Testimony of Dr. Wendy Edelberg Director, The Hamilton Project Before The House Committee on Transportation and Infrastructure July 29, 2021

Chairman DeFazio, Ranking Member Graves, and Members of the Committee:

Thank you for the opportunity to discuss the economic outlook as this Committee and the US Congress consider enacting significant infrastructure legislation this year.

A founding principle of The Hamilton Project's economic strategy is that long-term prosperity is best achieved by promoting economic security, economic growth, and broad participation in that growth. Through our research, policy papers, and public events we examine ways to realize those goals based on sound economic theory and evidence. For more than 15 years, The Hamilton Project has focused on policies to increase investment in public infrastructure—highlighting strategies, financing mechanisms, the economic returns on infrastructure investment, and the role of such investment in creating prosperity in local and state economies.

Summary of the Short-term Economic Outlook and the Role of Federal Investment in Generating Longer-term Growth

Since the economy hit bottom in the second quarter of 2020, **real Gross Domestic Product (GDP)** has recovered to its pre-pandemic level, and economic growth has surpassed consensus expectations formed at the beginning of the pandemic. With economic growth boosted by the ongoing effects of the fiscal support enacted by Congress in 2020 and 2021, pent-up demand from consumers for face-to-face services, and the strength in labor markets and asset prices, I project that, consistent with projections from the Congressional Budget Office (CBO), real GDP will grow at the rapid pace of 7 percent in 2021 (CBO 2021c). As the factors boosting growth in the short-term wane, I expect real GDP growth to slow significantly, and to be just above 1 percent in 2023. Although my baseline projection is for a soft landing, with GDP merely moving sideways for a couple of quarters, the slowdown could be more abrupt and painful than my projections suggest.

The current increase in economic activity is being powered in part by an increase in **employment**. In June 2021 an increase in payroll employment of 850,000 helped to put a dent in the shortfall of roughly 10 million jobs relative to the level of employment if it had continued growing at its pre-pandemic five-year trend. Given that shortfall, the labor market recovery still has far to go. At this point, the persistence in the overall employment shortfall appears more due to constraints in labor supply rather than weakness in labor demand.

Several factors are holding down job-matching and employment gains. The share of the working-age population that is quitting a job each month is at the highest level since the data began to be reported in 2000. Relatedly, the composition of labor demand is changing, with some workers moving on from temporary jobs they took during the pandemic. More worrying is that the labor force participation rate is still quite depressed. The number of people reporting that they were in the labor force shrank by 8 million in the spring of 2020. After recovering partially in May and June of last year, that number has stubbornly remained roughly 6 million below trend. To the degree that vigorous job searching is being held back by temporarily generous

Unemployment Insurance benefits (which many reporting they are out of the labor force may be receiving), that effect will dissipate quickly when these programs end nationally in early September, and even earlier in many states.

Because the demand for workers has grown faster than the supply of active job seekers, we have seen upward pressure on **wages** for some groups and in some industries; for example, wages for those in the bottom quartile of the wage distribution are roughly 6 percent above their pre-pandemic level.

Significant shifts in the composition of demand for goods and services along with the recent surge in economic activity have created bottlenecks and **price pressures** for a variety of goods; for example, demand for automobiles recovered quickly at the beginning of the pandemic to high levels even as production was curtailed. The result has been a sharp increase in prices for new and used vehicles.

With greater inflation, workers' purchasing power is rising much more slowly than nominal wages. *Real* wages for the bottom quartile are up 2 percent from before the recession. As production increases and growth in demand abates, I expect inflation to slow overall. Nonetheless, certain factors will continue to create inflationary pressure.

The rise in nominal wages means that despite a continued shortfall in employment, employee compensation returned to its trend at the beginning of the year. Moreover, government benefits have remained well above trend since April 2020. Overall, disposable personal income (DPI, or total after-tax income) has so far been higher than its recent trend by a cumulative \$1.4 trillion since March 2020. Those gains in income, along with substantial gains in housing and equity wealth, are supporting strong consumer demand.

Much of the increase in demand for consumer goods since the start of the pandemic has been met by drawdowns of inventory. This is particularly true for the automotive sector, where shortages of semiconductors have constrained production. Generally, capacity utilization and business investment are poised to increase, which will boost goods production.

