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Market Focus

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When?

The latest FOMC statement invites the whole market to examine how long it might take before the unemployment rate reaches 6.5% – the upper edge of the Fed's "full employment zone."

We look at three labor supply and growth scenarios: "Strong," "Status Quo," (trending around 2.5% p.a.), and "Feeble" (well below trend).

On the strong or "status quo" paths, the timing is between mid-2015 and mid-2016. On the feeble growth scenario, unemployment does not fall below 6.5% in the next five years.

Obviously, changes in the unemployment rate depend on the balance between jobs growth and changes in labor force participation, which has fallen sharply over the past three years. So despite lackluster jobs growth the unemployment rate has fallen significantly.

Forecasting labor force participation is just as difficult as forecasting (jobs) growth or the Fed's reaction function a few years hence, but a lot less familiar. So it is fair to say that understanding participation is the key to understanding the future path of unemployment and the moment at which the market will expect the Fed to start tightening.

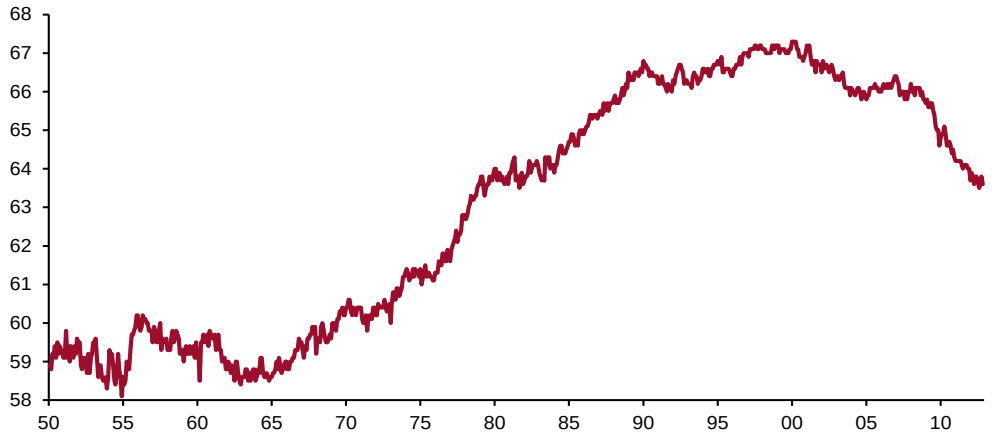
In our view there are four main drivers of participation. In order of importance they are: male-female labor supply dynamics; the age structure of the population; the level of wages across all jobs, which closely link the participation of certain age-sex cohort groups to others, (e.g., more older workers means fewer younger workers); and the business cycle (when few jobs are available more people drop out of the labor force, whether temporarily or permanently).

These four drivers are illustrated graphically at the end of the piece, together with projections of how participation rates might evolve under different scenarios. The key judgments we are making in our scenario analysis is that there is some potential for a cyclical rebound in participation, despite powerful demographic headwinds. In any case, hard judgments about both participation and jobs growth are needed to analyze when the FOMC's criteria could be met.

The very fact that such an exercise is deeply market-relevant marks an important shift. The widespread "Japanization" view is being questioned and focus is returning to the possibility of future policy hikes and the right level of the terminal rate.

