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Consumer Optimism and Secular Stagnation

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Introduction

I have mixed feelings about this being my 40th presentation at this annual conference. I certainly did not anticipate that I would remain at Michigan for my entire career, nor did I expect to outlast all other presenters at this conference. Old habits die hard is one explanation of my long tenure at this University; another explanation, perhaps more accurate, is that each monthly survey has presented a unique opportunity to advance my research on consumer behavior. I feel the tug of discovery as much this month as nearly 500 surveys ago. Nonetheless, I have always felt that if I ever stopped the dizzying pace imposed by twice-monthly reports, the constant barrage of questions and requests for data and advice, and the need to raise ever larger sums to fund this research program, I would experience a sense of freedom that would be quite enjoyable as well as enhance my research productivity. Like any rational decision maker, I have and will continue to seek more freedom at the margin. But first, I need to discuss with you how the latest findings on consumer expectations will influence trends in the macroeconomy.

In some aspects, the current outlook is exactly the opposite of the situation in the mid 1970's, when I gave my first presentation at this conference. A common view among economists at that time was that inflation would remain high "as far as the eye can see." Now, a common view is that inflation will remain low "as far as the eye can see." Of course, not everyone is near-sighted. Paul Volcker used the available monetary tools to quicky crush inflation, while Janet Yellen has found reaching an inflation target of 2% a much more difficult task with the few tools remaining. I assume the coming Fed interest rate hike will be accompanied by a declaration that the battle has finally been won, with confirmation from the field delayed by the usual long lags.

As with any economic policy, the monetary policies adopted to fight the Great Recession created winners and losers. Avoiding an even deeper recession was the clear benefit, but these policies have also created higher equity prices by keeping interest rates near zero for so long. Unfortunately, those low interest rates did not stimulate a spike in spending that could pull the economy out of its doldrums. It did, however, increase wealth inequality and penalize pensioners who prefer less risky fixed-income investments. Overall, the clear impression from the media's portrayal is that the economic recovery has done far too little to improve the lives of most Americans. As a result, a primary topic of this presentation will be to explore not only how consumers currently judge economic prospects, but whether there has been a fundamental change in the criteria they use to evaluate economic conditions.

Some of you may express disbelief that consumer confidence has been higher thus far in 2015 than in any year since 2004 (see Chart 1). The Sentiment Index was 93.1 in the November preliminary reading, which was equal to the average level during the first ten months of the year. The outlook for consumption growth in 2016 is quite favorable, even somewhat more favorable than the outlook for growth in other parts of the economy. The high level of confidence is a surprising accomplishment given that the GDP has posted an average annual growth rate of just 2.0% during the past five years. Perhaps even more surprising is the resilience of consumer confidence in the face of negative GDP quarters, a global slowdown, a plunge in stock prices, tumbling energy and commodity prices, mounting geopolitical risks, terrorist attacks, and humanitarian crises, to name just a few headlines that washed across consumers without a lasting effect. I am frequently asked to describe these findings in a 30-second sound bite: my explanation is that this resilience as well as the high level of confidence has been built on low inflation and growing employment. Then, I quickly add that disinflationary trends indicate a weak economy and that the low official unemployment rate hides a darker reality.

How can these opposing views be reconciled? You may be surprised by my answer. Consumers have clearly over-estimated the current strength of the economy and are too optimistic about future economic trends. That conclusion is based on how consumers have evaluated the past performance of the economy. Economic evaluations must be based on some comparison standard or benchmark. A lower benchmark makes current evaluations appear more positive. Unlike the absolute standards used in economics, relative and context dependent standards govern how people make subjective assessments. The over-estimation is due to a decline in those relative benchmarks. This decline has affected the overall level of confidence, but not its pattern of change over time. What may be even more surprising is that the decline in economic performance standards has been underway for decades, although the Great Recession acted as a tipping point that made the decline much more visible to all.

The secondary impact is just as surprising, and even more important. It involves how it has influenced people's economic motivations. To be effective motivators of behavior, material and income aspirations must be seen as potentially achievable. Striving for unrealistic goals is not only illusory, it can cause economic losses that incur permanent hardships—a lesson that many learned from the Great Recession. It would seem unremarkable to suggest that people adapt their economic motivations to the economic environment. Five years of 2% growth has convinced many people to temper their economic aspirations, their use of debt, and their labor force participation. Needless to say, none of these changes are permanent in an absolute sense, but the impact can be considered permanent in terms of how it affects people's economic lives.

Sentiment and Economic Growth

I have shown the correspondence between the Sentiment Index and changes in GDP many times at this conference—see Chart 2. As usual, no attempt has been made to apply a statistical technique to smooth the rough edges of the correspondence. Note that in the past few years, consumer sentiment would have been more consistent with a faster pace of GDP growth, dropping back with each new disappointing performance. You may not think that is convincing evidence that consumers have over-estimated prospects for the economy. Many people do not believe that the consumer sector could acquire and interpret the necessary information to accurately forecast

economic outcomes, despite the evidence to the contrary.

One might think that news about jobs was the one topic that consumers would have relentlessly followed during the past several years. The surveys ask consumers to identify in their own words what economic developments they have heard. Chart 3 shows the trends in these spontaneous references to gains and loses in jobs, along with changes in total non-farm employment published by the Labor Department. The two series show a close correspondence for decades, a remarkable feat given the limited cognitive capacities many assume are a constraint on the consumer. But note that in the past few years, consumers have over-estimated job gains to the greatest extent in the past quarter century or so. For many reasons, this is a stunning finding.