Thinking beyond the next couple of years, we need to look at ways that fiscal policy influences long-run economic growth; one such channel is **federal investment** in infrastructure. The consensus of the economic literature strongly supports the principle that increases in public infrastructure investment lead to greater productivity and greater economic growth. The trend in recent decades has gone in the wrong direction: outside of a temporary increase in investment owing to the American Recovery and Reinvestment Act of 2009, federal investment in infrastructure as a share of GDP has remained notably depressed since 1980. Indeed, in 2019, before rebounding somewhat in 2020, that share was at its lowest level since President Eisenhower signed the Federal-Aid Highway Act into law in 1956.

Overview of Real Output through 2023

The economy is recovering. Since the pandemic began, economic growth has generally surpassed consensus expectations as households and businesses maintained a surprising amount of activity and spending while social distancing. In addition, successive rounds of substantial fiscal support have boosted economic activity since March 2020 and are projected to continue to do so through 2023. Indeed, per data released by the Bureau of Economic Analysis (BEA) on July 29, in the second quarter of 2021 real GDP exceeded its pre-pandemic level.

The surprising strength in GDP and the improvements in expectations are evident from CBO's upward revisions to its projections (shown in figure 1). In the third quarter of 2020 the

level of GDP was 4.8 percent above the projection that CBO published at the beginning of that quarter. Moreover, since July 2020 CBO has revised up projected GDP for 2023 by nearly 7 percent, where the projected level of GDP at the end of 2023 is now 2 percent above CBO's pre-pandemic forecast. Nonetheless, through 2023 the *cumulative* shortfall in real output relative to a pre-pandemic projection is expected to total about \$400 billion in 2012 dollars (CBO 2020a, 2021c).





Revisions to CBO's Economic Projections Since January 2020

Source: Bureau of Economic Analysis (BEA) 2021; Congressional Budget Office (CBO) January 2021, July 2020, September 2020, February 2021, and July 2021.

Note: Actual GDP is real GDP as reported by the Bureau of Economic Analysis through the first quarter of 2021. Projected GDP (Jan. 2020) is the real GDP projection from the Congressional Budget Office, January 2020. Other projections from CBO are similarly released at the dates in parentheses with one exception. Projected GDP Without Effects of Pandemic-Related Legislation (Jul. 2020) was published by CBO in September 2020 but showed the agency's projection of real GDP as of July 2020 excluding the effects of pandemic-related legislation since March 2020. CBO released quarterly projections for 2020 and 2021 and annual averages for 2022 and 2023.

The surprising strength in economic output was, in part, a result of the enormous legislative response to the pandemic and the human hardship it caused, including laws passed this year and last by Congress: the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), the Consolidated Appropriations Act, and the American Rescue Plan Act. To give a sense of the potential impact of federal action on the economy, my Brookings colleague Louise Sheiner and I estimated that a package of similar magnitude to the American Rescue Plan would boost economic output by 4 percent in 2021 and 2 percent in 2022 (Edelberg and Sheiner 2020).

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With the ongoing effects of that fiscal support, pent-up demand from consumers for faceto-face services, and the strength in labor markets and asset prices, economic growth is poised to be very strong for the remainder of 2021. Indeed, CBO projects that real GDP will grow 7.4 percent from the fourth quarter of 2020 to the fourth quarter of 2021 (CBO 2021c).

Moreover, by the middle of next year real GDP would exceed its sustainable level by 2.5 percent. The sustainable level of GDP, also known as potential output, is not a ceiling.

Instead, it is the estimated level of output, given current laws and underlying structural factors, that we can achieve without putting upward pressure on inflation.

As the factors boosting growth in the short term begin to wane, I expect real GDP growth to slow significantly, to just above 1 percent in 2023. That projection is subject to a great deal of uncertainty. Although my baseline projection is for a soft landing, including a couple of quarters with GDP roughly moving sideways, the slowdown could be more abrupt and painful than my projections suggest.

There are actions that Congress could take to help avoid a painful slowdown in activity both by fine-tuning the timing of spending and by focusing resources on policies that boost potential output. For example, changes in policy that repurpose fiscal support from boosting current aggregate demand to policies that would boost the economy's potential (such as federal investment in infrastructure that would increase labor supply and human capital) would increase the chances of a soft landing, in part by raising the landing area to a higher level.