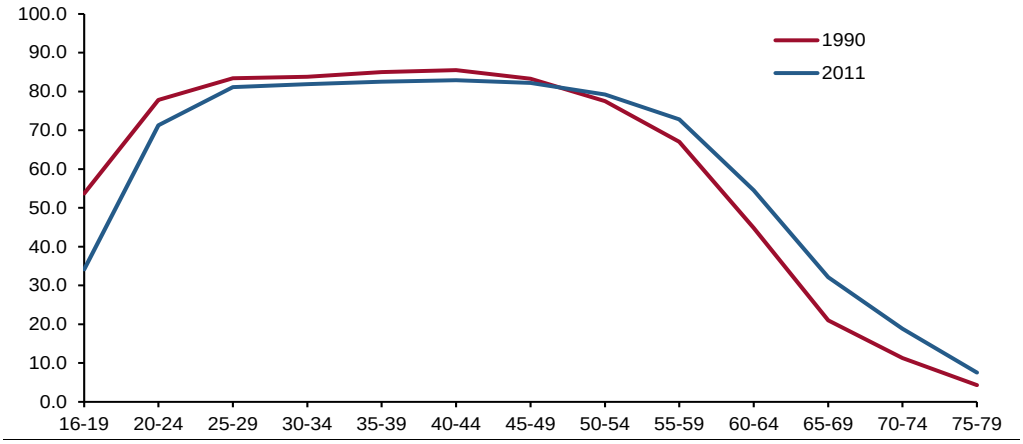
From now on demographics is likely to crop up whenever bond investors debate the big "When?"

Exhibit 1: US labor force participation rate



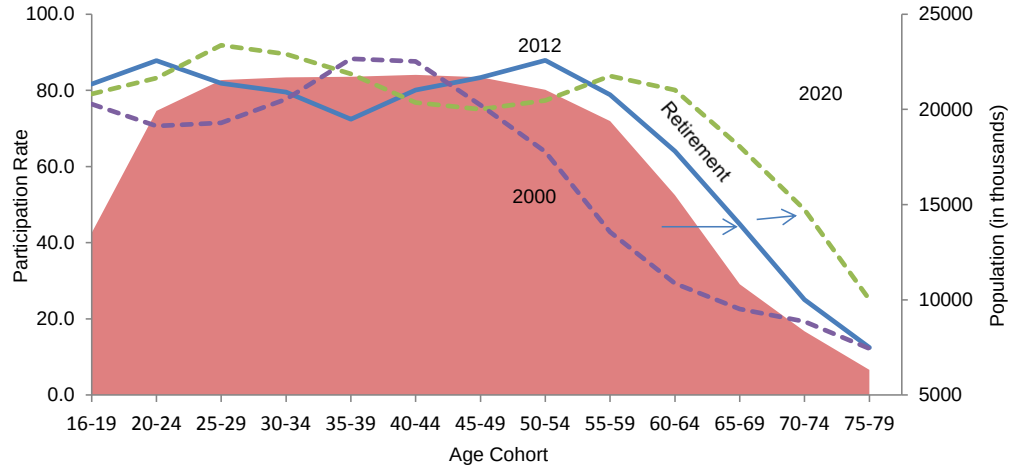
Source: Credit Suisse, Thomson Reuters DataStream

Exhibit 2: Participation rates by age



Source: Credit Suisse, Thomson Reuters DataStream

Exhibit 3: Average participation and population by age cohort



Source: Credit Suisse, Bureau of Labor Statistics, US Census Bureau

The Devil in the Demographic Details

Exhibit **1** shows the US participation rate since 1950. The large secular increase between the mid-1960s and late-1980s is driven by rising female participation. Rising female participation over time has been loosely correlated with falling male participation. This might reflect changes in the types of jobs that exist, the crowding out of males by females in certain occupations, and the ability for some males not to work because of higher female earnings. But the actual level of overall male participation remains significantly above female participation (70% versus 58%), and seemed to be just starting to stabilize when the Great Recession hit in 2008-2009.

Exhibit 2 shows overall participation rates of different age cohorts in 2011 and 1990. The trend toward older workers retiring later is visible in the slightly elevated right tail of the distributions. However, what stands out is the ineluctably steep decline in average participation as workers move through their sixties. With baby boomers now entering those years – those born in 1948 turn 65 in 2013 – average participation faces a major demographic headwind, and it is buckling under this pressure.

Exhibit 3 shows in pink the participation rate for each cohort again, but now plots a histogram of the population by age on top of it, for 2000, 2012, and 2020. Note that in 2000 population size fell off steeply from the mid-40s. Twelve years later and the decline begins in the late 50s, with a large group that has already entered the zone where falling participation and rising retirements dominate. In 2020 this will be further along.

