	20.08	58.64	45.02	302.27
	(0.09)	(0.12)	(0.21)	(15.90)	(47.83)	(198.59)	(229.50)
earnings better	0.05	0.05	0.07	1.03	-31.23	26.43	-9.30
	(0.09)	(0.12)	(0.22)	(14.83)	(45.53)	(174.25)	(194.11)
expect higher inc	0.37***	0.18	0.19	26.29*	43.78	22.63	85.11
	(0.09)	(0.11)	(0.21)	(14.18)	(43.13)	(173.66)	(201.88)
expect world war	-0.02	-0.05	-0.04	-6.93	-16.22	-54.17	-85.08
	(0.09)	(0.11)	(0.20)	(13.34)	(40.02)	(170.26)	(193.85)
know housing regs	0.06	-0.24*	0.77***	-0.71	-147.17***	425.28*	285.63
	(0.10)	(0.12)	(0.22)	(18.59)	(53.04)	(223.96)	(251.72)
know reg W	0.02	0.32***	-0.43*	-12.80	24.61	-295.67*	-145.43
	(0.09)	(0.12)	(0.24)	(13.98)	(41.02)	(177.62)	(209.51)
N	1096	714	203	2524	2233	2207	1907
R^2	0.03	0.04	0.19	0.04	0.04	0.06	0.07
Margin	Ext.	Ext.	Ext.	Int.	Int.	Int.	Int.

Notes: Standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Columns (1)-(3) are probit regressions, in which dependent variable takes value 0 if respondent purchased durables, cars, or homes, respectively, in 1950 but not 1951, and takes value 1 if respondent purchased in 1951 but not 1950. Columns (4)-(7) are OLS regressions in which the dependent variable is the difference in spending on durables, cars, homes, or total consumption, respectively, in 1951 versus 1950. $ExpInf$ is a continuous proxy for expected inflation constructed using polychoric factor analysis as described in the text. Regressions include a constant term.

5.3 Additional Detail on Car-buying

Additional questions about car-buying provide more insight into respondents' decisions about intertemporal consumption shifting. The SCF asks respondents for more detailed information on the timing of their expected car-buying. In particular, for respondents who indicate that they expect to buy a car in 1951, the survey asks, "Do you think you'll buy it before the first of July?" The survey also asks, "Why do you say you will buy it then?" Open-ended responses to this question are assigned one of many response codes (see Appendix B.6).

These questions allow us to estimate a more granular version of the regression in Table 10 column (2), in which the dummy variable is not a dummy variable, but rather an ordinal variable reflecting the respondent's actual or expected timing of car purchase. Our results on intertemporal consumption shifting are robust and slightly strengthened in statistical significance.[22] These questions also allow us to examine how salient consumers' expectations of price changes are in their decisions regarding purchase timing.[23]

Of respondents who expect to buy a car in 1951, 40% expect to buy it before July, 24% expect to buy after July 1, and the rest are uncertain. Consumers' self-reported explanations for their intended purchase timing reveal that expected shortages and expected inflation drive timing decisions for sizeable minorities of respondents, but may not be the primary drivers. For consumers who expect to buy a car in 1951 and plan to make the purchase in the first half of the year, 17% explain that they wish to buy the car before possible shortages; 10% want to buy before prices go up. The most common explanation, however, is that they need the car before July (37%). For consumers who plan to delay the purchase until the second half of the year, the majority (77%) say that they will not have the money until then. The next common answer (12%) is that they "Don't need it yet but will buy before inflation gets too far." Another 8% say that in the fall, cars will cost less or they will get more for their trade-in.

[22] Let $CarTiming_i$ take value 0 if respondent i purchased a car in 1950 (and does not expect to purchase another in 1951), 1 if i purchased a car in January or February 1951, 2 if i expects to purchase a car before July 1951, and 3 otherwise. We estimate an ordered probit regression of $CarTiming_i$ on $ExpInf$ and the usual set of control variables. The coefficient on $ExpInf$ is slightly more statistically significant, and the marginal effect size slightly greater, than in column (2) of Table 10 in which the outcome variable is a dummy variable. Complete results are available upon request.

[23] Our approach follows that of Binder (2018), who uses Michigan Survey respondents' self-reported explanations for their spending attitudes to evaluate the salience of various factors in their decisionmaking.

6 Heterogeneity and Credit Constraints

As summarized in the final column of Table A.1, several studies find heterogeneity in how modern consumers respond to expected inflation. For example, Burke and Ozdagli (2013) find that higher inflation expectations increase spending on durables mostly for college-educated mortgage-holders. D'Acunto et al. (2019) find the strongest response for men with high IQ, Ichiue and Nishiguchi (2015) for asset-holders and older people, and Drager and Nghiem (2018) for consumers who reported hearing news about monetary policy. These results seem to suggest that more sophisticated consumers, or those with less financial constraints, are more able to shift their consumption in response to expected inflation. However, Coibion et al. (2019) find that the effect of expected inflation on consumption does not depend on financial or cognitive constraints in the Netherlands.

