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TOP *of* MIND

INVESTING IN RACIAL ECONOMIC EQUALITY

America appears to be at a point of reckoning with its long history of social and economic racial inequality. How to close the large and persistent Black-white earnings and wealth gaps central to this inequality is not just Top of Mind, but one of the most pressing questions of our time. We turn to Kerwin K. Charles, Dean and Professor at the Yale School of Management, and Jan Hatzius, GS Head of Global Investment Research and Chief Economist, for perspectives on the magnitude of these gaps, their evolution over time, and what these trends suggest for effective policy solutions moving forward. And we dig into racial gaps in education, healthcare, access to capital and professional advancement—core areas that must be addressed if we're serious about reducing economic inequities. Our key takeaway: overcoming these inequities will require a holistic approach from all areas of society, and coming together to achieve this goal is not only a moral imperative, but also essential for the health and vibrancy of our economy and our nation more generally.

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In 1940, the median Black man's earnings would have placed him at the 24th percentile of the white earnings distribution. Today, that has barely risen to the 27th percentile, meaning that an average Black man today ranks in roughly the same place as his grandfather.

- Kerwin K. Charles

If we're serious about the social, economic and racial justice overhaul that our nation is embarking upon, we must make significant strides in providing Black students with access to college and more effective supports when they get there.

- Timothy Knowles

To close the racial wealth gap, private capital has to be part of the solution because it sits at the center of wealth creation in our country.

- Margaret Anadu

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Shayne Evans and Timothy Knowles, Co-Founders and Managing Partners, The Academy Group

Dr. John Z. Ayanian, Director, Institute for Healthcare Policy and Innovation, University of Michigan

Margaret Anadu, Head of Urban Investment Group, Goldman Sachs

REDUCING RACIAL GAPS: EARLIER IS BETTER
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ADVANCING BLACK PROFESSIONALS
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RACIAL INEQUALITY MAY IMPACT THE ELECTION
Alec Phillips, GS US Economics Research

...AND MORE

Allison Nathan | allison.nathan@gs.com Gabriel Lipton Galbraith | gabe.liptongalbraith@gs.com Jenny Grimberg | jenny.grimberg@gs.com

Macro news and views

We provide a brief snapshot on the most important economies for the global markets

US

Latest GS proprietary datapoints/major changes in views

- We expect a somewhat slower sequential rebound in Q3 growth due to a pause in the consumer sector recovery as a result of virus resurgence, leaving full-year 2020 GDP growth at -4.6%.
- We modestly lowered our year-end 2020 unemployment rate forecast to 9% following the strong June employment report.

Datapoints/trends we're focused on

- Reopening risks, with states representing ~75% of the pop. having now moved to pause or reverse reopening plans.
- Fiscal cliff; we expect $1.5tn in additional fiscal stimulus, including a partial extension of around $300 per wk. in jobless benefits.

Japan

Latest GS proprietary datapoints/major changes in views

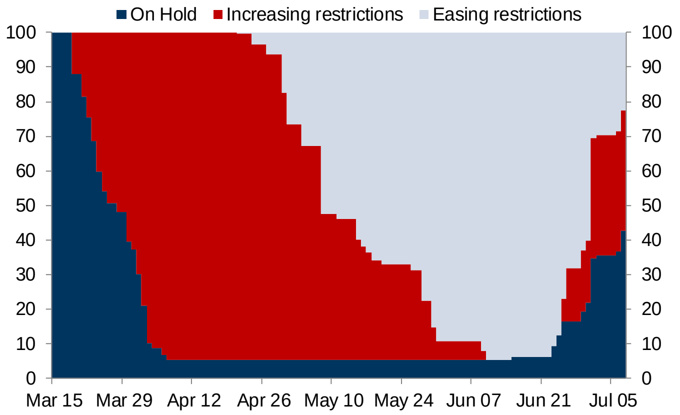
- We slightly raised our 2020/21 real GDP forecasts to -5.9% and 3.3%, respectively, to reflect greater fiscal stimulus.
- We sharply raised our 2020 fiscal deficit forecast to 13.3% of GDP after the passage of the second supplementary budget.

Datapoints/trends we're focused on

- Virus resurgence; despite a modest uptick in new cases, we think risks to the consumption outlook remain fairly limited.
- Weak industrial production (IP), which we think presents the largest risk to our 2H growth outlook since it has yet to recover.

Rolling back reopening

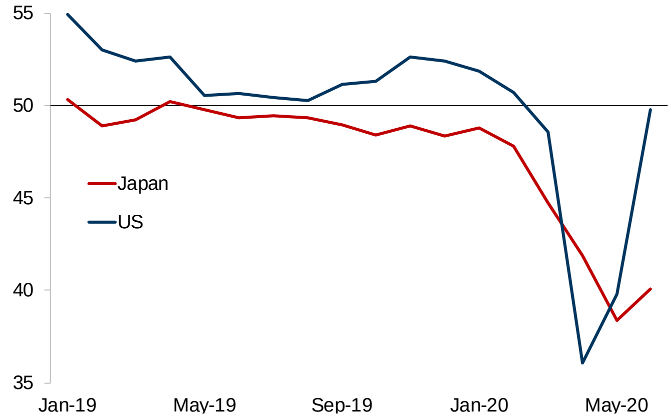
Population-weighted share of states by reopening plan, percent



Source: Goldman Sachs Global Investment Research.

Still no IP recovery in sight

Japan manufacturing PMI, index (50=neutral)



Source: Cabinet Office, Tokyo Stock Exchange, Goldman Sachs GIR.

Europe

Latest GS proprietary datapoints/major changes in views

- We now expect 9.5% and 4.7% qoq na GDP growth in 2H20 and 8.8% in 2021, suggesting outperformance relative to the US.
- We see year-end 2020 unemployment at 4% in Germany, 9.8% in France, 13.4% in Italy and 18.4% in Spain.

Datapoints/trends we're focused on

- ECB's PEPP program, which we think will utilize the full EUR 1.35tn envelope with net purchases running until June 2021.
- Recovery Fund; we expect a EUR 600bn fund to help support countries worst hit by the virus to be approved this year.

Emerging Markets (EM)

Latest GS proprietary datapoints/major changes in views

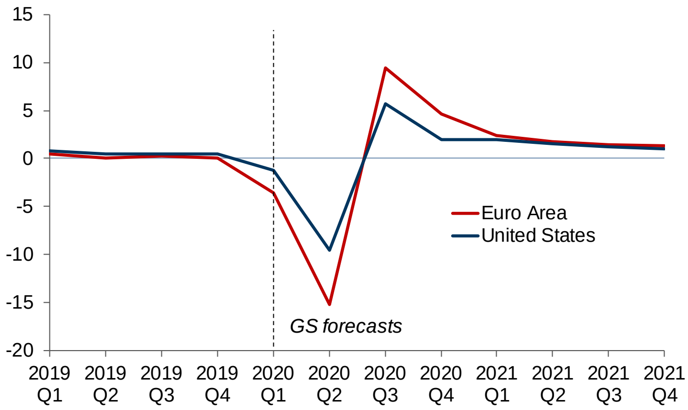
- We expect EM growth will contract by 1.1% in 2020 before rebounding to 6% in 2021.
- After a material rebound in China growth in Q2, we expect less aggressive stimulus in 2H, leaving 2020 GDP growth at 3%.

Datapoints/trends we're focused on

- Virus divergence; case growth/fatalities remain fairly low in much of Asia, continue to surge in LatAm, and are mixed in CEEMEA.
- Monetary policy, which should stay very easy across EM, leaving our rates forecasts below forwards for most high/low yielders.

Time for outperformance

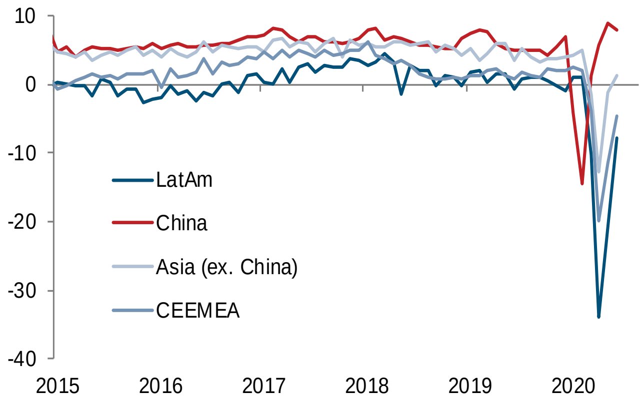
GS real GDP growth forecasts, % qoq non-annualized



Source: Goldman Sachs Global Investment Research.

COVID divergence driving activity divergence

GS Current Activity Indicator, percent mom annualized



Source: Goldman Sachs Global Investment Research.

Investing in racial economic equality

Amid months of protests against racial injustice across the country, America appears to be at a point of reckoning with its long history of social and economic racial inequality, and its consequences. The economic gaps between Black and white Americans are stark, and in many cases haven't improved in decades. Black Americans on average experience higher levels of unemployment, earn lower wages, and accumulate less wealth than white Americans. At this pivotal moment of loud and clear rejection of this unacceptable status quo, the question of how to close the large and persistent earnings and wealth gaps between Black and white Americans is not just Top of Mind, but is one of the most pressing questions of our time, with enormous implications for our economic future and the future of America more broadly.

We first turn to Kerwin K. Charles, Dean and Professor at the Yale School of Management, and Jan Hatzius, GS Head of Global Investment Research and Chief Economist, for perspectives on the current magnitude of the Black-white earnings and wealth gaps, their persistence and evolution over time, and what these trends suggest for effective policy solutions moving forward. One of Charles' most striking findings: despite moderate improvement in the median racial earnings gap since 1940, where an average Black man would rank in the earnings distribution of white men has barely moved in 70+ years, leaving him relatively no better off than his grandfather. Hatzius explains that much of this stagnancy owes to lower upward earnings mobility for Black Americans, with Black sons from families at the bottom of the income distribution roughly three times less likely than white sons from similar families to reach the top of the income distribution in their lifetimes.

Both Charles and Hatzius find compelling evidence that education policy targeted at Black Americans—with Charles focused on college graduation and Hatzius on early childhood education—would help move the needle in overcoming these adverse economic trends. And Hatzius adds that doing so would likely make for not only a fairer, but also a richer society, with the reduction of labor market disadvantages for Black Americans possibly boosting the level of US GDP by roughly 2%, or just over $400bn per year.

We then further explore racial gaps in education, healthcare, access to capital and professional advancement—core areas that must be addressed to make progress on closing economic gaps. On the education front, we speak with Shayne Evans and Timothy Knowles, co-founders of educational non-profit The Academy Group and long-time practitioners in the urban education space. In their experience, access to high-quality schools that prepare students to get into and graduate from college is essential for improving outcomes for Black students. This requires not only more equitable funding across public school systems, but also data that enables school leaders and teachers to best leverage that funding to improve student outcomes. Evans and Knowles also stress that while a college degree is a crucial determinant of a Black students' ability to generate future earnings and wealth, it's no longer enough—social network barriers mean that they increasingly need visible career pathways to achieve success in the labor market.

On the healthcare front, we sit down with Dr. John Z. Ayanian, Director of the Institute for Healthcare Policy and Innovation at the University of Michigan. He sees convincing evidence that increasing access to high-quality healthcare is key to overcoming racial disparities in health outcomes, which is critical to ensuring that Black Americans receive higher wages and accumulate more wealth through living healthier and longer lives. In his view, achieving this will require strong will from leaders of medical institutions and healthcare providers to make closing racial health disparities a top priority. And he believes that a more diverse healthcare work force would improve the healthcare experience not only for minorities, but for all patients.

We then ask Margaret Anadu, head of the GS Urban Investment Group (UIG), about the role of private capital in addressing Black-white economic gaps. She argues that private capital must play a critical role given that it sits at the center of wealth creation—from the ability to go to college, to buy a home or to build a business—and is necessary to help finance investment in minority communities. She emphasizes that, in her experience, these investments generally offer competitive risk-adjusted returns given the magnitude of underinvestment has created pent-up demand as well as opportunities for public-private risk sharing. What's required to see these investments on a scale sufficient to make real progress in closing racial economic gaps? Anadu's answer: more capital from larger players, more high-capacity operators in these areas, and more policy at the federal, state and local levels to incentivize both of those actions.

Gizelle George-Joseph, GS COO of Global Investment Research, then digs into the still-pervasive obstacles to the advancement of Black professionals in the workplace. She finds evidence of ongoing discrimination, both in terms of hiring and the lived experience of Black professionals. And she argues that given the compelling business case for racial diversity, eradicating this discrimination will be critical to companies' long-term success. She recommends three initial ways that corporates can make progress from here: create an environment of affirmative support, engage in dialogue about diversity and make inclusion and diversity training a valued part of the corporate culture.

Lastly, Alec Phillips, GS Chief US Political Economist, argues that amid all of these specific policy prescriptions across the education, healthcare and private sector universes, one thing is for sure: racial equality has become one of the most important issues on the minds of US voters, with potential consequences for the outcome of the US 2020 elections.

But the key takeaway from all of our findings is that, as much progress as any one policy solution can make, overcoming the economic inequities facing Black Americans today will require a holistic approach from all areas of society—public and private. And coming together to achieve this goal is not only a moral imperative, but also essential for the health and vibrancy of our economy and our nation more generally.

P.S. Don't forget to check out the podcast version of this and other recent GS Top of Mind reports—on Apple and Spotify.

Allison Nathan, Editor

Email: allison.nathan@gs.com
Tel: 212-357-7504
Goldman Sachs and Co. LLC

Interview with Kerwin K. Charles

Kerwin K. Charles is the Indra K. Nooyi Dean & Frederic D. Wolfe Professor of Economics, Policy, and Management at the Yale School of Management. Charles has published on topics including earnings and wealth inequality, labor market discrimination, and the intergenerational transmission of economic status. Below, he discusses the evolution of the US racial earnings and wealth gaps, and argues that higher college graduation rates for Black Americans are essential to close them.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: How large is the income gap between Black and white Americans today, and how has it evolved over time?

Kerwin Charles: Much of what we know today about the income gap is limited to differences in earnings—the income we receive by virtue of selling our labor—which we assume is a good measure of the broad income gap because unearned income—such as dividend payments or monetary transfers from family—for the vast majority of people is small. In assessing the size of the Black-white earnings gap, it's important to think about it not only in terms of the earnings level gap—the relative earnings in dollar terms of Black men vs. white men—which is typically how we think about it, but also in terms of the earnings rank gap—where in the earnings distribution a Black man would rank if he were white.