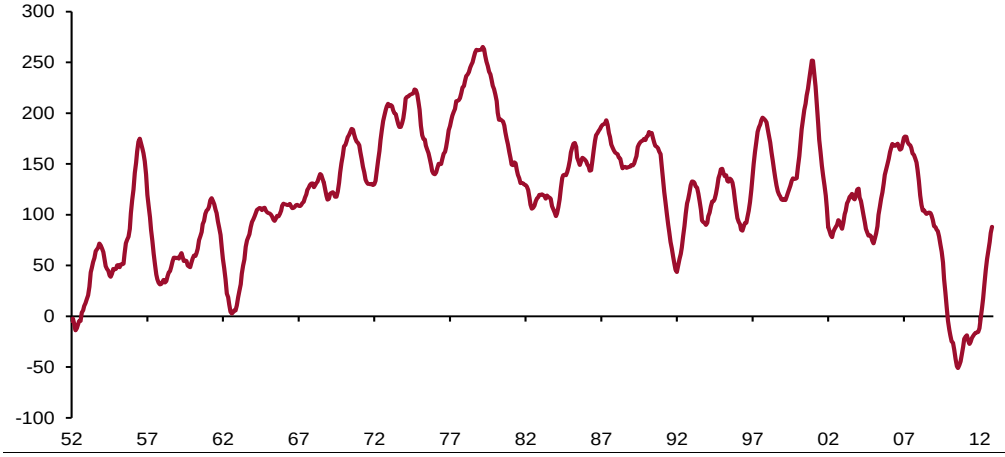
Rising retirements and falling participation rates, all things equal, mean fewer jobs are needed to keep the unemployment rate steady. Although most market participants think the economy needs to grow something like 150 thousand net jobs per month in equilibrium, in reality “required jobs growth” varies due to the underlying participation dynamics. Exhibit 4 shows historical jobs growth needed to keep the unemployment rate steady. It peaked near 270 thousand in 1978, as the baby boom cohort was entering the labor force in spades, and female participation was in the middle of its secular increase.

It troughed near -40 thousand two years ago. In general, no jobs growth has been needed over the past few years to cause the unemployment rate to fall, because of falling participation. On the most recent (highly smoothed) data, jobs growth must trend near 80 thousand to keep the unemployment rate sideways.

Where “required jobs growth” goes next is critical now that the Fed has tied its policy outlook to the unemployment rate. We estimate this cautiously: household survey employment growth is notoriously volatile relative to other measures of jobs. Along with uncertain participation dynamics, this adds to the potential uncertainty about Fed policy. But for better or worse the unemployment rate is the new benchmark, and that’s unlikely to change soon.

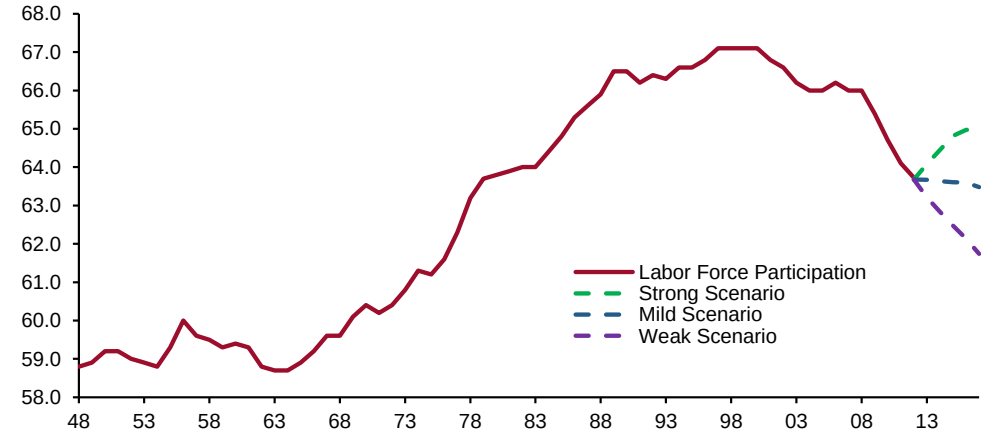
Exhibit 5 shows three scenarios for labor force participation, which we have carefully constructed by paying close attention to all four factors mentioned above, including how each cohort group appears to impact the others, and any long-term or shorter-term underlying trends.