Labor Market

The recent strong gains in economic activity are being powered to some extent by an ongoing recovery in the labor market. An increase in payroll employment of 850,000 in June helped to put a dent in the still significant shortfall in employment relative to its pre-pandemic trend, which stood at roughly 10 million jobs last month.

Despite job openings being their highest since the end of 2000 (the earliest available data), several factors are holding down employment gains. One factor, shown in figure 2, is that—according to the Job Openings and Labor Turnover Survey from the Bureau of Labor Statistics—the share of the working-age population that is quitting a job each month is also at a series high. As the figure shows, the "quit rate" generally moves with the job opening rate, as workers are more likely to switch jobs in a strong labor market. Moreover, in the current environment the composition of labor demand is changing, and workers may be taking time to move from temporary jobs taken during the pandemic. Another factor is that job-matching rates have been historically low for those unemployed for a long time: as of last month, almost 4 million people had been unemployed for more than 27 weeks.



Job Openings and Quits as a Share of Working Age Population

FIGURE 2.

openings and quits as a share of the total working-age population aged 15-64. All underlying series are seasonallyadjusted, monthly values.

More worrying than the depressed job matching among those saying they are actively looking for work is the lack of recovery in the labor force participation rate, which is the share of the population working or actively seeking work. The number of people reporting that they were in the labor force shrank by 8 million in the spring of 2020. After recovering partially in May and June 2020, it has stubbornly remained roughly 6 million below trend.

Fiscal support is helping people prioritize their health over labor market income, which was certainly one of the goals when the support was put in place. That said, even putting health risks aside, support in the form of Unemployment Insurance benefits and other increases in transfers (which generally have bolstered household finances) is probably holding some people back from vigorously job hunting.

To the degree that vigorous job searching among those collecting Unemployment Insurance benefits is being held back because those benefits are temporarily generous, that effect will dissipate quickly as the benefits end nationally in early September, and before then in many states. However, it is worth noting that we haven't seen clear evidence that job matching has intensified in states that have scaled back Unemployed Insurance benefits (Dube 2021). In addition, the intensity of job searching should recover as we make progress in vaccinating the working-age population and their children.

Other factors unique to the pandemic are having acute effects on specific groups. For example, among mothers of elementary school-aged children (Bauer et al. 2021)-the demographic likely bearing the brunt of school closures (Amuedo-Dorantes et al.)-the share that is employed fell more than that of mothers who did not have children in elementary school, and their employment rates continue to lag behind others through the beginning of 2021 (Bauer

et al. 2021) Moreover, we find that those declines were larger in states with higher rates of school closures. To be sure, the portion of the pre-pandemic labor force comprised of mothers with elementary school–aged children is small enough (at only 9 percent) that these relatively large declines do not account for much of the weakness in labor force participation and employment in aggregate (Furman, Kearney, and Powell 2021).

Consequently, addressing the child-care crisis, as important as that is, will not, on its own, make up ground we have lost in aggregate labor force participation. Nonetheless, the challenges for parents of elementary school–aged children are both acutely felt and solvable (Bauer 2021).

Wages and Prices

Upward pressure on wages has been good news, particularly for low-income workers and workers in certain industries. As shown in figure 3, wages for those in the bottom quartile of the wage distribution are up 5.9 percent from their pre-pandemic level, or 4.4 percent at an annual rate. That is close to the rate of growth for that group seen in 2019, when the consensus held that the labor market was relatively tight. Some sectors have seen particularly strong wage gains. For example, over the past 12 months average hourly earnings in the leisure and hospitality sector have grown nearly twice as fast as the overall private industry average. Other sectors seeing strong gains in hourly earnings include retail trade, transportation and warehousing, and financial activities.

FIGURE 3.

Changes in Wages Since February 2020



Note: Wage indexes were constructed using the Atlanta Fed's Wage Growth Tracker, which constructs wage changes following individuals over time. As a result, it is unlike other measures that are greatly influenced by the composition of who is working. The wage growth measures are 12-month moving average nominal annual growth rates and are available by wage quartiles. Nominal indexes were created as follows: For the first 12 months of wage data, which start at the end of 1997, an index was computed by using a non-annualized version of the wage growth data as a proxy for one-month growth rates. Then, for future months, the index values were computed using the annual wage growth data. Finally, the index was benchmarked to make February 2020 equal 100. Real growth rates were calculated by subtracting 12-month growth rates in the consumer price index excluding food and energy (core CPI inflation) from nominal wage growth. Then, the real wage index was computed as above.