Moreover, this over-estimation is more broadly based than just on jobs and GDP growth, but extends to consumers' own behavior. This can be seen from another relationship that I have repeatedly shown at this conference: the close connection between consumer expectations and the annual change in total real personal consumption expenditures (see Chart 4). Again, the data is shown without any statistical adjustments. While the data correctly forecasted the rise in personal consumption following the Great Recession, in the past few years it has over-estimated the gains in consumption. While there have been other gaps in the relationship over the past half century, this was the first time that the series substantially over-predicted consumption.

I know some of you are thinking that these results just underscore the irrationality of consumers. That explanation does not square with the fact that, for many decades, consumers correctly recognized shifts in employment and forecasted changes in spending. What happened to change consumers' awareness of economic events? What could cause such a dramatic shift in what nearly every observer would consider the wrong direction?

If any shift occurred, most would assume that consumers would judge the economy and jobs less favorably, not more favorably. This issue will be investigated in more detail shortly, but for now suffice it to say that the answer involves the psychological notion of homeostasis, a concept similar to equilibrium in economics. Just as economic values are inevitably drawn toward equilibrium levels, so too are psychological assessments inevitably drawn back by homeostasis to a normal level. As a result, most economic assessments have been remarkably stable when averaged across several decades.

Just because consumers' economic assessments over the longer term return to some normal level regardless of the performance of the economy, it does not mean that the performance of the economy does not affect economic behavior. Quite the contrary. The persistent slowdown in economic growth has been termed a "secular stagnation." While this issue will also be discussed in greater detail shortly, the slowdown in the pace of economic growth must also be reflected in a comparable retrenchment in material aspirations. Aspirations are usually denoted in terms of prized possessions, but they also have a substantial impact on the use of debt and on labor force participation. Once an upward dynamic in aspiration is set in motion, it is hard to reverse, but once it is reversed, it is just as difficult to restore the upward dynamic. In economics, this is usually called an hysteresis effect. Just as rising aspirations drove spending, debt incurrence, higher labor force participation and GDP growth in the past, lower aspirations will act to temper the participation of consumers in product as well as labor markets in the future. One thing must be made clear:

I am talking about small changes at the margin. The term "stagnation" does not mean zero growth, but that the pace of growth is too low to provide meaningful improvements in living standards for many Americans. It's similar to saying that a 2% inflation rate i equivalent to "stable prices."

To paraphrase Nixon, who was the President when I arrived at the University of Michigan, I would like to make it perfectly clear that the year-ahead outlook for personal consumption expenditures is favorable despite these new economic realities. Indeed, growth in consumer spending will be higher in 2015 and 2016 than any prior year since 2006. The growth rate in spending will not, however, be near the 5% to 6% annual peaks recorded during expansions in the past half century. Rather, it will be about 3%.

Personal Finances: Better Now than in Future

Meager wage growth and stagnating incomes have been the most discussed aspect of the current expansion. Nonetheless, when consumers were asked to judge recent changes in their financial situation, the results show a rapid rise from the recession lows, reaching a peak in early 2015 that was fully comparable to all other recoveries, except for the two longest expansions in the mid 1960's and late 1990's (see Chart 5). Although consumers gave somewhat less positive evaluations in the most recent survey, the overall decline in favorable assessments was just four percentage points. When asked to explain how their finances had changed, higher incomes were reported by 34% of all households, compared with 24% who reported declines (see Chart 6). Households with incomes in the top third of the distribution as well as householders under age 45 reported income increases significantly more frequently. Rising household wealth was strong during most of the past year, although in the most recent surveys it was depressed by stock prices as well as increased household debt (see Chart 7).

I mentioned at last year's conference that people's evaluations of current finances outperformed their judgements about future prospects. The same is true this year. Moreover, people's expected financial prospects are still viewed less favorably than at the peaks in most prior expansions (see Chart 8). It is difficult to understand why consumers have repeatedly viewed the future as less favorable than their current finances, other than to suggest that consumers view their finances in a state of continuous decline. This view receives partial support from how they anticipate their income will change in the future. Across all households, the preliminary 4th quarter estimate is that households anticipate a nominal income increase of 1.7% (see Chart 9). This was the highest rate of gain that households have anticipated since the Great Recession, and importantly, gains were recorded among the lowest income households. Also note, however, that it was nonetheless a smaller gain than anticipated in any prior year before 2008.

To be sure, some of the slowdown in nominal incomes can be attributed to the prevailing low inflation rate. When asked about their inflation-adjusted income expectations, consumers in the latest survey gave the most favorable assessment since 2007. It was still less favorable than in the two prior expansions. That low inflation does not fully account for low nominal income gains is indicated by the fact that long term inflation expectations in the most recent surveys fell to the lowest level recorded in nearly a half century.

Interest Rate Expectations And Spending Prospects

Who would be surprised to learn that most consumers anticipate a rise in interest rates; indeed, there is no other direction they could change. Some have claimed the data on lower inflation expectations is a reason for the Fed to delay a rate hike, but it is unclear whether consumers anticipated a low inflation rate because they also expect higher interest rates. The first quarter-point hike will be a media event, having little meaning for economic prospects. I am in favor of getting past the inevitable media hype surrounding the initial hike in December. The timing and size of the second rate hike will have more economic meaning. Assuming that there will be additional interest rate hikes, what impact will it have on consumer spending? As many of you know, the surveys have a series of questions about buying conditions for homes, vehicles, and large household durables. Following each question, consumers are asked to state, in their own words, the reasons underlying their evaluations. Unlike in the past, I will not report the overall evaluations—they are all quite favorable—but concentrate on the reasons given by consumers. For example, the data indicate that light vehicle sales are expected to rise to 17½ million in 2016 and housing starts to advance by 1¼ million.