Using the 1951 SCF data, we can test for heterogeneity in the response of recent or planned consumption to consumer characteristics, including demographic characteristic, financial situation and expectations, and economic knowledge. We find little evidence of demographic heterogeneity in the response of recent or planned consumption to expected inflation. In particular, we re-estimate the regressions in Table 8 and 9 including an interaction of $ExpInf$ and one of the following: dummy variables indicating that the respondent is white, college-educated, male, a homeowner, a veteran; dummy variables indicating that the respondent has knowledge of housing regulations, has knowledge of Regulation W, feels that their household financial situation has improved, or expects their income to rise; total household income, or net debt. In almost no cases is the coefficient on the interaction term statistically significant.

Table 11 displays results for the regressions using a dummy variable indicating that the respondent bought durables in 1950 as the dependent variable—analogous to the first column of Table 8, one of our strongest results, but with various interaction terms. Recall our finding that consumers with higher inflation expectations are more likely to buy durables in 1950. The coefficients on the interaction terms with college education, home ownership, veteran status, knowledge of the housing regulations, and knowledge of Regulation W are all positive, but these results are not statistically significant. Only the interaction term with household income has a statistically significant, positive coefficient. However, this result appears to be driven by outliers, as the coefficient is still positive but not statistically significant if log income is instead used. Thus our results are generally qualitatively consistent with the results in the recent literature, but not strong. With other outcome variables, such as car or home purchasing on the extensive or intensive margins, there is likewise little evidence of

significant heterogeneity in the effects of inflation expectations on consumption.

In recent years, since inflation has been relatively low and stable, many consumers may be less attentive to inflation when making consumption plans. This may explain why only the most educated or financially sophisticated consumers react to expected inflation in the recent literature. In 1951, the average consumer may have been more attentive to inflation, explaining the minimal heterogeneity by demographic group.

These results may also reflect the relative lack of binding credit constraints on consumers in 1951. The survey provides some evidence that consumers were not concerned about credit constraints. Respondents who did not purchase a car in 1950 were asked, "Did you think at all of buying a car this past year?" If they answered affirmatively, they were asked, "Were there any special reasons why you didn't buy it?" Open-ended responses to this question are assigned one of many response codes (see Appendix B.7). The most common explanation was that respondents could not afford a car (43%), and 23% of respondents provided an explanation related to price expectations (e.g. that prices were too high and would be lower, or that they were waiting for a better price or deal). Only 3% mentioned credit restrictions or that they disliked credit or borrowing.[24]

Similarly, after respondents were asked about their knowledge of housing regulations and Regulation W, they were asked, "Have these regulations had any effect on your buying plans?" Only 3% of respondents overall and 8% of respondents with knowledge of the housing regulation say that the housing regulations affect their plans. Similarly, 3% of respondents and 6% of respondents with knowledge of Regulation W say that Regulation W affects their plans. Thus, tighter or more restrictive credit regulations did not affect many respondents' consumption plans at this time. At a time when many households had accumulated financial assets, credit constraints simply weren't that important: most households with the income to afford major purchases also had cash on hand for hefty down payments and short repayment timelines.

[24]Only 402 respondents answered this question, so responses to this question cannot be readily used in our regression analysis.

Table 11: Heterogeneity in response of durables spending in 1950 to expected inflation

	(1) White	(2) College	(3) Male	(4) Homeown	(5) Vet	(6) HousingReg	(7) RegW	(8) BetterOff	(9) HigherInc	(10) Income	(11) Debt
ExpInf	0.09	0.07**	0.18***	0.06*	0.08***	0.06*	0.07*	0.08**	0.06*	0.03	0.08***
	(0.08)	(0.03)	(0.06)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.04)	(0.03)
Interaction	-0.00	0.09	-0.11	0.06	0.03	0.10	0.03	0.02	0.05	0.01*	-0.01
	(0.09)	(0.07)	(0.07)	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.05)	(0.01)	(0.00)
N	2524	2524	2524	2524	2524	2524	2524	2524	2524	2524	2524
R^2	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08

Notes: Ordered probit regressions with standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Dependent variable is a dummy variable indicating whether the respondent bought durables in 1950. $ExpInf$ is a continuous proxy for expected inflation constructed using polychoric factor analysis as described in the text. *Interaction* is the interaction of $ExpInf$ with the respondent characteristic indicated in the column header: dummy variables indicating that the respondent is white (column 1), college-educated (2), male (3), a homeowner (4), a veteran (5); dummy variables indicating that the respondent has knowledge of housing regulations (6), has knowledge of Regulation W (7), feels that their household financial situation has improved (8), or expects their income to rise (9); total household income in thousands of dollars (10), or net debt in thousands of dollars (11). Regressions include the control variables from Table 8 and a constant term.

