

RECORD OF MEETING
Federal Advisory Council and Board of Governors
Thursday, May 7, 2020

The COVID-19 pandemic itself, the public concerns surrounding it, the health measures taken to combat it, and the monetary and fiscal policy actions taken in response to it all have dramatic effects on the economic and financial systems in the U.S. and around the world. An international oil price plunge has exacerbated the turmoil. The agenda for this meeting focuses on these effects.

Economic Impact of the COVID-19 Pandemic

Item 1: Households

What observations does the Council have about households' current situation and near-term prospects with respect to:

- **Income & Spending**
- **Financial Condition, Borrowing & Debt Management**
- **Saving & Investing**

How do these observations vary geographically or across income categories? Pertain to particularly vulnerable populations?

Income

In the Council's observations on household income and how it is impacted by COVID-19, it is not where you live or your age but whether or not you still have a job. Individuals still employed and drawing a paycheck are doing fine under the COVID-19 circumstances. Individuals who have lost their jobs either through layoffs or furloughs are struggling. The majority of those struggling work in the "service industry," including public transportation, retail, leisure, hospitality, etc., all of which necessitate gathering in large groups or interacting closely in person. Businesses in these sectors employ a significant number of people who fall into the low- to moderate-income categories and likely live paycheck to paycheck, making this sudden loss of income more impactful on their financial situation. Adding to the stress on these households is the uncertainty that the businesses they work for will be able to open back up when the "stay-at-home" orders are lifted. Being unemployed hurts these households not just immediately with loss of income but also in the near term, as their prospects change depending on the length of business closures.

For individuals who have lost their jobs, their struggles are compounded by the challenge for states to now process a large number of unemployment claims in a short period of time. With another 3.8 million claims filed the week of April 25, the 6-week total passed 30 million unemployment claims. As of April 25, there were roughly 14 million people who had filed for unemployment but had not yet received a check, with some households going as long as 4 weeks without a check. The backlog in unemployment claims puts many people in a very difficult financial situation, depending on their savings going into this pandemic.

Nowhere is the fluidity of the country's economic situation during this pandemic more evident than in the households of unemployed workers. By the end of April, a number of individuals who were unemployed became better off financially than when they were working due to the expansion of unemployment benefits by \$600 a week. Labor Department data show that laid-off workers will now make approximately \$978 a week, based on the average unemployment benefit from 2019, plus \$600. That amount is greater than what half of all full-time workers earned each week during the first quarter of 2020.

Regardless of whether or not someone is still drawing a check, there is apprehension over income. The longer this pandemic goes on, the more businesses there will be that are faced with decisions about their ongoing viability and ability to keep people employed and on the payroll.

Spending

While household income has a number of variables that could impact people, household spending has changed for everybody. The Council's consensus is that spending is down across all geographies, age groups, and income levels. In analyzing spending, most people have cut out nonessential items due to uncertainty regarding the length of the pandemic. Spending is way down at restaurants and bars, as well as for entertainment and gas, but has increased for groceries and alcohol.

The question is how will people react once the stay-at-home orders are lifted? Again, a lot will ride on how long this lasts and the assurances given to people about safely going back out in public places. Spending will come back in time, but in the near term, the Council's thought is it will be a slow recovery.

Financial Condition, Borrowing & Debt Management

All Council members agree that household balance sheets were in very good shape going into the COVID-19 stay-at-home orders compared their balance sheets going into the 2008 recession. The financial obligations ratio (debt payments plus other financial obligations as a share of after-tax income) was 15.1 percent in the fourth quarter of 2019, which is close to the lowest level in the 40-year history of the survey. The strength of household balance sheets lies in the value of homes, along with retirement funds and investments, as the stock market was hitting all-time highs. The COVID-19 impact has taken a significant portion out of that wealth, leaving people feeling worse off.

As for borrowing, the Council has not seen a significant increase since the initial days of the pandemic. In the beginning when rates were falling, there was a surge in refinances of home mortgages. Current and near-term debt management are being helped by the Coronavirus Aid, Relief, and Economic Security Act (CARES Act). Under the CARES Act, forbearance programs for mortgages and student debt have allowed people to defer payments on their largest monthly obligations. The decrease in spending on nonessential items has also opened up cash flow for household debt.

Saving & Investing

For household saving and investing, employment status dictates whether the individual can put money away. Those unemployed are not saving and are more concerned with how long their savings will last before a source of income kicks in -- whether that be an unemployment benefit, getting rehired under the Paycheck Protection Program (PPP), or a stimulus check.

For those people still employed, their reduction in spending allows them to save more. Currently, most people are putting their savings into cash. As for the near term, people are looking for the right time to invest in the market. A few people feel there is an opportunity to make money off the pandemic, based on feedback that some are borrowing money at today's low interest rates to invest in the market, betting their return will exceed the cost of borrowing.

The downturn in the market has hit retirement funds hard, and the CARES Act provisions now allow employees to access their retirement funds without penalties and pay tax on distributions over a 3-year period. In addition, retirement account participants are allowed to borrow a higher percentage from their plan under the CARES Act. The opportunity for people to deplete their retirement funds is a cause for concern. These provisions help people in the short run, but the long-term consequences could be detrimental to their future retirement options.

All answers can change drastically if stay-at-home orders or business closures last beyond the time the CARES Act provisions provide money directly to households and businesses. If this happens, the financial strains will be significant.

Item 2: Businesses

What observations does the Council have about the current situation and near-term prospects for businesses in various sectors with respect to:

- **Sales & Capacity to Deliver Service**
- **Employment & Compensation**
- **Supply Chain Disruptions, Cost & Availability of Inputs**
- **Profitability & Viability**
- **Financial Condition, Borrowing & Debt Management**

a. Directly Affected Sectors, including:

- **Health Care**
- **Providers of Food & Other Basic Necessities**
- **Travel & Transportation**
- **Hospitality, Recreation & Entertainment**

Healthcare

The healthcare sector is an important part of the U.S. economy, accounting for nearly 18 percent of the nation's gross domestic product (GDP) and employing 11 percent of American workers. The sector consists of a diversified group of service providers, including hospitals (33% of spending), physicians and dental services (24% of spending), and assisted-living operators (5% of spending), all of which have been significantly impacted by the pandemic.

Sales and Capacity to Deliver Service

Though situations vary across geographic regions and providers, most Council members reported that hospitals and healthcare systems are losing money every day, as elective surgeries, outpatient services, primary care, and specialty physician consultations are being delayed or canceled. Several Council members expect a 30 to 70 percent decrease in revenue. One Council member reported that two major providers in his District have experienced a 50 percent reduction in non-COVID-related patient visits and estimate monthly losses in the range of \$15 to \$30 million.

Other smaller providers, such as outpatient surgery centers, physicians, and dentists, have closed offices for non-emergency treatment. According to a recent survey of physicians conducted by Merritt Hawkins, 1 out of 5 physicians is furloughed or has sustained a pay cut as a result of COVID-19. One Council member reported an average 55 percent decrease in revenue and a 60 percent decrease in patient volume from pre-COVID-19 levels.

Pre-COVID-19, long-term care facilities had been experiencing increasing costs and declining occupancy rates that reached 15-year lows, making assisted living less affordable for families and less profitable for operators. One Council member noted that the concentration of infections in these facilities has further exacerbated cash flow challenges. In six states, long-term care facilities have accounted for over 50 percent of COVID-19 related deaths.

Employment and Compensation

As of March, U.S. healthcare employment dropped by 43,000 jobs, the sector's worst month in three decades, with the full extent of losses not yet reflected in the data. A report issued by the

HealthLandscape and American Academy of Family Physicians estimates that, by the end of May, over 38,000 family medical practices are expected to close, resulting in a cumulative loss of over 500,000 jobs. According to the U.S. Department of Labor, small- and medium-sized metropolitan areas rely much more heavily on the healthcare sector for employment, new job creation, and payroll income than larger metropolitan areas or the U.S. average--implying that any reduction in industry employment due to COVID-19 restructuring will be felt more dramatically in these small and medium-sized areas.

Some Council members noted that some local hospitals are providing premium pay for staff working directly with infected patients. Several Council members are beginning to observe cost-cutting measures, such as voluntary furloughs, mandatory furloughs, and a 20 percent temporary pay cut for senior leaders. Smaller healthcare facilities, including outpatient surgery centers and physicians groups, have either resorted to or are planning salary deferrals, pay reductions, furloughs, and layoffs to conserve cash. Staffing is a critical issue in nursing homes and assisted-living facilities, and this trend is expected to continue in the near term.

Supply Chain Disruptions, Cost and Availability of Inputs

Council members report a range of impacts on their customers across the supply chain. Suppliers have reported cost increases, the need to ramp up production for specialty components, price increases due to demand for specific equipment, and temporarily shifting production capacity to build high-demand items. Healthcare providers have had to source new vendors for personal protective equipment (PPE) at significantly higher costs.