The first set of reasons deal with consumers' evaluations of interest rates and credit conditions. I should note that the surveys have always considered it an equivalent response if a respondent mentioned low interest rate or easy credit conditions, or alternatively, high interest rate or tight credit condition. Trends in these responses are shown for each market (see Chart 10). As you might anticipate, interest rate reasons are more commonly mentioned for home buying, followed by vehicle purchases, and lastly for household durables. Note that each displays a generally upward trend since the recession, but all remain lower than in past recoveries. This reflects higher qualification standards rather than interest rates. The difference in consumer assessments pre and post 1980 corresponds to a shift in policy toward variable interest rates, which I discussed at this conferences a few decades ago.

Although interest rates are widely anticipated to increase, the proportion of consumers that mentioned it was better to borrow-in-advance of the expected increases has remained very low (see Chart 11). Even for home purchases, where mortgage interest rates can be anticipated to play a dominating, borrowing-in-advance of expected interest rate hikes were only mentioned by 7%. The appeal of currently low mortgage rates, in contrast, was mentioned by 40%, on balance. Moreover, it could be expected that even with a few quarter-point increases in the Fed rate, consumers would still be motivated more by their current low level rather than the expectation of future increases.

In addition, a significant rise in buying-in-advance of home *price* increases is even less likely as most consumers still anticipate a long-term rate of appreciation to remain comparable to the expected inflation rate. Currently, low prices, rather than fears of home price increases, have been the mainstay of the housing market. Favorable references to current prices reached their all-time peak levels by the end of the Great Recession (see Chart 12). Although these positive price references have declined in the past few years, they still remain at relatively favorable levels.

What is more interesting is how consumers have adapted to job and income insecurities when evaluating spending plans. That these economic uncertainties reached new peaks during

the Great Recession was not surprising, but I did not anticipate how fast these uncertainties would be reduced and that they would have largely disappeared by 2015 (see Chart 13). The declines in these spontaneous references stand in sharp contrast to the persistent sense of economic malaise so common in other social and political assessments. It is time to confront the disparities between measures of consumer confidence and other economic indicators.

Diminished Economic Performance Benchmarks

It would be unreasonable to believe that people's reactions to a lasting slowdown in economic growth would be to permanently adopt unfavorable economic evaluations. To steadfastly refuse to adjust to new economic conditions would be irrational. Accurate economic benchmarks are needed for people to guide their economic decisions. The rationality hypothesis suggests that the most appropriate benchmarks should be equal to the actual long term growth prospects for the economy. This would mean that consumers are always judging the current performance of the economy relative to the expected long term average, and they readily change their performance benchmarks along with their long term expectations. So how has the long term performance of the economy changed?

Based on the quarterly inflation and seasonally adjusted annual rate of change in GDP, moving averages across 10, 15, and 20 years were calculated. Each indicated a clear downward trend in the pace of GDP growth over the past half century. The estimated downward slope in the growth rate was nearly identical, falling by 0.008 percentage points per quarter for the 10, 15, and 20 year moving averages. Over ten years, this would amount to a decline of a third of a percentage point in the average GDP growth rate. From 1967 to 2015, the decline in average trend in GDP totaled 1.5 percentage points. Of course, variations around the trendline were smaller the longer the moving average period. The data for the 20 year moving average, shown in Chart 14, indicates a continuous slow decline in the performance of the economy over the past half century.

Personal income is another prime indicator of the health of the economy. The long term growth rate in personal disposable income, corrected for inflation and seasonal variations, is shown in Chart 15. Not surprisingly, the same rate of decline per quarter was estimated for long term trends in personal incomes as for GDP, despite the fact that the overall level of real income growth was slightly higher on average than for GDP. When total income was replaced by income per capita, the same results were obtained. The same finding was also true for real personal consumption expenditures, which was not surprising since consumption accounts for about 70% of GDP. The only notable difference was that the quarterly decline in the 20-year average growth rate in consumption expenditures was slightly lower, at 0.006. This reflected a long term decline in the savings rate as well as increases in outstanding debt. The means of the 20-year moving averages were 3.4% for GDP, 3.5% for income, and 3.6% for consumption.

Do people take these long term trends into account when judging the performance of the economy? If people used absolute benchmarks, measures of consumer optimism could be expected to decline along with the economy. If, however, the performance benchmarks were defined relative to the actual performance of the economy, there would be no reason to anticipate overall declines in consumers' relative judgements.

The Index of Consumer Sentiment was first estimated in 1952, with the trend in the 20 year moving average shown in Chart 16. While there is a small degree of variation about the trendline, the slope of that line is virtually zero—although the trend was slightly positive, not negative as was the case for GDP. Over the entire period from 1972 to 2015, the increase amounted to only 2.5 Index-points, or less than 3% of the series mean. This was a tiny increase compared with the decline in the trend growth rate in GDP, which fell by nearly 40% of the mean over the same time period.

The estimated trends in personal financial assessments were quite flat, especially when compared with the pronounced trend in personal income (Chart 17). The R-squared statistic provides a convenient way to compare the importance of the time trend across the various variables. The R-squared for GDP and personal income were relatively high, with the time trend explaining 78% and 83% of the change in the long term moving averages. In comparison, the trend variable explained just 8% for the Sentiment Index and current personal finances. This is strong confirmation that the judgements by consumers are context sensitive.

The immediate implication is that the mapping of subjective indicators to quantitative measures is relative to performance benchmarks. In the current context this means that the same level in the Sentiment Index, for example, maps into lower rates of GDP growth than in the past. Of course, everyone already knew that sentiment data is relative. There is another more important implication, however, that does have an impact on the macroeconomy.

