Record of Meeting

Federal Advisory Council and Board of Governors

Thursday, May 12, 2022

Item 1: Economic Activity

How do Council members see business activity among their clients and other contacts trending since the February meeting? Are Council members, clients, or contacts seeing any new areas of strength or weakness?

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Domestic economic activity has been strong since February, as evidenced by strong loan demand and ample consumer and business liquidity, resulting in robust spending on goods and services nationwide. Headwinds remain, however, and although rising costs have been passed through in the near term and firms are reporting record revenues in some geographies and segments, economic forecasts for the balance of the year are more uncertain than those of recent months. Inflationary concerns that were already evident in February further increased in March and April, contributing to that uncertainty over the longer-term horizon.

On the consumer side, Council members pointed to positive trends due to elevated deposit levels and increased consumer spending throughout March. Spending increased even further in April to hit year-over-year double-digit marks, as the focus of spending transitioned from goods to services – particularly in the personal/leisure, hospitality, and travel sectors. This increased spending continued despite disruption from spiking energy prices. There are areas of persistent challenge, however, and Council members highlighted pressures in residential real estate markets across the country. Limited inventory and constraints on the supply of new homes are driving double-digit increases in home values. This situation, coupled with the significant increase in mortgage rates, which have exceeded 5% since February, has increased the home-affordability gap.

On the business front, loan demand is strong, and credit-line utilization among businesses has picked up since February. Headwinds in the form of supply chain challenges, tight labor markets, and inflation continued to affect firms, but as noted above, many businesses have been able to successfully pass through price increases to customers, thereby fueling higher revenues in many geographies and sectors. Pressures remain, however, and have accelerated further for a variety of reasons, including the Russian invasion of Ukraine and varying degrees of margin compression associated with higher wages, greater transportation costs, inflationary pressure on inputs, sales backlogs associated with supply chain issues, and challenges in attracting and retaining employees. Council members believe some companies have made changes in their operating models to preserve margins and are spending more strategically, including by increasing capital expenditures to shore up supply chains and relieve geography-related labor pressures. Council members also noted increased inventory builds and related business activity by companies, in anticipation of rising rates. In addition, there was an uptick in early renewal of credit facilities by companies. Merger and acquisition activity also increased.

Are Council members, clients, or contacts seeing any new areas of strength or weakness?

Overall, Council members view the economy as strong, although areas of concern have emerged further since February – largely attributable to inflation and potential recessionary pressures and to the long-term impact of the Ukraine conflict. Some Council members believe supply chain and labor cost pressures are starting to resolve, although others believe these pressures will persist in the months ahead.

Council members expect homebuilding to remain robust despite rising borrowing costs, as tight inventories across most markets are driving demand for more single- and multifamily residences. Leasing activity in multifamily and industrial markets is strong, for example, while office and retail activity are weak. Similarly, rising labor costs are exacerbating the aforementioned lack of housing inventory and price pressures. Council members are increasingly concerned about housing availability and affordability.

Council members also noted that businesses are continuing to alter their business models or product offerings through automation and other innovations in order to address inflation and concerns about a tight labor market, while still focusing on passing through price increases to end users. If price increases accelerate further, however, some Council members believe consumers may approach a point that they will draw back on their discretionary spending.

Despite these challenges, Council members generally believe positive economic momentum will carry the industry through the next few quarters, given business and consumer liquidity positions. Forecasts are less certain going into 2023 and may be more challenged due to the potential impacts of geopolitical uncertainties, inflationary pressures, and rising interest rates on corporate earnings and discretionary consumer spending.

Item 2: Labor Markets

Have Council members seen labor shortages increase or decrease, in their own institutions or in those of clients and other contacts, since the February meeting? What new strategies have Council members used, or seen used, to attract workers? Do Council members see these strategies as temporary or permanent potential solutions?

Have Council members seen labor shortages increase or decrease, in their own institutions or in those of clients and other contacts, since the February meeting?