Profitability and Viability

The most significant profitability impacts to the sector are due to canceled elective procedures, the virtual shutdown of all non-emergency care, and higher costs. In more severely impacted markets, some nursing home facilities are limiting admissions, exacerbating declines in revenue.

Financial Condition, Borrowing and Debt Management

One Council member reported that going into the crisis, the largest highly rated healthcare systems were holding enough cash reserves to cover about 300 days of operational needs. Council members observed an increase in healthcare customers requesting draws on revolving credit facilities to supplement cash and fund operations. Many of these systems are curtailing non-emergency capital projects and cutting operational costs in order to further extend liquidity. The CARES Act distributed \$30 billion of grants to Medicare providers, with an additional \$70 billion in grants still to be distributed. Although the PPP is not available to most health delivery networks outside of independent physician group practices, some Council members reported that 15-20 percent of their committed dollars went to healthcare providers. The CARES Act is expected to provide some relief, but there is uncertainty on how and when the remainder of these funds will be disbursed.

Somewhat encouraging is that several Council members noted that elective surgery is beginning to open in some areas of the country in just the last week and that smaller doctors and dentistry offices have resumed taking patients. Council members speculate that a high degree of pent-up demand for services could make for a strong recovery in this sector once infection rates and concern regarding COVID-19 begin to ease. To the extent that these areas are prioritized in the early stages of reopening plans, they could have a meaningful impact on a community's overall economy.

Providers of Food & Other Basic Necessities

Providers of food and necessities comprise an estimated 40,000 outlets in the U.S. that include large retail chains, neighborhood grocery stores, convenience stores, and other specialty food and beverage stores supplied by, and dependent upon, a wide range of wholesale firms.

Sales & Capacity to Deliver Service

Prior to COVID-19, Americans spent more than half their food budget eating outside the home. But since the start of the pandemic, restaurant sales are down more than 80 percent, and most people are preparing their meals at home. Council members have uniformly observed an increase in demand for grocery products and online shopping. One Council member noted a 30 percent revenue increase for a large local chain in March, along with a sharp increase in demand for frozen and shelf-stable foods, beer, and other ancillary products such as paper products, cleaners, foils, wraps, and containers. Online grocery sales are up 70 percent year-over-year and increased \$1.3 billion in April, or 37 percent, since March. Consumer-purchasing behavior is shifting towards digital channels, with increased use of grocery and other delivery services, and many of these services are struggling to keep pace with demand. Some Council members noted that firms without a robust e-commerce and digital presence are especially challenged. Gas station convenience stores classified as “essential businesses” face unique challenges in having to remain open, despite a 50 percent reduction in motor fuel sales due to shelter-in-place orders.

The restaurant industry is estimated to employ over 10 million U.S. workers. According to a mid-April survey by the James Beard Foundation, more than 38 percent of restaurants reported that they have closed temporarily or potentially permanently, and over 77 percent of respondents reported at least a 50 percent reduction in sales. One Council member noted concerns related to extended shutdowns and the survival of restaurants in resort towns that rely on summer months to generate 90 percent of their annual business.

A Council member noted the challenge for large retailers with a multi-state presence, given varying and sometimes conflicting state and municipal emergency orders regarding the use of protective gear, occupancy limits, and hours of operation.

Employment & Compensation

As retailers announce plans to hire hundreds of thousands of workers, several Council members have observed businesses increasing compensation and implementing premium pay programs as an incentive to attract and retain employees. Other observed responses to address staffing challenges include reducing store hours, transferring employees between departments, hiring additional workers, paying overtime, and lengthening shifts over a fewer number of days to limit exposure.

Supply Chain Disruptions, Cost & Availability of Inputs

Council members agree that supply chain disruptions have not been widespread, but they have observed challenges with inventory management with the shift in demand patterns. Retailers have imposed purchase limits and found alternate suppliers to address shortages in some essential products. Several Council members have heard from their clients that meat, poultry, and egg supply chains are under stress, caused by the temporary shutdown of processing facilities for cleaning after a COVID-19 case has been identified. Businesses have reported that reopening a facility is not a foregone conclusion, and reduced capacity may contribute to longer-term shortages.

Profitability & Viability

Council members reported that most firms providing essential services are seeing increases in revenue and profitability due to increased demand. At the same time, businesses are also dealing with increased costs of transportation, cleaning facilities, PPE, and testing employees.

Financial Condition, Borrowing & Debt Management

Larger essential service clients, such as grocers, are generally operating from a strong financial position with healthy liquidity and capital levels. Council members have observed relatively few requests from these firms for draws on revolving credit facilities related to COVID-19 impacts. However, there has been an increase in restaurant clients' requests for draws. One Council member reported approximately \$55 million in draws from restaurant clients last month, compared to just \$14 million from essential retail, food, and fuel providers.

To the extent that businesses are experiencing cash flow, revenue, or other financial issues, Council members and other banks are working closely with these customers to defer payments on existing facilities, provide additional liquidity through programs such as the SBA's PPP, and when operable, will provide access to the Federal Reserve's Main Street Lending facilities.

Travel and Transportation

All Council members noted that the travel and transportation sector has been disproportionately hit and disrupted by the pandemic. Travel in particular, outside of trips to grab essential goods from the grocery store, has halted as social-distancing measures have landlocked consumers and kept them home. The U.S. Travel Association reported that in 2019, \$1.1 trillion in spending was related to travel and supported approximately 16 million jobs. Travel and tourism also represented about 2.9 percent of GDP during the same period. With travel and tourism stalled, companies directly supporting these sectors have pressure to maintain liquidity as revenue has dried up. Airlines and airports have been provided some relief through the government stimulus package and the lower cost and demand for fuel, but not enough to offset their revenue losses.

Beyond airlines, businesses built on robust travel and tourism are also burdened with liquidity and profitability concerns. Cruise lines, travel advisers (including digital aggregators and reservation companies), and downstream suppliers dependent on travel remain in a fragile state, especially those with highly leveraged balance sheets. Some have found relief through small business government loans (such as the PPP), but this capital is short term and tied to keeping payroll levels consistent with pre-pandemic levels.

Transportation, including taxi/ride-sharing, public transit, and rental car companies, has also experienced a severe reduction of usage. Year-over-year customer transaction declines of 60-100 percent have been observed, as traffic on the road is typically limited to essential workers commuting to work.

Interestingly, even sectors previously thought recession-proof, such as trucking, are experiencing lighter demand and forced to furlough. As noted by one Council member, with trucking, while the demand for shipments of essential goods to grocery stores and e-commerce remains in solid demand, those not in the business of shipping essential goods have a smaller chance of financial viability.

Through social distancing and proper safety protocols, and as the country collectively continues to flatten the curve, a leading indicator for travel and transportation to get back to pre-pandemic levels will be the consumer's healthcare confidence, gauged by how safe the consumer feels to go back to commuting and traveling without feeling threatened by the virus. Several Council members point out that it is hard to predict when the economy will return to normal, but this particular industry will feel the ramifications of the pandemic for at least the remainder of the year.

Based on active dialogs with participants in these industries, Council members believe that the travel and transportation sector will be a prime candidate for the Main Street Lending Program (MSLP).

Hospitality, Recreation & Entertainment

Much like travel and transportation, this sector has been severely impacted by social-distancing norms currently in place and stay-at-home orders. In the hotel industry and the short-term rental industry, large companies and an emerging gig economy of landlords alike are experiencing steep revenue losses and high vacancy rates. Average hotel occupancy rates in the U.S., according to research firm STR, dropped to 21.6 percent during the first week of April, and short-term rentals have seen steeper declines. This is a particular disadvantage to both, especially those who carry high-leverage and low debt-service ratios to support their businesses during normal economic times. Small business loans available through the stimulus package are available but provide short-term funding and potentially not enough to support ongoing operations. Further, hotels that assumed these loans face the pressure of rehiring furloughed employees, potentially before occupancy rates pick back up.

Amusement parks, convention centers, malls, sports complexes, performing arts centers, and any large venue where revenue is largely driven by visitors and the price of admission so have also experienced a shock to their financial viability with the lack of demand. Those businesses that have been able to improvise through virtual experiences and offerings have kept customer engagement and viable revenue streams, but still not enough to offset the overhead. Further, as management teams plan to reopen their venues, higher standards of safety and cleanliness and crowd-controlling measures will impact margins even as visitor traffic commences.

The other sector that has experienced a lot of strain is bars and restaurants. Quick-service restaurants with takeout, drive-through, or digital capabilities, or a combination of these delivery mechanisms, have been able to weather the storm better than those without. These franchises typically have an additional advantage, as they secure small business funding because they are able to keep substantially all of their employees on payroll. Bars and restaurants that depend primarily on customer foot traffic, conversely, are left with little choice but to shut down and release their employees.