Because of recent increases in the rate of inflation, workers' purchasing power is not rising as fast as nominal wages. As figure 3 shows, price increases in recent months have led to declines in real wages. Those declines partly offset increases in real wages earlier in the pandemic for wage-earners in the bottom quartile, when inflation was soft while nominal wages rose. Real wages for that group have risen 1.7 percent since before the recession, or 1.3 percent at an annual rate. That is considerably below the rate we saw in 2019 when real wage growth was 2.4 percent for the bottom quartile. Moreover, real wages are roughly unchanged for those in the highest quartile, in contrast to a gain of 0.8 percent in 2019.

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The aforementioned increase in inflation is largely attributable to the burst in consumer demand, which has outpaced supply and also to various disruptions in supply chains. Policymakers are rightfully paying attention. Because prices fell in 2020, one-year changes from June 2020 to June 2021 overstate the increase in inflation since the pandemic began. Instead, I recommend focusing on the annualized rate of inflation since February 2020. Using that approach, inflation through June measured by the core consumer price index was 3.1 percent, substantially lower than the one-year trend but still higher than any annual increase since the early 1990s.

However, there are two primary reasons why the rise in inflation is unlikely to persist. First, the shifts in demand and bottlenecks that have contributed to inflation are a function of the recent, temporary pace of economic activity. For example, demand for automobiles recovered quickly during the pandemic to high levels even as production was curtailed, in part due to disruptions in the supply chain for critical semiconductors. The result has been a sharp increase in prices for new and used vehicles.

Second, as production is increased (with normalization of global supply chains) and growth in demand abates, I expect inflation to slow overall. Nonetheless, certain factors will continue to create inflationary pressure: Even with the slowdown, economic activity will continue to exceed the sustainable level. We might also see price spikes in certain services as demand shifts. For example, from March 2021 through June, sales at restaurants were up 12 percent while sales at building materials and garden stores were down 10 percent. Such changes could lead to price surges at restaurants that more than offset softer prices at stores selling building materials and garden supplies. In addition, the rapid rise we have seen in home prices will likely translate into significantly higher rental costs across the country.

Household Sector

As a result of social insurance policies, disposable personal income (DPI, or total aftertax income) in 2020 and so far in 2021 has been higher than if DPI had simply grown at its trend rate of the previous five years. As shown in figure 4, in 2020 weak aggregate compensation of employees was more than offset by a sharp increase in government benefits, leaving total DPI a cumulative \$600 billion above its trend level. So far in 2021, compensation of employees has recovered back to the levels we would see if compensation had simply grown at its trend rate from the five years before the pandemic. And, government social benefits have remained well above trend. As a result, DPI has been higher, on average, by about \$165 billion each month than if it had grown at its trend pace since the beginning of 2020. In aggregate, DPI has so far been higher than trend by a total of \$1.4 trillion since the start of the pandemic.

Congress enacted significant increases in social insurance through policies that included increased and expanded Unemployment Insurance benefits, assistance to business owners, increases in food benefits, and refundable tax credits. To a smaller degree, automatic stabilizers—structural mechanisms built into government spending and revenue that automatically offset economic fluctuations—have also augmented income. These include Unemployment Insurance benefits through regular state and federal programs, an increase in nutrition benefits for some participants in the Supplemental Nutrition Assistance Program and for households with minor children who qualify for free or reduced-price school meals, and a reduction in taxes.

FIGURE 4.



Change in Household Disposable Income Relative to the 2014–2019 Trend

Note: Bars denote change in disposable personal income (DPI) components while diamond-studded line denotes overall monthly change in net DPI relative to pre-pandemic trend. Compensation of employees includes wages and salaries as well as employer contributions to pensions and social insurance programs. Proprietors' income includes excess of revenue from farm and nonfarm production. Government social benefits include Social Security, Medicare, Medicaid, Unemployment Insurance, veterans' benefits, and other federal and state social benefits. Other forms of income include rental income, personal income receipts on assets, and personal current transfer receipts. Reductions in tax burden increase DPI.

As a result, government social benefits have been above trend—significantly so early in the pandemic as well as in 2021, including a spike in March 2021 when a \$1,400 rebate per person check was paid to qualifying households. Since March of this year those benefits have come down sharply but remain elevated. Under current law, the boost to DPI should fully wane by early next year. (See Alcala Kovalski et al. 2021 for related information about the waning fiscal support.)