The earnings level gap between the median Black man and the median white man in the US has ebbed and flowed over time. In 1940, there was a 100% difference in earnings between the two groups. Between 1940 and the mid-1970s, this gap narrowed by roughly 50%. But, the gap has since re-widened, reaching 68% as of 2014. Two distinct forces have driven these trends: forces that determine the overall shape of the earnings distribution irrespective of race, and race-specific forces that move Black Americans across that distribution. To better see this, think of the overall earnings distribution in America as an accordion. Some forces squeeze the accordion inward, necessarily reducing earnings gaps among all Americans or between groups of Americans. Other forces leave the shape of the accordion the same, but move Black Americans from the left side of the accordion to the right side.

Overwhelmingly, the most important forces driving the narrowing and subsequent re-widening of the gap at the median level of earnings have been distributional forces that apply to the overall shape of the earnings distribution. Reductions in income inequality between rich and poor Americans and the rise of the middle class narrowed the gap into the 1970s, whereas the growth of income inequality over the past 50 years led to the ensuing re-widening. While race-specific policies intended to redress racial inequalities—and move Blacks Americans to the right on the accordion—have not been the main drivers of the median racial earnings gap, they've still been extremely important because the recent re-widening would have undoubtedly been larger without them.

All that said, in contrast to the changes in the earnings level gap over the past several decades, if there is one finding that has floored me in my career, it's that the earnings rank gap for the median Black man has barely moved over the past 70+ years. In 1940, the median Black man's earnings would have placed him at the 24th percentile of the white earnings distribution. Today, that has barely risen to the 27th percentile, meaning that a Black man today ranks in roughly the same place as his grandfather. So how we measure the gap matters, and underscores the complexity of these issues.

Allison Nathan: Have these trends differed at the top of the income distribution?

Kerwin Charles: At the 90th percentile of the earnings distribution, there is a still sizable, but smaller, earnings level gap of 48%. Although we've also seen a narrowing and then a re-widening of the gap at the top, the re-widening has been smaller than at the median. And, in contrast to what we observed at the median, the forces driving these trends have been more race-specific than distributional. Indeed, several race-specific policies disproportionately benefited Black Americans at the top, including affirmative action and related policies that led to a large increase in the number of Black Americans at elite universities, as well as a dramatic opening up of professions like law and accountancy to Black Americans.

Despite these advances driven by race-specific factors, there has nevertheless been some re-widening of the gap at the top driven by distributional factors, namely, surging income inequality at the very top end of the earnings distribution. While the earnings gap between an individual at the 50th percentile and one at the 60th percentile has widened since 1970, the gap between an individual at the 98th percentile and one at the 99th percentile has widened more significantly, irrespective of race. But the key takeaway is that Black Americans have fared better at the top of the earnings distribution than at the median, and this is underscored by truly impressive convergence in terms of the earnings rank gap: the position of a Black man at the 90th percentile of earnings has risen from the 50th percentile of the white earnings distribution in 1940 to the 75th percentile today.

Allison Nathan: What about at the bottom?

Kerwin Charles: The earnings gap between the bottom and the median has grown substantially, in large part because of the rising prevalence of men who don't work, so that the bottom is increasingly not "low wage" but instead "non-work." Today, the non-work population is at historically unprecedented levels for all men, but at unimaginable levels for Black men; 35% of prime-aged Black men today are not working, compared with 17% of white men. This differential owes to higher incarceration rates among Black men, as well as higher unemployment rates and a higher incidence of Black men not in the labor force due to lack of education, criminal records and other factors. In some ways, this rise in the incidence of non-work represents the most fundamental change in the outcomes for men, and Black men in particular, in this country in many decades. And it suggests that just focusing on "earnings" gaps, which generally don't take account of this non-working population, presents an increasingly poor picture of what's happening in the population overall.

Allison Nathan: What role has education played in the changes we've seen in the Black-white earnings gap?

Kerwin Charles: A fundamental shift has taken place in the relationship between education and work among American men over time. In the 1950s and 1960s, having a college education was not especially predictive of whether men worked for pay or not. However, since the 1970s, possessing a high school education has no longer been enough to ensure that a man would have a paying job. In fact, we've found that college graduates have increasingly not only earned more than their peers that don't have a college degree, but also are more likely to work at all. This owes to many factors, such as a higher likelihood of incarceration at lower levels of education as well as changing demands of the labor market that increasingly favor workers with the analytical and technical skills that college training provides. So while Black men at the median and bottom levels of the earnings distribution successfully closed the gap in high school graduation rates compared to their white peers, any earning gains that came out of that were undone by structural changes in the labor market that increasingly values a college education.

Allison Nathan: How large is the Black-white wealth gap, and how much does the earnings gap contribute to it?

Kerwin Charles: Wealth—the sum total of all we own minus all we owe—is difficult to measure. But the typical Black household in America today is estimated to have somewhere between one-tenth and one-fourteenth the wealth of the typical white household. So the wealth gap is massive—in many ways dwarfing the earnings gap—and it has barely moved in several decades. It's hard to measure just how much of the wealth gap is driven by the earnings gap, because in order to do so you need to compare Black Americans to white Americans in similar earnings and wealth categories, and the paucity of Black Americans at the very top of both distributions makes that comparison almost impossible. But methods we've developed to estimate this have found that the earnings gap explains roughly 65-70% of the racial wealth gap.

Allison Nathan: What explains the portion of the wealth gap that is not accounted for by the earnings gap?

Kerwin Charles: A large part of the remaining difference may be explained by the role of homeownership, which can be broken down into owning a home and the value of that home. White Americans are more likely to own a home than Black Americans at the same income level in the first place, which is largely a result of differences in liquidity constraints. Buying a home requires coming up with a 10-20% down payment, which we've found white Americans are much more likely to receive familial assistance with than Black Americans. But even when Black Americans do own a home, its value on average is lower and less likely to appreciate than a home owned by white Americans at the same income level. In fact, neighborhoods with higher concentrations of Black homeowners are much more likely to suffer from booms and busts than disproportionately white neighborhoods, and we saw this play out during the last housing bubble, which devastated markets with concentrated Black housing wealth.

Another factor that could account for the difference in wealth is consumption disparities between Black and white Americans. We've found that Black Americans tend to spend a larger share of their disposable income on visible goods—clothing, jewelry and cars—than white Americans at similar levels of income, leaving them with lower rates of wealth accumulation. Driving this behavior is a desire to lean against the prejudicial or stereotypical perception that other people may have about the income of the group from which Black Americans are drawn, by signaling to the market through things that are portable and visible. We know this is true because we document exactly the same type of behavior among white Americans, with white men exhibiting a higher propensity to consume visible goods the lower the mean income of the group they come from.

Finally, the persistence of wealth through generations means that current wealth gaps cannot be fully explained without taking into account the parental actions that lead to such wealth. For example, one important way to build wealth is through entrepreneurship, and we've found that parental involvement in entrepreneurial activity has a huge impact on whether or not successive generations become self-employed and start their own businesses.

Allison Nathan: Given all that, what types of policies would be most effective at closing the earnings and wealth gaps?

Kerwin Charles: Broadly speaking, policymakers need to be more thoughtful and practical in crafting solutions in the event of an adverse shock that disproportionately affects Black Americans. Such events have occurred many times throughout US history. Black Americans leave the South for cities in the north to take up jobs in industry and manufacturing, only to see manufacturing collapse shortly thereafter. Black Americans close the high school graduation gap, only to find themselves in a labor market that now values college education. Black Americans take advantage of a historic housing boom to buy homes and build wealth, only to see a housing bust occur. So policies that insure against the adverse consequences of such events is important if we're serious about closing racial earnings and wealth gaps in this country.

In terms of specific policies, race-neutral policies that close gaps overall—such as raising the minimum wage—are also likely to reduce racial gaps, and therefore deserve more consideration. We also need policies that relax the liquidity constraints that impede Black home and business ownership, investment activity and, importantly, migration. To the latter point, policies and programs that increase people's ability to move around the country in pursuit of jobs—in terms of both finding jobs and transitioning into them—would be useful. Most importantly, policies that increase the college graduation rate of Black Americans are a national imperative. This is crucial because, again, the success we've had in closing the high school graduation gap in this country is no longer enough; we now need to close the college-level skills gap that the labor market demands today.

Reducing racial gaps: earlier is better

Jan Hatzius argues that the case for reducing the Black disadvantage in employment, income and wealth is mainly one of fairness, but it could also deliver a boost to US GDP

Black Americans remain heavily disadvantaged across a broad range of economic measures, including employment, earnings, household income, and wealth. At an individual level, much of this gap reflects lower upward earnings mobility, especially for Black men. This disadvantage starts very early in life; infants of all races display similar distributions of cognitive ability, but Black children start to fall behind as early as age 2, and the gap grows through childhood and adolescence, with large negative effects on later labor market outcomes.

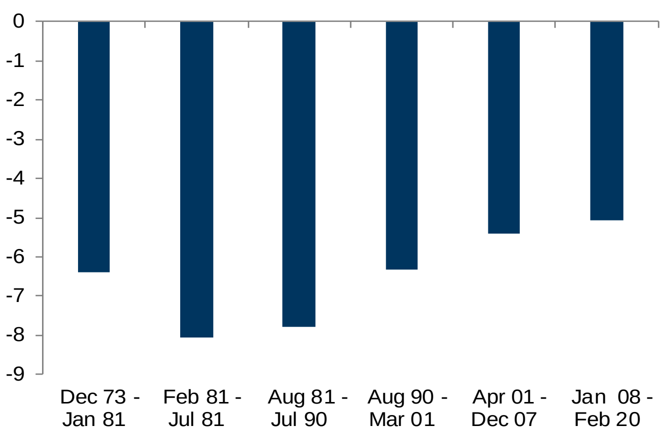
From a policy perspective, recent research shows that supporting disadvantaged children starting at a very early age—e.g. via subsidized early childhood programs—can yield large benefits later in life, including in labor market outcomes. Although the case for reducing Black employment and earnings disadvantages is mainly one of fairness rather than efficiency, it could also deliver a boost to the level of US GDP of around 2%, which currently equates to just over $400 billion per year.

A large and persistent Black disadvantage

Black Americans remain heavily disadvantaged across a broad range of economic measures, including the most basic ones—employment, income, and wealth. The employment-to-population ratio for Black Americans has averaged about 5 percentage points less than for white Americans in recent decades.[1] At the same time, Black full-time workers earn 20% less in labor income than white ones, and Black households receive 40% less total income and 90% less net wealth than white households. Except for a temporary improvement during the late 1990s labor market boom, these disadvantages have been strikingly constant over time—in the case of the household income gap, since at least 1967.

Black Americans experience consistently lower employment

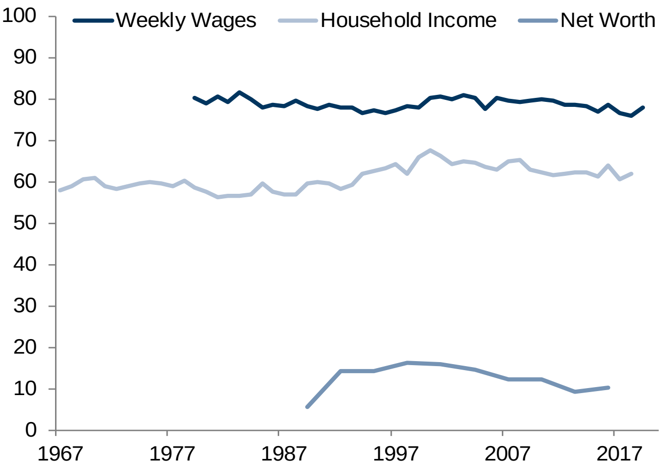
Black minus white employment population ratio by cycle (peak to peak), pp



Source: Census Bureau, Goldman Sachs Global Investment Research.

Black Americans' earnings and wealth are also lower

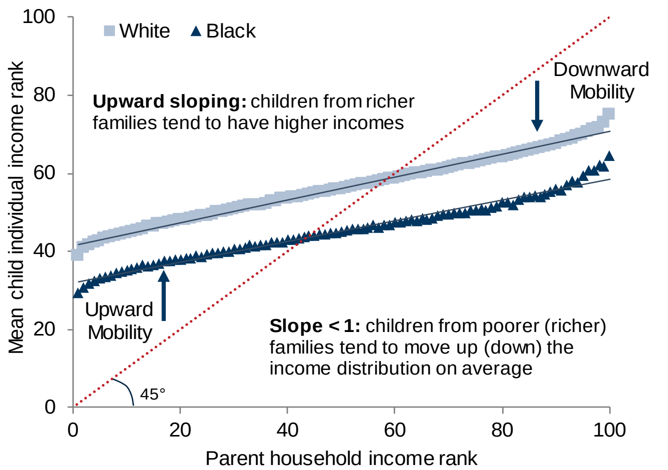
Median Black earnings and wealth as a percentage of whites', percent



Source: BLS, Census Bureau, Federal Reserve, Goldman Sachs GIR.

A comprehensive recent study has shown that one key reason for the persistence of the Black earnings and income gap is that upward income mobility is lower and downward mobility is higher for Black men than for white men.[2] This can be seen by the fact that while sons of higher-income parents typically have higher income themselves regardless of race—and all individuals tend to be subject to the familiar concept of regression to the mean, so that individuals from poor families tend to move up in the distribution relative to their parents—there are significant racial disparities in this process.

Intergenerational male income mobility by income percentile



Note: 45-degree line preserves income rank from parent to son.
Source: Opportunity Insights, Goldman Sachs Global Investment Research.

Black men from rich families suffer more from regression to the mean than white men from similarly rich families, i.e. they tend to fall further down the income ladder, and are actually more likely to fall to the bottom income quintile than they are to maintain their position in the top income quintile. By contrast, Black men from poor families—who make up the majority of the Black population—benefit less from regression to the mean than white men from similarly poor families, i.e. they don't rise

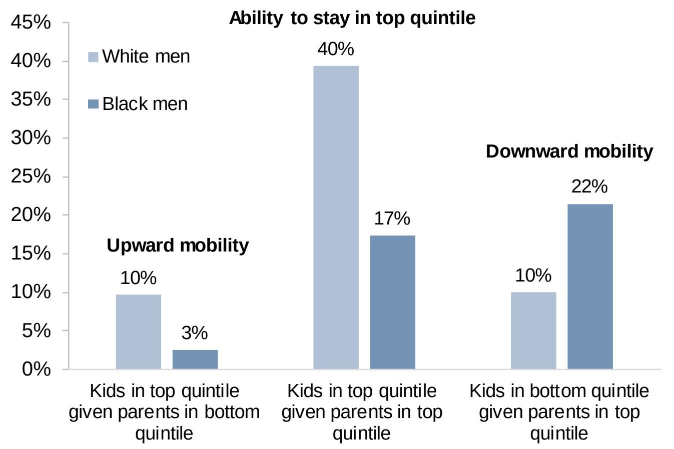
[1] Since the employment-to-population ratio is calculated based on the noninstitutional population, the Black-white gap would be about 1pp larger if we included the incarcerated among the non-employed.