Exhibit 4: Required jobs growth



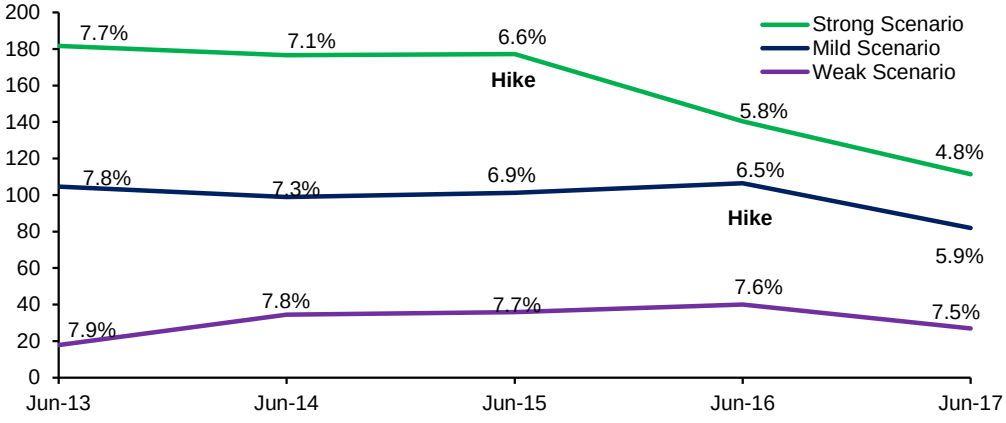
Source: Credit Suisse, Thomson Reuters DataStream

Exhibit 5: Participation rate scenarios



Source: Credit Suisse, Bureau of Labor Statistics, US Census Bureau

Exhibit 6: Required jobs growth forecast



Source: Credit Suisse, Bureau of Labor Statistics, US Census Bureau

Exhibit 6 shows how "required" jobs growth and unemployment would evolve under each of our scenarios. Exhibits 9-18 detail the granular assumptions for different cohort group in each case.

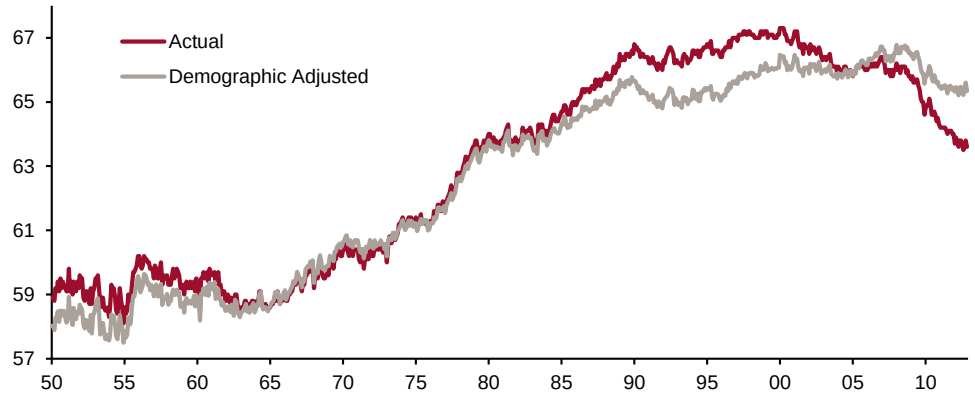
Our weak scenario has overall participation continuing to plunge at the rate of the past few years. This would likely require worse growth than we've gotten, perhaps as low as 1% p.a., with jobs growth of just 50 thousand per month. Because required jobs growth would be slightly below that, the unemployment rate would mostly go sideways and fall only gently on a four-year horizon. The Fed's criteria would not be met by 2017.