However, the country may be close to an inflection point, with many states creating plans to open back up for business. Much like travel and transportation and consumer healthcare, confidence will be a big factor in determining the velocity of foot traffic back to enjoy recreational and leisure activities. Several Council members note that when the country reopens, the new norms will place significance on social distancing and preventative measures to avoid relapse, which will result in a slower recovery than the speed of the downturn in this sector. In addition to the travel and transportation sector, the hospitality, recreation, and entertainment sectors will be prime candidates for the Main Street Lending Program (MSLP).

b. Other Consumer-Related Sectors, including:

- **Residential Construction & Home Sales**
- **Autos & Other Durables**
- **Retail Goods & Services**

Residential Construction & Home Sales

The pandemic has had a major impact on residential construction and home sales. Restrictions on residential construction vary by state. Some states are allowing construction to continue if social-distancing protocols are in place, but others are only allowing houses that could be finished within 30 days to be completed, with no other construction permitted. Additionally, many homeowners who had listed their homes have taken them off the market, as the owners did not want to show their home or have open houses and also feared declining home prices.

Housing starts in March declined 22.3 percent from the previous month to a seasonally adjusted annual rate of 1.22 million, the steepest decline since 1984. Single-family housing starts fell 17.5 percent to an annual

rate of 856,000, while housing starts with five units or more declined 32.1 percent to an annual rate of 347,000.

Additionally, housing units authorized by building permits in March were at a seasonally adjusted annual rate of 1.35 million, down 6.8 percent from the previous month. Housing completions in March were at a seasonally adjusted annual rate of 1.23 million, down 6.1 percent from the previous month. As stay-at-home orders did not start to go into effect until mid-March, these numbers are expected to decrease further in April, as construction in many states has stopped. In the initial four weeks of the stay-at-home orders, sales of newly built homes began falling precipitously, down 85 percent in the fourth week of the shutdown from the same period in the prior year.

In the past two weeks, however, the numbers have started to improve, as sales are now down 65 percent compared to the same period in the prior year. While signed contracts to purchase existing homes fell 20.8 percent in March compared to February and were 16.3 percent lower annually, according to the National Association of Realtors, the Mortgage Bankers Association reported that applications to purchase a home, after falling dramatically for five weeks, suddenly moved higher, rising 12 percent and 7 percent respectively over each of the past two weeks. While still 20 percent lower annually, it does signal potential improvement in buyer confidence.

Demand appears to be heavily skewed towards renters who are first-time entry-level purchasers looking at new construction. With many working from home, they are seeing the appeal of added space for a home office or home gym or a backyard to escape to. There is also a far greater supply of newly built homes for sale, twice the supply of existing homes at this point. In many markets, builders are relying on virtual showings in order to comply with stay-at-home orders.

The supply chain for materials has also been impacted as factories around the world have been closed. It is estimated that nearly 30 percent of all U.S. building-product imports come from China; however, some American construction firms rely on China for up to 80 percent of their materials, including steel, stone, millwork, and plumbing fixtures, as they are generally less expensive. This reliance could lead to higher material costs going forward, along with longer construction times.

With respect to labor, a survey of the Associated General Contractors of America reported that 40 percent of firms have been forced to lay off employees due to project cancellations and shortages of equipment as a result of the pandemic.

In the end, it is hard to determine the long-term impact on residential construction, as individuals' willingness to purchase a home will be dependent on their confidence in the stability of their jobs and the overall recovery of the economy.

Autos

The auto industry has also been severely impacted by the COVID-19 pandemic. Almost half of the states have some restrictions preventing normal showroom traffic, which has resulted in an approximately 50 percent decline in sales. Twenty-four states, which represent 44 percent of 2019 retail sales, have allowed dealership sales operations to remain open. The other 26 states, which represent 56 percent of retail sales, are allowing only online or remote sales. Physical auctions are shut down; therefore, the supply of used and off-lease vehicles is growing, which will put downward pressure on used-vehicle prices. Lenders have put a moratorium on repossessions; therefore, the used-vehicle supply will grow once the economy is reopened.

Original Equipment Manufacturer (OEM) plants are shut down, and they are expected to offer significant incentives to clear out 2020 inventory once manufacturing commences, further exacerbating the downward pressure on used-vehicle prices. Rental car volume is also down by around 80 percent, which will cause rental car companies to reduce their fleet and add to the downward pressure on used-vehicle prices. While

federal stimulus will help dealerships weather the storm, weaker and more thinly capitalized dealerships are at a higher risk of default on commercial and industrial loan obligations and face the options of closure or acquisition by stronger players.

Dealers are actively moving or increasing their online sales in locations where it is permitted. While online car sales were already a growing force in the automotive world, the spread of the virus has sped up dealer participation. Tracking service Dealertrack said that as of mid-April, electronic transactions were up nearly 65 percent from the same time in 2019.

With the stay-at-home orders in place and the uncertainty around when they will be lifted, combined with the dramatic increase in unemployment, new auto sales during the first half of April are down 55 percent versus pre-COVID-19 estimates, but annual volume is expected to be approximately 14 million units (down from an expected 16.7 million) for all of 2020. Used-unit sales are now projected at approximately 32 million for the year (down from the previous 39-40 million forecast).

When and how factories reopen is still unknown. The United Auto Workers has cited testing and data as important factors in its members returning to work. While service has remained open for most dealerships, as it is considered essential (and it is the most profitable component of the dealer operation), the sales staff has been furloughed in many areas with the expectation they will be brought back once the dealerships receive PPP funding and stay-at-home orders are lifted. Once the orders are lifted, it is expected that many dealers will be able to open either immediately or in a few weeks. Additionally, significant manufacturer incentives are being offered, which will support sales volume in the near term.

The impact to the supply chain for the automotive industry may be substantial, as countries that have been heavily impacted by the outbreak, in particular, China, Japan, and South Korea, account for a significant share of global auto manufacturing. China's Hubei province, the pandemic's epicenter, is one of the country's key automotive production centers.

Other Durables

With unemployment increasing dramatically, sales of durables have fallen off significantly since the pandemic hit the U.S. and stay-at-home orders were put in place. Sales of durable goods in the U.S. declined in March by the most since 2014, weighed down by falling oil prices and a decline in orders for commercial aircraft. Economists foresee further pain ahead, as April core capital expenditures could fall 20-30 percent, outpacing the worst month during the Great Recession, January 2009 when they fell 11.1 percent. Additionally, given the long lead times, the decline in business investment is likely to extend through the second quarter and into the third quarter, as most places remain closed, fewer people shop, and factory output declines, regardless of whether the economy has reopened by then.

Additionally, oil and gas producers are cutting back on capital spending as the drop in oil prices makes it unprofitable to drill.

Retail Goods and Services

Non-essential physical retailers have been hit particularly hard as a result of the pandemic. The effect on the retail goods business is partially dependent on the proportion of revenue from online sales, and logistical issues that may arise. Sales of nondiscretionary products, such as food, household, and personal-care products, have spiked, while sales of discretionary items, such as apparel and furnishings, have tailed off. It is estimated that 60 percent of retail tenants are unable to make rent payments. Additionally, a large number of retail employees have been furloughed or laid off as a result of store closures. The PPP should assist with this short term until stay-at-home orders are lifted. Certain large retailers are preparing for bankruptcy, and expectations are that approximately 15,000 stores will close nationally in 2020, with spillover effects on real estate and shopping malls. Smaller retailers are pursuing PPP loans as a lifeline to stay in business.

The pandemic has made curbside pickup much more valuable to customers and more beneficial to retailers, as many stores remain shut. Retailers with a strong e-commerce presence are doing better, but even the strongest ones are still reporting revenues down 20 percent year-over-year. The number of orders placed online and picked up at brick and mortar stores by customers surged 208 percent between April 1 and April 20 compared with a year ago, according to data pulled from Adobe Analytics, which measures the web transactions of 80 of the top 100 internet retailers in the United States. Adobe Analytics also reported that online sales in the U.S. jumped 49 percent from March 12 to April 11 compared to the period March 1 to March 11, as many retailers did not start to close stores until mid-March.

With millions now working from home, Comscore has reported a strong increase in website traffic in the home furnishings category over the past couple of weeks, as people are likely buying items to create home offices. Similarly, visitation to the consumer electronics category has ballooned recently. As stay-at-home orders have been issued in many states, the food/supermarket/grocery category (which includes food delivery services) has surged, growing faster than any other retail category over the latter half of March 2020. Additionally, manufacturers of leisure activities, such as puzzles, are seeing strong demand.

