

US Daily: The Lost Generation: Recession Graduates and Labor Market Slack (Hill)

- While the unemployment rate and other labor utilization measures signal an economy at full employment, wage growth has been weaker than expected recently, raising questions about the true degree of slack. To the extent that some pockets of excess slack remain, the cohort that came of age during the Great Recession would seem a natural place to find it, given the pronounced and long-lasting effects of recessions on young workers.
- In today's daily, we review the labor market experience of the cohort graduating college or beginning careers during or immediately after the recession. Unsurprisingly, unemployment rose sharply in this segment from 2007 and 2010. However, since then, jobless rates have improved dramatically on both an absolute and relative basis – particularly over the last year – and the unemployment rate in this cohort is now under the national average. Relative wages have also partially recovered, and broader measures of utilization suggest that minimal excess slack remains in this cohort.

Academic research has linked graduating during recessions with adverse labor market outcomes. Studying the experience of graduates during the 1981 downturn, Yale Professor Lisa Kahn estimates a persistent drag on the level of wages worth between 1% and 13% per year – potentially lasting for multiple decades. More recently, New York Fed researchers Jaison Abel and Richard Deitz find that underemployment rates – the share of jobs that don't typically require a college degree – climbed to nearly 50% temporarily following the Great Recession (among recent college graduates). Neither study finds permanent long-term effects on joblessness, but both datasets exhibit elevated unemployment rates among recent college graduates in the years following recession.

Looking more broadly at non-college graduates as well, data on youth unemployment rates show a sharp rise during and after the 2008-09 recession – both on an absolute and relative basis. Unemployment rates in the 16-24-year-old segment rose by 7.9pp to 19.0% between 4Q07 and 4Q09 (compared to +5.1pp to 9.9% for the population as a whole). Additionally, household survey data suggest that the average earnings discount for young workers widened by 4-6% in the years following the recession. While youth underperformance is typical of recessions, the effects of the most recent downturn appeared larger and more long-lasting than average, as shown in Exhibit 1.

Jan Hatzius

(212) 902-0394 | jan.hatzius@gs.com
Goldman Sachs & Co. LLC

Alec Phillips

(202) 637-3746 | alec.phillips@gs.com
Goldman Sachs & Co. LLC

David Mericle

(212) 357-2619 | david.mericle@gs.com
Goldman Sachs & Co. LLC

Spencer Hill

(212) 357-7621 | spencer.hill@gs.com
Goldman Sachs & Co. LLC

Daan Struyven

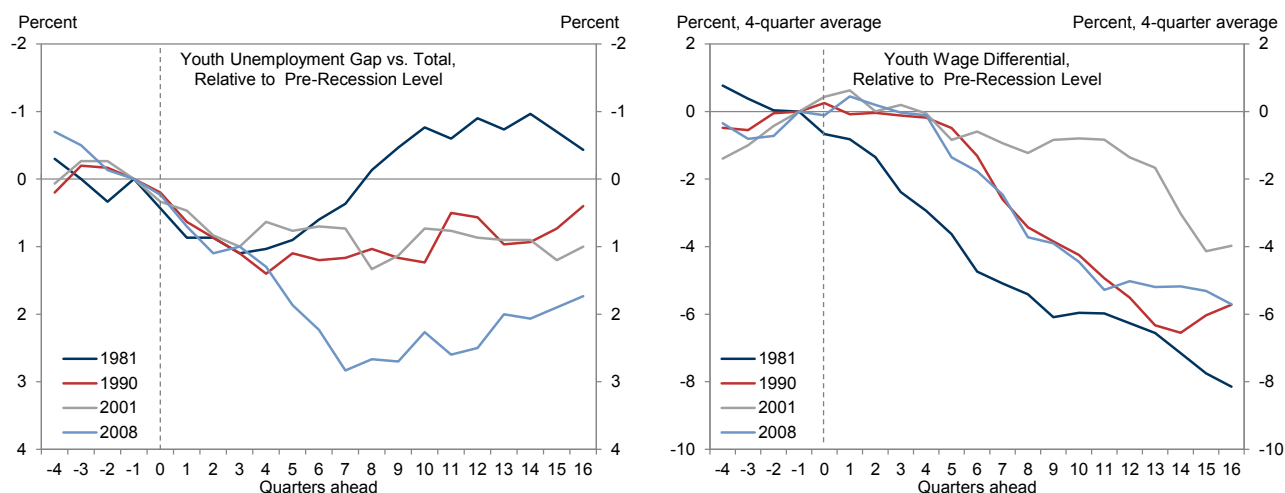
(212) 357-4172 | daan.struyven@gs.com
Goldman Sachs & Co. LLC