7 Conclusion

We have used survey data from January and February 1951 to study inflation expectations and consumption in the United States during the Korean War. The survey timing is interesting because of changes in the international situation and in domestic policy in the first weeks of the year that altered consumers' perceptions of the risk of shortages and inflation. In particular, though a price freeze was implemented on January 26, we show that consumers became *more* concerned about inflation from January to February. By examining respondents' explanations for their inflation expectations, we see that consumers became less likely to believe that price controls would be effective.

Our work complements the literature on inflation expectations and consumption that uses more recent data. Our results are generally consistent with the theory that higher inflation expectations (implying lower real interest rates in a ZLB-like setting, when the nominal rate is held fixed) shift consumption forward intertemporally. That is, consumers with higher inflation expectations tended to spend more in 1950 and expected to spend less in 1951. We observe this effect at both the extensive and the intensive margins. These intertemporal shifting effects are relatively modest in magnitude. We note that expected inflation was *not* associated with consumers' "readiness to spend," or responses about whether it is a "good time or bad time" to buy cars and durables. Our results thus highlight the usefulness of explicit information about actual spending and planned spending in this type of study.

We also found relatively little evidence of heterogeneity in responses of consumption to inflation expectations. Higher-income, less-indebted, more educated, and more informed consumers were somewhat more likely to shift their consumption in response to expected inflation, consistent with results from other studies using recent data, but in our data these heterogeneity results were not generally statistically significant. We suggest that this is because credit constraints were less binding in 1950-51. Indeed, almost no respondents cited credit constraints as a reason for not purchasing a car in 1950, for example. Moreover, as consumers in 1951 had experienced high and volatile inflation in the recent past, they may have been more attentive to inflation than consumers are today.

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Appendix A Additional Tables and Figures

Table A.1: Papers using survey microdata to study inflation expectations and consumption

Paper	Survey	Years	Country	Spending types	Higher expected inflation associated with...	Heterogeneity in response
Bachmann et al. (2015)	Michigan Survey	1984-2012	U.S.	Readiness D	Lower readiness at ZLB, insignificant effect away from ZLB	
Binder (2017b)	Michigan Survey	1978-2013	U.S.	Readiness D	Lower readiness	Greater uncertainty also associated with lower readiness
Burke and Ozdagli (2013)	RAND-American Life Panel	2009-2012	U.S.	Recent D & ND	Increased durables spending, no response of non-durables	Effect only for college-educated mortgage-holders
Coibion et al. (2019)	CentER Internet panel	2018	Netherlands	Recent & expected D & ND	Reduced durables spending, imprecisely estimated increase in non-durables.	Effect does not depend on cognitive or financial constraints
Crump et al. (2015)	FRBNY Survey of Consumer Expectations	2013-2017	U.S.	Expected T	Greater expected spending	
D'Acunto et al. (2016)	GfK	2000-2013	Germany	Readiness D	Greater readiness	
D'Acunto et al. (2018)	GfK	2009-2012	Poland	Readiness D	Greater readiness	
D'Acunto et al. (2019)	Consumer Survey of Statistics Finland	2001-2015	Finland	Readiness D	Greater readiness or no effect	Effect only for high-IQ men
Drager and Nghiem (2018)	Univ. of Hamburg	2015-2016	Germany	Recent & expected T	Higher spending but lower readiness	Stronger effect for consumers who heard news about monetary policy
Duca et al. (2018)	EU Consumer Survey	2003-2016	Euro area	Readiness D	Greater readiness, especially at ZLB	Some heterogeneity across countries, though positive effect for all but Malta
Ichiue and Nishiguchi (2015)	Bank of Japan Opinion Survey	2006-2013	Japan	Recent & expected T	Higher real spending compared with year ago but lower expected spending	Stronger for asset holders and older people
Vellekoop and Wiederholt (2018)	CentER Internet panel	2006-2015	Saving			

Notes: In "Spending types," *Readiness* refers to a measure of respondent's self-reported readiness to spend, i.e. evaluation of whether it is a good time to spend. D denotes durables, N non-durables, and T total expenditures.