Supply chain disruptions will linger for months, potentially threatening retail's two busiest times: the back-to-school season and the holidays. As many retail items are imported, specifically from China, the shut-down of factories in China earlier in the year will have an impact on the delivery of product for months to come. According to a recent report from the National Retail Federation and Hackett Associates, U.S. ports handled 1.82 million TEU in January, down 3.8 percent from a year earlier. A TEU is defined as one 20-foot-long cargo container, or something equivalent. February has been estimated at 1.42 million TEU, down 12.6 percent from a year prior and significantly down from the 1.54 million TEU forecast before the coronavirus began to take its toll. March is forecast at 1.32 million TEU, down 18.3 percent from last year and falling short of the 1.7 million TEU anticipated before the virus. It is expected that this will decline even further in April.

c. **Other Business-Related Sectors, including:**

- **Commercial Construction & Real Estate**
- **Business Equipment**
- **Professional & Routine Business Services**

Some businesses have seen increased demand as a result of the pandemic. These sectors include COVID-19- related medical equipment manufacturers and communication services (virtual meetings, technology) companies. For these firms, keeping up with current demand is of key importance, with a focus on employee health. Generally, these businesses are looking at the current environment as an opportunity to earn long-term business rather than take outsized one-time profits. However, concerns exist about a possible falloff in demand after the current crisis abates. These businesses are consuming capital in this working environment and are seeking short-term liquidity to fund operations. In contrast, a significant number of business-related sectors have been impacted by federal, state, and local measures designed to reduce the spread of the virus and stretch out the availability of essential medical services over time.

Commercial Construction & Real Estate

The determination of essential industries has been, in large part, at the discretion of the individual states. In some cases, construction has been halted as nonessential, while in others it is permitted to the extent that it supports other critical or essential industries. Although most states have deemed construction an essential industry, overall commercial construction volumes are down. Project cancellations and slowdowns are frequent as many companies look to deploy some form of social distancing to protect their employees. The impacts, however, are far less severe than those affecting residential construction. The Council expects construction volume to increase as the economy opens back up, but it is too early to understand the long-term impact on the construction industry.

Commercial real estate, in general, is primarily driven by tenant requirements. It is anticipated that the hardest-hit area will be in the retail space, where shutdown orders have resulted in some business owners deferring loan payments and laying off workers. With unemployment claims rising to 22 million over the four weeks (14% of the workforce), the demand for commercial space is down significantly. To this point, office property has been minimally impacted. However, it remains to be seen what companies will do in the future, now that more work-from-home options have been created out of necessity. The Council expects that this potential shift will have some level of future impact on the demand for non-owner occupied-office property. Hotel occupancy rates are down nearly 70 percent from last year across the nation, and even more in the largest markets. The ability of the hospitality industry to rebound over the coming year will vary depending on the region of the country and willingness of the population to travel again.

Multifamily property impacts have been mixed, depending on the demographics of each individual market. The properties that are tied to student housing or that are in communities with higher levels of hospitality or tourism are showing signs of stress. These properties could see even greater impacts until seasonal demand returns to normal. Multifamily rent collections have remained relatively stable nationwide, down 4.1 percent year over year, to 91.5 percent. It is very hard to gauge supply and demand right now, until the depth and duration of the temporary shutdowns, rent holidays, and other landlord forgiveness initiatives are better understood.

Business Equipment

The demand for business equipment has generally dried up or is non-existent. Companies are primarily on the sidelines waiting to see how COVID-19 will impact their businesses. Cost-cutting measures in many industries are resulting in the deferral or canceling of planned investments. Near-term increases in IT expenditures to address work-from-home solutions have provided some sales volume, but many CFOs are looking hard at long-term IT spending.

With current business purchasing tied to “essential and strategic” purposes only, normal business-as-usual projects have been pushed beyond 2020. Manufacturers are now beginning to feel the resulting drop in normal orders. The time for orders of equipment to arrive from China has nearly doubled during the crisis, adding to the challenges in many business sectors. Purchases of commercial construction equipment have slumped as a result not only of COVID-19 but also due to slowdowns in the energy sector. Rig counts have dropped by 582 over the past year, which directly impacts the demand for oil- and gas-related equipment orders. Although there are some bright areas, such as commercial refrigeration equipment, the demand for nonessential business equipment will remain low until confidence in the overall economy returns.

Professional & Routine Business Services

The effects of the pandemic on professional and business services appear to be more short term in nature. Demand over the last month has been soft, with high levels of job losses across many sectors. Health care, in all but COVID-19-related services, has been notably hard hit due to the reduction and elimination of elective procedures. Medical and dental practices are among the frequent applicants for relief under the PPP. Technology services have been relatively resilient. The demand to deploy virtual desktop environments and private network access solutions continue to stretch the availability of professional IT services to facilitate these specific remote-work capabilities. Unlike hospitality and other more impacted industries, the demand for professional services is expected to rebound as the states continue to reopen the economy.

Item 3: Energy Sector

The U.S. is both a major consumer and major supplier of oil. How has recent volatility in the international oil market affected the conditions in, and the outlook for, this sector?

The U.S. oil and gas industry is currently in a severe crisis brought on by both supply and demand shocks. The supply shock was precipitated by the Russia-Saudi price war, while the demand shock, resulting in an almost 30 percent reduction in demand, is driven by the shutdown of major parts of the world's economy due to actions taken in response to the COVID-19 virus. Council members' discussions with industry leaders revealed a mood of virtually no optimism as long as current conditions remain. Descriptions of the current impact on the industry range from "uncharted water" to "disastrous."

It is broadly recognized that the most important element of an industry recovery is an effective solution to the medical problem of COVID-19 through either a vaccine or effective treatment, which would allow a return to more normal economic activity and the use of building energy inventories. It is generally believed the industry will run out of available storage for crude oil in Cushing, Oklahoma, in the next one to two weeks, long before a medical solution is implemented. The storage situation has already caused unprecedented periods of negative oil prices as futures contracts expire.

Recent agreements between OPEC+ participants are not sufficient to absorb the current excess supply, even assuming that the curtailments are followed rigorously by all parties. U.S. producers have already cut back production by one million barrels per day in a short period of time, and U.S. Secretary of Energy Dan Brouillette has said U.S. production could decline by as much as 3 million barrels per day by year-end. The Texas Railroad Commission recently voted against implementing "proration," which would have, by force of law, reduced oil production in the state by 20 percent, in large part because the private sector was already cutting faster and deeper than a proration system.

The industry is responding to current conditions by laying down drilling rigs and eliminating crews for hydraulic fracturing, as well as significantly cutting all other costs. U.S. rigs have dropped by 582 from a year ago to 408, below the levels needed to maintain, much less increase, production.

The oil-field-service sector suffers from overcapacity. Investors in this sector are seeing job cuts of 50 percent, with another 50 percent occurring in the next few months. Even with a lowering of service rates, low crude prices do not cover lifting costs for all but the most efficient producers. Currently, the existence of financial hedges are carrying many companies, with the hope that they can bridge them to an industry recovery.

Refinery activity has been cut back to 75 percent due to the reduction in demand for refined products, particularly gasoline, which is down almost 50 percent from the previous 5-year average and also suffers from storage shortages. As a result, refineries must manage the gasoline yield from the product mix they refine. U.S. crude, particularly from the Permian Basin, is typically "light sweet crude," which yields a 56- 44 percent gasoline/diesel mix. More "sour" imported crudes can run a 39-61 percent gasoline/diesel mix. This can work against the use of domestic crude when the production of higher levels of gasoline must be avoided.

Regarding the outlook for the U.S. energy sector:

- A number of bankruptcies are anticipated over the next several months for companies who have taken on excessive leverage, both for oil producers and oil-field-service companies.
- The need to refinance high levels of debt over the next few years may cause significant financial stress for borrowers, given the lack of affordable capital to the industry before the advent of COVID-19.

- The necessity to shut in production introduces the risk that the wells may not come back on line.
- Over the longer-term, the reduction of U.S. energy production capacity carries with it the risk of higher prices as demand returns. In the past, sharply escalating oil prices have increased the risk of an economic slowdown, which will have to be managed effectively.
- Some Council members expressed the view that significantly lower energy prices could have the effect of slowing the growth in renewable sources of energy.

Several questions expressed by some industry leaders remain unanswered:

- How long will it take for demand to return to prior levels?
- What is the long-term role of the U.S. in energy production?
- Is there a role for the small producer?
- Will a vibrant oil-field-service industry survive to support the remaining oil and gas producers once demand returns?

Finally, there is hope in the industry, particularly the service sector, that an effectively managed MSLP could be an important source of capital that helps bridge to a vibrant service industry once the current COVID-19 crisis abates.

Item 4: State & Local Governments

What observations does the Council have about state & local governments' current situation and near-term prospects with respect to:

- **Capacity to deliver services related to COVID-19**
- **Capacity to deliver routine services, including education**
- **Budget Management: Revenues & Expenses**

Capacity to deliver services related to COVID-19

Most direct costs related to the containment and treatment of COVID-19 have been, so far, borne by states and healthcare providers (including local governments that operate hospitals). These entities have been at the front lines of the pandemic and have led efforts to contain its spread.