Our mild scenario has participation rates staying roughly constant for all but older workers, for whom it would increase. This we think might coincide with ongoing 2%-2.5% GDP growth and 160 thousand per month in jobs growth. The unemployment rate would hit roughly 6.5% by mid-2016. Our economists and the Fed's own GDP growth projections are stronger than this one, but it is worth noting that even under quite mild growth the Fed should will be hiking in 2016.

In our strong scenario we assume a rebound in youth participation, an increase in middle age participation that is slightly less strong for men given their long-term downtrend, and an increase in elderly participation that is even faster than the recent trend increase. In this state of the world, GDP growth would be strong, likely above 3% p.a. for a few years, and jobs growth might be trending around 250K. Because of rising participation, around 170K jobs per month would be needed to keep unemployment sideways, and so the unemployment rate would fall to around 6.5% by mid-2015. The Fed would be hiking early on this scenario.

We see the steep drop in 2009 and 2010 as mostly a cyclical (largely temporary) drop in participation rates. But in 2011 and 2012 it appears age structure has been the dominant factor. Exhibit 7 shows in gray an adjusted participation rate in which the relative sizes of each cohort group are held constant. The cyclical decline is visible, but the stabilization in the age-adjusted rate since 2011 is striking. This supports our relatively "optimistic" view on labor supply that a cyclical rebound will offset some of the ongoing demographic pressures.

Exhibit 7: Demographic-adjusted labor force participation



Source: Credit Suisse, Thomson Reuters DataStream

Our analysis may be similar to that done by the Fed itself in preparation for its announcement. The timing is certainly close. But the Fed's move was risky because reality is unlikely to be as neat as our scenarios. For the market, the key is that under strong or moderate growth a hiking cycle is likely to begin by mid-2016 at the latest.

This is consistent with the Fed's statements but not necessarily with market action. 2-year swaption volatility three years forward has risen recently but remains close to its recent historical low. The market is priced for extremely low volatility precisely when the Fed suggests a hiking cycle will begin!

Exhibit 8: Two-Year Annualized Swaption Volatility Three Years Forward

Source: Credit Suisse Locus

When hiking cycles begin markets generally price in a full tightening cycle. Dec 2019 Eurodollars are near 3%, suggesting either a low expectation of hikes, a low terminal rate (as opposed to the FOMC's view which is near 4%), or an economy which is expected to buckle quickly under the stress of higher interest rates.

Longer term an interesting secular trend emerges. All the coming retirements will exacerbate growing labor shortages in certain industries, especially those who have trouble finding adequately trained graduates. This will cause volatility in wages and put sharp upward pressure on some wages. But this need not cause aggregate wage pressure. And significant wage-related price inflation would require much tighter margins, lower productivity (high unit labor costs), and rising wages.

While those emerging trends will drive interesting new economic opportunities, the appropriate policy response to a move toward full employment is tightening. The arguments against tightening often center around debt or liability issues but in our view low rates ultimately cannot solve these problems.

Unless growth slows sharply then, rate hikes will likely commence a few years out, and markets have only just begun to price for this possibility. With negative global front-end rates strongly impacting valuations across all asset classes at the moment, the implications will be huge. But in 2013 we begin slowly, with some curve steepening and some across-the-curve backup. Further prematurely priced tightening may come in the weeks ahead, only later to be priced out and back in again several times before the real thing finally but inevitably arrives.