Karen Reichgott

(212) 855-6006 | karen.reichgott@gs.com
Goldman Sachs & Co. LLC

Avisha Thakkar

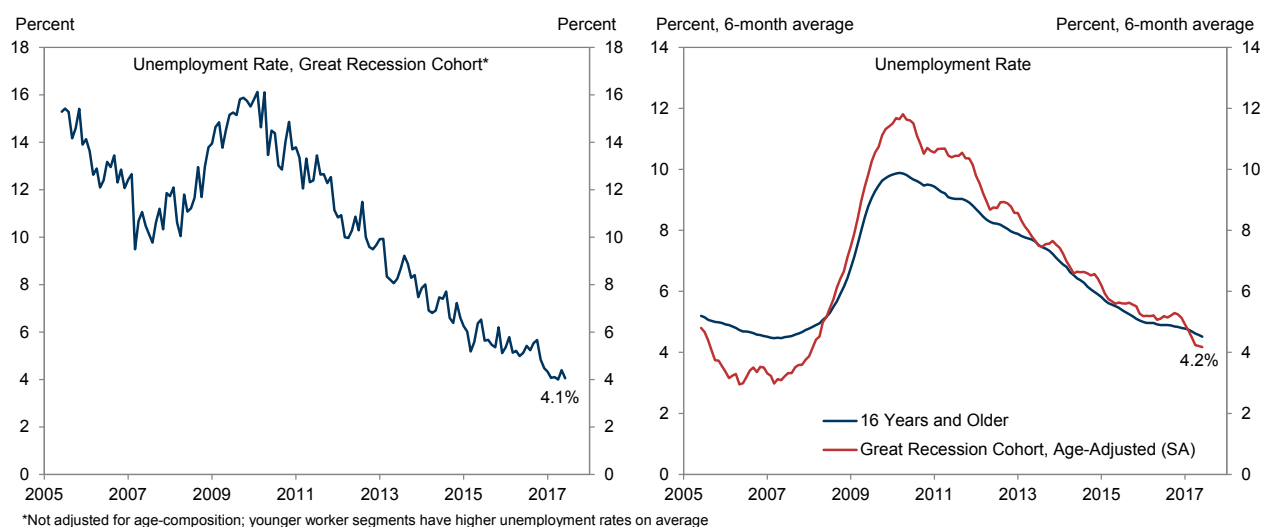
(917) 343-4543 | avisha.thakkar@gs.com
Goldman Sachs & Co. LLC

Exhibit 1: Youth Employment and Earnings Among the Hardest Hit During Recessions

Source: Department of Labor, Goldman Sachs Global Investment Research

While youth jobless rates and relative wages have both recovered since 2011, much of this may simply reflect the aging of the Great Recession cohort into the 25-34-year-old segment. To more closely track this cohort's labor market experience, we analyze household survey data organized by single-year age group (16-year olds, 17-year olds, etc.). We define the "Great Recession" cohort as the segment of the population that turned 22 years old in 2008, 2009, or 2010 (i.e. individuals graduating college or beginning careers during or immediately after the recession).¹ As shown in the left panel of Exhibit 2, unemployment rates have improved dramatically in this segment since mid-2010, with a particularly sharp drop over the last 12 months.

¹ Specifically, we focus on the segment of the population born between September 1985 and August 1988, broadly consistent with the graduating classes of 2008, 2009, and 2010 (four-year colleges). While the recession ended in July 2009, the unemployment rate peaked in October 2009 and remained above 9% until October 2011, and we include the class of 2010 accordingly. In order to classify each age group into a cohort in a given month, we assume survey respondents were born in the middle of the year on average.

Exhibit 2: Unemployment Rates in the Great Recession Cohort Have Improved on Both an Absolute and Relative Basis