The capacity to deliver services related to COVID-19 within the current situation remains constrained amid supply shortages, and in some cases, overwhelmed state and local healthcare systems. Testing remains limited, although improving rapidly. While the U.S. has administered more COVID-19 tests than any other country, it lags on a per capita basis. The ability to reopen the economy is significantly dependent upon testing, and many local governments are not yet ready.

The CARES Act funded a lifeline for the costs directly associated with the pandemic, but legislation has not fully addressed the operational challenges states are contending with as multiple sources of normal and elective healthcare revenues plunge under stay-at-home orders. Risks are changing rapidly, and state and municipal governments need tools to address cash shortfalls on a more immediate basis to ensure services related to COVID-19 can continue uninterrupted, while also getting back to more normal activities. State and local governments may need even more support to fight the pandemic and preserve other services.

Capacity to deliver routine services, including education

Routine services, such as education, have been strongly affected but have at least temporarily transitioned to alternative platforms, on which are likely to continue in the near-term. The issue of when and how to reopen schools is a major local issue throughout the country. The effective costs of doing so with staggered

or smaller classes, longer days, etc., are difficult to estimate but will be considerable. Police departments are reevaluating their practices in order to minimize exposure; some departments have stated that they are limiting contact by avoiding custody arrests and issuing citations. So far, this has worked due to stay-at-home orders, but as the nation reopens, police forces will be stretched very thin. Governments with a higher reliance on economically sensitive receipts—namely, sales and income taxes—are already being forced to take extreme measures to keep budgets from blowing further out of balance.

Furloughing significant percentages of workforce, shelving capital plans through 2020 and some of 2021, and calling for federal and state support are some of the measures being pursued to close budget gaps expected to exceed 3 percent, with less than three months remaining in this fiscal year (June 30). Deficits in fiscal year 2021 will depend on how long it takes to get people back to work and get the overall economy back on its feet, thus driving an increase in revenues. However, there will be a significant increase in shortfalls.

Budget Management: Revenues & Expenses

State and local governments are facing very serious budget management issues as the virus weighs on both sides of the budget: (1) sales and income tax revenue declines and (2) increased expenses. Although the recently enacted CARES Act set aside \$150 billion in grants to help state and local governments pay for the health crisis, Congress stated that the grants can only be used to cover costs directly related to the virus, and generally not to cover other increased expenses or revenue shortfalls from reduced tax collections. Additional measures passed by Congress as part of the CARES Act, such as expanding unemployment benefits and aid to small businesses, will help mitigate some pressures on income and consumption related revenues. Recent legislation offered \$31 billion for the newly created Education Stabilization Fund. Council members believe more aid is necessary.

For instance, Moody's Analytics conducted a stress test on state budgets and found that if states use 100 percent of their rainy day funds:

- Only five states currently have the reserves needed to fully absorb the stress of COVID-19.
- Only twelve states have most of the reserves they need.
- And, 33 states will have budget gaps of at least 5 percent, with 21 of those states having budget gaps of 10 percent or more.

Moody's indicates, based on current COVID-19-related relief packages, that at least \$172 billion more is needed.

- If the states used 100 percent of their reserves, an additional \$136 billion would still be needed.
- Barring further federal support, the shortfall would be filled by reducing budgets and/or increasing taxes.
 - During the 2008-09 recession, state expenditure budgets were cut a cumulative 8 percent. If states were able to repeat this efficiency, it could lead to a \$90 billion reduction in their budgets.
 - Using 100 percent of reserves and reducing state budget expenditures by 8 percent, states will still need an absolute minimum of \$46 billion to cover the costs of the virus.

State budgets will focus on reduction of expenses that will, in turn, create pressure on state agencies, lower levels of government, and other recipients of state aid. State education and health assistance, in particular, appear to be especially vulnerable to reductions in the current environment. Many states are facing, at fiscal year-end, a balanced budget mandate, which will bring about expense reductions fairly soon.

The Municipal Liquidity Facility created by the Federal Reserve faces hurdles in some states before it can be utilized. Most states are not in need of liquidity as much as they are in need of structural, budgetary relief from loss of revenue and increased expenditures. The program has been updated to include cities with

populations over 250,000 and counties of 500,000, which broadens the program significantly. However, the smaller issuers will still need to seek help directly from the states.

In response to stresses on revenue and expenses, Council members are beginning to see increased planning for cash flow borrowings, and debt levels are generally expected to increase over the near term. Council members are seeing significant activity and broad participation among banks in government note financing. The public market for note and bond issuance has stabilized, and while new issue activity remains light, market conditions have meaningfully improved. The Council expects Federal Reserve facilities, including the MLF, to receive strong interest during the seasonal July peak in cash flow notes. The Federal Reserve's intervention into the municipal bond market has been very useful and, if continued, it will help support the inevitable funding needs.

Finally, the drop in equities and interest rates will both increase the gaps in pension/retirement assets versus funding obligations, and impact tax collections. Long-term projects are being reviewed quickly and often shelved. A national infrastructure bill could reverse this trend if enacted.

Financial Sector Functionality and Stability

Item 5: Financial Institutions

What observations does the Council have about the current situation in, and near-term prospects for, banking and financial firms, with respect to:

- **Liquidity**
- **Lending capacity**
- **Delivery of service to business customers**
- **Delivery of service to retail customers**
- **Employees**
- **Data security**
- **Other management challenges**
- **Profitability & Viability**

Liquidity

U.S. banks entered the pandemic with stronger liquidity and less leverage than in the 2008-09 financial crisis, and they appear adequately positioned to weather the public health crisis. Despite good reported liquidity across most institutions, bank treasury functions are actively managing their current and near-term liquidity needs due to the uncertainty around a prolonged economic slowdown. Banks have implemented heightened monitoring of short-term funding sources, including flows into and out of the commercial paper market, flows of commercial and retail deposits, and availability of liquidity backstops such as the discount window and Federal Home Loan Banks (FHLBs) borrowing facilities.

In the latter half of March, banks saw significant liquidity inflows as a result of significant draws on lines of credit and a flight to quality out of volatile risk assets and into the banking system. Deposit growth in the industry totaled over \$1 trillion dollars in the quarter.

In the first half of April, deposit inflows leveled off as the markets stabilized, supported in large part by numerous Federal Reserve lending programs and early signs of slowing infection rates in certain geographies. Although many Council members noted that overall loan growth has flattened, PPP loans have been significant. The Paycheck Protection Program Liquidity Facility (PPPLF) has provided a significant source of liquidity to continue bank lending while maintaining sound liquidity profiles.

The 2008 financial crisis demonstrated the need for financial institutions to maintain sufficient liquidity in order to survive periods of financial stress, now banks have that capability in light of the Basel III liquidity coverage ratio (LCR) and the Dodd-Frank Act requirement that large banks conduct monthly liquidity stress tests to ensure maintenance of adequate “liquidity buffers.” These measures have dramatically increased the amount of high-quality liquid assets (HQLA) in the U.S. banking system, with the agencies recently estimating total HQLA among the largest banking institutions to be \$2.9 trillion.

On March 15, the agencies issued guidance aimed at encouraging banks to utilize their capital and liquidity buffers. However, the guidance did not change the requirement to maintain a 100 percent LCR. In addition, banks are hamstrung by resolution liquidity adequacy and position (RLAP) and resolution liquidity execution needs (RLEN) indicators, which also remain binding per the guidance. Without the ability to access historic levels of liquid assets, the ability for banks to provide credit to businesses and individuals will be challenged during this time of heightened need.

There are continued liquidity concerns in the markets, as banks and other firms are required to remit payments to investors, even if the borrowers stop making payments on their mortgages. The Mortgage Bankers Association estimates a liquidity shortfall of up to \$100 billion over the next nine months. Banks facing this squeeze have a variety of options to gather liquidity, while nonbank mortgage originators and servicers have more limited options. There is widespread concern that the overall mortgage market will be significantly damaged should nonbank mortgage providers withdraw from the market.

Securitization markets (auto, card, mortgage) are very focused on the impacts due to payment deferral programs for borrowers, which have resulted in reduced cash collections that may cause breaches of structural covenants and other triggering events. Negative impacts to date have included negative ratings, agency actions including downgrades, increased enhancement requirements for new transactions, and increased prices required by investors due to uncertainty of risk.

Lending Capacity

Council members generally report strong lending capacity, although some with higher loan-to-deposit ratios are more constrained in their ability to make loans. Despite good capacity across most institutions, Council members noted significant uncertainty regarding the impacts and duration of stay-at-home orders and disruptions in business. As a result, banks have been tightening credit, particularly in industries heavily reliant on travel, leisure, hospitality, retail, and other industries critically impacted by COVID-19. Significant uncertainty also exists with respect to CRE portfolios, which have become a significant concern to both banks and investors. Lending volumes are expected to decline, and the risk box that institutions operate within will tighten.