[2] See Raj Chetty, Nathaniel Hendren, Maggie R. Jones, and Sonya R. Porter, "Race and Economic Opportunity in the United States: An Intergenerational Perspective," Quarterly Journal of Economics, Vol. 135, Issue 2, May 2020.

as high up the income ladder. In particular, only around 3% of Black men born into the bottom quintile make it into the top income quintile, compared to around 10% of white men. If left unchecked, this perpetuates the income disadvantage of Black men across generations.[3]

Downward mobility is far higher for Black men

Rates of upward and downward mobility, percent of quintile

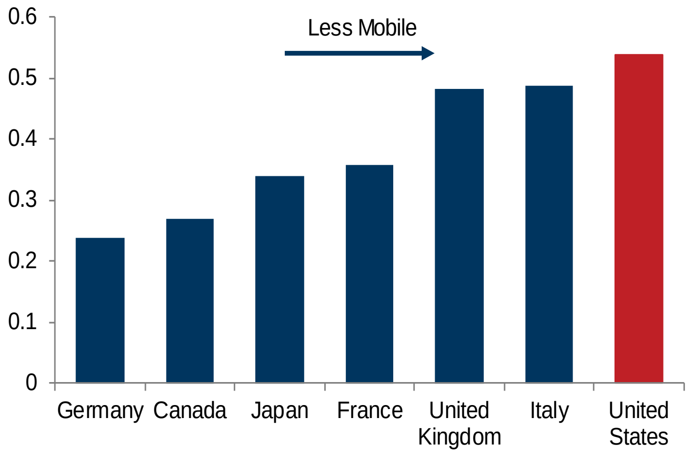


Source: Opportunity Insights, Goldman Sachs Global Investment Research.

The impact of low upward mobility on Black incomes is amplified by two broader features of the US economy. First, the overall level of intergenerational income mobility—averaging across all races and ethnicities—is lower in the US than in other G7 economies. This means that a given mobility disadvantage for Black men from poor families implies a lower level of absolute upward mobility in the US than it would elsewhere. Second, the US income distribution is much more unequal than in other G7 economies. This means that being stuck at a relatively low percentile of the distribution implies a larger income loss in the US than it would elsewhere.

The US lags behind in terms of intergenerational mobility...

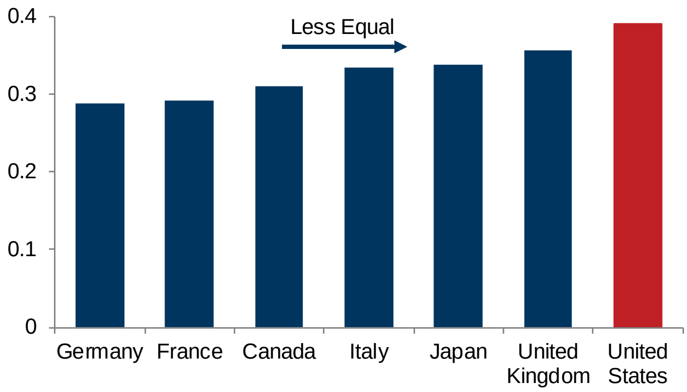
Intergenerational income elasticity for G7 countries, ratio



Source: OECD, Goldman Sachs Global Investment Research.

…and has a more unequal income distribution than its peers

Gini coefficient for G7 countries, ratio



Source: OECD, Goldman Sachs Global Investment Research.

A place to start: Early childhood education

What lies behind the economic disadvantage affecting Black Americans? The answers include lower-quality schools, poorer health outcomes, more polluted neighborhoods, discrimination in hiring and promotion decisions, and very high rates of arrest and incarceration. Each of these problems calls for a different response, ranging across education policy, health policy, environmental policy, legal and societal efforts to reduce discriminatory practices, and criminal justice reform.

One specific policy area that has received particular focus in recent years is early childhood education. Although such programs are generally not race-specific, Black children are likely to benefit most from them. According to the Early Childhood Longitudinal Study Birth Cohort (ECLS-B) and the Collaborative Perinatal Project (CPP), infants of all races display very similar distributions of cognitive ability. These results are based on the Bayley Scale of Infant Development, which has been shown to correlate sufficiently well enough with ability at older ages to be meaningful for these purposes. However, Black children start to fall behind around age 2, and the gap grows through childhood and adolescence, with large negative effects on later labor market and life outcomes. A reasonable interpretation is that innate ability is distributed similarly across children of all races, but environmental factors disadvantage Black children starting at a very early age.[4]

In principle, this suggests that a focus on early childhood education and development could make a substantial difference in reducing racial inequalities. And in practice, the evidence seems to support this notion. A comprehensive study of means-tested and universal early childhood programs—which evaluates the federally financed Head Start program as well as a plethora of smaller-scale public and private programs—finds that they significantly benefit disadvantaged children in terms of stronger cognitive development, stronger conscientiousness, higher lifetime earnings, better health, and reduced criminal activity.[5] Black children would likely benefit most from an expansion of these programs.

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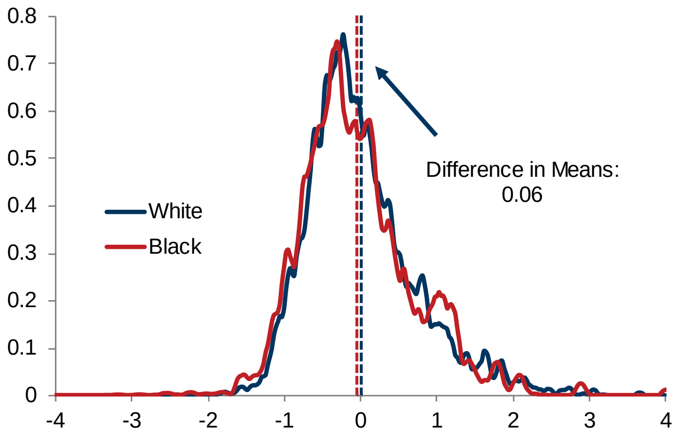
[3] Perhaps surprisingly, the Chetty et al. study finds no statistically significant difference in intergenerational earnings mobility for Black vs. white women when controlling for parental income. This means that the earnings disadvantage of Black women would be expected to diminish through generations via regression to the mean. It also puts to rest the notion that the disadvantage of Black vs. white men is explained by a racial gap in innate ability, since there is no reason why such a gap would be confined to men.

[4] See Roland G. Fryer Jr. and Steven D. Levitt. 2013. "Testing for Racial Differences in the Mental Ability of Young Children," American Economic Review, 103(2):981-1005.

[5] See Sneha Elango, Jorge Luis Garcia, James J. Heckman, and Andrew Hojman, "Early Childhood Education," in Moffit, Robert A. (ed.), Economics of Means-Tested Transfer Programs in the United States, Vol. 1, 2016.

Distribution of test scores in the ECLS for nine-month-olds

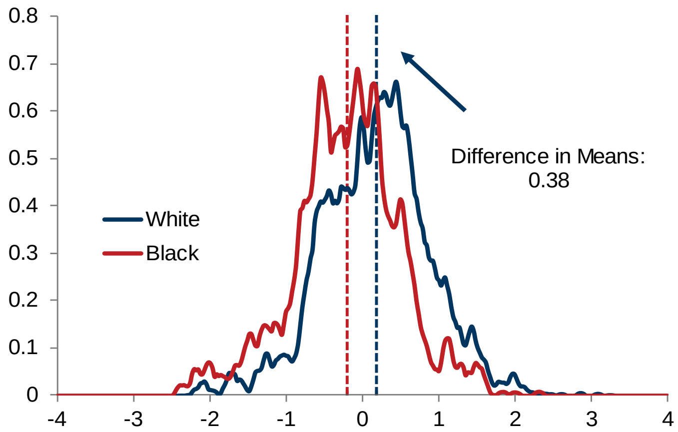
Standard deviations (x-axis)



Source: ECLS, Fryer and Levitt (2013), Goldman Sachs GIR.

Distribution of test scores in the ECLS for two-year-olds

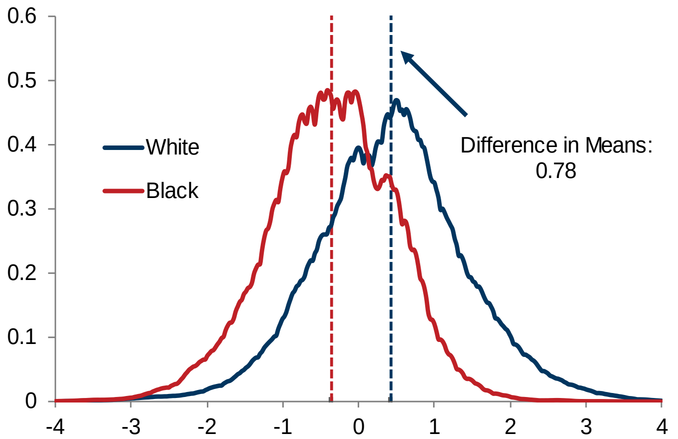
Standard deviations (x-axis)



Source: ECLS, Fryer and Levitt (2013), Goldman Sachs GIR.

Distribution of test scores in the CPP for four-year-olds

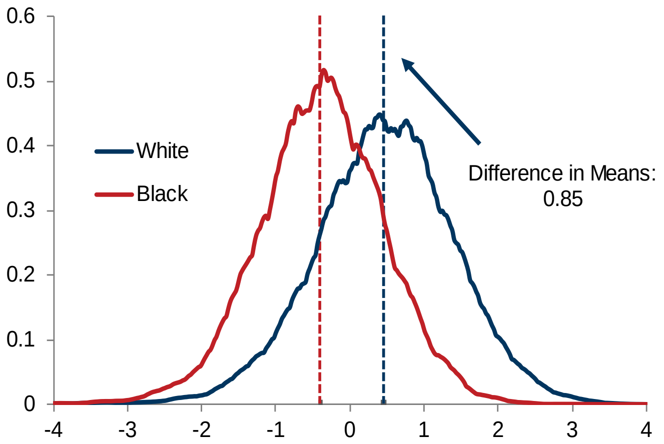
Standard deviations (x-axis)



Source: ECLS, Fryer and Levitt (2013), Goldman Sachs GIR.

Distribution of test scores in the CPP for seven-year-olds

Standard deviations (x-axis)



Source: CPP, Fryer and Levitt (2013), Goldman Sachs GIR.

Good for growth

If these and other policies improve the lifetime earnings prospects of Black Americans, this will also add to the country's economic potential over time. For illustration, suppose that the 5pp employment-to-population gap for Blacks disappears via higher Black employment and the 20% earnings gap closes via higher wages for Blacks. These changes would increase total labor income by 1.1% and 2.4%, respectively, for a total boost to labor income of 3.5%. Furthermore, if labor's share of GDP is 60% and wages correspond to a worker's marginal product, this implies an increase in US GDP of about 2%, which currently equates to $400 billion per year.

In practice, the impact could be somewhat smaller or larger than this number. On the one hand, the calculation assumes that the increase in the earnings of Black workers reflects an increase in productivity, e.g. on the back of improved early childhood education, schooling, and on-the-job training. If it instead reflects a reduction in racial discrimination in pay decisions, the increase in Black workers' earnings will (justly) reduce business profits so that the increase in overall GDP will be correspondingly smaller.

On the other hand, the impact could grow over time if we consider the dynamic effects of improved educational and career opportunities of Blacks on capital accumulation and overall innovation in the economy. For example, a recent study finds that the underrepresentation of Blacks in the ranks of inventors would diminish sharply if the Black-white parental income gap were eliminated.[6] Given the pivotal role of invention and innovation in today's economy, this could add a growing amount to the overall size of the economic pie. Reducing the economic disadvantages of Black Americans would therefore not just make America a fairer, but also a richer society.

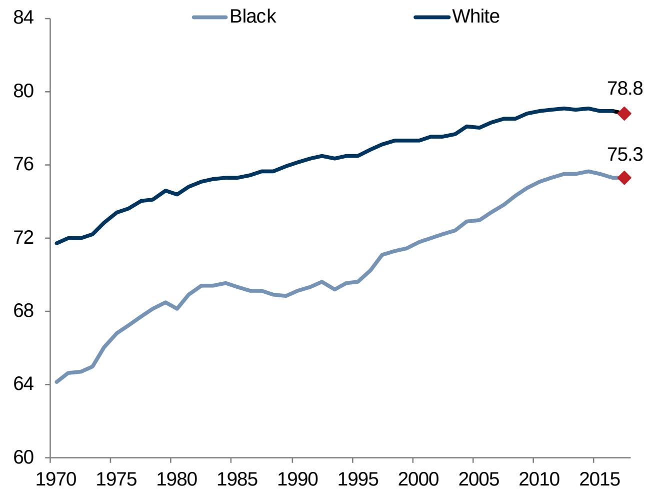
Jan Hatzius, GS Head of GIR and Chief Economist

Email: jan.hatzius@gs.com Goldman Sachs and Co. LLC
Tel: +1 212-902-0394

[6] See Alex Bell, Raj Chetty, Xajier Jaravel, Neviana Petkova, and John van Reenen, "Who Becomes an Inventor in America? The Importance of Exposure to Innovation," Centre for Economic Performance Discussion Paper No. 1519, December 2017.

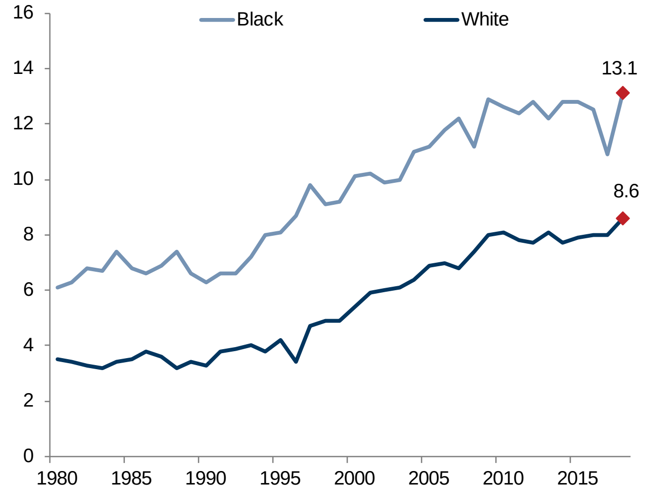
Little to no progress on racial disparities

Black Americans live shorter lives than white Americans...
Life expectancy at birth, years



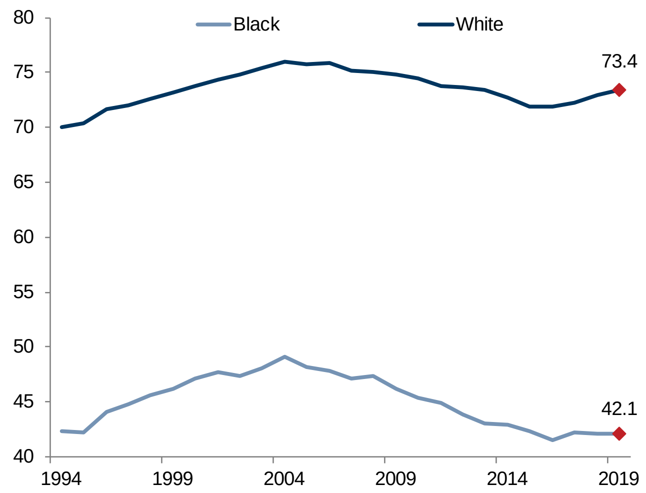
Source: National Center for Health Statistics, Haver, Goldman Sachs GIR.