Exhibit 9: 16-24 participation

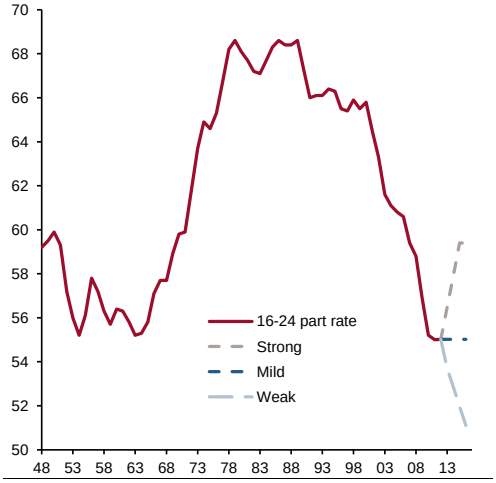


Exhibit 10: Male 25-44 participation

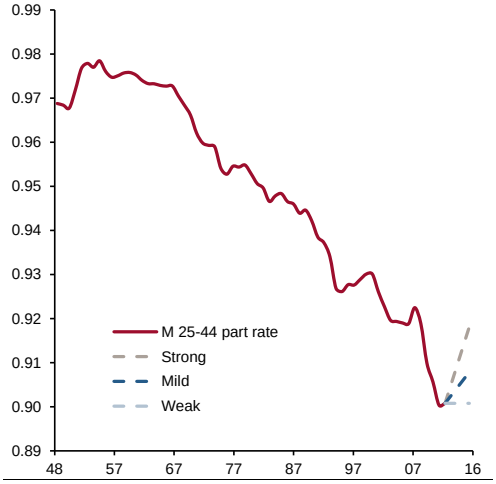


Exhibit 11: Female 25-44 participation

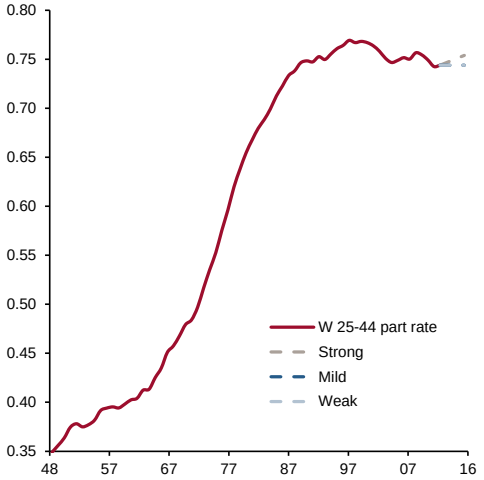


Exhibit 12: Male 45-54 participation

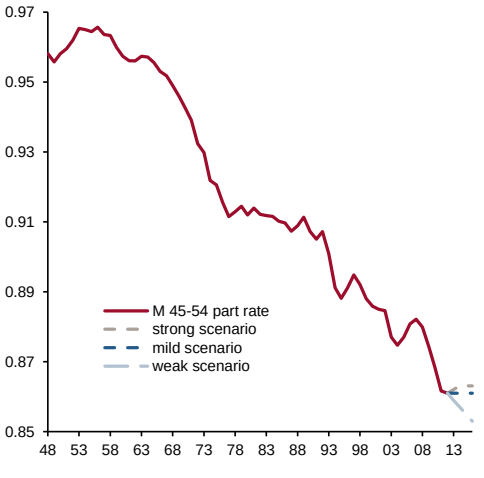
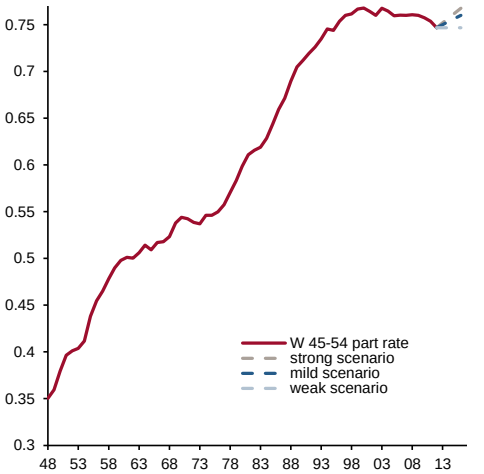
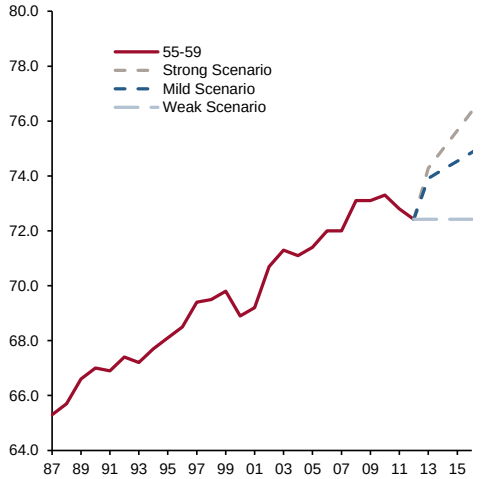