Banks are working with clients on liquidity lines, payment deferrals, and access to government lending programs, such as the SBA PPP and the Main Street Lending program.

- Lines of credit: Some Council members experienced an increase in draws on commercial lines of credit in March with the disruption in short-term funding markets. As the markets stabilized in April, this activity has slowed, although some Council members expect it could pick up again. Other Council members have yet to observe an increase in line usage at any point during the pandemic.
- Payment deferrals/modifications: Banks have experienced unprecedented requests from both business and retail customers for loan modifications. In some cases, such as the residential mortgage-servicing portfolio, modification requests have increased ten- to twenty-fold or more from pre-crisis levels. The Council is appreciative of the interagency guidance encouraging financial institutions to work with borrowers impacted by COVID-19, and the clarifications regarding accounting for troubled debt restructurings (TDRs). This guidance and the Federal Reserve’s lending programs, recently announced, will be instrumental in ensuring financial

institutions have access to the funds needed to work with their borrowers and can continue to act as credit intermediaries in the broader economy.

- PPP: Demand for PPP loans has been significant across Districts, and some Council members report that human capacity to process applications has been stretched. Institutions that were not already approved SBA lenders also reported delays in executing the program while awaiting approval and access to the SBA's e-portal. However, these institutions also noted that once access was granted, the system allowed for relatively quick processing of large volumes of PPP loans.

Delivery of service to customers

Most Council members noted that existing investments in technology (e.g., mobile and online banking applications, digitally enabled applications, and remote-work capability through secure virtual private networks) in recent years have allowed banks to continue to deliver products and services to both businesses and individuals, with little to no disruption. However, other banks that have lagged in these investments noted a positive externality from the need to conduct meetings virtually, which has accelerated the adoption of digital services. Many Council members believe the extended stay-at-home environment could materially change how banks service clients, particularly commercial customers, in the future. To ensure the safety of customers and employees, banks have been closing branches, reducing branch operations and hours, and converting locations to drive-through-only formats. For customers or transactions that may require in-person appointments, many banks are accommodating appointment-only lobby services with strict enforcement of social-distancing practices and the use of PPE. The Cybersecurity and Infrastructure Security Agency (CISA) directives declaring banking operations as "critical" infrastructure, and the continued exclusion of banks from state and local shelter-in-place orders, has proven critical in allowing branch personnel and certain back-office functions to continue operating without material disruption.

However, most banks have been able to temporarily lift policy limitations on transactions that can occur through drive-through windows, allowing banks to provide more complicated transactions, including mortgage closings, through this channel. Drive-up teller lines have increased beyond standard service-level expectations, and customers have been very patient and understanding.

Although in-person customer calls are down significantly, many Council members noted increases in total calls, with growth concentrated in existing customers versus prospects. In-person, one-on-one meetings are a core strategy in prospecting and strengthening customer relationships, and banks will have to rethink this approach and explore greater use of video technology. Despite restrictions on face-to-face meetings, banks with strong relationship models have received overwhelmingly positive feedback and strengthening of relationships, as these institutions work creatively to assist customers through the crisis.

Banks have been inundated with requests from businesses to access funds from the SBA's PPP. This volume has required institutions to redeploy resources quickly in order to meet demand. Remote-work requirements have, in some cases, complicated this process and the control environment for these loans. Relationship managers at many institutions are working nights and weekends to process applications and, as a result, are experiencing dividends in strengthened customer relationships through their efforts. One benefit of the difficulties banks have faced in accommodating PPP volumes is the realization that banks may have left efficiency gains on the table, and their recent efforts could lead to greater efficiency in the future.

Other challenges concerning delivery of services include:

- Ability to adjust to rapidly evolving CDC, state, and city mandates for essential-service employees to wear PPE and follow current social-distancing guidelines
- Peaks in call center volumes have strained service levels

- Challenges in credit underwriting processes under social-distancing orders, including difficulties obtaining physical property inspections for residential and commercial real estate appraisals, and credit-related physical inspections of borrower inventories and equipment

Many banks are preparing for reopening after shelter-in-place orders have been lifted. Plans include intentional social distancing in lobbies, limits on large customer counts in physical locations, widespread mask usage by both employees and customers, and potential screening of employees and customers prior to entering a facility. Longer term, banks may have to reassess branch transaction volumes to determine if they will return to pre-COVID levels.

Employees

Most banks have not reduced staff or furloughed workers during the pandemic. Most pay guidelines have also kept intact the base salaries and compensation of all employees, regardless of whether their ability to perform normal work duties has been impacted by work-from-home conditions, childcare/eldercare issues, or illness.

To support employees impacted by the pandemic, most institutions have been adopting creative compensation initiatives, including:

- Hazard pay incentives for employees required to be onsite
- Additional paid time off for employees required to be onsite
- Enhanced wellness programs, including mental health, which some Council members note is a growing concern among employees
- Interest-free loans to assist with financial concerns (e.g. childcare reimbursement)

Employee reentry into facilities will require careful precautions to ensure the health and safety of both employees and customers. Business lines will be evaluated to determine which functions are most productive in the office environment, and needs assessments will take into account individual risk factors for employees, childcare/eldercare concerns, and quarantine requirements due to sickness from the virus. Spaces may need to be reconfigured to allow for social-distancing protocols. As reopening dates approach, some Council members have recognized the need to give advance notice to employees who are expected to return to allow them to plan for personal and family responsibilities. Greater cooperation between federal, state, and local governments on these issues, as well as consistency in approaches and methods are welcome and necessary to facilitate advanced planning by financial institutions.

Data Security

The response to COVID-19 has required the rapid expansion of existing tools, technology, and processes to support a remote workforce, while maintaining best practices for information security. Some departments are not traditionally designed for remote access due to security and privacy concerns. During times of crisis there are heightened concerns as fraudsters and bad actors attempt to exploit vulnerabilities and take advantage of added distractions facing IT professionals. Despite a number of new challenges, security teams remain focused on these risks and continue to address emerging concerns:

- Institutions have given extra consideration to personally identifiable information (PII) and privacy regulations and have restricted access to sensitive information in work-from-home environments.
- Banks have increased specific authentication and security connection practices, such as requiring multi-factor authentication and secure VPN connections.
- New data loss prevention (DLP) rules are being designed, tested, and initiated to support the rapidly developing systems and processes to support the PPP and other government programs.
- New controls have been implemented to oversee users who formerly worked in moderated or clean room environments but who are now working remote with no physical oversight.
- Employee and customer awareness programs have increased in scope and frequency to ensure awareness of emerging threats.

- In some cases, additional vendor services to accelerate the takedown of malicious websites have been required.
- Third-party service providers have faced similar challenges that have reduced their capacity to deliver services and have required institutions to backfill resources in order to cover their needs.
- Additional protective measures (tightening logical controls, leveraging “dumb” VDI devices, instituting a risk review/approval process for continued resources) have been required for offshore contractors that are no longer able to work in contained and monitored physical environments.

Despite the actions institutions continue to take to secure data and limit cybersecurity incidents, the industry expects to see increased potential for cybersecurity breaches and other security issues over the coming weeks and months. Across the industry, companies are reporting an increase in cyber-attacks, including phishing/smishing attacks, where hackers are taking advantage of the COVID-19 crisis to steal money or sensitive information. The industry is especially concerned about data security and heightened fraud risk associated with economic impact payments, including the possibility that fraudsters may intercept payments sent to individuals.

Other Management Challenges

- Employee engagement and business development: With the vast majority of employees working remotely, engagement is challenging and requires additional efforts to maintain connectivity. Managing remote workers has added complexity that tests even experienced managers.
- Business continuity plans: Banks’ ability to maintain business continuity relies on three key areas: (1) reduced exposure by requesting employees to work remotely early, (2) IT-enabled remote access capability for all employees, and (3) nimble/quick response in redeploying resources to critical parts of the business. Ensuring business continuity has resulted in numerous process changes and critical innovations that should create long-term benefits beyond the crisis.
- PPP: The rollout of the PPP through the financial sector introduced an elevated level of operational risk. Ultimately, the spirit of the program—to provide short-term funding to small- and medium--sized businesses to preserve jobs— is worth absorbing this risk, but there still remains residual operational and execution risk that needs to be managed. Some Council members felt that a lack of congressional funding resulted in numerous dissatisfied clients and substantial scrutiny of individual loan decisions that could dissuade banks and borrowers from participating in other COVID-19 relief programs.
- Reduced equity prices: Reduced equity valuations increase the risk of shareholder activism. It also creates retention risk for key employees with equity ownership.
- Capital investment – CAPEX reductions are likely to pause critical investment spending that was planned for 2020.
- Uncertainty about the future: What will the new normal look like? How will the new normal impact banks’ business models? What are the long-term impacts to customers, employees, and communities? How do banks manage the risk of a second wave?