Impact of Aspirations on Spending, Debt, and Labor Force Participation

The expected long term performance of the economy affects people's economic aspirations, and changes in people's aspirations, in turn, have a significant impact on the economy. I am using the term aspirations, not to signify unrealistic hopes or dreams, but the realistic goals people set for themselves. The aspirations that provide the strongest behavioral motives are those that are only modestly different from recent accomplishments. Aspirations are not static, but continually change in response to accomplishment and failure. Importantly, there is an asymmetric dynamic to changes in aspirations: fulfillment quickly gives rise to new aspirations, but failure does not immediately result in diminished aspirations. Failure initially sparks renewed efforts toward attainment. No one easily nor quickly gives up their aspirations. Aspirations are finally reduced only after prolonged frustration and failure. Declines in aspirations not only indicate that people judge the probability of failure higher than the probability of success, but that an unchanged aspiration will result in net losses in utility since maintaining those aspirations would misdirect behavioral decisions.

Aspirations influence consumers' willingness to incur debt as well as to increase their participation in the workforce. These actions created substantial expansions in markets for a wide variety of goods and services that independently added to the pace of domestic economic growth. Indeed, the American consumer achieved a worldwide reputation based on their unquenchable aspirations. How did they accomplish that feat over the past decades given the consistent declines in income growth rates? By the increased use of debt as well as higher labor force participation rates.

The impact of debt on consumer purchases can be estimated by the net change in the quarterly outstanding household debt as a percentage of personal income from the Federal Reserve (see Chart 18). This figure would be an estimate of how much debt expanded the spending power of personal disposable income. Over most of the past half century, net debt additions as a percent of income varied between 0.5% and 2.5%, with the exception of the recent peaks and troughs. Its recent peak was nearly 3.5% in 2006 and its trough was a negative 1.0% in 2010. Even though debt incurrence had begun to rebound by mid-2015, its improved level was more comparable to the lows over the prior half century.

Other measures of household debt show a similar story. For nearly five years, the amount of monthly debt repayment as a percentage of personal disposable income has been at its lowest levels in more than a quarter-century (see Chart 19). The decline is mostly due to a falloff in mortgage debt, which even in nominal terms has remained quite low, finally moving above zero in 2015 (see Chart 20). Much more recent growth has been recorded in consumer debt. This category includes credit card debt and installment debt as well as student loans. Note that nearly all of the growth during the past five years has been in student loans, with traditional consumer debt falling (see Chart 21). Indeed, student debt now accounts for 37% of all outstanding consumer credit, well above vehicle loans (30%) or credit card debt (26%). Do student loans represent a substitution effect, or will more traditional consumer loans recover sometime in the future?

Labor force participation is the other principle way that aspirations affect the macroeconomy. Indeed, the revival of high levels of consumer confidence is largely due to recent increases in employment and declines in the unemployment rate. The national unemployment rate recently declined to 5.0%, the lowest it has been since early 2008 (see Chart 22). Among married workers, the current unemployment rate was just 2.9%, and among those with a college degree it was just 2.5% in October 2015. It is of some importance to note that consumers' expectations of future changes in the unemployment rate have remained as accurate as during the past several decades (see Chart 23). This, as you will remember, is in sharp contrast to the loss in their accuracy in forecasting employment gains.

As I have stressed for many years at this conference, the unemployment rate is best viewed as a ratio of two components: the percent employed and the percent in the labor force (see Chart 24). Although the percent employed has edged up in the past year or so, both the employment and participation ratios are the lowest in at least a quarter century. Alan Krueger, in line with many other economists, recently summarized the consensus view that about half of the 5 percentage point decline in the participation rate has been due to retiring baby-boomers, about a quarter of the decline was due to trends already in place before the Great Recession, and the remaining quarter is due to the Great Recession.

A more detailed look at the data indicates that among prime age workers, those 25 to 54 years old, the labor force participation rate as well as the employment ratio fell by about 4 percentage points from its last peak (see Chart 25). The participation rate is at a quarter-century low, and although the employment ratio has recently improved, it is now at the same level it was a quarter century ago. This is a much steeper decline than implied by Krueger's half of the overall 5 percentage point decline. Needless to say, the gap was not closed by increased participation among younger workers. Rather it was due to rising employment among those aged 55 or older

(see Chart 26). While the employment and participation ratios are much smaller, the rise since the last lowpoint has been substantial, increasing by about 10 percentage points. Indeed, employment rates remain relatively high at advanced ages—more than one-in-five men in their early 70's, my contemporaries, still work.

The impact of aspirations has been viewed in the macro economic literature as irrelevant since material aspirations were always expected to increase. To be sure, there are always variations in aspirations across a population, with some people reducing their aspirations, and others increasing their aspirations. While some could imagine that rapidly rising aspirations could have some positive impact on the macroeconomy, no one believed that an overall reduction could occur across the entire population and thus influence the economy. Even the current discussions on the causes and consequences of secular stagnation have hardly broached the notion that slower economic growth must be eventually accompanied by lower economic aspirations, and those lower aspirations could, in turn, diminish future economic growth.

Secular Stagnation

The term secular stagnation was first used by Alvin Hansen in 1939 to describe the negative impact on the macroeconomy from what he incorrectly anticipated would be lower population growth in the 1940's and beyond. The theory behind secular stagnation has typically been conceptualized as a supply side issue: it is due to a reduced rate of growth in productive capital, labor, and technology. The causes and cures for secular stagnation are typically tied to the cost of capital and the expected return on productive investments as well as policies to influence the population growth rate. The most common economic policy response has been to lower nominal interest rates to zero, and even below zero, to spark renewed growth in productive investments.