Table A.2: Summary statistics of respondent characteristics

Variable	Mean	Std. Dev.	N
white	0.93	0.25	3239
metro	0.34	0.47	3272
has kids	0.45	0.5	3272
college	0.21	0.4	3254
male	0.83	0.38	3271
vet	0.24	0.43	3272
homeowner	0.44	0.5	3272
income (thousands)	4.04	4.61	3272
net debt (thousands)	-0.59	6.92	3271
finances better	0.33	0.47	3224
earnings better	0.48	0.5	3215
expect higher inc	0.4	0.49	3233
expect world war	0.55	0.5	3122
know housing regs	0.28	0.45	3048
know reg W	0.52	0.5	3167

Notes: Table reports mean and standard deviation of survey variables from 1951 Survey of Consumer Finances. All are dummy variables except for "income (thousands)" and "net debt (thousands)" which are reported in thousands of 1951 US dollars. The variable "expect world war" is described in Appendix , and "know housing regs" and "know reg W" in Appendix .

Table A.3: Factor loadings for $ExpInf$

π_i^g	0.54
π_i^d	0.70
π_i^c	0.62
Inflation concern	0.26

Notes: Table shows factor loadings (pattern matrix) for the first factor ($ExpInf$) from polychoric factor analysis of four ordinal variables summarizing respondents' inflation expectations and concern.

Table A.4: Purchases Last Year vs. Planned Purchases, by year of SCF

		1947	1948	1949	1950	1951
Cars						
	Purchased last year	12.14%	16.25%	31.93%	24.87%	27.61%
	Planned purchase this year	12.99%	12.22%	11.13%	11.45%	7.99%
Homes						
	Purchased last year	7.62%	5.53%	4.38%	4.20%	5.08%
	Planned purchase this year	5.92%	4.26%	4.43%	5.98%	3.58%
Non-Car Durables						
	Purchased last year	28.83%	36.44%	36.46%	42.92%	43.64%
	Planned purchase this year	21.35%	22.85%	22.50%	27.69%	23.17%

Notes: Table shows the share of households in the SCF who report having purchased the listed good in the previous year and the share of households who report planning to buy the same good in the coming year. The listed year is always the year of the Survey of Consumer Finance, which was always conducted during Q1.

Table A.5: Explanations for inflation expectations and respondent characteristics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	demand	goods	costs	controls	profit	other	dk
white	0.020	0.203	0.289**	0.193	0.083	0.278*	-0.375***
	(0.156)	(0.141)	(0.142)	(0.164)	(0.155)	(0.153)	(0.116)
metro	0.019	-0.068	-0.156**	-0.007	0.189**	0.022	0.030
	(0.086)	(0.078)	(0.075)	(0.080)	(0.081)	(0.077)	(0.072)
has kids	0.132	0.140*	-0.021	-0.020	-0.048	-0.140*	0.030
	(0.081)	(0.075)	(0.071)	(0.077)	(0.082)	(0.073)	(0.070)
college	0.153	-0.110	-0.018	0.297***	0.067	-0.008	-0.027
	(0.100)	(0.096)	(0.089)	(0.090)	(0.103)	(0.091)	(0.091)
male	0.076	0.024	0.243**	0.186*	0.222*	0.108	-0.411***
	(0.114)	(0.099)	(0.100)	(0.110)	(0.115)	(0.101)	(0.087)
vet	0.156*	-0.068	-0.173**	0.079	-0.002	-0.053	0.084
	(0.090)	(0.083)	(0.081)	(0.085)	(0.090)	(0.083)	(0.075)
income (thous. $)	0.007	-0.005	0.008	0.012	-0.006	0.003	-0.026**
	(0.008)	(0.009)	(0.008)	(0.008)	(0.009)	(0.008)	(0.011)
homeowner	0.068	-0.141*	-0.028	0.193**	0.274***	0.074	-0.159**
	(0.080)	(0.074)	(0.069)	(0.075)	(0.078)	(0.072)	(0.068)
net debt (thous. $)	-0.002	-0.001	-0.011**	-0.002	0.007	0.001	0.003
	(0.006)	(0.007)	(0.005)	(0.006)	(0.007)	(0.005)	(0.005)
January	0.059	0.189***	-0.035	-0.317***	0.196**	0.009	0.006
	(0.079)	(0.070)	(0.067)	(0.075)	(0.077)	(0.070)	(0.065)
finances better	0.081	0.102	0.000	-0.085	-0.357***	0.076	0.138*
	(0.089)	(0.081)	(0.076)	(0.085)	(0.094)	(0.081)	(0.078)
earnings better	0.077	0.052	0.043	0.010	0.038	-0.115	-0.061
	(0.091)	(0.081)	(0.076)	(0.087)	(0.088)	(0.081)	(0.076)
expect higher inc	-0.036	0.038	0.183**	0.078	0.031	-0.034	-0.194***
	(0.085)	(0.075)	(0.072)	(0.080)	(0.085)	(0.076)	(0.072)
expect world war	-0.013	0.069	-0.036	-0.072	0.057	-0.088	0.007
	(0.080)	(0.072)	(0.069)	(0.075)	(0.078)	(0.072)	(0.067)
know housing regs	-0.107	0.021	0.080	0.270***	0.054	0.085	-0.260***
	(0.099)	(0.088)	(0.081)	(0.087)	(0.094)	(0.087)	(0.086)
know reg W	0.222**	-0.027	0.076	0.277***	0.045	0.103	-0.242***
	(0.091)	(0.078)	(0.076)	(0.086)	(0.089)	(0.080)	(0.073)
N	1849	1849	1849	1849	1849	1849	1849
R^2	0.02	0.02	0.02	0.08	0.04	0.01	0.07

Notes: Robust standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Probit regressions. Regressions include a constant term. Sample is limited to respondents who expect a rise in general prices in the next year.