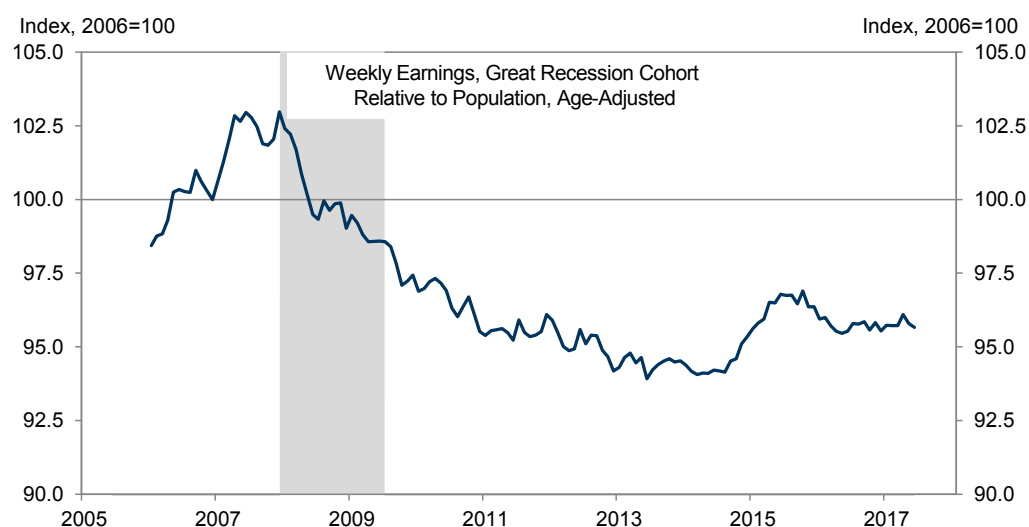
Source: Department of Labor, Goldman Sachs Global Investment Research

While encouraging, the extent of the improvement shown in the left panel is misleading, because cohort jobless rates generally fall over time, reflecting the accumulation of skills and experience as well as fewer employment constraints from schooling. To account for this, the right panel of the same exhibit shows age-adjusted unemployment rates.² Following several years of underperforming the national average, jobless rates in this cohort fell below 5% at the end of last year (on an age-adjusted basis). By mid-2017, jobless rates had dipped to 4.2% – below the economy-wide measure.

Average earnings trends in the household survey show a similar pattern of underperformance and subsequent recovery. As shown in Exhibit 3, usual weekly earnings in this cohort declined by 6% relative to the population during and after the recession (on an age-adjusted basis). However, despite a partial recovery, the earnings gap remains: relative wages on this basis have only retraced a third of the post-recession decline (qualitatively consistent with the predictions of the academic literature).³

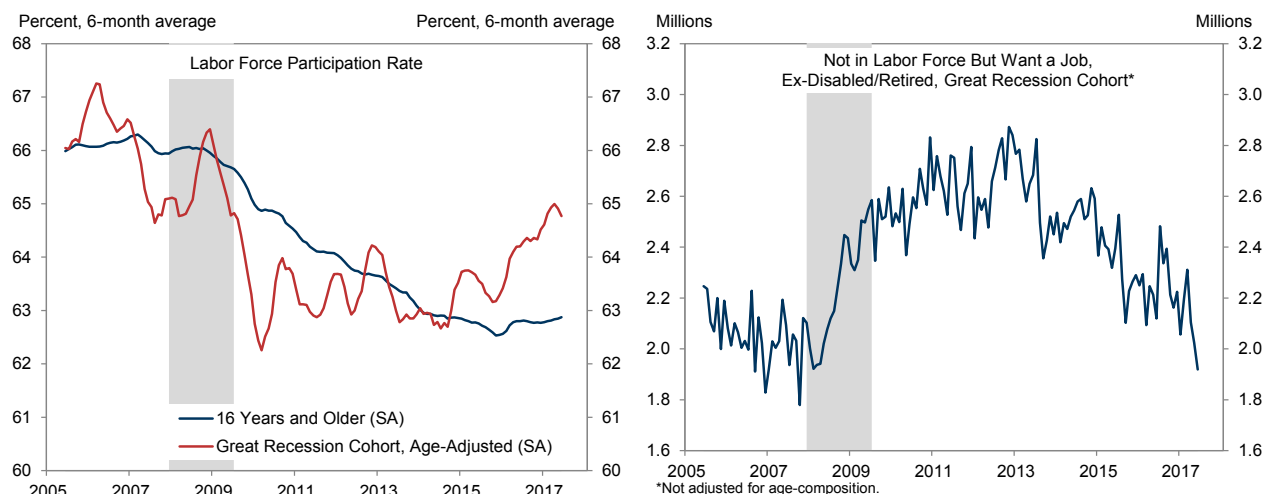
². Before calculating the cohort-level unemployment rate, we adjust each age-group's jobless rate by adding back its 30-year-average gap versus the overall unemployment rate.

³. To account for differences across age groups, we adjust average earnings in each age group by the 30-year-average proportional discount (or premium) versus national average earnings. While relative wages may have partially recovered, note that real incomes remain well below the level implied by their pre-crisis trend. Additionally, some of the recovery in wages reflects additional schooling that bore associated educational costs.