A slowdown in the pace of demand growth is rarely considered a critical determinant of secular stagnation. This dismissal has been primarily associated with the strongly held belief that consumers always want more, with incomes being the only limitation on their spending. That view fails to adequately take account of opportunity costs of spending, especially the substantial risks to their future financial security from too much spending. Prior to the Great Recession, debt financing of material wants was as commonplace as increased household labor force participation to support the higher incurred expenses. The economy was relied on to continuously advance living standards and wages, with the government as a backstop to correct cyclical imbalances.

The lasting lesson of the Great Recession, however, was that when economic disaster struck, households paid a heavy price for the loans they could no longer afford with weakened wage and jobs prospects. The government focused on repairing the balance sheets of the very biggest, while individual households were too small, and too many, to directly provide balance-sheet relief. As a result, consumers became more sensitive to the potential risks that accompanied their economic decisions. As I have mentioned at prior conferences, it was this heightened risk aversion that doomed the power of traditional counter-cyclical policies aimed at stimulating demand. Consumers wanted to reduce their indebtedness and rebalance their finances, not to step up their spending and incur additional debt. The resulting slow recovery is more accurately described as insufficient demand by consumers rather than insufficient investments by businesses.

This description of the subpar performance of the economy is hardly new, but it will be a surprise to many that this subpar performance has actually bolstered consumers' assessments of the economy. Moreover, few anticipated that the most damaging and lasting impact of the Great Recession would be on diminished economic aspirations. When the Great Recession first began, I talked about the five stages of economic discontent. It was only the fifth and final stage that had not occurred by that conference in November of 2008. That last stage is when people relinquish hope that they can return to their former economic lives. Most people had no choice but to adapt, however begrudgingly. Economic aspirations have been tempered by a rise in preferences for security and reduced risk. It is important not to exaggerate the underlying problems, but it is also important to understand that, on the margin, the Great Recession has left an indelible mark. Nonetheless, just as in the past, consumer spending will continue to be the driving force for economic growth, but at a reduced speed.

Indeed, the economic outlook for the year ahead is the perfect example. Based on the survey data, consumer spending is anticipated to advance by 2.9% during 2016, which is somewhat faster than the balance of the economy. Perhaps more importantly, by the end of 2016, the current expansion will have lasted seven and a half years, and be the fourth longest expansion during the past 150 years. If, like consumers, you and I reset our economic benchmarks, we too would cheer at prospects for a 2% to 3% economy. The most important message of this presentation is that we cannot accept that diminished performance as our destiny. We can and must do more to restore robust economic growth.

Chart 1: Consumer Sentiment Remains Favorable Following 1st Quarter 2015 Peak

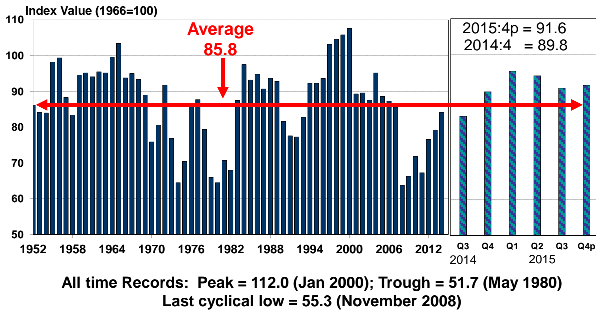


Chart 2 : Sentiment Indicates Positive GDP Growth During Year Ahead

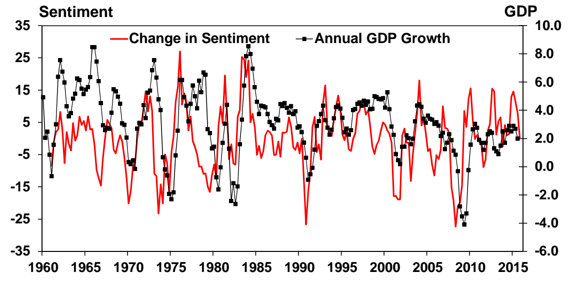


Chart 3: Consumer Reports of News about Jobs And Changes in Total Nonfarm Employment

(Three month moving averages)

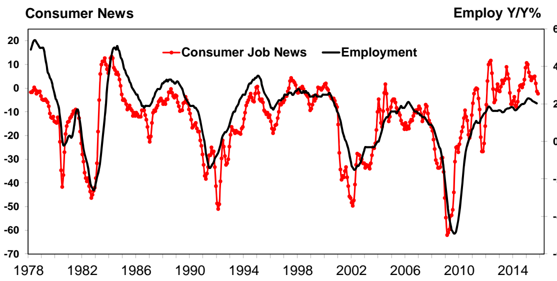


Chart 4: Consumer Expectations Indicate Continued Expansion in Total Personal Consumption Expenditures

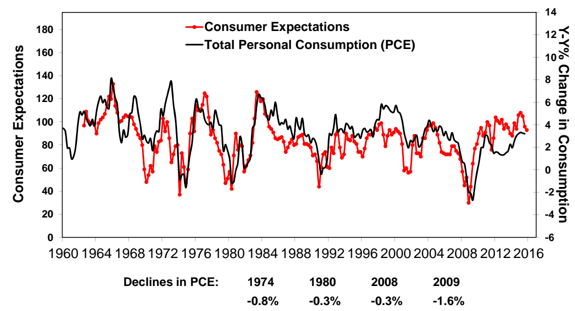


Chart 5: Current Finances of Consumers Post Strong Gains with Small Retreat in 2015