Table A.6: Explanations for spending attitudes

Explanation	**Percent of respondents**
Shortages	29.0
Prices	57.6
Prices high or rising	56.3
Price controls	1.4
Price uncertainty	0.1
Conditions	22.8
Times in general	6.3
Personal situation	16.8
Quality	8.5
Credit restrictions	1.2
Expected tire, gas, or oil rationing	0.2
Other policy or war related	3.4
Don't know	6.7

Notes: Table shows the percent of 1951 SCF respondents providing each explanation for their readiness to spend on durables and cars. See Appendix B.5 for details of how these explanations are coded.

Appendix B Data Appendix

B.1 Explanations for Inflation Expectations

The 1951 SCF codebook (Card 1, columns 48-51) lists the following coded responses to Q. 18a, which asks, "Why will they do that?" in response to the respondents' reported expectation of price changes in 1951:

Factors causing prices to rise (or preventing a fall) in 1951
10. "Supply and demand" general, unspecified, "demand will exceed supply"
11. Goods scarce, will be scarce
12. Crops, livestock failure, weather
13. Hoarding, scare buying
16. Purchasing power is high, will; people (will) have lots of money to spend
17. Higher employment, influx of defense workers will increase demand
20. Production costs (will rise); production factors - general, unspecified
21. Materials costs will rise or are high
22. Wages will rise or are high
23. Materials are (will be) scarce
24. Labor shortage; workers being drafted
25. Strikes in general
26. Material and labor shortages combination of 23 and 24
30. Government policy and/or actions, general, unspecified (do not include "business actions unspecified" here)
31. Exports, Marshall Plan, foreign trade
32. Wage and/or price controls (won't work, won't be put on); subsidies
33. Taxes
34. Rearmament; conversion of plants to war work, government allocation, control over materials
36. Businesspeople will get as high profits as possible; will raise prices, won't lower prices
37. Voluntary business price freeze won't work
38. Black market, profiteering, speculation, no further explanation
Price Level Depends Upon
40. Supply and demand, general
41. Volume of production (whether goods scarce or abundant)
42. Crops, livestock; weather
46. Purchasing power
47. Employment level (increasing or decreasing demand)
48. Consumer resistance (whether consumers will pay high prices)
50. Production costs, general
51. Cost of materials
52. Wage level (whether will rise or not)
53. Scarcity of materials (whether will be scarce or not)

54. Labor supply (whether hard to get or not)
60. Government policy and/or actions, general, unspecified (do not include general reference to "business actions" here)
61. Exports, Marshall Plan, foreign trade (whether increased, decreased, etc.)
62. Wage and/or price controls by government (whether increased, decreased, etc.)
63. Taxes (whether increased or not)
64. Rearmament (extent of)
66. War, foreign affairs, conditions outside U.S.
69. Attitude, actions of business (whether will increase prices or not)
Factors Causing Prices to Fall (or Preventing a Rise) in 1951
70. Supply and demand, general, unspecified, "supply will exceed demand"
71. Production ample
72. Good crops, livestock, weather
73. No (or less) scare buying or hoarding
76. Purchasing power will fall, is low
77. Unemployment (because of conversion) will reduce demand
78. Consumers won't pay high prices (boycott)
80. Production costs (will fall); and production factors - general, unspecified
81. Material costs will fall, will not rise
82. Wages will fall, will not rise
83. Materials are (will be) abundant
84. Heavy labor supply
90. Government policy and/or actions - general, unspecified (do not include general references to "business policy or actions" here)
91. Exports, Marshall Plan, foreign trade (will diminish)
92. Wage and/or price controls (will work, will be put on); subsidies
93. Taxes
94. Rearmament (will drop)
95. Rationing will be instituted to prevent hoarding
96. Business will lower prices, will not raise them (voluntary)
99. Don't know

We group these response codes into the following categories:

- Demand: 10, 13, 16, 17, 40, 46, 47, 48, 70, 73, 76, 77, 78
- Weather: 12, 42, 72
- Scarce or ample goods: 11, 41, 71
- Material/labor costs: 20, 21, 22, 23, 24, 25, 26, 50, 51, 52, 53, 54, 80, 81, 82, 83, 84
- Controls: 32, 37, 62, 92, 95
- Profiteering: 36, 38, 69, 96

- Other policy or war related: 30, 31, 33, 34, 60, 61, 63, 64, 66, 90, 91, 93, 94

B.2 Expectations of Another World War

Respondents are asked, "How likely do you think it is that we will be in a world war in a year or two?" We construct a dummy variable *expects world war* equal to one if the response is in one of the following categories: No question about it, very likely, probably, or already in another world war. The variable takes value zero if the response is in one of the following categories: about a fifty-fifty chance, probably not, very unlikely, absolutely not, expresses only wishes or hopes, depends.