...and suffer from higher rates of chronic illnesses
Age-adjusted prevalence of diagnosed diabetes for adults 18+, %



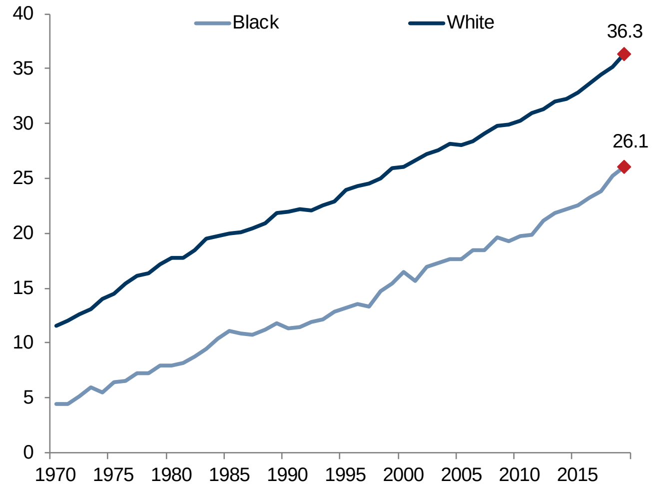
Source: CDC, Goldman Sachs Global Investment Research.

Black Americans are significantly less likely to own a home…
Rates of homeownership, %



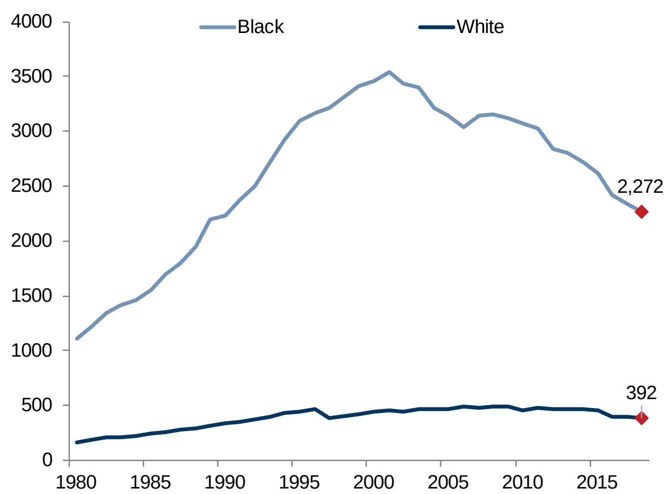
Source: US Census Bureau, St. Louis Fed, Goldman Sachs GIR.

…and are less likely to finish college than white Americans
Adults 25+ who have completed four years of college or more, %



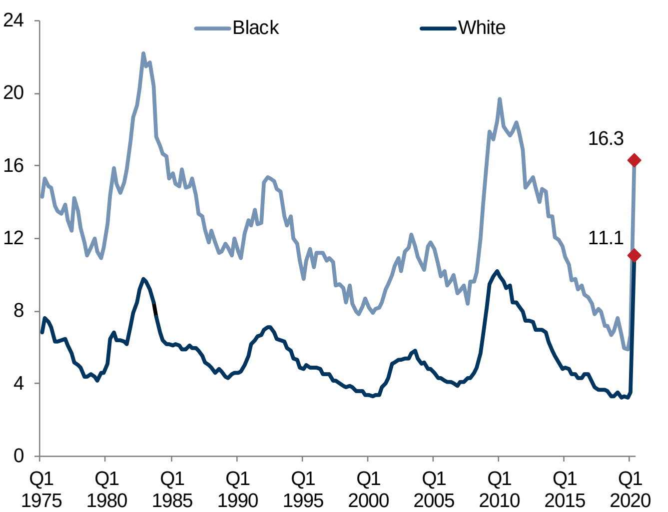
Source: US Census Bureau, Goldman Sachs Global Investment Research.

Black men are incarcerated at significantly higher rates…
Number of male prisoners serving 1+ years per 100k residents



Note: Prisoners under state and federal jurisdiction; post-1996 figures exclude prisoners of Hispanic ethnicity; post-2003 figures exclude persons of 2+ races.
Source: US Bureau of Justice Statistics, Goldman Sachs GIR.

…and are unemployed at higher rates than white men
Unemployment rate for males 16+, %



Source: US Bureau of Labor Statistics, Haver, Goldman Sachs GIR.

Interview on racial gaps in education

Shayne Evans and Timothy Knowles are Co-Founders and Managing Partners of The Academy Group. Previously, Evans served as CEO of the University of Chicago Charter School and director of the University of Chicago Urban Education Institute (UEI). Knowles founded the University of Chicago Urban Labs and UEI, and served as the Deputy Superintendent of Boston Public Schools. Below, they discuss the racial educational achievement gap and how to overcome it.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.


Shayne Evans


Timothy Knowles

Allison Nathan: How large is the Black-white educational achievement gap today, and how has it evolved over time?

Timothy Knowles: A 2011 Stanford study suggests the achievement gap—as measured by standardized test scores in reading and math—has increased by 40% over the last 50 years. That equates to an average gap of two to three years between Black and white students, even though evidence suggests that students begin early education at similar levels of achievement regardless of race when controlling for income and other factors. And even the most optimistic studies indicate the gap hasn't changed much over the same period.

Shayne Evans: Fifty years ago, 12th grade Black students were, on average, in the 13th percentile in reading and math. Today, they're in the 19th percentile. At that rate of progress, closing the achievement gap will take about 250 years.

Allison Nathan: What's the cost of these poor educational outcomes for individuals and communities?

Timothy Knowles: Evidence shows that the higher level of educational attainment you have, the longer you live, the healthier you are, the more you earn, the less you go to prison, the more you vote, the more you volunteer. And the value of closing the achievement gap has a significant impact on the economy; a 2009 study from McKinsey calculated that if America had closed the racial achievement gap between white and Black/Latinx students by 1998, US GDP would have been $525bn higher in 2008.

Allison Nathan: What institutional factors are behind the achievement gap?

Timothy Knowles: School quality matters enormously. The data suggest that Black students, on average, are attending schools with much less funding per student, less experienced leaders and teachers, and insufficient supports to propel them to and through college. Of course, other factors also contribute to the widening gap over the course of a student's education, including a lack of family resources for extra tutoring, counseling, access to travel and other rigorous and relevant learning opportunities that inspire and engage students, which middle and upper income families are better positioned to provide for their children.

Allison Nathan: Given the importance of school quality, should we consider a return to desegregation policies, especially in light of evidence that suggests these policies have substantially improved outcomes for Black students?

Timothy Knowles: There's no doubt that America's schools have become more segregated over the last 20 to 25 years. Today, 75% of Black students attend a majority-minority school, and the percentage of schools that are 80% or greater of one race has doubled in the last 10 years. That is problematic when we know that the quality of majority-minority schools is poorer on average. But does that mean we should take America back to the 1970s? I don't think so. Forced desegregation is an inefficient way to address school quality. When I was deputy superintendent of Boston public schools, due to desegregation orders, we spent 10% of our budget on buses. Using that 10% instead on supports for young people that help them finish high school, get into college and have rewarding career paths would pay much higher dividends than returning to forced desegregation.

Shayne Evans: The goal should be to provide all students with high-quality schools in their neighborhoods. Despite some positive results, desegregation also led to forced assimilation of minority students that reinforced the notion that "good" schools had to be mainly populated by white students and teachers. That likely impacted Black students' cultural pride and sense of agency, which is critical to feel whole in America.

Allison Nathan: Have charter schools helped increase Black students' access to high-quality education?

Shayne Evans: Charter schools range dramatically in quality. That said, on the one hand, data for charter schools nationwide shows some success in getting students from the most resilient communities to enroll, persist and graduate from college at a higher rate than their traditional public school peers. On the other hand, charter schools haven't lived up to their original promise of strengthening the school system as a whole through discovering innovative approaches that are ultimately shared across the entire public school system. As a result, siphoning public funds to charter and magnet schools has only benefited a small group of students, which is a big loss for the system as a whole. At this point, the ongoing debate about charter schools is only distracting us from solving the core issue of improving school quality across the system.

Allison Nathan: So what's the most effective way to improve school quality? Is it all about funding?

Timothy Knowles: Funding is a large part of the solution. America's schools are basically funded by local property taxes, which leads to tremendous disparities in base funding. Case in point, funding per pupil in Winnetka, an affluent suburb on the North side of Chicago, is approximately $23k versus an average of $12k for the Chicago Public School system (CPS). This baseline funding inequity reinforces the disparities between Black and white students in both educational and longer-term career outcomes. Of course, funding must also be used wisely; 25-30% of the total budget in many large school systems never makes it through the schoolhouse doors for the on-the-ground needs that shape school quality. So both the amount and the allocation of funding matters significantly.

Shayne Evans: I agree that we need both increased funding as well as a better allocation of funding in most cases to move the needle on educational outcomes. That said, the 2018 documentary, *America to Me*, which looks at the experience of Oak Park, Illinois—another Chicago suburb that generally reflects the demographics of the US, with Black students comprising about 20% of the student population—found that even with the same amount of money spent per pupil, Black students across all income classes underperformed their white peers. So while funding is important, it doesn't fix everything.

Allison Nathan: What would be the most productive use of increased funding?

Timothy Knowles: There is unambiguous evidence about the value of early childhood investments. And the quality of school leadership and teachers really matters, so more resources devoted to rigorous training and ongoing development is critical. We see large dividends in terms of teacher quality and longevity—especially for teachers in majority-minority schools—when aspiring teachers spend a year embedded in a good classroom as part of their training, similar to the intense training doctors receive. The standard drive-by teacher education programs, in which teachers receive six to 12 weeks of classroom practice, are fundamentally flawed. And, as most teachers only start to hit their stride 3 to 4 four years into their careers, early coaching is crucial to success.

Shayne Evans: The data also shows that teachers who are able to develop relationships with their students and are well-organized in explaining, assigning, collecting and grading work see a higher level of performance from their students. So funds would be well-spent towards increased professional development in these areas. Other productive uses of funding would include providing more academic and social support to students such as targeted tutoring and college counselors; knowing how much postsecondary education matters to future earnings, it is woeful that in most public school districts the college counselor-to-student ratio is somewhere around 400-600 to 1 compared to roughly 100 to 1 in most private schools.

Allison Nathan: In addition to more funding, what's really moved the needle in improving educational outcomes for Black students?

Timothy Knowles: In our experience in Chicago, what really improved educational outcomes was a laser-like focus on the data, and getting that data into the right hands at the right time. For example, we found that whether or not students pass their four core courses in ninth grade is a better predictor of whether or not they finish high school than their race, family income, neighborhood and prior academic achievement combined. So passing the ninth grade core courses trumps a whole bunch of factors that we often think of as immutable. But it was only when that data made it into the hands of teachers—via reports every few weeks on which of their ninth grade students were on and off track—and teachers were then given the time and resources to provide extra support to these students, that we began to see real change. Through these types of targeted interventions, CPS has increased the number of ninth graders who are on track to graduate from the low-50% range 10-12 years ago to 87% today. And graduation rates have correspondingly increased from the low-50% range to 77%.

Shayne Evans: Similarly, the data suggested that attendance and grade point average (GPA)—both signals of effort—were better predictors of high school graduation, as well as college success, than standardized test scores, and so we began to include both indicators in the assessment system for elementary schools and high schools. As a result, schools became very focused on tracking and rewarding student performance on both metrics, and both improved.

Allison Nathan: So what else can we do to finally make real progress in closing the educational achievement gap?

Timothy Knowles: First and foremost, we need to invest in more serious ways in young people from the nation's most resilient communities. Second, we need forms of data that help school leaders and teachers best leverage their own efforts and available resources to improve the overall quality of schools and the educational outcomes of their students. And, if we're serious about the social, economic and racial justice overhaul that our nation is embarking upon, we must make significant strides in providing Black students with access to college and more effective supports when they get there. Post-secondary success is a crucial determinant of students' future ability to generate wealth for their families and communities.

But getting a college education is not an adequate proxy for success. Even high-performing students coming from resilient communities can't penetrate career paths after college because they lack social networks. So we need to build more coherent and visible pathways into careers. Finally, we need more direct investments in minority communities aimed at developing minority-owned businesses and entrepreneurs who can be mentors and role models for young people in their communities and hire from those communities. In some ways, building the contexts around schools is as important as getting school quality and career pathways right.

Shayne Evans: After 400 years of systemic racism in this country, now is the moment to recognize that achieving a better quality education for all Black and Brown students is essential for closing the achievement gap, but even that by itself won't be enough. Schools are not institutions among themselves. To make real progress in closing the gap, we need a holistic approach, in which better schools definitely play a key role, but better healthcare, better access to nutritious food, better job opportunities with higher earning potential, and many other factors help achieve social equality as well.

Interview with Dr. John Z. Ayanian

Dr. John Z. Ayanian is Director of the Institute for Healthcare Policy and Innovation at the University of Michigan, Editor of JAMA Health Forum, and a practicing physician. Below, he argues that providing access to high-quality healthcare must be paired with broader efforts to address discrimination and reduce social inequities to eliminate racial health disparities.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: How large are Black-white health disparities in America today, and how have these disparities evolved over time?

Dr. John Ayanian: A key indicator of racial inequity in health outcomes is life expectancy, which has improved over the past 40 to 50 years. In 1975, there was a seven-year gap in life expectancy at birth between Black and white men and a six-year gap between Black and white women. That gap has narrowed to four and a half years for men and three years for women as of 2017. This narrowing reflects improvements in healthcare, as well as better opportunities for economic advancement, which have been meaningful but insufficient to eliminate the health disparities that have been present in the US for centuries. There's perhaps no clearer evidence of the racial health disparities that continue to permeate American society than the higher mortality rates for Black and Hispanic Americans from the ongoing coronavirus pandemic. According to the CDC, COVID-19 infection rates for Black and Hispanic Americans are three times greater than for white Americans, and the mortality rate for these groups is nearly two times the rate for white Americans.