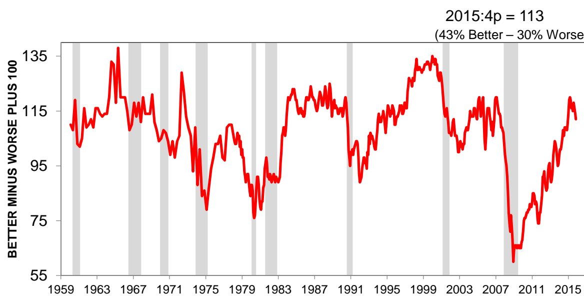
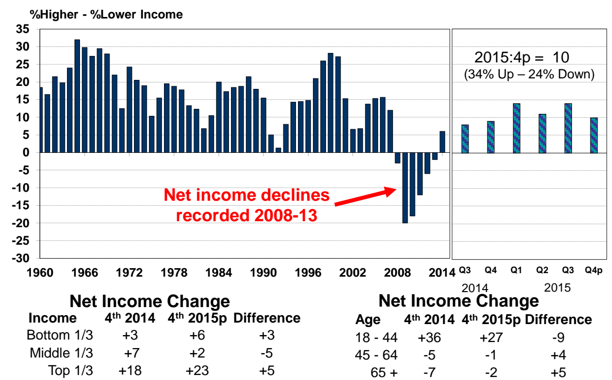


Chart 6: Income Gains Improve in 2015



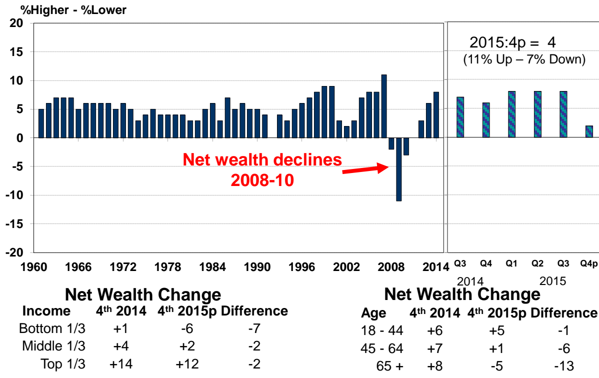
Net Income Change

Income	4th 2014	4th 2015p	Difference
Bottom 1/3	+3	+6	+3
Middle 1/3	+7	+2	-5
Top 1/3	+18	+23	+5

Net Income Change

Age	4th 2014	4th 2015p	Difference
18 - 44	+36	+27	-9
45 - 64	-5	-1	+4
65 +	-7	-2	+5

Chart 7: Wealth Gains Decline Due to Stock Prices As Well As Increases in Debt



Net Wealth Change

Income	4th 2014	4th 2015p	Difference
Bottom 1/3	+1	-6	-7
Middle 1/3	+4	+2	-2
Top 1/3	+14	+12	-2

Net Wealth Change

Age	4th 2014	4th 2015p	Difference
18 - 44	+6	+5	-1
45 - 64	+7	+1	-6
65 +	+8	-5	-13

Chart 8: Financial Prospects for Year Ahead Remain Unchanged at Improved Levels

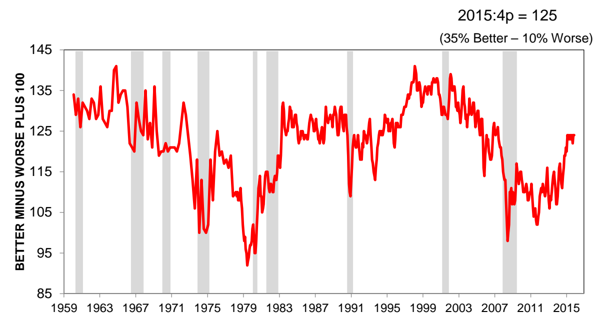
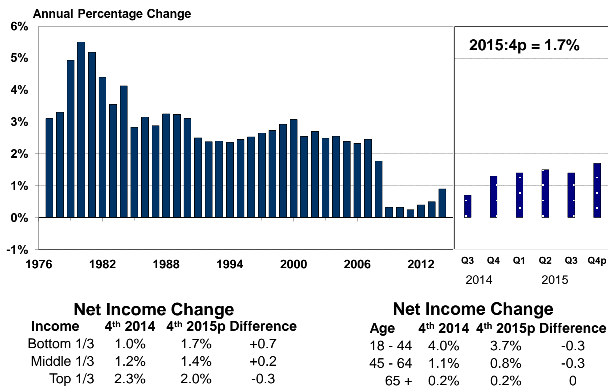


Chart 9: Income Prospects Slightly Improve



Net Income Change

Income	4th 2014	4th 2015p	Difference
Bottom 1/3	1.0%	1.7%	+0.7
Middle 1/3	1.2%	1.4%	+0.2
Top 1/3	2.3%	2.0%	-0.3

Net Income Change

Age	4th 2014	4th 2015p	Difference
18 - 44	4.0%	3.7%	-0.3
45 - 64	1.1%	0.8%	-0.3
65 +	0.2%	0.2%	0

Chart 10: Net References to Interest Rates in Evaluations of Buying Conditions

(%LOW INTEREST RATES - %HIGH INTEREST RATES)

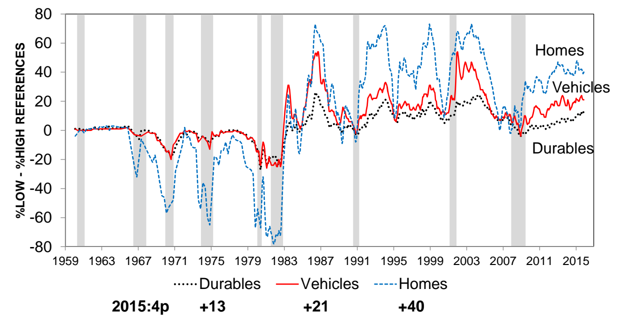


Chart 11: References to Borrowing-in-Advance of Rising Interest Rates in Evaluations of Buying Conditions