Exhibit 3: Average Weekly Earnings Underperformed in This Cohort but Have Started to Recover

Source: Department of Labor, Goldman Sachs Global Investment Research

We conclude by analyzing two broader measures of labor market underutilization for this cohort. As shown in the left panel of Exhibit 4, the post-recession improvement in jobless rates was not driven by discouraged-worker effects: Labor force participation rates (on an age-adjusted basis) were range-bound during most of this period and actually increased during 2015-16, returning to their 2007 average level (of around 65%). Household survey data for this cohort also show that the number of non-participants who want a job has fallen back to its pre-crisis level (right panel of Exhibit 4).

Exhibit 4: Participation Rates among this Cohort Have Recovered to Pre-Recession Levels, and the Number of Non-Participants Who Want a Job Is No Longer Elevated

Source: Department of Labor, Goldman Sachs Global Investment Research

While we cannot rule out a return of cohort participation rates to 2005-06 levels, we see little evidence of excess slack in this segment of the labor force, despite its particularly difficult experience during and after the recession. Additionally, we believe the sharp

reductions in labor market underutilization in this cohort contributed to the brisk pace of aggregate payroll growth in recent years. With most of this excess slack now exhausted, the burden of continued labor demand growth will increasingly fall on other segments of the labor force, where slack is even harder to find.

Spencer Hill

Disclosure Appendix

Reg AC

We, Jan Hatzius, Alec Phillips, David Mericle, Spencer Hill, Daan Struyven, Karen Reichgott and Avisha Thakkar, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

Disclosures

Global product; distributing entities

The Global Investment Research Division of Goldman Sachs produces and distributes research products for clients of Goldman Sachs on a global basis. Analysts based in Goldman Sachs offices around the world produce equity research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy. This research is disseminated in Australia by Goldman Sachs Australia Pty Ltd (ABN 21 006 797 897); in Brazil by Goldman Sachs do Brasil Corretora de Títulos e Valores Mobiliários S.A.; in Canada by either Goldman Sachs Canada Inc. or Goldman, Sachs & Co.; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs New Zealand Limited; in Russia by OOO Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman, Sachs & Co. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom and European Union.

European Union: Goldman Sachs International authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, has approved this research in connection with its distribution in the European Union and United Kingdom; Goldman Sachs AG and Goldman Sachs International Zweigniederlassung Frankfurt, regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht, may also distribute research in Germany.

General disclosures

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. The information, opinions, estimates and forecasts contained herein are as of the date hereof and are subject to change without prior notification. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by our Global Investment Research Division. Goldman, Sachs & Co., the United States broker dealer, is a member of SIPC (<http://www.sipc.org>).

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and principal trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, principal trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

The analysts named in this report may have from time to time discussed with our clients, including Goldman Sachs salespersons and traders, or may discuss in this report, trading strategies that reference catalysts or events that may have a near-term impact on the market price of the equity securities discussed in this report, which impact may be directionally counter to the analyst's published price target expectations for such stocks. Any such trading strategies are distinct from and do not affect the analyst's fundamental equity rating for such stocks, which rating reflects a stock's return potential relative to its coverage group as described herein.

We and our affiliates, officers, directors, and employees, excluding equity and credit analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research.

The views attributed to third party presenters at Goldman Sachs arranged conferences, including individuals from other parts of Goldman Sachs, do not necessarily reflect those of Global Investment Research and are not an official view of Goldman Sachs.

Any third party referenced herein, including any salespeople, traders and other professionals or members of their household, may have positions in the products mentioned that are inconsistent with the views expressed by analysts named in this report.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Investors should review current options disclosure documents which are available from Goldman Sachs sales representatives or at <http://www.theocc.com/about/publications/character-risks.jsp>. Transaction costs may be significant in option strategies calling for multiple purchase and sales of options such as spreads. Supporting documentation will be supplied upon request.

All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client websites. Not all research content is redistributed to our clients or available to third-party aggregators, nor is Goldman Sachs responsible for the redistribution of our research by third party aggregators. For research, models or other data available on a particular security, please contact your sales representative or go to <http://360.gs.com>.

Disclosure information is also available at <http://www.gs.com/research/hedge.html> or from Research Compliance, 200 West Street, New York, NY 10282.

© 2017 Goldman Sachs.

No part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed without the prior written consent of The Goldman Sachs Group, Inc.