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The recent strength in income helped to finance a surge in spending on durable goods during the pandemic. In a dramatic departure from behavior in more-typical recessions, durables as a share of household spending rose from about 10 percent in the first quarter of 2020 to about 13 percent in the first quarter of this year. In contrast, spending on services—many of those being face-to-face transactions such as live entertainment and dining in sit-down restaurants—was steeply curtailed during the pandemic. From early 2020 to early 2021, services spending fell from 69 percent as a share of total spending to 65 percent. Overall, total household spending has rebounded significantly since mid-2020, but is still 2.4 percent below trend.

As a result of the significant boosts to DPI and restrained services spending during the pandemic, aggregate household saving has skyrocketed. In every month of the pandemic the rate of saving has been higher than in the past four decades; in some months it has been roughly double the previous post–World War II peak. In total, households have roughly \$2.6 trillion more in savings than if DPI and spending had grown in line with trend rates in the five years prior to the pandemic. Moreover, home prices and stock market prices have surged, leading to

large increases in household wealth. Those resources will help to finance the pent-up demand for forgone spending and then some. Indeed, household spending will likely be quite strong for the next few quarters. Beyond that time, with pent-up demand for services sated, my projection is that households will view the increase in savings and wealth financial resources to support long-term, relatively steady consumer spending.

Business Sector

FIGURE 5.

Let me turn now to the business sector. So far, much of the consumer demand for goods has been met by drawdowns of inventory. As shown in figure 5, the retail inventory-to-sales ratio spiked at the beginning of the pandemic when spending plummeted. But, since then, the ratio has fallen precipitously.



Retail Inventories-to-Sales

This is particularly true for the automotive sector, where shortages of semiconductors have constrained production. Even outside of that sector, production has been insufficient to keep up with demand. On one hand, capacity utilization in the manufacturing sector has recovered close to its pre-pandemic level. On the other hand, historical patterns suggest that manufacturers will increase utilization well beyond that level to replenish inventories as demand recovers.

In addition, survey data suggest that investment by firms is poised to increase, which will boost capacity and productivity. Private investment in equipment and structures has partially rebounded since the second quarter of 2020 but has more to go. As of the first quarter of 2021,

investment in business equipment had rebounded as a share of potential output, but additional investment is required to make up for lost investment during the pandemic. A rebound in investment in structures is more than accounted for by investment in residential structures; in fact, investment in residential structures as a share of output is back to levels not seen since 2007. *Nonresidential* structure investment, however, is still down as a share of potential output.

Newly created businesses appear to be another source of production of the goods and services that households are demanding. Since the summer of 2020, we have seen the highest level—by far—of new business applications of firms that the Census Bureau characterizes as having a high propensity to employ workers since the agency began to track the series in 2004. Applications temporarily dipped at the end of last year, but, perhaps in response to the pickup in household spending and new business opportunities in the wake of the pandemic, applications have strongly rebounded in recent months.

Federal Investment

One way that fiscal policy can boost potential output is through increases in federal investment. Both the Office of Management and Budget (OMB) and CBO define "federal investment" as federal outlays on physical infrastructure, research and development, and education and training. The economic literature tightly ties spending in those areas to future economic growth. To be sure, other types of spending may deliver that result as well—such as spending that improves health-care outcomes and nutrition. However, in contrast to the three categories we define as federal investment, those types of services also have significant effects at the same time as when the spending takes place—and the more narrow working definition of federal investment is a good starting point.

Investments in physical infrastructure, research and development, and education and training produce social benefits beyond those that could be captured by a private investor. For example, it is generally difficult for a private entity to capture the economic rewards from investment in basic research and development—which often adds to the overall body of knowledge in a field. As a result, firms may be reluctant to undertake this type of work. When the federal government supports such research, it can create enormous social benefits and improve economywide productivity for decades to come. Federal investment in high-quality childcare increases the earning potential for affected children long into the future and it lowers the cost of working for parents of young children and thus increases the potential supply of labor. Those positive economic effects are recognized in several legislative proposals currently before Congress.