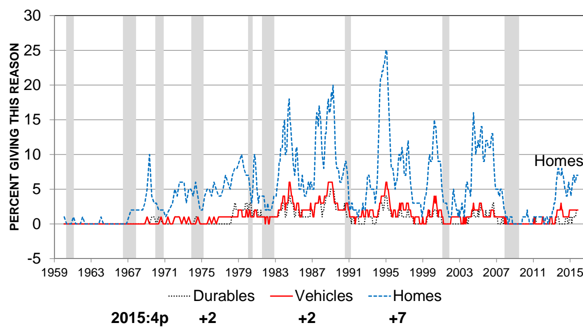


Chart 12: Net References to Prices in Evaluations of Buying Conditions

(%LOW PRICES - %HIGH PRICES)

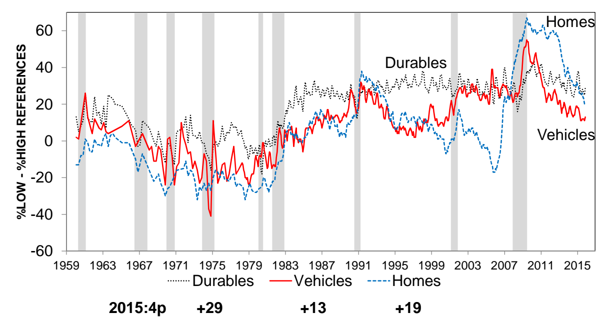


Chart 13: Net References to Job and Income Uncertainty in Evaluations of Buying Conditions

(%TIMES ARE GOOD - %TIMES ARE BAD)

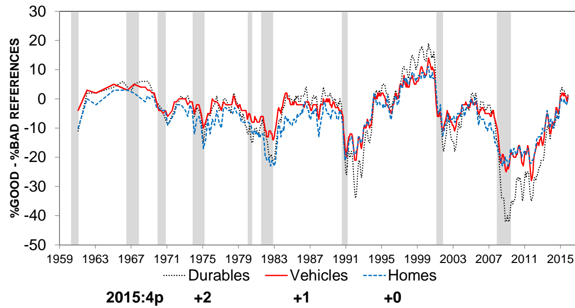


Chart 14: 20-Year Moving Average GDP Growth Rate

(Quarterly Data SAAR)

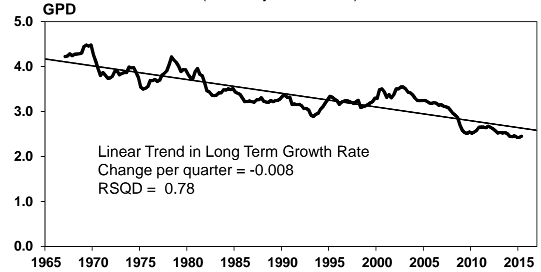


Chart 15: 20-Year Moving Average Growth Rate in Personal Disposable Income

(Quarterly Data SAAR)

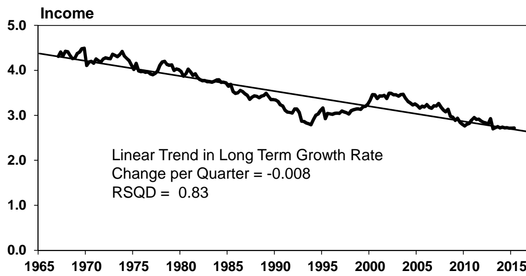


Chart 16: 20-Year Moving Average in Index of Consumer Sentiment

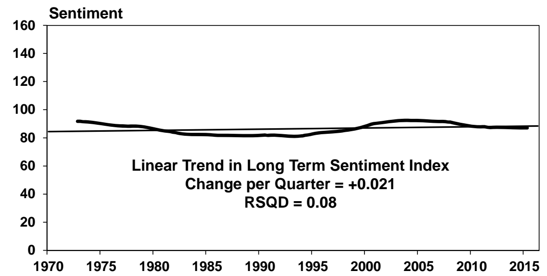


Chart 17: 20-Year Moving Average in Current and Expected Personal Finances

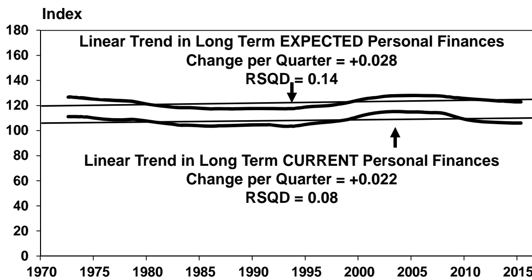


Chart 18: Quarterly Change in Household Debt As a Percentage of Personal Income

(Four-quarter moving averages)

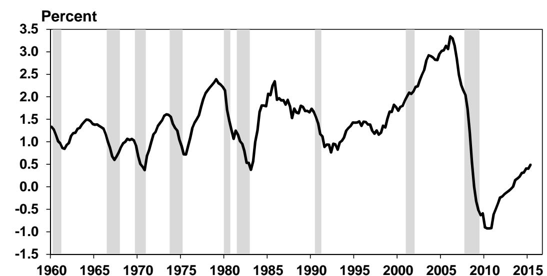


Chart 19: Debt Repayments as a Percentage of Personal Disposable Income Lowest Since 1980

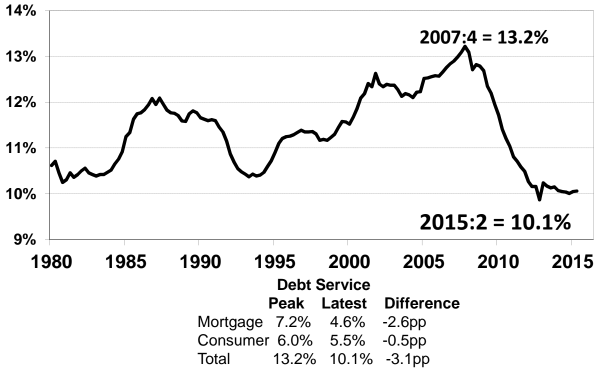


Chart 20: Mortgage Growth Barely Positive, Consumer Debt Increases

(Percentage change in nominal values)