Despite increases in labor force participation, there have only been modest improvements in labor shortages. Job openings and unfilled job vacancies remain at historical highs in all geographies, as the demand for labor has outpaced supply in most industries. Employers report that voluntary turnover remains elevated. A significant shift of traditional workers moving to self-employment and freelance jobs is also contributing to the labor shortage in different functions. Technology-related positions maintain the highest demand for workers, with Council members reporting record turnover in this sector.

Remote workers have started to return to work, with varying onsite requirements. The sustained use of remote work has created a unique challenge for small banks and businesses, which are now directly competing with out-of-market larger companies to secure local talent. This competition continues to cause significant budget overruns, as the starting wages required to attract and retain talent have increased materially. Some banks have reported providing temporary inflation-adjusted increases to compete for workers, while still reducing their long-term payroll exposure. As a positive sign, some health care companies have started to decrease their dependency on agency workers as their labor force recovers from COVID-19 work conditions. Numerous local and national reports show that retirements and caregiving responsibilities continue to be the main barriers to labor force participation. Ongoing immigration challenges are also restricting the talent pool, from laborers to skilled workers.

What new strategies have Council members used, or seen used, to attract workers?

Workplace flexibility continues to be valuable to both current and prospective employees and has become a dominant expectation among job seekers. Remote-work capabilities have allowed employers to tap rural markets, where the competition for workers is less fierce. Companies are also bringing back retirees in part-time remote environments, using these flexible work arrangements to ease labor shortages. Some companies have relaxed conventional employment standards, including easing personal credit requirements

or considering candidates with criminal records if their backgrounds do not conflict with work requirements, to access nontraditional or untapped labor pools A large transportation company eliminated drug-testing requirements to expand the hiring pool of applicants with commercial driver's licenses. Companies also reported hiring individuals who did not meet all the necessary qualifications but who were willing to complete training or apprenticeship programs. Businesses have dramatically accelerated their hiring and onboarding processes to capture talent ahead of their competitors. Many employers have noticed that lengthy, drawn-out interviewing processes cause candidates to accept offers elsewhere. Since many new hires do not report to their first day of work, many companies are continuing the recruiting process even after a position has been filled. Using current employees as gig workers has been successful in the health care industry and was also reported by a Council member.

Companies continue to employ financial incentives to attract and retain talent, including increases in base pay and starting salaries, sign-on and retention bonuses, counteroffers, referral programs, and substantial increases in wages for entry-level workers. While recruitment and retention strategies related to compensation are not necessarily novel, employers report that the rate and scope of their usage remain elevated. Many companies have adapted to compete strategically, as outbidding competitors with an "always higher" salary approach is not seen as sustainable. Some companies use referral bonus programs, incentivizing their employees to refer qualified, difficult-to-find talent. One Council member reported directing higher-percentage pay increases towards the lower end of the pay scale to target those workers most affected by inflation, thereby ensuring the increases have the greatest possible impact. Chambers of commerce report an increase in the number of companies seeking wage analysis reports, as companies reevaluate their wage structures considering inflation and tight competition.

Companies are accelerating the elevation of current employees to higher-level positions to fill critical roles, expanding employee development opportunities, and investing in education assistance. One midsize trucking firm implemented educational reimbursement opportunities not only for its employees but also for employees' immediate family members. Other unique benefits, such as increased parental leave, mental health programs, and childcare continue, to be deployed, as traditional benefits no longer differentiate a company. Some companies have invested in their branding, emphasizing the importance of their commitment to diversity, equity, and inclusion as key elements in attracting and retaining talent.

Do Council members see these strategies as temporary or permanent potential solutions?

Employers expect that many of these recruitment strategies will continue even as labor markets stabilize. Increased flexibility and unique benefits will likely remain a part of this employee-centric labor market. Hiring and turnover challenges are expected to persist through 2022, and labor shortages have not been fully resolved. Many cities are studying childcare accessibility and other conditions restricting the labor force, possibly to develop solutions to assist with a rebound of the labor pool. One Council member noted that rural communities, which had limited childcare options pre-COVID-19 and now have even fewer centers reopening following the pandemic, are considering incentives for new rural centers. Additionally, efforts to expand broadband to rural communities could expand the labor pool but will take time to implement. As a result, innovative recruitment strategies will continue to be necessary. Additionally, compensation increases are likely to be permanent, given inflation, lower immigration rates, and the need to remain competitive.