As figure 6 shows, as a share of GDP the federal government's investment (limited to such spending that is not for national defense) has been notably lower since 1980 than it was in prior years—even during years after enactment of the American Recovery and Reinvestment Act of 2009, which boosted federal investment in large part through an increase in federal grants to state and local governments. That shortfall has been driven by a reduction in federal investment in physical infrastructure as a share of GDP. In fact, in 2019 federal investment in physical infrastructure as a share of GDP was at its lowest level since the mid-1950s, when President Eisenhower increased such spending by signing the Federal-Aid Highway Act into law.





ment, and education and training. CBO describes physical infrastructure (or capital) as including "structures, such as government buildings, transportation infrastructure, and water and power projects; major equipment, such as computers, machinery, and vehicles; and software. For spending on physical capital to qualify as investment, the physical capital must have an estimated useful life of at least two years." Research and development includes "basic research, which seeks to discover scientific principles; applied research, which attempts to translate those discoveries into practical applications; and the development of new products and technology. Federal R&D spending supports a wide variety of work in government laboratories, universities, and the private sector, including health research studies, basic research in physics and chemistry, and the development of weapon systems." Education and training is made up of "early childhood, elementary, secondary, and postsecondary education, which help produce a skilled, capable workforce that contributes to the country's productivity. It also includes job training and vocational training." Spending on student loan programs are not included within the education category or total federal investment.

The reduction in federal investment as a share of GDP is important for productivity over the long term. In 2016, CBO published a brief summary of the literature describing the economic effects of federal investment. The best evidence of those effects is found in the link between physical public capital and real GDP growth. Using that evidence, "CBO estimates that an increase in public investment that increases public capital by 1 percent boosts private-sector output by about 0.06 percent in the long term, on average" (CBO 2016).¹

That 0.06 elasticity implies that a \$100 increase in public capital boosts GDP in the long run by \$8 every year, using the size of the public capital stock relative to output to translate the elasticity to a per-dollar effect.

^{1.} The relationship between the increase in output and investment implies an elasticity of 0.06. CBO puts that estimate in context of its literature, finding, "Research that estimates the effect on output of a particular kind of investment in physical capital, highway spending, similarly suggests that the elasticity ranges from 0.04 to 0.09" (CBO 2016).

Unequivocally, that evidence suggests that an increase in federal investment—all else equal—leads to higher economic output in the long term. The corollary is that the lack of investment in infrastructure in recent years has reduced the economy's potential.

However, this does not mean that a \$100 increase in federal investment leads immediately to an \$8 increase in output from higher productivity. First, public infrastructure takes time to put into place. CBO estimated that, for an illustrative policy that would boost federal investment by \$500 billion, roughly one-third of the money would be outlaid within the first five years, roughly another half in the next five years, and the remaining amounts in future years (CBO 2016). Moreover, for large-scale physical infrastructure projects requiring extensive designing, permitting, and construction, the timing can be longer.

Second, once the federal investment is put in place, it takes time for the economy to respond fully. This is clearly true in the case of research and development and early childhood education. But even physical infrastructure—a new airport, for example—does not achieve its full benefits to society immediately.

Finally, public capital, just like private capital, depreciates and requires service and maintenance to continue to be productive. Without such upkeep, the increase in GDP from the initial \$100 in public investment is smaller over time.

Given the current economic projection, the slowness in outlays that is inherent to federal investment is a benefit. The level of economic activity is on track to be quite strong—and to exceed its sustainable level—over the next couple of years. That activity will include a high level of demand for private sector resources—such as building supplies and construction workers. Since federal investment competes for those resources, the slower pace of federal infrastructure spending will be less likely to cause shortages, bottlenecks, and unwanted inflation.

In addition, there are actions that Congress could take to help avoid a painful slowdown in activity—both by fine-tuning the timing of spending and focusing resources on policies that boost potential output. For example, changes in fiscal policy that repurpose fiscal support from boosting current aggregate demand to those that would boost the economy's potential (such as federal investment in infrastructure as well as education and training that would increase labor supply and human capital) would increase the chances of a soft landing, in part by raising the landing area to a higher level.

Conclusion

This testimony has highlighted three critical points. First, the rapid economic recovery and expected slowing creates risks to which policymakers should be attentive. Second, fiscal support has been essential to accelerating the recovery. Third, greater federal investment in infrastructure is key to improving our longer-term economic prospects. This is the right time to be enacting an ambitious federal investment package to put in place public infrastructure that is once again a vital factor in improving productivity and economic growth.