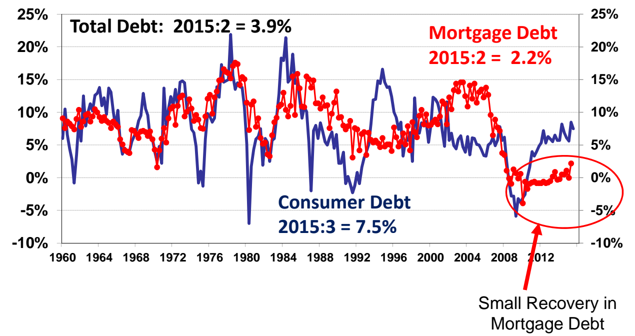


Chart 21: Student Loans as "Consumer" Credit

(Debt as a Percentage of Personal Disposable Income)

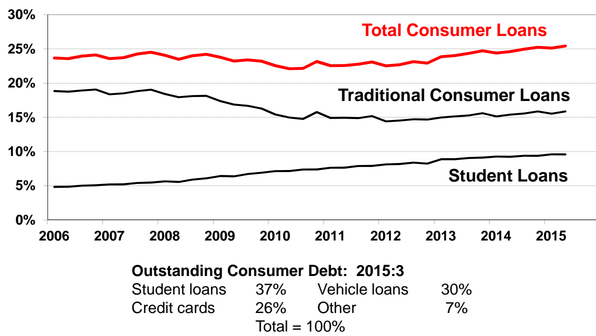


Chart 22: Unemployment Rate Declines to 5% Lowest Level Since 2008

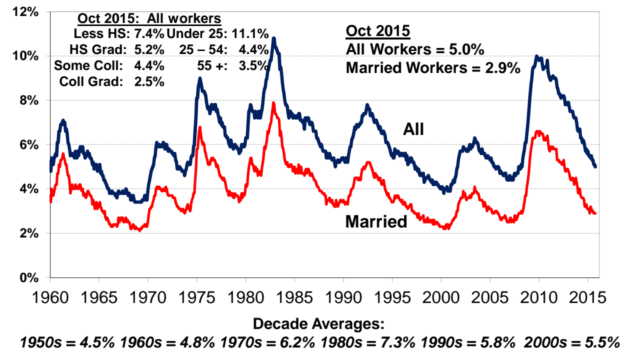


Chart 23: Consumers Expect Small Declines in Unemployment Rate During Year Ahead

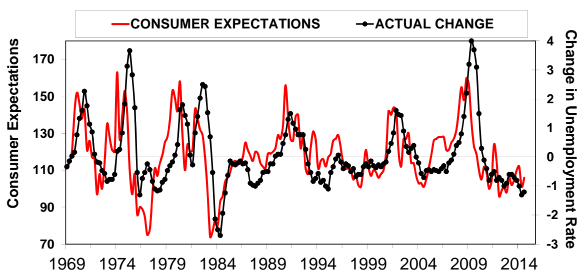


Chart 24: Unemployment Declines Largely Due to Fall in Labor Force Not Increase in Jobs

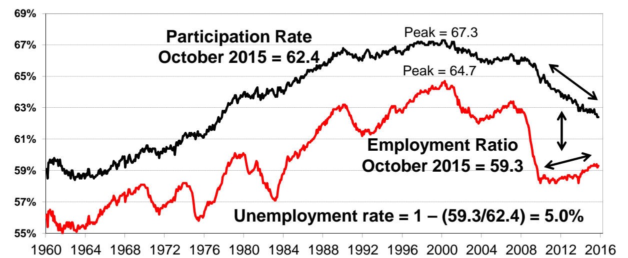
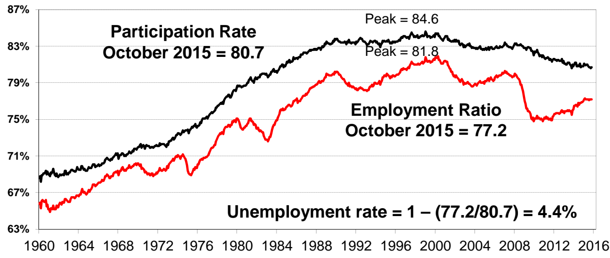


Chart 25: Participation and Employment Among Prime Labor Force Aged 25 to 54



Under age 25 Employment Ratios

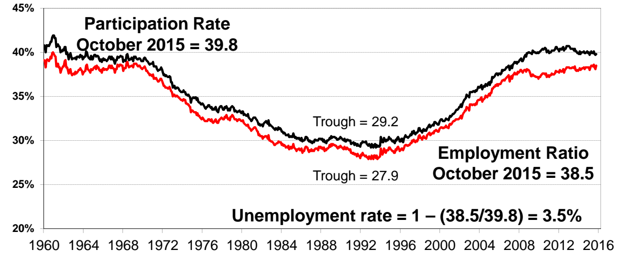
(October 2015)

Men = 49.1% Women = 48.3%

Pct Pt Change from 2000 Peak

Men = -13.6 Woman = -9.9

Chart 26: Rising Employment Among Those Aged 55 or Older



Employment Ratios (10-year ppt. change)

Age	Men	Women
65 – 69:	36.4 (+2.0)	26.8 (+1.9)
70 – 74:	22.3 (+3.0)	14.4 (+2.3)
75 +:	11.1 (+1.8)	6.2 (+1.8)