Exhibit 13: Female 45-54 participation



Source: Credit Suisse, Bureau of Labor Statistics

Exhibit 14: 55-59 participation



Source: Credit Suisse, Bureau of Labor Statistics

Exhibit 15: 60-64 participation

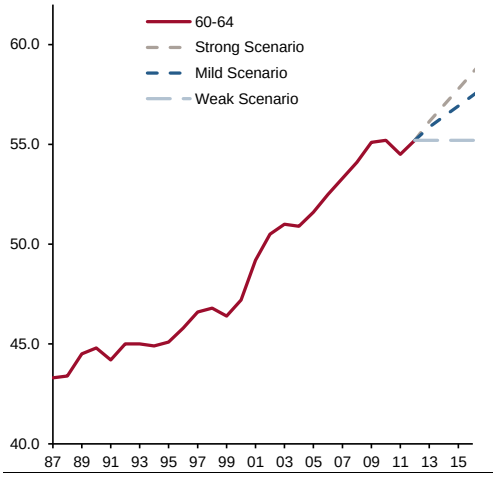


Exhibit 16: 65-69 participation

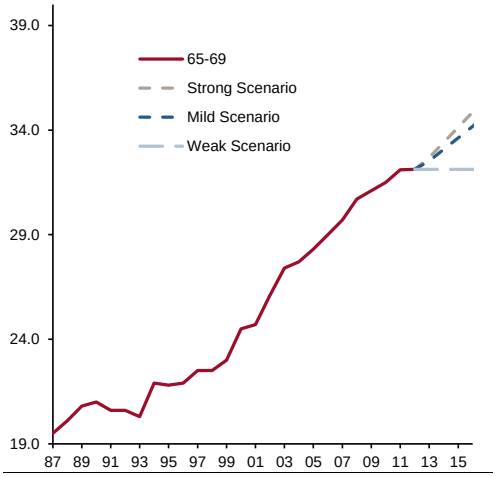
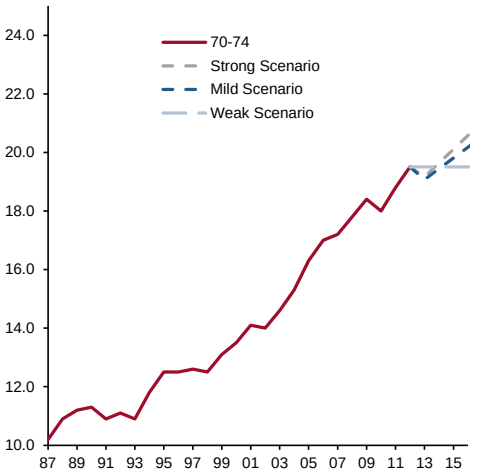
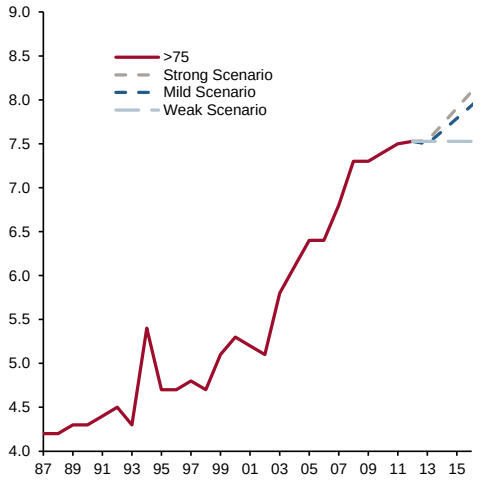


Exhibit 17: 70-74 participation



Source: Credit Suisse, Bureau of Labor Statistics

Exhibit 18: >75 participation



Source: Credit Suisse

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