References

- Alcala Kovalski, Manuel, Sophia Campbell, Tyler Powell, and Louise Sheiner. 2021. "Federal, State and Local Fiscal Policy and the Economy in 2021." Hutchins Center Fiscal Impact Measure, Hutchins Center on Fiscal and Monetary Policy, Brookings Institution, Washington, DC. June 25, 2021. https://www.brookings.edu/interactives/hutchins-centerfiscal-impact-measure/
- American Recovery and Reinvestment Act of 2009 (ARRA) Pub.L. 111-5 (2009).
- American Rescue Plan Act of 2021 (COVID-19 Stimulus Package), Pub L. No. 117-2 (2021).
- Amuedo-Dorantes, Catalina, Miriam Marcén, Marina Morales, and Almudena Sevilla. 2020.
 "COVID-19 School Closures and Parental Labor Supply in the United States." Institute of Labor Economics (IZA), Bonn, Germany. http://ftp.iza.org/dp13827.pdf
- Bauer, Lauren, Eliana Buckner, Sara Estep, Emily Moss, and Morgan Welch. 2021. "10
 Economic Facts on How Mothers Spend Their Time." The Hamilton Project, Brookings Institution, Washington, DC.
 https://www.hamiltonproject.org/papers/10_economic_facts_on_how_mothers_spend_th eir_time
- Bauer, Lauren. 2021. "Mothers Are Being Left Behind in the Economic Recovery from COVID-19." Up Front (blog), Brookings Institution, Washington, DC. May 6, 2021. https://www.brookings.edu/blog/up-front/2021/05/06/mothers-are-being-left-behind-inthe-economic-recovery-from-covid-19/
- Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Pub.L. 116–136 (2020).
- Congressional Budget Office (CBO). 2016. "The Macroeconomic and Budgetary Effects of Federal Investment." Congressional Budget Office, Washington, DC. cbo.gov/sites/default/files/114th-congress-2015-2016/reports/51628-Federal Investment.pdf
- Congressional Budget Office (CBO). 2019. "Federal Investment, 1962 to 2018." Congressional Budget Office, Washington, DC. https://www.cbo.gov/publication/55375
- Congressional Budget Office (CBO). 2020a. "The Budget and Economic Outlook: 2020 to 2030." Congressional Budget Office, Washington, DC. https://www.cbo.gov/publication/56020
- Congressional Budget Office (CBO). 2020b. "An Update to the Economic Outlook: 2020 to 2030." Congressional Budget Office, Washington, DC. https://www.cbo.gov/publication/56442

- Congressional Budget Office (CBO). 2020c. "The Effects of Pandemic-Related Legislation on Output." Congressional Budget Office, Washington, DC. https://www.cbo.gov/publication/56537
- Congressional Budget Office (CBO). 2021a. "The Budget and Economic Outlook: 2021 to 2031." Congressional Budget Office, Washington, DC. https://www.cbo.gov/publication/56970
- Congressional Budget Office (CBO). 2021b. "Budgeting for Federal Investment." Congressional Budget Office, Washington, DC. https://www.cbo.gov/publication/56900
- Congressional Budget Office (CBO). 2021c. "An Update to the Budget and Economic Outlook: 2021 to 2031." Congressional Budget Office, Washington, DC. https://www.cbo.gov/publication/57218
- Consolidated Appropriations Act 2021, Pub.L. 116-260 (2020).
- Dube, Arindrajit. 2021. "Early Impacts of the Expiration of Pandemic Unemployment Insurance Programs." Blog. July 18, 2021. https://arindube.com/2021/07/18/early-impacts-of-theexpiration-of-pandemic-unemployment-insurance-programs/
- Edelberg, Wendy, and Louise Sheiner. 2020. "What Could Additional Fiscal Policy Do for the Economy in the Next Three Years?" *Up Front* (blog), Brookings Institution, Washington, DC. October 9, 2020. https://www.brookings.edu/research/what-could-additional-fiscalpolicy-do-for-the-economy-in-the-next-three-years/

Federal-Aid Highway Act of 1956, 23 U.S.C. (1956).

Furman, Jason, Melissa Kearney, and Wilson Powell III. 2021. "How Much Have Childcare Challenges Slowed the US Jobs Market Recovery?" Peterson Institute for International Economics, Washington, DC. https://www.piie.com/blogs/realtime-economic-issueswatch/how-much-have-childcare-challenges-slowed-us-jobs-market