Allison Nathan: Do racial health disparities vary across the income spectrum?

Dr. John Ayanian: While some of the worst disparities occur at lower levels of income, Black Americans generally experience worse health outcomes across the entire income spectrum. For example, both Black and white pregnant women with higher incomes have lower levels of infant mortality than those with lower incomes, but even at higher income levels, mortality rates are higher among Black infants than white infants. One of the drivers behind this may be differences in wealth across income categories, with white Americans on average having higher levels of wealth through ownership of homes and other financial assets that contribute to better health outcomes than Black Americans at the same level of income.

Allison Nathan: How do you think about the costs of racial health disparities?

Dr. John Ayanian: The costs of disparate health outcomes accrue across all age groups. Health disparities in children and adolescents can affect their ability to learn and develop as young adults. For example, Black children suffer from higher rates of asthma than white children, and asthma in Black children is less likely to be well-controlled, leading to more missed school and a reduced ability to thrive developmentally. Among working-age Black adults, if chronic conditions such as high blood pressure or diabetes are not well-controlled, individuals may be more likely to miss work and less likely to support their families and play important roles in their communities. Among older adults, poorer health outcomes among minorities can affect their ability to care for grandchildren or to volunteer in their communities. All of these activities—whether they relate to paid employment or not—have economic value for society. Potentially the biggest societal loss stems from premature mortality in the Black community; premature death rates are estimated to be twice as high for Black Americans as for white Americans. We all suffer economic losses when people die too young and don't fulfill their full potential in society. In fact, one study quantified the annual economic costs to society of these racial health disparities, estimating extra healthcare costs of about $35 billion per year, costs associated with lost productivity among the individuals experiencing those health disparities of about $10 billion per year, and costs stemming from premature death of about $200 billion per year. Although these societal costs are staggering, racial health disparities must be eliminated not only because of the economic costs associated with them, but more importantly because it is the right thing to do.

Allison Nathan: What factors are behind these disparities?

Dr. John Ayanian: Socioeconomic differences based on the families and communities that people are born into play an important role in health disparities. We see these disparities at birth—or even during pregnancy. These differences are then exacerbated throughout life by other important social determinants of health, including education, housing, employment, and the judicial system. Broadly speaking, disparate health outcomes are largely related to the long-standing effects of racism and discrimination in American society, with a lack of equivalent access to medical care contributing to these disparities. By contrast, individual health behaviors are not the primary drivers of disparate outcomes, although they can contribute to and exacerbate the underlying socioeconomic disparities. Similarly, genetic and biologic factors, such as higher rates of hypertension among Black Americans than white Americans, play a relatively small role in health disparities, and many of these differences can be overcome with effective medical treatment.

Allison Nathan: So, how do we close the racial health gap?

Dr. John Ayanian: First and foremost, it's important for all Americans to have access to affordable healthcare, which requires insurance coverage in the American healthcare system. Indeed, evidence suggests that increased access to insurance likely reduces racial and socioeconomic health disparities. For example, in 2006 the state of Massachusetts enacted health reform that included Medicaid expansion, subsidized private coverage for middle-income adults, and an individual mandate that required Massachusetts residents to have insurance coverage or pay a penalty on their state income taxes. These reforms led to a substantial reduction in uninsured rates in Massachusetts relative to other areas of New England, and lower mortality rates over time compared to similar US regions, according to a 2014 study from the Harvard School of Public Health. Although this and related studies did not focus on racial disparities, given that uninsured rates are higher among Black Americans, reducing gaps in insurance coverage likely also reduced disparities in health outcomes.

The 2010 Affordable Care Act (ACA) expanded insurance coverage on a much broader scale for non-elderly adults, leading to a substantial decline in uninsured rates for Black Americans from 27% to 15% between 2010 and 2018, compared with a smaller decline from 16% to 9% for white Americans. We are just starting to see data on the impact of this expanded coverage on health outcomes, but a recent study found that states that expanded Medicaid under the ACA had greater improvements in mortality among low-income working age adults relative to states that did not expand Medicaid. We don't yet have data on how that has affected racial disparities, but I expect that we'll see reductions in racial disparities in health outcomes in states that did expand Medicaid relative to those that did not.

An important impediment to making further progress on closing the racial health gap is the fact that 14 states have not yet expanded Medicaid under the ACA, including many Southern states that have high concentrations of low-income Black adult residents who are not receiving optimal care and are thus more likely to experience worse health outcomes. Expanding Medicaid under the ACA in these states would likely go a long way to further reduce racial health disparities.

More broadly, we need to continue to build on the advances of the ACA. It's challenging to think about how best to do that because the US healthcare system has been built around employer-sponsored health coverage and tends to favor incremental reform, which likely means that there won't be significant political support in the near future for a national health insurance program or a single payer healthcare system. But with the impending US election, it's incumbent on all of our political leaders running for office to provide specific and clear plans for how they would achieve improved coverage and more affordable healthcare, which is critical to making further progress on closing the racial health gap.

Allison Nathan: Is access to healthcare enough to significantly reduce disparities in health outcomes?

Dr. John Ayanian: No. Access to care is certainly important, but to make a meaningful impact on health outcomes, that care also has to be high-quality. A New England Journal of Medicine study that colleagues and I published in 2014 looked at racial and ethnic disparities in control of high blood pressure, blood sugar, and cholesterol among adults with hypertension, diabetes, or heart disease enrolled in Medicare Advantage plans, in which HMOs or PPOs oversee and pay for healthcare. We found that racial disparities had been eliminated within Medicare HMOs in the Western US, where quality of care was highest. By contrast, significant racial disparities in these clinical outcomes were still evident in other regions, where quality of care was lower. These findings tell us that high-quality care has the potential to eliminate racial disparities in health outcomes and can be an important step in reducing the racial gap in life expectancy in the US today.

Allison Nathan: So how do we improve quality of care to eliminate racial disparities on a broader scale?

Dr. John Ayanian: Achieving equitable health outcomes requires leadership and strong will on the part of the leaders of healthcare organizations and insurers to make this goal a top priority. That was the case with some of the HMOs in the Western US where we saw such promising results for Medicare enrollees. To ensure that racial and socioeconomic disparities are eliminated through better health, we need concerted commitments and efforts on this front across the entire country and across all ages so that disparities are not just addressed in the elderly population, but in children as they are growing, women when they are pregnant and adults who are supporting their families and communities.

A more diverse and representative healthcare workforce would also improve the healthcare experience for minorities, and for all patients regardless of race. Evidence suggests that the quality of communication and trust between patients and doctors can be better when minority patients see a physician of the same race, and all patients would benefit from a more diverse set of providers to choose from. Academic health systems and health professional schools have an important role to play in ensuring that individuals from minority communities have full access to educational opportunities that achieve this diversity. We know that healthcare teams function better when they are more diverse, and diversity makes providers more aware of the ways in which racism and discrimination can affect people's access to care and the quality of care that they receive. Cultural competency training is useful in this regard, but we need to go well beyond making providers more aware of health disparities, and give them the training, resources and support they need to effectively care for their patients.

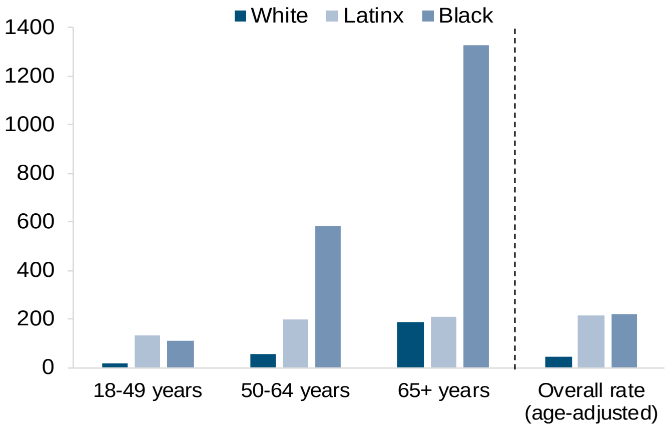
Allison Nathan: Will reducing racial disparities in healthcare be sufficient to eliminate the racial health gap?

Dr. John Ayanian: Healthcare can only go so far in reducing racial health disparities in the US. Even if patients receive the right prescriptions and the best healthcare advice, their health will suffer if they can't afford their medications, don't have the time or means to exercise regularly, or can't follow a healthier diet based on where they live and the resources available in their communities. If we're serious about eliminating racial health disparities, society as a whole, including both the public and private sectors, needs to focus on improving the quality of schools, housing, and neighborhoods, addressing issues of racism and de facto segregation that create unequal opportunities, and confronting problems in the judicial system related to mass incarceration and disparate treatment by law enforcement. We're just starting to see some of these approaches in motion, including healthcare systems and providers partnering with social service agencies and communities to address the social needs of minority patients. With society's recent focus on achieving racial justice and tackling systemic racism, we have a window of opportunity now for healthcare organizations, politicians, and corporate leaders to accelerate efforts to reduce, and ultimately eliminate, racial health disparities in America.

Coronavirus: a bigger hit to Black Americans...

Hospitalization rates almost 5x higher for Black Americans

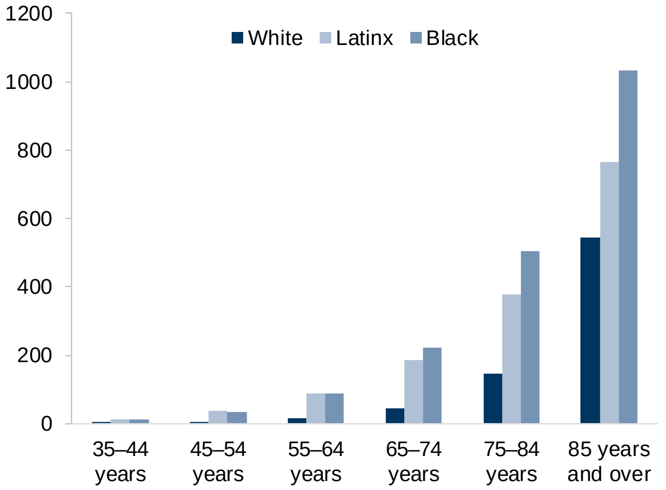
Coronavirus hospitalizations per 100,000 by race



Note: data from March 1 to July 4, 2020; hospitalization rates based on CDC COVID-net surveillance.
Source: CDC, Goldman Sachs Global Investment Research.

Black Americans have died from coronavirus at higher rates

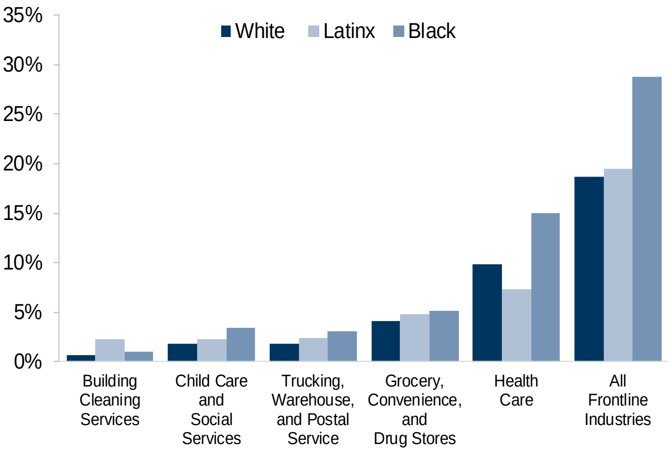
Coronavirus deaths per 100,000 by race



Note: as of July 15, 2020.
Source: CDC, Census Bureau, Goldman Sachs Global Investment Research.

Black workers are disproportionately on the front lines

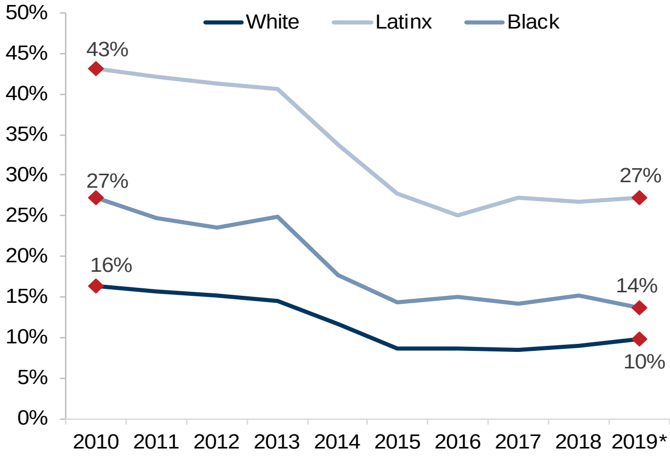
Workers in industry as share of total workers by race, percent



Note: includes workers age 16+
Source: Census Bureau, CEPR, Goldman Sachs Global Investment Research.

Black/Hispanic Americans lack insurance at higher rates

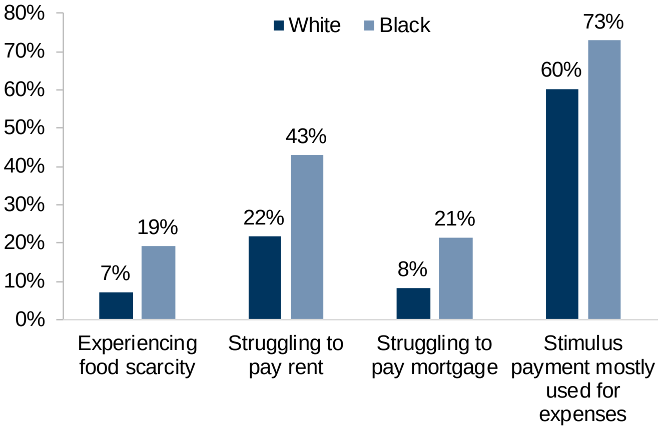
Percentage of uninsured adults aged 16-64 by race, percent



Note: Latest figures from June for 2019.
Source: NCHS, Goldman Sachs Global Investment Research.

Financial stress from virus worse for Black Americans

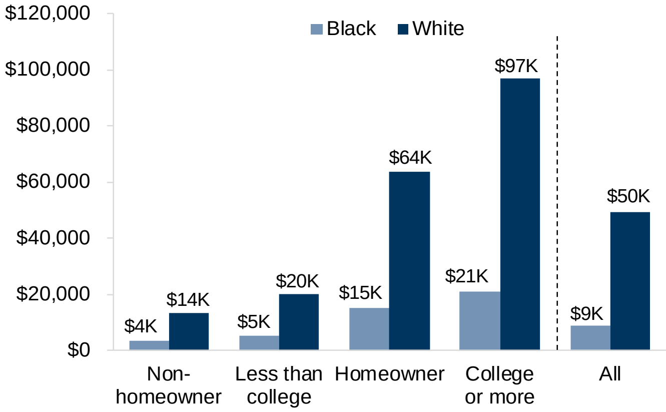
Percent of survey participants by race, percent



Note: survey results from July 2 to July 7, 2020; food scarcity includes respondents sometimes or often not having enough to eat in last 7 days; rent and mortgage categories include respondents with slight or no confidence in ability to pay or for whom payment has been deferred.
Source: Census Bureau, Goldman Sachs Global Investment Research.