Item 3: Loan Markets

What is the Council's view of the current condition of loan markets and financial markets generally? Are there other conditions or developments that are particularly noteworthy in lending categories such as consumer, commercial real estate, residential real estate, construction, small and medium-size business, or corporate?

Summary

Loan markets remain active and strong. Markets have continued to build upon the momentum that was discussed in February, when the Council saw improving loan demand from medium-to-larger corporate clients and line-utilization rates bounce off historically low levels. Loan growth is at its highest level since the start of the pandemic, with the exception of mortgage origination volumes. Loan growth is being driven by line utilization and the desire of both banks and nonbanks to deploy excess liquidity. Credit quality remains benign, and defaults and delinquencies remain near historical lows. Competitive loan markets have kept spreads tight, and underwriting continues to loosen, although within historical standards. While Council members agree that the current markets remain healthy and strong, they also agree that the future outlook is less certain. This uncertainty is due to continued supply chain issues, current levels of inflation, the expectation for rising interest rates, and the ripple effects of the Russian war with Ukraine. To date, most business customers have been able to pass along price increases to their end users, but there is growing concern among Council members that businesses will not be able to continue passing through these increases indefinitely .

Consumer Credit and Residential Real Estate

The financial position of the average consumer remains healthy, and household debt-service levels remain below pre-pandemic levels. This situation is mostly attributable to government stimulus and economic relief programs. Consumer spending with credit cards is still strong, with double-digit growth year over year. Auto lending continues to be challenging due to supply chain issues. With respect to mortgages, consumers are being priced out of the home market, and requests for home equity lines of credit have increased in the past several months as rising rates have deterred traditional mortgage refinancings. Mortgage origination volumes are expected to be down 30%-40% overall in 2022. Purchase market originations are expected to be up in the mid- to high-single digits, and refinance originations are expected to be down over 60%. Housing prices would need to drop considerably to offset the home affordability loss.

Commercial Real Estate (CRE) and Construction

Commercial real estate borrowing continues to improve along with the broader economy, but there are differences between asset classes. Multifamily and industrial CRE are particularly strong and are driving the growth in the CRE category. However, many bank lenders remain cautious about certain CRE asset classes, such as office, hospitality, non-essential retail, and poorly positioned retail. As previously noted, CRE has historically been viewed as a hedge to inflation, based on the assumption that rent levels will increase along with any increase in costs. However, in this current environment, the market is concerned that office and retail are unlikely to have the pricing power to move rents at the pace needed, whereas the opposite is true for multifamily and industrial. Supply chain issues, labor costs, and inflationary conditions will likely limit new construction, thus allowing multifamily and industrial to have the greatest pricing flexibility. Multifamily is expected to further benefit from the shortage and cost of single-family housing alternatives.

With respect to construction, the market seems to be appropriately focused on the growth segments of multifamily and industrial. As previously mentioned, supply chain issues, labor costs, inflationary conditions, and also financing costs will be headwinds for construction in all asset classes. Liquidity for CRE debt remains available. Any concerns are focused on existing pipelines for out-of-favor CRE, such as new office buildings. A few Council members mentioned that these headwinds could eventually assist in the repurposing of existing and underutilized properties in the office building market.