Profitability & Viability

Overall, banks entered 2020 with the highest capital and the strongest liquidity levels in 100 years, ensuring the vast majority are positioned to withstand even a prolonged period of economic malaise. Banks should remain both viable and profitable, albeit at a lower level than in 2019. Bank profitability in 2020 will be challenged by rising provision expense to build reserves in anticipation of higher defaults, declining net interest margins in the current low-rate environment, and potential pressure on fee income.

The increased expenses for credit loss provision could be exacerbated by the timing of CECL implementation in January. Notwithstanding regulatory capital adjustments related to its implementation, it is likely that the life-of-loan loss methodology will prove procyclical¹ and introduce additional pressure and volatility on earnings. It also reduces comparability across banks, evidenced by the wide disparity between companies that have adopted CECL and those that still use the incurred loss method.

The low interest rate environment could have significant negative impacts on net interest income (NII) on loans and securities. However, many commercial customers are drawing on loan facilities to shore up their own liquidity, which has led to increased loan balances that have created a partial offset to lost NII. Another opportunity to offset the reduction in NII could be in the form of lower funding costs from customer deposits and other funding sources. Deposit balances have increased since the onset of the pandemic as customers are retaining liquidity to navigate uncertain times. Additionally, various government-supported programs, such as the PPP, will provide credit to small businesses through financial institutions and result in incremental earnings.

Fee income trends will be varied, as near-term strength in mortgage and brokerage activities is likely to moderate with economic deterioration. Other sources of fee income could be pressured by reduced card activity, customer accommodation fee waivers, and reduced asset management fees due to declining asset prices.

Monetary policy accommodation and the roll-out of liquidity and funding facilities has increased liquidity and supported more orderly functioning of markets overall. Congressional action to support consumers through direct stimulus payments and forbearance for agency mortgages is also likely to mitigate otherwise larger losses for consumers and lenders.

Although many banks have suspended earnings guidance due to the unprecedented uncertainty in the pandemic, leaders have indicated on earnings calls that they are well positioned for the evolving environment and intend to continue paying dividends, despite suspending share repurchases to preserve additional capital.

Longer-term, expectations for profitability will depend on the length and magnitude of disruptions to businesses and the shape of the recovery. Banks with heavy concentrations in industries impacted by COVID-19 (e.g., energy, hospitality, restaurants) or in regions slower to reopen (e.g. New York City metropolitan area) may take longer to bounce back.

Going forward, merger and acquisition activity may pick up as banks seek out longer-tenured boards and management teams to partner with through consolidation. Smaller banks have already been feeling the pinch on net interest margins since before the pandemic, with competitive pressures from larger banks, fintech, and big tech; the crisis could exacerbate their need to partner with larger institutions.

¹ On July 24, 2020, this word was changed at the request of the Federal Advisory Council. As originally submitted by the Council, the word was “countercyclical,” which was incorrect.

Item 6: Financial Markets

How does the Council assess the financial markets' current and prospective performance with respect to:

- **Overall functioning**
- **Areas of particular stability**
- **Areas of particular fragility**
- **Other trends or developments worthy of note**

Overall functioning of the market has improved considerably over the past few weeks after a very sharp deterioration in market function in the first two weeks of March, as evidenced by an improvement in liquidity, reduction in volatility, and compression of credit spreads. The ability to execute trades is vastly superior in April compared to March. Though equity volatility is still indicating stress, interest rate volatility is back to more normal levels, providing some confidence that this will be a more “normal” recession and not a financial crisis.

This improvement in the financial markets is due to the strong, rapid response from governments and central banks. The Federal Reserve’s intervention in the markets has played a vital role in helping to restore market functioning back to somewhat normal levels. While almost all of the Federal Reserve’s actions have been helpful, large-scale asset purchases of Treasury securities and mortgage-backed securities, along with reductions in the target federal funds rate, have likely been the most impactful. In addition, a number of Federal Reserve facilities, including those for commercial paper and corporate and municipal markets, have brought about much-needed stability in credit markets. Treasury security markets are quite stable with liquidity almost back to levels seen earlier in the year.

That said, the market health is not organic. It is being propped up by current interventions, programs in the pipeline, and the assumed promise that more will be forthcoming as necessary. Another assumption is that Western, developed countries will be able to organize, fund, and execute sustained fiscal stimulus to maintain sufficient wealth and income to provide tax revenues post-pandemic to restore sovereign balance sheets.

Areas of Particular Stability

The functioning of banks through the stress has been a source of stability for both the financial system and markets. Specifically, bank holdings of high levels of liquidity and capital have been a source of strength. The ability for banks to provide forbearance to existing customers and provide incremental liquidity to commercial customers in the form of draws on lines of credit provided stability. In addition, the Federal Home Loan Banking system has been a source of strength and stability for the mortgage industry as an incremental provider of liquidity to federally regulated banks. Mortgage rates are showing signs of stability after spiking in March by over 55 basis points on liquidity and credit concerns.

Investment-grade-rated and well-capitalized corporations have been able to access markets to raise incremental liquidity with record corporate issuance, and some have been a source of strength to provide specific assistance to the health crisis. This unsecured issuance has come with well-subscribed deals, and bonds have performed well post-issuance.

The Treasury securities market and agency pass-through securities, especially those eligible for purchase by the Federal Reserve, remain stable. The spread of the Bankrate average 30-year mortgage rate to a 10- year Treasury rate is still elevated at around 3 percent compared to less than 2 percent in December 2019, but the spread has stabilized. Additionally, the money market has shown greater resilience than during the financial crisis due to reforms instituted between 2010 and 2016 and recent Federal Reserve actions.

Areas of Particular Fragility

Excessive leverage outside of the banking sector seems to have been the predominant source of fragility. Specifically, as investors and businesses of all types moved to cash, many asset classes experienced sharp declines in market value. This decline in market value was quickly reflected in haircuts in market-based funding (i.e., repos, warehouse lines). Leveraged investors, including REITs and hedge funds (especially risk parity), quickly could not meet margin calls with cash on hand and were forced to liquidate positions, further driving down asset values.

Certain sectors of the corporate bond market remain vulnerable, specifically energy, auto, travel, leisure-related, gaming, and retail sectors (albeit bifurcated), as well as REITs and nonbank servicers in the mortgage sector. Rating agencies have become more active in rating outlooks and downgrades, which could further pressure these sectors. The primary concern for these sectors specifically will be the duration of the virus impact. The high-yield corporate bond market remains an area of fragility. The Federal Reserve's purchases of high-yield bonds are a support for this market but are untested and not necessarily sufficient to address the illiquidity that could result from the inevitable downgrade of some of the \$2.9 trillion of BBB debt in the investment-grade corporate bond market. The leveraged loan market is similarly exposed, and action taken may not be enough to support the secondary collateralized loan obligation market for existing issues, an area of the market that tends to be active buyers of leveraged loans.

Municipal securities were one of the hardest hit sectors in the liquidity squeeze starting mid-March. High-grade bonds sold off 200 basis points in just 10 trading days in a period of forced selling that sent 10-year municipal ratios to Treasury securities over 350 percent, far exceeding the 194 percent peak hit during the financial crisis. Bonds have since recovered 86 percent of their losses as the Federal Reserve's announcement of a new liquidity facility for municipal securities demonstrates sufficient implied support. However, the sector appears ripe for another correction, as many key buyer groups have stepped to the sidelines as current levels are perceived to be too expensive to compensate for the risks of downgrades or missed payments in what is becoming an increasingly uncertain credit landscape.

The mortgage-backed securities market might be the most fragile market because of some of the following questions and unknowns: (1) the breadth and persistence of required mortgage forbearance; (2) the ability of all servicers to handle the operational requirements of collecting payments from cash-strapped borrowers while administering forbearance programs; (3) the financing needs of servicers to forward monthly principal and interest on loans before loans are bought out of pools; (4) the prepayment uncertainty adding price volatility in the To Be Announced market; (5) the tighter credit standards on new loans; and (6) the potential credit issues for non-agency mortgage-backed securities that are collateral for mortgage pipelines financed by commercial banks.

The oil market remains an area of concern, with the OPEC+ agreement to curtail production likely doing little more than putting a floor under the price of oil. The supply/demand fundamentals for the global oil market are, according to oil analysts, the worst ever seen even with OPEC+ agreeing to cut production. For the U.S., the price of WTI oil remains well below the breakeven price of \$40-\$65 a barrel that is needed to keep most U.S. shale producers in business. High-yield energy credit spreads are lower but still around the highs of the 2015-16 oil market collapse, indicating stress remains in this area of the market.

Other Trends or Developments Worthy of Note

Market volatility has come down meaningfully, but abnormalities continue. In the last three weeks, daily trading volume in Treasury securities has fallen sharply. Measured in terms of UST futures activity, the volume is about one-third lower than it should be relative to average activity, not to mention the major economic questions that should elevate trading to above-average levels. Gold has rallied alongside equities, which seems to be at odds with markets giving the "all clear." The Council members would expect strong

performance from gold if either the market was still operating in a risk-off mode or inflation was a material concern. On the latter, inflation remains a small concern, with breakeven rates at 124 basis points, or near the lowest levels observed since 2009.