Black families have lower cash reserves for emergencies

Total value of all transaction accounts for families, 2016 $ (mean)



Note: based on latest survey from 2016.
Source: EPI, Federal Reserve, Goldman Sachs Global Investment Research.

… and to Black-owned small businesses

While the lack of access to capital for Black-owned small businesses has been well documented in the past, proprietary survey data from 1,400+ Goldman Sachs *10,000 Small Businesses* participants shows that racial disparities among small businesses were exacerbated during the COVID-19 pandemic

Business operating status

18%

of Black-owned businesses are temporarily closed, compared to 8% of white-owned businesses

52%

of Black-owned businesses feel very prepared to fully reopen, compared to 69% of white-owned businesses

Long-term business changes

30%

of Black business owners expect 50% or more of revenues to come back if their business survives, compared to 41% of white business owners

44%

of Black business owners expect to see dramatic changes in the way their business operates after the pandemic, compared to 29% of white business owners

Financial challenges and assistance

45%

of Black-owned businesses have been approved for an Economic Injury Disaster Loan, compared to 56% of white-owned businesses

34%

of Black business owners have seen their personal finances greatly hurt by the pandemic, compared to 27% of white business owners

Protecting employee health

59%

of Black business owners have the ability to enforce social distancing measures at work, compared to 70% of white business owners

66%

of Black business owners have the ability to routinely clean and disinfect shared surfaces, compared to 77% of white business owners

Note: Survey conducted by Babson College and David Binder Research from May 19-20.
Source: May 2020 Goldman Sachs 10,000 Small Businesses survey, Goldman Sachs Global Investment Research.

Interview with Margaret Anadu

Margaret Anadu is the Head of the Urban Investment Group at Goldman Sachs. Below, she discusses the critical role of private capital in addressing Black-white economic gaps.

Allison Nathan: How critical is private capital in tackling the Black-white economic inequities that exist in America today?

Margaret Anadu: The role of private capital is unequivocally essential. To close the racial wealth gap, private capital has to be part of the solution because it sits at the center of wealth creation in our country. If we ask what's driving the wealth gap—that white family median net worth is around 10x Black family median net worth—it's the ability to own a home, to create wealth through entrepreneurship, to earn a higher income over your lifetime because of your education, and to avoid reduced economic prosperity due to health disparities. All of these factors largely rely on the ability to access private capital, whether it be a mortgage, student or business loan, or private institutional capital financing the development of clinics and hospitals in minority communities.

Allison Nathan: But shouldn't public policy be doing the heavy lifting to close these racial gaps?

Margaret Anadu: It has to be a collaborative effort, because there's no way to tackle these gaps without inclusive action. Private capital and public policy are inextricably linked, with relevant private investing often responding to regulations and incentives created by the public sector. For example, the Community Reinvestment Act—a federal policy designed to encourage banks to provide credit to low and moderate income neighborhoods—helps determine where banks target a certain amount of their mortgage lending. The Small Business Administration's Paycheck Protection Program (PPP) is another example: a federal emergency loan program that is administered through private financial institutions, which have discretion over which applicants to consider first. These are just a few examples among many of why it's difficult to disentangle private capital and public policy, and therefore why this effort must be collaborative.

Allison Nathan: What's the non-financial case for making the kind of investments that will start to put Black Americans on the road to economic equality and majority-minority communities in a position to thrive?

Margaret Anadu: The sobering reality of racial inequality is clearly shown in innumerable statistics. Among them: the gap between the share of white and Black households who are severely rent burdened grew by 66% from 2001 to 2015. In addition, homes in black neighborhoods are undervalued on average by $48,000 per home. Yet it is beyond the faceless numbers that we see the pain of those most impacted by these systemic barriers to opportunity. The recent protests are clear examples of how millions of Americans don't want to live in a society where groups of people are deprived of an equal shot at economic prosperity. They show the growing consensus that the status quo, in our criminal justice and beyond, is simply not morally acceptable. As investors, we must acknowledge the role private capital has played in creating and perpetuating these systemic barriers, and also recognize the potential private capital has to dismantle these barriers, and to create opportunity for those unjustly deprived of it.

Allison Nathan: What about the business case?

Margaret Anadu: The business case is quite straightforward: underinvestment driven by mispriced risk creates opportunity. Perhaps the most concrete example of this is real estate in communities that have suffered from decades of racist federal policies—"redlining"—that starved these areas of investment. Although these federal policies no longer exist, their labeling of many minority communities as too risky for mortgage lending started a vicious cycle of underinvestment that continues today, given the simple reality that it's more difficult to invest in areas that have lacked previous investments. Consider developing an office building with retail on the ground floor; applying traditional underwriting approaches would require historical data on how office and retail performed in that community in order to value the asset and assess its potential return. But that data may not exist because redlining dissuaded the investment required to build there. This points to the potential for outsized returns for those willing to assess and mitigate risk in different ways. For example, when we began investing in mixed income housing in Harlem, a disproportionately Black neighborhood in upper Manhattan, our investments outperformed because of substantial pent-up demand for quality assets that this community had long been deprived of.

We have also found this mispricing of risk in the private student lending market, which largely excludes high-achieving, low-income students seeking loans to cover the gap after federal and school-provided financial aid. Traditional lenders see them as too risky if they lack a co-signer with a strong FICO score. Mission-driven lender Sixup created a new risk model that incorporates college graduation rates and post-graduation earnings to assess borrowers' ability to repay, opening up an untapped universe of borrowers both for Sixup, and our team, its largest lender to date.

The venture capital space has similar opportunities. Black founders are underinvested in, with Black women providing a striking example of this—they're starting businesses at a faster rate than any other demographic group right now, but are receiving less than 0.1% of venture capital funding. This underinvestment is not a reflection of relative talent, but rather stems from greater networks and community liquidity among white founders relative to Black founders. This means there's a lot of untapped talent out there, and with that, the potential for strong returns. Perpetuating barriers that effectively prevent an entire portion of the population from creating businesses, filing patents and generating new ideas at the same rate as others hampers innovation, which is required to achieve sustained growth. So these types of investments can generate outsized returns for investors, while also benefitting the economy and society more broadly.

Allison Nathan: But isn't there still greater risk involved in these investments that makes the risk-adjusted return less compelling?

Margaret Anadu: To some degree, yes, because we don't always have historical track records for these investments. But in many cases, that alone should not dissuade investors. For example, it's safe to assume that there is pent-up demand for quality food in the middle of a food desert in a low-income community. In addition, private investors can often work together with public sector partners to share the risk when their goals are aligned. Many investments we've made leverage forward-thinking federal policies that facilitate this risk sharing. For example, we financed new community health centers in low-income neighborhoods that benefitted from both New Markets Tax Credits and the federal Health Center Facility Loan Guarantee Program, which was created to incentivize more private investment in these facilities. These facilities were expected to see 60% more patients in the six years after the investment was made. By aligning goals in this way, risk sharing is one way to reduce risk and invest in these projects profitably, even on a risk-adjusted basis.

Allison Nathan: In your experience, what types of investments have paid the largest dividends both for communities and investors?

Margaret Anadu: I would definitely put housing towards the top of the list. It's a sad reality that for many people in this country 'your zip code is your destiny', meaning where you live on average determines so much about you—your health, educational attainment, and lifetime earnings. A glaring example of this is the fact that the average life expectancy of people in East Harlem, New York is 78 years, whereas it is 86 years for people living in the affluent Upper East Side neighborhood just a few blocks south. So starting with a safe, affordable place to live in a neighborhood that provides opportunity through high-quality education, access to healthcare, healthy food and other basic resources is critical. That could mean investing in affordable housing in neighborhoods with these resources already, or upgrading the quality of housing along with the resources in low-income communities.

Investment in educational opportunities is also crucial. If a $5,000 loan makes the difference between going to a two-year community college and a top-100 four-year college, data suggests that students should take out that loan, and therefore should have access to it. Investing in educational opportunities that lead up to that competitive college or job application—everything from early childcare to elementary, middle and high schools to vocational opportunities for low-income adults that provide a clear return on investment in terms of their future income—are productive uses of private capital.

An example of the return on such investments is the improvement we've seen in the city of Newark, which has one of the highest percentage of Black Americans of any city in the country, where we've worked with local government partners to invest in affordable, high-quality housing as well as in schools that primarily serve Black students. No one would say there isn't still a long way to go in Newark—poverty and unemployment rates remain unacceptably high. But private capital, combined with innovative public sector programs, has led to some significant progress, including providing energy retrofits for thousands of Newark Public Housing units and creating mixed-income housing specifically for teachers in local schools. These investments have led to higher-quality, affordable housing for over 7,500 families and better school facilities for over 3,500 students. While just eight years ago, only one in four students in Newark Public Schools was passing proficiency tests and graduating in four years, a new school we invested in now has a college placement rate over 99%. Besides social benefit, our financial returns on these investments are consistently strong.

Beyond housing and education, the other major area of investment that meaningfully moves the needle is in entrepreneurship and lowering barriers to create businesses and wealth, whether through small business loans or equity capital. The combination of Black families having significantly less net wealth—owner's personal or family savings is the most commonly relied upon source of startup capital—and being significantly more likely to be unbanked—16.9% vs 3.0% for white households—is a powerful hurdle for many Black aspiring business owners. Through our own initiatives such as *10,000 Small Businesses*, *10,000 Women*, and *Launch With GS*, and our partnerships with Community Development Financial Institutions, we have seen the power of investing in entrepreneurship and how it can create transformative wealth for individuals, their families and their communities.

The disparity between the haves and have-nots in terms of capital was striking even in the past few months with PPP, where those who accessed the bank-distributed potentially-forgivable capital were significantly more likely to say their business will survive. Yet there were structural hurdles for many Black businesses such as the lack of an existing bank relationship, or the fact that sole proprietorships were forced to wait to apply, which ultimately meant less PPP reached many of the hardest hit communities.

Allison Nathan: Are these types of investments happening on a sufficient scale to make progress on closing current economic racial inequities? If not, why not, especially given that they can provide competitive investment returns at the same time that they advance societal goals?

Margaret Anadu: Although some investment is happening primarily because public policy encourages it, it's not enough capital to make material progress on closing the racial economic inequities that exist in the US today. Alongside the issue of a historical legacy of underinvestment, I think the primary problem is one of scale. Right now, many of the operators, developers, and companies in these areas are smaller, mission-driven firms. In order to see real change, we need more capital from larger players, more high-capacity operators in these areas, and more policy at the federal, state and local levels to incentivize both of those actions. Again, it takes a collaborative effort to not only make these deals come together, but to build the scale of the ecosystem required to make significant progress.

Advancing Black professionals

Gizelle George-Joseph discusses why achieving racial diversity is critical to companies' long-term success and *how* we go from here to overcome still-pervasive discrimination in the workforce

Corporate America has broadly acknowledged that valuing diversity in a constantly evolving and global marketplace is the right thing to do, and evidence suggests it is also good for business. The business case for diversity will only grow as US demographics, the labor force and clients/consumers are set to become increasingly racially and ethnically diverse over the coming decades. But Black Americans continue to experience high levels of labor market discrimination, both in terms of hiring and the lived experience in the workplace. The increased focus on racial injustices in America today provides companies an opportunity to renew and recommit to addressing these workplace inequities. We propose three interrelated areas for consideration: creating an environment of affirmative support, engaging in dialogue about diversity, and making inclusion and diversity training a valued part of the culture.

Why diversity?

Corporate America has broadly acknowledged that valuing diversity in a constantly evolving and global marketplace is the right thing to do. A recent series of reports by McKinsey & Company reiterates that it is also good for business, consistently finding that companies that ranked in the top quartile on executive inclusion and diversity were +30% more likely to outperform on EBIT margin.[1] Companies with the lowest representation of gender and ethnic diversity were more likely to underperform. Of course, correlation does not prove causation, but the magnitude and consistency of the findings are notable.

The Boston Consulting Group ran a comparable study focused on the impact that diversity in leadership teams had on innovation, with innovation measured by the total revenue mapped to products and services that a company had launched in the previous three years. [2] The results were corroborating. Companies with above-average diversity on their management teams had "innovation revenues" 19% higher than companies with below-average diversity representation.

An equally compelling argument for embracing diversity is the human capital one. The United States is becoming increasingly ethnically and racially diverse and the US Census Bureau forecasts a seismic shift in demographics in the next ten years.[3] By 2030, immigration is projected to be the most important contributor to population growth in the US and the non-Hispanic white population is expected to shrink from 199 million to 179 million, a 10% decline, by 2060, partially due to falling birth rates and rising death rates from an aging population. As US communities become more diverse, so will the labor market and the client/consumer base. The ability for corporates to flex to the new environment and create workplaces that not only accommodate, but also support and promote diversity, will be critical to their positioning as an employer of choice and ultimately to their growth and possibly, their sustainability.

Sentiment on diversity also leans into the conclusion that diversity matters. A 2019 Pew Research Center survey found that the vast majority of Americans (77%) viewed racial and ethnic diversity as a good thing, credited diversity with having a positive impact on the country's culture (64%) and said it was important for companies and organizations to promote racial and ethnic diversity in their workplace (75%).[4]

Discrimination still a challenge

Despite this visible support for diversity, the day-to-day reality often does not align to the representation, experience and achievement of Black professionals in the workplace. Within the US financial services industry, Black representation is low across the board. Data from the Bureau of Labor Statistics show that Black Americans account for less than 9% of financial managers with similar representation for financial analysts, and only 4% of CEOs. In fact, less than 1% of Fortune 500 companies are currently led by Black CEOs.

The subject of race and prejudice in the workplace remains complex and, at times, controversial. At least prior to the American public's recent focus on the ongoing struggle of Black Americans for social and economic equality, large gaps in Black and white Americans' perception of the relevance of discrimination and its consequences existed. In one survey, 84% of Black Americans viewed discrimination as a major factor limiting the progress of many Black Americans, 30 percentage points higher than white Americans who shared the same view. And 50% of white Americans thought that too much attention is paid to race and racial issues; only 12% of Black Americans agreed.[4]

In reality, Black Americans continue to experience high levels of discrimination in the workplace, and it begins early on the career path. A groundbreaking field experiment submitted fictitious resumes with names that sounded either white (e.g. Emily Walsh) or Black (e.g. Lakisha Washington) to potential employers. The study showed that Blacks were routinely and uniformly disadvantaged in the resume selection process, with white names receiving 50% more callbacks than Black names.[5] The study also found that credentials had a statistically insignificant impact on the outcome for Black candidates, whereas white applicants with higher quality resumes received 30% more callbacks than white applicants with lower quality resumes. This suggests the possibility that resumes with Black names were systematically removed from consideration.