B.3 Knowledge of Regulations

Respondents are asked about their knowledge of recent housing regulations (Codebook card III columns 17 and 18): "Recently, the government has put some regulations which affect the buying or building of houses. Have you heard of those regulations?" Possible responses are yes, no , or don't know. Respondents answering "yes" are asked, "Do you happen to know what those regulations are?" The surveyor grades the information content of the response. We code the dummy variable *know housing regs* equal to one if the respondent provides at least some correct information– e.g. mentions that down-payments are regulated, mentions that loan length is regulated, or mentions tighter credit.

Respondents are also asked about their knowledge of Regulation W (Codebook card VII columns 43 and 44): "Recently, the government also has put in some regulations which affect the buying of cars and large household items. Have you heard of these regulations?" Possible responses are yes, no, or don't know. Respondents answering "yes" are asked, "Do you happen to know what those regulations are?" The surveyor grades the information content of the response. We code the dummy variable *know reg W* to equal one if the respondent provides at least some correct information– e.g. mentions that down-payments are regulated, mentions that loan length is regulated, or mentions tighter credit.

B.4 Personal Financial Situation, Income, and Assets

The SCF asks the following questions about the household's financial situation, earnings, and expected income (see Codebook card I columns 41, 42 and card IV column 34):

- "Would you say you people are better off or worse off financially than you were one year ago?" The dummy variable *finances better* is coded one for responses of "better off."

- "Are you making as much money now as you were a year ago, or more or less? (Based on hourly rate of earning, not annual)." The dummy variable *earnings better* is coded one for responses of "making more now."

- "Now for this year, 1951, do you think you income will be larger, the same, or smaller than in 1950?" The dummy variable *expect higher inc* is coded one for responses of "larger in 1951."

B.5 Explanations for Readiness to Spend

After respondents are asked, "Is this a good or bad time to buy autos and large household items?" the follow-up question is, "Why do you think this is a good or bad time to buy such items?" Respondents may provide up to two open-ended explanations, which the SCF codes as follows (see SCF codebook Card VII columns 39-42):

Now is a good time because:
11. Shortages - (present or expected)
12. Prices are going up; aren't going to come down
13. Taxes on goods will be increased
14. Credit restrictions may be tightened
15. Quality better
16. Prices are controlled, frozen, stable
17. Future uncertainty (prices)
18. People can afford to buy now (not a reference to R's own situation)
19. Personal situation good "because we need it" (low priority)

It depends:
31. Depends on war conditions
32. Depends on government action
33. Depends upon whether or not purchaser is drafted
39. Depends on personal situation (low priority)

Now is a bad time because:
51. Production will be ample; no shortages
52. Price controls will be instituted and prices will not rise; prices will go down
53. Prices are high; prices going up
54. Shortages; materials needed for war
55. Would cause panic buying, inflation, shortages
56. Quality is poor(er); emphasis mow on quantity rather than quality
57. Too many regulations on instalment buying
58. (Bad times ahead) should save instead
59. Personal situation bad; don't need it, can't afford it (low priority)
61. Conditions are uncertain
62. Expect tire, gas, oil rationing, etc.
63. Taxes on goods are high
64. People can't afford to buy now (not refer to R's personal situation)
99. Don't know

We group these response codes into the following categories:

- Shortages: 11, 51, 54, 55
- Prices: 12, 16, 17, 52, 53
  - High or rising prices: 12, 53
  - Price controls: 16, 52
  - Price uncertainty: 17
- Conditions: 18, 19, 33, 39, 58, 59, 61, 64
  - Times in general: 18, 58, 61, 64
  - Personal situation: 19, 33, 39, 59
- Credit restrictions: 14, 57
- Expected tire, gas, or oil rationing: 62
- Other policy or war related: 13, 31, 32, 63

B.6 Explanations for Timing of Expected Car Purchase

Respondents who expect to buy a car in 1951 are asked, "Do you think you'll buy it before the first of July?" Then they are asked, "Why do you say you will buy it then?" Respondents provide a single open-ended explanation, which the SCF codes as follows (see SCF codebook Card V columns 53-55):