Commercial Credit – Small and Medium-Sized Borrowers / Corporate

Overall, the market for commercial credit remains strong and liquid. Credit quality remains strong, and the overall confidence and financial health of most Council members' clients continues to improve along with

the broader economy. Most commercial banks are projecting loan growth in at least single-digit percentages for 2022. Most commercial banks are relying heavily on the commercial and industrial segment to lead the way, given reduced mortgage origination volumes. Merger and acquisition volumes were lower in the first quarter of 2022 when compared to Q4 2021, due in part to year-end planning. However, M&A activity is expected to increase in the second quarter as deals continue to close at high multiples and low cap rates. Activity was strong in the small to medium-sized business segment and for multifamily and industrial property. Key risks to the sector continue to exist, and many borrowers have experienced headwinds, including inflation, supply chain disruptions, labor shortages, and lingering pandemic effects. However, Council members have seen limited impact on their clients so far, as borrowers have been able to navigate this new landscape. Corporate and upper-middle-market borrowers are better suited to pass along costs, locate alternative suppliers, and tap into available liquidity sources. For the small business and lower-middle-market segment, activity remains stable to strong, but several Council members noted that some softening had occurred, particularly on the refinance side. Lastly, there is concern among Council members regarding commitments to the global minimum tax treaty and proposals for a U.S. corporate minimum tax on large companies. Council members are concerned that, if ratified, demand for projects with tax incentives, such as low-income housing tax credits and investments in opportunity zones, could be negatively impacted. Additionally, even if a corporate minimum tax is not passed by the U.S. Congress, foreign investment and U.S. entities with foreign operations may still be affected.

At February's meeting, Council members anticipated that the overall liquidity position of the banking sector, coupled with strong external competition, would increase competition for loans and impact loan structures and covenant terms. To date, most Council members have seen this prediction come true, noting longer maturities, amortization periods, and interest-only periods; a relaxation of guarantee structures; lower equity requirements; and relaxed loan covenants. However, Council members also note that these terms and conditions remain mostly within historical norms. For perspective on competition, the institutional market continues to target smaller and mid-market bank customers, resulting in increased payoffs of bank debt. Fintechs and other nonbank providers are also competing for market share. In one example, some of these providers are offering small businesses unsecured lines at higher rates than banks but are also providing the benefit of almost-instantaneous loan approval and funding.

Item 4: Inflation

Based on Council members' own experience and the experience of their clients and contacts since the February meeting, please comment on the following:

a. **Are the prices of products and services rising more quickly or less quickly than in the recent past? Are Council members or clients and contacts starting to change pricing strategies? If so, how?**
b. **Is there evidence that supply chains are reconnecting, or do persistent supply frictions remain? Are there industries or geographic areas in which expansion is impaired by supply constraints?**
c. **Have recent levels of inflation changed the inflation expectations of consumers and businesses? In the Council's view, do inflation expectations remain well anchored?**

Are the prices of products and services rising more quickly or less quickly than in the recent past? Are Council members or clients and contacts starting to change pricing strategies? If so, how?

Goods and services prices have continued to escalate at roughly the same pace as before. However, this reflects the fact that there are as many Council members remarking prices are rising more quickly as those noticing prices are rising less quickly. Accelerating inflation is evident in food and energy prices, particularly in the wake of Russia's invasion of Ukraine. For example, State Street's PriceStats series,

which accumulates millions of prices from retailer websites, showed robust gains since the February meeting.

Decelerating inflation is evident among the prices of products that initially suffered the most acute supply chain disruptions (such as microchips). For example, used vehicle prices are now falling, and prices in the new vehicle segment have slowed to a crawl. However, the emerging picture is mixed for the prices of many services that initially spiked last spring, owing to the reopening of many of the businesses providing these services. Reflecting chronic labor shortages or other capacity constraints (such as fleet sizes), and very importantly, against the background of sturdy demand, items such as airline fares, vehicle rental fees, and accommodation costs are percolating again. However, the current gains still pale in comparison to last spring, so the annual changes should continue to ebb.

Broadly, pricing strategies remain the same. Businesses continue to pass on as much of their increased costs as they can to customers, and clients are mostly accepting them. The number of firms raising or planning to raise prices is increasing. Margins are being mostly maintained or are starting to ebb a bit. However, it's getting harder to raise prices for lower-cost goods or goods purchased predominately by lower-income households. For more budget-constrained consumers, inflation has reached the point that their behavior is changing; they are turning away from name-brand products or opting to forgo some outlays. Meanwhile, "shrinkflation" is one pricing strategy that is becoming more widespread for both goods and services, i.e., charging the same or a higher price for "less" of a product or service. Some product sizes are getting smaller, while hotels are not servicing rooms as often and restaurants are providing fewer gratis items such as bread.