Economic Outlook & Fed Policy

Item 7: Economic Outlook & Associated Risks

All things considered, including monetary & fiscal policy actions taken thus far, what is the Council's expected path for overall economic performance with respect to:

- **Real growth**
- **Employment & unemployment**
- **Inflation**

What are the greatest risks the Council sees to this outlook, plus and minus?

The circumstances surrounding the COVID-19 pandemic and the related human, social, and economic fallout continue to change on a daily basis, and there remains a great deal of uncertainty going forward. The Council members wish to acknowledge the bold and swift actions taken by the Federal Reserve, the U.S. Treasury, Congress, and banking regulators who have all rolled out creative and impactful programs, solutions, and guidance in an attempt to support the economy through this health crisis.

Real Growth

Council members uniformly see a severe contraction in real growth in the second quarter of 2020, with GDP falling in the range of 25 percent to 35 percent on an annualized basis. Following the steep decline, Council members are generally forecasting a relatively strong, but slower, recovery during the second half of 2020, substantially supported by the monetary and fiscal policy actions taken over the last several weeks. Overall, for 2020, the Council's perspective is that GDP will contract in the range of 3-5 percent compared to the prior year. Council members believe that GDP will return to pre-recession levels in the second half of 2021. While there is consensus on the general path of the contraction and recovery, the depth of the contraction and timing of the recovery will differ across geographic regions, based largely on the severity of the impact of the virus in each region.

The consensus view of Council members on a second-half recovery assumes that substantial progress and success in the mitigation and containment of the virus will be achieved over the next 30-90 days and that developments in testing, therapeutic treatments, and "second-wave" mitigation efforts will alleviate fear and allow for a meaningful return to work and social activities for most Americans. Also included in the economic forecasts are the positive impacts of broad fiscal and monetary policy actions, which are difficult to quantify in the forecast.

Employment & Unemployment

Council members have seen an unprecedented surge in jobless claims across all geographies, and consensus estimates from the group forecast peak unemployment in the 15-20 percent range, exceeding the peak in the Great Recession and representing the highest level since 1941. Unemployment should return to approximately 10 percent by year-end 2020, given the same assumptions on virus mitigation and stay-at-home relief set forth above.

Service-sector employees are most at risk, particularly in retail businesses that have been deemed "non-essential" during the pandemic and in travel and leisure-related businesses for which demand has evaporated. Unfortunately, it is apparent that lower-paying jobs and the most economically vulnerable in society are being disproportionately impacted. Council members also noted that there will likely be long-

term changes in employer and employee behavior (work location, physical retail, travel protocol, acceleration of automation and digitization, and changes in consumer behavior, etc.) in a post COVID-19 environment that may result in a slowing of hiring and spending patterns.

Inflation

Council members see short-term deflationary trends resulting from a severe slowdown in demand for many goods and services (air travel, hospitality, conferences, sporting and music events, etc.), as well as a decline in the price of oil. After this short-term demand “shock,” Council members uniformly forecast an extended period of low inflation, with potential pockets of higher price inflation for some goods and services (e.g., the price of meat, wages for certain essential “front-line” workers).

What are the greatest risks the Council sees to this outlook, plus and minus?

There are numerous risks to the forward outlook, based on the level of uncertainty surrounding the COVID-19 virus and its impact on human health, social behaviors, and economic activity. The Council feels that these risks are weighted to the downside.

Mitigation and containment efforts related to COVID-19 could prove unsuccessful or take longer than anticipated, resulting in extended restrictions on personal movement and economic activity. In addition, a “second wave” outbreak could further impact a fragile economic recovery and consumer psyche. Either of these scenarios would likely create a deeper and longer recessionary period, and the positive impact of fiscal and monetary stimulus would be muted. This ultimately could result in (i) a more permanent impairment of consumer confidence and behaviors, (ii) temporary job loss turning into permanent job loss, (iii) further consumer and commercial bankruptcies, (iv) significant credit deterioration in banks and in the capital markets, and (v) pressure on the stability of the overall financial system.

The biggest upside risk to the Council’s view on the expected path for economic performance is a faster-than-expected discovery, approval, and production of a COVID-19 vaccine and/or an effective antiviral treatment.

Item 8: Fed Policy

What are the Council's views on recent Fed actions and its recommendations for future actions with respect to:

- **Monetary policy**
- **Bank supervisory strategies**
- **Fed financial market facilities**

As noted in Chair Powell’s press conference on April 29, 2020, the spread of the virus has brought much of the economy to an abrupt halt. The unemployment rate has migrated from historic lows just two months ago into expected double-digits, to be reported in the May 8 reading. There are many uncertainties that remain, including the depth and duration of the economic downturn, so now more than ever the mandate of promoting maximum employment and stable prices, along with promoting stability in the financial system, is imperative.

The Council views recent monetary policy as having been effective at stabilizing financial markets and supporting the economy. The most important aspects have been the speed, large size, and proactive nature of actions. The aggressive use of both conventional and unconventional policy tools early in the crisis has been unprecedented and impactful. Unconventional policy has been innovative and unique to current conditions. Actions such as the purchase of agency commercial mortgage-backed securities, municipals, and corporate debt have been timely and provided incremental and needed support to markets that were showing signs of dislocation and illiquidity.

The Council recommends that monetary policy remain flexible in addressing the challenges of this crisis—which are likely to persist for several quarters ahead. The Council encourages the Federal Reserve to continue to add to its balance sheet through large-scale asset purchases in order to support financial markets -- and to encourage fiscal stimulus, as needed. Also, maintaining repo operations would help prevent short-term funding disruptions. Council members believe that policymakers should avoid any action that results in negative interest rates, as they have had only limited success in other economies, and their implications for the U.S. financial system are uncertain. Finally, all monetary policy actions should be closely monitored and assessed for effectiveness, balancing current impact against long-term financial stability.

The Council views the Federal Reserve’s bank supervisory strategies as constructive and adaptable, considering revised priorities for both regulators and financial institutions. The speed and clarity with which regulators have provided guidance regarding supervisory expectations and priorities has allowed banks to navigate the challenges presented by the pandemic, and to focus more directly on customers and employee safety. Supervisory actions have instilled banks’ confidence to continue lending and have acknowledged the position of strength at which the sector entered the crisis. The move to focus supervisory efforts on monitoring and outreach has allowed banks to prioritize the management of current risks. Finally, modifying strategies for CCAR, the deferment of CECL-related impacts to regulatory capital, and revised direction regarding exposure risk ratings, and accounting for TDRs have all been helpful and timely. Regulators, including members of the Board of Governors of the Federal Reserve System, have also engaged in real-time discussions with financial institutions to better prioritize critical areas; Council members applaud this receptivity and direct engagement.

The Council recommends continuing the current balanced and flexible supervisory approach. Areas of focus should include ongoing communication and transparency regarding oversight and expectations, as well as prompt input and feedback on specific initiatives and challenges. An additional recommendation is that the phase-in of supervisory efforts related to new programs and relief initiatives be thoughtfully sequenced with traditional oversight activity. Finally, supervisory strategies will need to consider reentry dynamics, as normal bank operations will not resume uniformly.

The Council views the Federal Reserve’s financial market facilities as having been highly effective at easing market dislocations, restoring liquidity, and promoting price discovery and efficient risk transfer. The speed at which these facilities have been introduced, their breadth, and unprecedented size has been key to their effectiveness. In particular, the Primary and Secondary Market Corporate Credit Facilities, with their ability to purchase the debt of ‘fallen angels’ has provided swift relief to investment-grade and high-yield corporate bond markets.

To provide further support to the economy, the Council recommends that the Federal Reserve expand the Commercial Paper Funding Facility to new commercial paper issuers. The Term Asset-Backed Securities Loan Facility could provide further support by the inclusion of additional securities, such as non-agency residential mortgage-backed securities and mortgage-servicer advances due to mortgage forbearance. The Main Street Business Lending Programs would benefit from greater flexibility to work with borrowers that might be start-ups, nonprofits, or real estate companies in order to fit within their existing credit arrangements. Finally, the Municipal Liquidity Facility could be further extended to allow purchases beyond December 31 to encourage usage by slow-moving state and local governments.

Finally, the Federal Reserve should continue to coordinate with Congress and the U.S. Treasury to ensure that all tools be put forth to defend and restore the U.S. economy—the emergency lending powers deployed by the Federal Reserve have been critical in promoting stability.

The Council fully supports all of the unprecedented actions and the speed at which those actions have been deployed to help limit further economic disruption. The nation has experienced tremendous loss, but its ability to recover in an expedited fashion is supported by the Federal Reserve’s swift and decisive actions.