Before the first of July:
11. Plan to buy when 1951 models are out
12. Want to buy before shortages
13. Want car for summer (vacation)
14. Want to buy before prices go up
15. Need it before July—need it for immediate use
16. Avoid expenses (repairs, etc) on old car
17. Expects to get a car he ordered previously
18. Expects to get better deal (higher trade-in value,) more for trade-in
19. Expects quality to deteriorate

1Y. Other

Uncertain:
31. Depends on war
32. Depends on return of member of S.U.
33. Depends on outcome of other financial commitments
34. Depends on finding a (good) car at satisfactory price
35. Depends on whether can afford it
36. Depends on delivery date

37. Depends on whether old car stands up, is good enough
38. Depends on whether members of S.U. joined Armed Forces
3Y. Other
After the first of July:
41. Won't have money until then; expects to use money for other purposes until then
42. Expect a raise; new job
43. Regulations may be lifted
44. Will wait for 1952 models
45. Don't need it yet but will buy before inflation gets too far
46. Buy in the fall: costs less; more on trade-in
47. Will have better idea of what his 1951 income will be by then
4Y. Other
99. Don't know; (no particular reason)

B.7 Explanations for Not Purchasing a Car in Past Year

Respondents who did not purchase a car in 1950 were asked, "Did you think at all of buying a car this past year?" If they answered affirmatively, they were asked, "Were there any special reasons why you didn't buy it?" These reasons were coded by the SCF as follows (see SCF codebook Card V columns 49-51):

11. Couldn't afford it; low priority
12. Decided present car was satisfactory
13. Prices too high; (will be lower)
14. Credit restrictions (code first if mentioned) - top priority
15. Waiting for new models
16. Had other expenses
17. Wanted to pay cash, doesn't like borrowing or credit buying.
18. Doesn't need or want car
19. Poor (poorer) quality
20. Waiting for good (better buy, price, make, or deal)
21. Member of S.U. went (expect to go into armed service or overseas.)
22. Expects gas rationing, etc.
23. Considered buying something else but didn't
24. Cars not available (strike)
55. No; no special reason
99. Don't know

We code reasons 13 and 20 as related to price expectations, and reasons 14 and 17 as related to credit.

Appendix C Robustness to Alternative Expected Inflation Measures

In most of our analysis, our expected inflation measure, $ExpInf$, is constructed using polychoric factor analysis of three price change expectations variables and the "inflation concern" variable. Here, we consider robustness to three alternative measures of expected inflation. Alternative 1 is constructed using polychoric factor analysis, but omitting the inflation concern variable from the factor analysis. Alternative 2 is the sum of π_i^g, π_i^d, and π_i^c. Alternative 3 is the sum of π_i^g, π_i^d, π_i^c, and inflation concern. Each alternative measure, like our main measure $ExpInf$, is normalized to have mean zero and standard deviation one. These alternative measures are highly correlated with $ExpInf$; the respective correlation coefficients are 0.985, 0.976, and 0.943.

Tables C.7, C.8, and C.9 repeat the analysis in Tables 8, 9,and 10, using each of the alternative measures. For convenience, original estimates using $ExpInf$ are also shown. Results are both qualitatively and quantitatively very similar.

Table C.7: Expected inflation and actual and planned spending on the extensive margin, alternative expected inflation measures

	(1)	(2)	(3)	(4)	(5)	(6)
	D1950	D1951	C1950	C1951	H1950	H1951
ExpInf	0.09***	-0.01	0.01	-0.09**	0.08*	-0.06
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)	(0.05)
N	2524	2524	2233	2233	2207	2207
R^2	0.08	0.06	0.07	0.07	0.14	0.09
ExpInf Alt. 1	0.08***	-0.01	0.02	-0.10***	0.09*	-0.04
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)	(0.05)
N	2533	2533	2240	2240	2215	2215
R^2	0.08	0.06	0.07	0.07	0.14	0.09
ExpInf Alt. 2	0.08***	-0.01	0.02	-0.09**	0.10*	-0.05
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)	(0.05)
N	2533	2533	2240	2240	2215	2215
R^2	0.08	0.06	0.07	0.07	0.14	0.09
ExpInf Alt. 3	0.10***	-0.00	0.01	-0.08**	0.08	-0.09*
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)	(0.05)
N	2524	2524	2233	2233	2207	2207
R^2	0.08	0.06	0.07	0.07	0.14	0.10

Notes: Probit regressions with standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Dependent variable is a dummy variable indicating whether the respondent bought durables in 1950, expects to buy durables in 1951, bought a car in 1950, expects to buy a car in 1951, bought a home in 1950, or expects to buy a home in 1951. $ExpInf$ is a continuous proxy for expected inflation constructed using polychoric factor analysis as described in the text. Alternatives 1, 2, and 3 are alternative measures of expected inflation, described above. Regressions include a constant term and the same control variables as in Table 8.