Similarly, a comprehensive study published in the Proceedings of National Academy of Sciences examined callback rates of job candidates from 1990 to 2015 and found that white applicants received 36% more callbacks than Black applicants and that the

[1] See Sundiattu Dixon-Fyle, Kevin Dolan, Vivian Hunt and Sara Prince. "Diversity Wins," McKinsey & Company, 2020. The study tracked data of more than 1,000 large companies in 15 countries. For specific analysis on ethnic diversity representation, data from companies in the US, the UK, Brazil, Mexico and Singapore were used to allow for consistency in the definitions of ethnicity.
[2] See Rocio Lorenzo, Nicole Voigt, Miki Tsuaka, Matt Krentz and Katie Abouzahr. "How Diverse Leadership Teams Boost Innovation," Boston Consulting Group, 2020.
[3] See Jonathan Vespa, Lauren Medina and David Armstrong. "Demographic Turning Points for the United States: Population Projects for 2020-2060," United States Census Bureau, 2020.
[4] See Juliana Menasce Horowitz, Anna Brown and Kiana Cox. "Race in America 2019," Pew Research Center, April 9, 2019.
[5] See Marianne Bertrand and Sendhil Mullainathan. 2003. "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination," NBER Working Paper.

level of discrimination against Black applicants hadn't changed over the course of the 25 years of the study.[6] Related studies conducted for the US and other countries—from Germany to India—consistently point to racial or ethnic labor market discrimination.[7]

The lived experience of Black professionals

Once Black professionals overcome the hiring hurdles and secure a job, what follows? Black Americans reportedly experience prejudice in the workplace at nearly four times the rate of white colleagues (58% vs. 15%).[5] This prejudice can take more or less overt forms, including microaggressions—seemingly inconsequential interactions with colleagues that, in reality, disparage or disproportionately emphasize race. Examples include being told "you're not *really* Black" because a white colleague presumes certain stereotypical behavior of Black people, or a comment about a hairstyle. Microaggressions have received greater attention in the recent period as corporate America has increasingly come to grips with pervasive inequities in the workplace, and there is perhaps no better encapsulation of the lived experience of Black professionals.

Microaggressions can be intentional, although they are often inadvertent. But both because of the recurrent nature of the experiences, and the persistently derogatory messaging they carry, they may induce "stereotype threat"—the fear of confirming a negative stereotype about one's race—which can lead to high levels of anxiety and reduced performance. This threat is well-documented in social psychology, beginning with a trailblazing study in 1995. The study found that simply asking test takers to indicate their race prior to taking a test significantly reduced the performance of Black Americans, whereas telling them that a test was not being used to measure their ability resulted in significantly better performance.[7]

Microaggressions and other forms of implicit or explicit discrimination continue to limit corporations' ability to make progress on diversity agendas and dilute the objective of retaining and advancing Black professionals in the workplace. In fact, Black employees are 30% more likely to have intentions of leaving their companies versus white employees.[5] Neutralizing this outcome should be an important focus for corporations.

How do we go from here?

The recent focus on racial inequities has pushed companies to reassess their diversity philosophies and evaluate existing programs and aspirations that demonstrate their support. This salient moment provides an opportunity to review, renew and recommit to diversity as a core business principle. We propose three interrelated areas for consideration.

1. Create an environment of affirmative support that will eliminate stereotype threat and, in turn, enhance the satisfaction and performance of Black employees. A lab experiment that asked Black and white students to write a letter of encouragement to a struggling student—with some students asked to endorse the view that intelligence was malleable and could grow with effort, and some students asked to convey a view that signified intelligence is fixed—provides some insight into the power of such a setting.[7] The results showed that all students who wrote a letter endorsing the concept of malleable intelligence saw some advantage, but that Black students benefitted the most. Specifically, Black students reported enjoying and valuing their education to a much greater degree than the other students soon after the letter writing, and received significantly higher grades than the other students many weeks later. This suggests that creating an inclusive and supportive environment, in which stereotype threat is minimized and Black professionals can maximize their potential, will help retain and grow Black professionals. Sponsorship, mentoring, senior leadership commitment, career development programs, as well as general manager effectiveness, can all meaningfully contribute to this objective.

2. Engage in dialogue about diversity. The simplest way to bridge the gap between Black and white perceptions of discrimination is dialogue. Psychologist Gordon Allport's theory of intergroup contact—that well-executed interaction between groups should decrease prejudice—underpins the idea. One of the most notable field experiments on the subject found that white students randomly assigned to Black roommates at Harvard University were more likely to support affirmative action because of their shared experience. These students were also more likely to continue to interact with members of other ethnic groups beyond their freshman year.[7] Building on this concept, Corporate America can create forums that allow for moderated dialogues that will increase understanding and empathy as well as build community.

3. Make inclusion and diversity training a valued part of the culture. Robust training programs can potentially help coach an organization to become less biased over time and ultimately have an immense impact on both recruiting and retention of Black professionals. Indeed, studies have shown that employees who received counter-stereotype training were more likely to choose a female job candidate over a male candidate than employees who had not received the training.[7] Other similar experiments on de-biasing training reinforce that it is a practical intervention in decreasing discrimination.[7] As corporations apply training more broadly, it is important that content is created thoughtfully and with input from Black employees, that implementation is executed in a way that allows all employees to embrace inclusion as a core competency and that programs are monitored to ensure engagement, not just attendance.

The powerful influence of corporations in America provides an opportunity to hire, develop and advance Black professionals in their own organizations, as well as encourage other firms in the US and globally to do so. But these actions are not just a social good. Embracing diversity is also critical to companies' long-term success, both as it relates to how they are perceived as an employer of choice in a globalized world with an evolving demographic makeup, as well as to their bottom line.

Gizelle George-Joseph, Chief Operating Officer of GIR

Email: *gizelle.george-joseph@gs.com* *Goldman Sachs and Co. LLC*
Tel: *+1 212-855-9738*

[6] See Lincoln Quillian, Devah Pager, Ole Hexel and Arnfinn H. Midtboen. 2017. "Meta-analysis of Field Experiments Shows No Change in Racial Discrimination in Hiring Over Time," Proceedings of the National Academy of Sciences, 114 (41), 10875. Data was analyzed from 24 field experiments, which included over 54,000 applications and 25,000 recruiting roles.

[7] See Marianne Bertrand and Esther Duflo. 2016. "Field Experiments on Discrimination," NBER Working Paper.

Racial inequality may impact the election

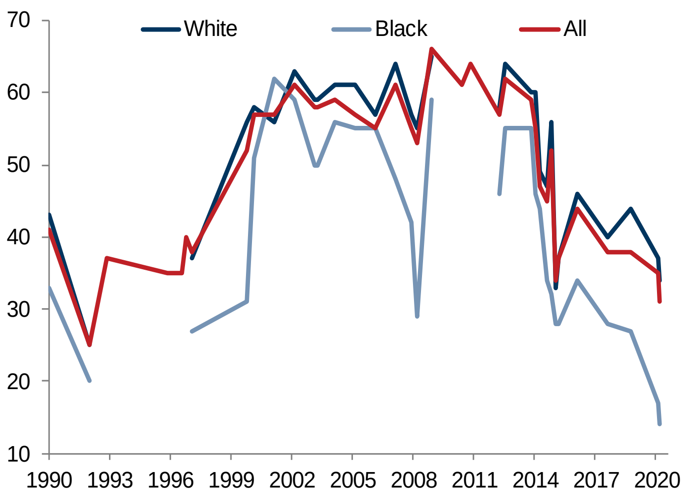
Alec Phillips argues that the extent to which voters' increased focus on racial inequality translates into voter turnout could be a key determinant of the 2020 election outcome

Racial issues appear to be one of the main factors behind the recent shift in US election polls toward former Vice President Joe Biden. The extent to which this focus lasts, continues to upstage other issues, and ultimately affects voter turnout could have material consequences for the election outcome.

Biden probably benefits from racial inequality focus

We see at least three ways in which the increased focus on racial inequity could affect the upcoming election. First, recent events have shifted views on the state of race relations and the Black Lives Matter (BLM) movement. The share of voters who believe race relations in the US are generally good has declined to less than 35% overall, and to only 17% among Black respondents. A similar share currently believes they are getting worse. Likewise, support for the BLM movement has increased notably, though the issue has also become more polarized, with a substantial increase in net Democratic (+15pp) and independent support (+7pp) offset by a decline in net support among Republicans (-3pp) since the start of the year.[1]

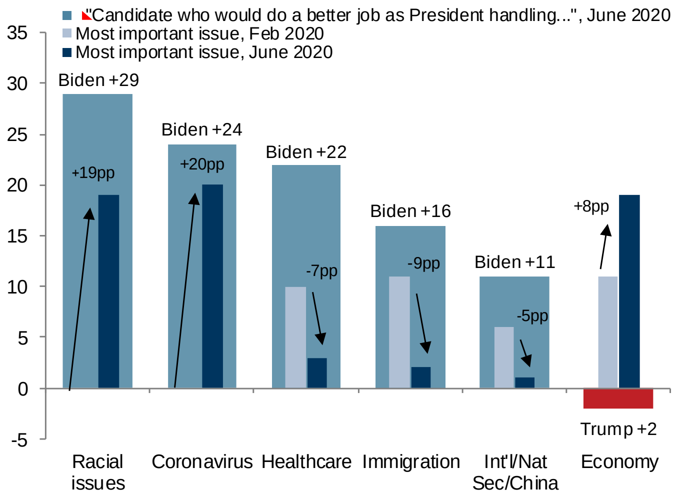
Views on the state of US race relations have worsened
Share of public that views race relations as "generally good", %



Note: 2001-2007 polls show "somewhat" good or bad.
Source: Pew Research, CBS News/New York Times, Gallup, Goldman Sachs GIR.

Second, the focus on racial issues has displaced voter attention on other issues, probably to the political benefit of former Vice President Biden. Unsurprisingly, between February and June, racial issues and the coronacrisis rose substantially in voters' minds as the most important problem that the nation is facing. These two areas are also the areas in which the greatest share of voters believe Biden would do a better job than President Trump. That said, the public also views the economy as more of a problem now than in February and believes that President Trump would do a better job than Biden on that issue.

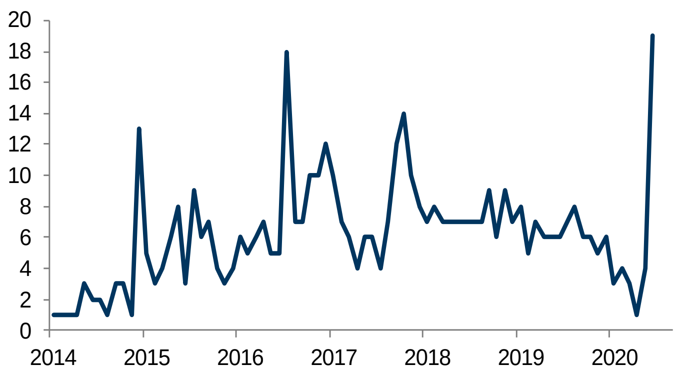
Voter focus has shifted, likely to Biden's political benefit
Share of respondents, %



Source: USA Today/Suffolk University, Gallup, Goldman Sachs GIR.

Of course, the issues capturing public attention today might not be the same ones that voters focus on in November. In December 2014, the share of the public citing race relations as the most important problem jumped from 1% to 13% in the wake of a grand jury decision regarding the killing of Eric Garner. However, focus on racial issues gave way to other political concerns in the months that followed. Similar surges in attention occurred in 2016 and 2017, but the public's focus held on race relations only briefly.

Public focus on race relations has historically been brief
Share of public citing race relations or racism as the most important problem facing the country, %



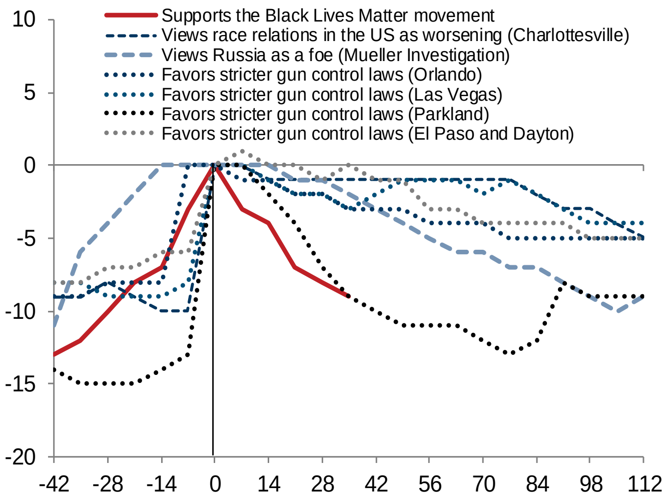
Source: Gallup, Goldman Sachs Global Investment Research.

In fact, several specific events in recent years have led to sharp shifts in public opinion, but the half-life of such shifts has been several weeks, with public views reverting to their prior levels after four months, on average. That said, public views related to combating racial inequality might be somewhat different now. For example, while net support for the BLM movement has receded from its peak in early June, it has steadily increased over the last few years, from -4pp net support in April 2017, to +1pp in April 2018, +6pp in April 2019, and +10pp in April 2020. With regard to the election, this suggests that even if the near-term focus on the issue recedes from its peak, voters' views are likely to have shifted since the last Presidential election.

[1] Data from Civiqs through July 13, 2020.

Public opinion shifts tend to fade quickly after major events

Days from event or peak (x-axis); change from peak in share of public that supports various views (y-axis), pp



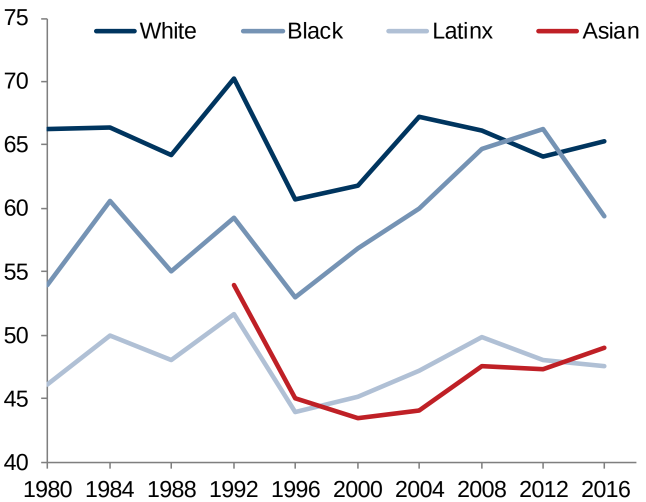
Source: Civiqs, Goldman Sachs GIR.