Table C.8: Expected inflation and actual and planned spending, alternative expected inflation measures

	(1) dur1950	(2) dur1951	(3) car1950	(4) car1951	(5) home1950	(6) home1951	(7) totdur1950	(8) totdur1951	(9) cons1950	(10) nondur1950
ExpInf	0.45***	0.06	0.08	-1.33**	1.42	-1.34	0.36***	-0.08	0.07***	0.05**
	(0.14)	(0.26)	(0.26)	(0.56)	(0.88)	(1.02)	(0.13)	(0.26)	(0.02)	(0.02)
N	2524	2524	2233	2233	2207	2207	1907	1907	2417	1733
R^2	0.03	0.03	0.03	0.05	0.08	0.05	0.04	0.04	0.16	0.14
ExpInf Alt. 1	0.40***	0.02	0.11	-1.44***	1.50*	-0.88	0.34***	-0.08	0.06***	0.04*
	(0.14)	(0.25)	(0.26)	(0.56)	(0.88)	(1.02)	(0.13)	(0.26)	(0.02)	(0.02)
N	2533	2533	2240	2240	2215	2215	1913	1913	2426	1739
R^2	0.03	0.03	0.03	0.05	0.08	0.05	0.04	0.04	0.16	0.14
ExpInf Alt. 2	0.41***	0.02	0.14	-1.43***	1.65*	-0.96	0.34***	-0.07	0.06***	0.03
	(0.14)	(0.25)	(0.26)	(0.55)	(0.88)	(1.02)	(0.13)	(0.25)	(0.02)	(0.02)
N	2533	2533	2240	2240	2215	2215	1913	1913	2426	1739
R^2	0.03	0.03	0.03	0.05	0.08	0.05	0.04	0.04	0.16	0.14
ExpInf Alt. 3	0.50***	0.17	0.04	-1.01*	1.31	-2.16**	0.36***	-0.02	0.08***	0.06***
	(0.14)	(0.26)	(0.26)	(0.57)	(0.87)	(1.04)	(0.13)	(0.26)	(0.02)	(0.02)
N	2524	2524	2233	2233	2207	2207	1907	1907	2417	1733
R^2	0.03	0.03	0.03	0.05	0.08	0.06	0.04	0.04	0.16	0.14

Notes: Tobit regressions with standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Dependent variable is the inverse hyperbolic sine of the respondent's spending or expected spending, in dollars, on durables, cars, or homes in 1950 or 1951. $ExpInf$ is a continuous proxy for expected inflation constructed using polychoric factor analysis as described in the text. Three alternative measures are described above. Regressions include the full set of controls from Table 4.

Table C.9: Expected inflation and intertemporal consumption shifting, alternative expected inflation measures

	(1) Durables	(2) Cars	(3) Homes	(4) Durables	(5) Cars	(6) Homes	(7) Total
ExpInf	-0.09**	-0.11*	-0.18*	-13.14**	-26.18	-180.95**	-222.41**
	(0.04)	(0.05)	(0.10)	(6.50)	(18.47)	(76.30)	(86.90)
N	1096	714	203	2524	2233	2207	1907
R^2	0.03	0.04	0.19				
ExpInf Alt. 1	-0.08*	-0.11**	-0.16*	-12.98**	-27.98	-171.03**	-208.70**
	(0.04)	(0.05)	(0.09)	(6.49)	(18.48)	(76.29)	(86.54)
N	1100	715	203	2533	2240	2215	1913
R^2	0.03	0.04	0.19				
ExpInf Alt. 2	-0.09**	-0.12**	-0.18*	-12.05*	-30.07	-181.59**	-219.41**
	(0.04)	(0.05)	(0.10)	(6.43)	(18.44)	(76.14)	(85.92)
N	1100	715	203	2533	2240	2215	1913
R^2	0.03	0.05	0.19				
ExpInf Alt. 3	-0.10**	-0.09	-0.21**	-11.48*	-21.36	-194.24**	-238.89***
	(0.04)	(0.06)	(0.10)	(6.46)	(18.42)	(77.61)	(89.25)
N	1096	714	203	2524	2233	2207	1907
R^2	0.03	0.04	0.19				

Notes: Standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10. Columns (1)-(3) are probit regressions, in which dependent variable takes value 0 if respondent purchased durables, cars, or homes, respectively, in 1950 but not 1951, and takes value 1 if respondent purchased in 1951 but not 1950. Columns (4)-(7) are OLS regressions in which the dependent variable is the difference in spending on durables, cars, homes, or total consumption, respectively, in 1951 versus 1950. $ExpInf$ is a continuous proxy for expected inflation constructed using polychoric factor analysis as described in the text. Three alternative measures are described above. Regressions include a constant term and the same control variables as in Table 10.