Voter turnout implications less clear

The third potential effect that recent events could have relates to voter turnout, but it is so far less clear whether rising attention to racial issues will translate into a rise in turnout. Over the last few decades, turnout among Black voters has generally been lower than turnout among white voters. This began to change in 2004 and, in 2012, turnout among Black voters exceeded that of white voters. However, Black turnout declined in 2016, which likely had electoral consequences in some swing states, along with many other factors. The decline in Black voters as a share of the electorate was of a similar size as President Trump's margin of victory in several of the most competitive states. In light of the roughly 80pp net margin that Sec. Hillary Clinton enjoyed among Black voters, Black turnout similar to 2012 levels could have led to a different outcome in some states.

Turnout among Black voters fell during the 2016 election

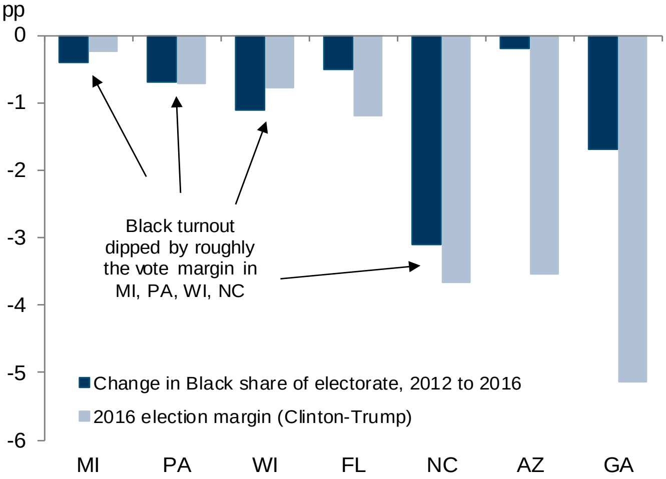
Voter turnout, % of voting-age population



Source: Census Bureau, Goldman Sachs Global Investment Research.

At this stage it is not yet clear whether recent events will lead to an increased focus on the upcoming election among Black voters that results in increased turnout. So far, survey data are mixed.

Higher Black turnout in '16 may have swung some states

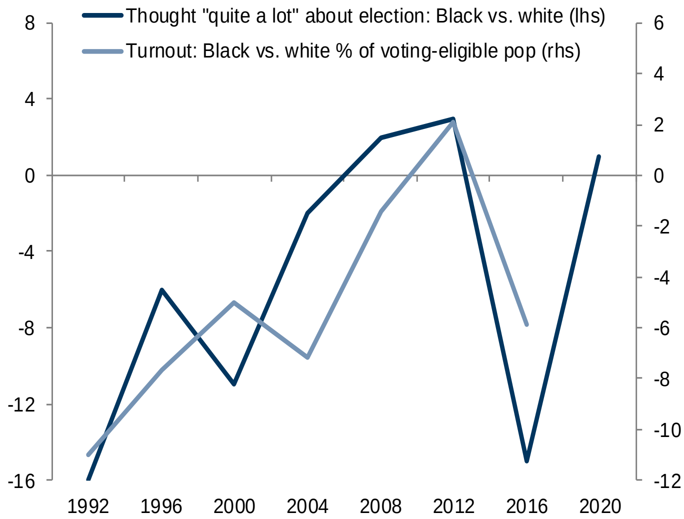


Source: Brookings/Center for American Progress "State of Change Project", Federal Election Commission, Goldman Sachs Global Investment Research.

Specifically, an increase in voters that thought "quite a lot" about the election in June of prior election years tended to lead to larger relative turnout of those groups (as a share of the eligible population) in November.

Focus on racial issues may increase Black vote share

Share of survey participants (lhs), Black vs. white turnout (rhs), pp



Note: 2020 survey asks how much attention rather than thought; relative shares responding "a lot".
Source: Pew Research, YouGov, Census Bureau, Goldman Sachs GIR.

Currently, polling is mixed, with some polls showing that Black voters are paying as much attention, on a relative basis, as in June 2016. This might reflect the more pressing negative economic and health-related effects that the coronavirus has inflicted on the Black population. Other data show a roughly similar level of focus on the election among white and Black voters, which could suggest a return to 2012 levels of turnout. Whether this remains the case could be a key determinant of the 2020 election outcome.

Alec Phillips, Chief US Political Economist

Email: *alec.phillips@gs.com* *Goldman Sachs and Co. LLC*
Tel: *+1 202-637-3746*

Summary of our key forecasts

GS GIR: Macro at a glance

Watching

- **Globally,** the world economy continues to recover rapidly from the coronacrisis, and we estimate that global GDP has now made up over half of the 17% drop seen from mid-January to mid-April. We expect real GDP to contract by 3.4% this year, making 2020 weaker than the year following the Global Financial Crisis. But we believe that global economic activity will continue to rebound as the world learns to live with the virus, assuming virus developments don't prompt the reimposition of widespread control measures.
- **In the US,** we expect the recent surge in virus cases will moderately slow the economic recovery in the near term, but expect the recovery to get back on track in September, leaving full-year 2020 growth at -4.6%. We expect the unemployment rate to fall to 9% and core PCE inflation to decline to 0.8% by year-end 2020.
- **The Fed** has employed several crisis-era facilities to support the flow of credit, which we believe are sufficient for now, and we expect the Fed to adopt aggressive outcome-based forward guidance in September. On the fiscal policy front, Congress has so far enacted an additional $2.6tn of fiscal stimulus for 2020, and we expect another $800bn of stimulus to be implemented this year, pushing total fiscal stimulus to 16.5% of GDP in 2020.
- **In the Euro area,** we expect the coronavirus outbreak will lead to a 9.4% yoy decline in real GDP in 2020, driven by a large 1H contraction. We expect a sharp rebound in 2H20 with 9.5% and 4.7% qoq non-annualized growth in Q3 and Q4, respectively, though we expect persistent north-south divides.
- **The ECB** has stepped up its pandemic asset purchase program (PEPP), which we think will provide sufficient support to the economy over the coming months, and we expect the full EUR 1.35tn envelope to be used and for net purchases to run until June 2021. We expect additional fiscal support for the countries most affected by the virus in the form of a EUR 600bn Recovery Fund, which we believe will be approved later this year.
- **In China,** we think a significantly faster-than-expected recovery in economic activity in 2Q is likely to be offset by an increased reluctance to stimulate growth as aggressively in 2H as policymakers balance growth stability and financial stability. We continue to expect full-year GDP growth of 3% in 2020 and see risks to this forecast as tilted slightly to the downside.
- **WATCH CORONAVIRUS.** While the trajectory of the coronavirus and the severity of its economic impact remain highly uncertain, our base case assumes that the path of new infections does not prevent a continued gradual recovery in global economic activity. But we continue to see virus resurgence as the main risk to the economic outlook.

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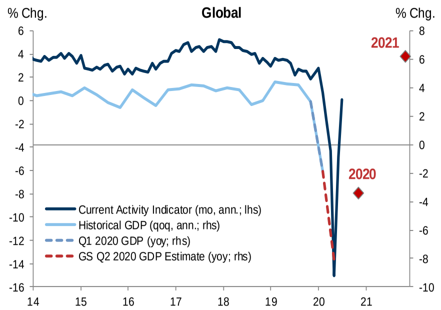
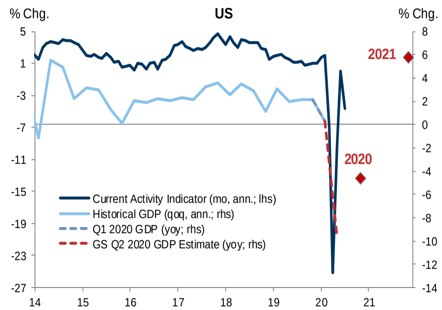
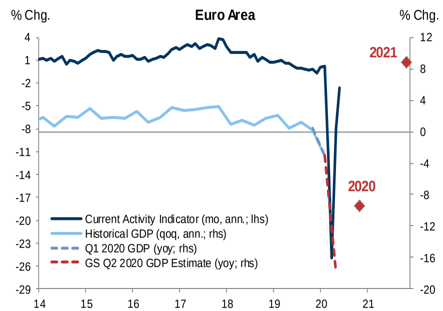
Growth







Source: Haver Analytics and Goldman Sachs Global Investment Research
Note: Global Q2 GDP figure does not reflect the stronger-than-expected Q2 GDP data from China; GS CAI is a measure of current growth. For more information on the methodology of the CAI please see "Trackin' All Over the World - Our New Global CAI," Global Economics Analyst, February 25, 2017.

Forecasts

Economics

GDP growth (%)	2020 GS	2020 Cons.	2021 GS	2021 Cons.
Global	-3.4	-3.8	6.2	5.1
US	-4.6	-5.6	5.8	4.0
China	3.0	1.8	6.5	8.0
Euro area	-9.4	-8.1	8.8	5.5

Policy rates (%)	2020 GS	2020 Mkt.	2021 GS	2021 Mkt.
US	0.13	0.05	0.13	0.01
Euro area	-0.50	-0.55	-0.50	-0.57
China	1.90	2.38	2.50	2.52
Japan	-0.10	-0.04	-0.10	-0.08

Markets

Interest rates 10Yr (%)	Last	E2020	E2021
US	0.64	1.05	1.45
Germany	-0.48	-0.25	0.10
Japan	0.02	0.10	0.15
UK	0.17	0.40	0.65

FX	Last	3m	12m
EUR/$	1.14	1.15	1.25
GBP/$	1.26	1.28	1.44
$/JPY	107	107	105
$/CNY	6.97	7.05	6.70

Commodities	Last	3m	12m
Crude Oil, Brent ($/bbl)	44	39	52.5
Nat Gas ($/mmBtu)	1.8	1.75	3.25
Copper ($/mt)	6,379	6,000	6,500
Gold ($/troy oz)	1,805	1,800	2,000

Credit (bp)		Last	E2020	E2021
USD	IG	138	130	--
	HY	563	490	--
EUR	IG	146	127	--
	HY	500	435	--

Equities

S&P 500	E2020 GS	E2020 Cons.	E2021 GS	E2021 Cons.
Price	3,000	--		--
EPS	$115	$125	$170	$162
Growth	-30%	-24%	48%	30%

Returns (%)	12m	YTD	E2020 P/E
S&P500	-4.0	0.0	26.3x
MXAPJ	-7.0	2.0	18.2x
Topix	5.0	-6.0	18.9x
STOXX 600	2.0	-9.0	21.7x

Consumer	2020 CPI (% yoy)	2020 Unemp. Rate	2021 CPI (% yoy)	2021 Unemp. Rate	Wage Tracker 2020 (%) Q1
US	1.3	9.0	1.8	7.0	3.5
Euro area	0.6	9.6	0.8	9.2	1.7
China	3.0	--	2.1	--	-2.0

Source: Bloomberg, Goldman Sachs Global Investment Research. For important disclosures, see the Disclosure Appendix or go to www.gs.com/research/hedge.html.

Market pricing as of July 15, 2020.

Glossary of GS proprietary indices

Current Activity Indicator (CAI)

GS CAIs measure the growth signal in a broad range of weekly and monthly indicators, offering an alternative to Gross Domestic Product (GDP). GDP is an imperfect guide to current activity: In most countries, it is only available quarterly and is released with a substantial delay, and its initial estimates are often heavily revised. GDP also ignores important measures of real activity, such as employment and the purchasing managers' indexes (PMIs). All of these problems reduce the effectiveness of GDP for investment and policy decisions. Our CAIs aim to address GDP's shortcomings and provide a timelier read on the pace of growth.

For more, see our CAI page and Global Economics Analyst: Trackin' All Over the World – Our New Global CAI, 25 February 2017.

Dynamic Equilibrium Exchange Rates (DEER)

The GSDEER framework establishes an equilibrium (or "fair") value of the real exchange rate based on relative productivity and terms-of-trade differentials.

For more, see our GSDEER page, Global Economics Paper No. 227: Finding Fair Value in EM FX, 26 January 2016, and Global Markets Analyst: A Look at Valuation Across G10 FX, 29 June 2017.

Financial Conditions Index (FCI)

GS FCIs gauge the "looseness" or "tightness" of financial conditions across the world's major economies, incorporating variables that directly affect spending on domestically produced goods and services. FCIs can provide valuable information about the economic growth outlook and the direct and indirect effects of monetary policy on real economic activity.

FCIs for the G10 economies are calculated as a weighted average of a policy rate, a long-term risk-free bond yield, a corporate credit spread, an equity price variable, and a trade-weighted exchange rate; the Euro area FCI also includes a sovereign credit spread. The weights mirror the effects of the financial variables on real GDP growth in our models over a one-year horizon. FCIs for emerging markets are calculated as a weighted average of a short-term interest rate, a long-term swap rate, a CDS spread, an equity price variable, a trade-weighted exchange rate, and—in economies with large foreign-currency-denominated debt stocks—a debt-weighted exchange rate index.

For more, see our FCI page, Global Economics Analyst: Our New G10 Financial Conditions Indices, 20 April 2017, and Global Economics Analyst: Tracking EM Financial Conditions – Our New FCIs, 6 October 2017.

Goldman Sachs Analyst Index (GSAI)

The US GSAI is based on a monthly survey of GS equity analysts to obtain their assessments of business conditions in the industries they follow. The results provide timely "bottom-up" information about US economic activity to supplement and cross-check our analysis of "top-down" data. Based on analysts' responses, we create a diffusion index for economic activity comparable to the ISM's indexes for activity in the manufacturing and nonmanufacturing sectors.

Macro-Data Assessment Platform (MAP)

GS MAP scores facilitate rapid interpretation of new data releases for economic indicators worldwide. MAP summarizes the importance of a specific data release (i.e., its historical correlation with GDP) and the degree of surprise relative to the consensus forecast. The sign on the degree of surprise characterizes underperformance with a negative number and outperformance with a positive number. Each of these two components is ranked on a scale from 0 to 5, with the MAP score being the product of the two, i.e., from -25 to +25. For example, a MAP score of +20 (5;+4) would indicate that the data has a very high correlation to GDP (5) and that it came out well above consensus expectations (+4), for a total MAP value of +20.

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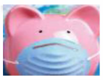

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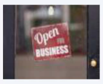

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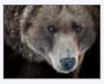

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July 26, 2017

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