Is there evidence that supply chains are reconnecting, or do persistent supply frictions remain? Are there industries or geographic areas in which expansion is impaired by supply constraints?

Supply chain disruptions have eased from their peaks, but they remain elevated. Customers still comment on the hit-or-miss state of securing required production inputs, let alone filling job openings. The recent rapid restocking of inventories (Q4 was the biggest inventory "volume build" in 74 years of data) helped ease bottlenecks and is continuing to do so (albeit less than in Q4). Meanwhile, container backlogs at ports have improved but remain abnormally long.

However, further improvement, if not outright net deterioration, in the supply situation is being threatened by the war in Ukraine, sanctions on Russia, and lockdowns in China. The first two are already having a noticeable impact. Together, Russia (and its ally Belarus) and Ukraine are major agricultural exporters (e.g., wheat, barley, oilseeds, potash), with Russia a major producer of energy (e.g., crude oil, natural gas, coal) and metals (e.g., aluminum, cobalt, nickel, palladium). The China lockdowns have yet to have a noticeable impact on supply chains, but it's only a matter of time before they do, given that the restrictions are occurring in critical manufacturing centers. Supply chains are now expected to be problematic well into 2023.

Among industries, the construction and home improvement sectors are microcosms for how the mix of constrained supply (of materials and labor, with their escalating costs) and strong demand (for houses) is pumping inflation (home prices are hitting record highs). For example, some clients mentioned that they've been informed of a round of price hikes for roof shingles, siding, and windows looming for July. Other customers mentioned that costs for other building materials and heavy equipment continue to escalate.

Have recent levels of inflation changed the inflation expectations of consumers and businesses? In the Council's view, do inflation expectations remain well anchored?

Recent inflation readings are influencing short-term inflation expectations and increasing the risk that longer-term inflation expectations will become "unanchored" (if they're not already). Additionally, despite all the tools available to the Federal Reserve, it was noted that significant supply chain issues are outside of

its control, which may have a significant impact on anchoring inflation expectations. The cost of essential household items, such as groceries, gasoline, and rent, are noticeably accelerating. These costs "punch" way above their CPI weight class in influencing consumers' shorter-term inflation expectations. Should these specific pressures persist beyond the next several months, some rippling into longer-term expectations appears likely.

Although households' longer-term inflation expectations have been creeping higher, they remain within their historical ranges (albeit uncomfortably closer to the top of the range). Generally, the Council maintains that longer-term expectations will remain anchored despite the upside risk during the next several months. The next few months are critical to the evolution of inflation expectations: the FOMC has already signaled it intends to tighten policy "expeditiously," and the Council suspects it will tighten to the point of risking or triggering a recession if inflation pressures persist past the next few months.

Item 5: Federal Reserve Policy

What are the Council's views on the stance of monetary policy, including portfolio activities?

Council members appreciate the clear and consistent messaging of aggressive rate hikes by the Board and Federal Open Market Committee (FOMC) members over the last several weeks. Recent communications suggest a belief that the faster policy tightens, the less it will have to tighten. The market expects FOMC participants to grow more hawkish over the course of this year, which is reasonable given that their message has moved steadily in an increasingly hawkish direction since early November 2021.

Council members see financial conditions as having tightened. Despite the sharp increase in rates, inflation pressures continue to build, especially due to the sharp increase in commodity-related input costs and further tightening in labor markets. The hawkish stance taken by the Federal Reserve seems appropriate given inflation impulses.

Expectations of monetary policy tightening have ratcheted up sharply. Federal funds rate futures markets are now pricing in an effective funds rate of just over 3% by the middle of 2023. Treasury yields across the yield curve have also risen sharply, with two-year Treasuries rising by over 180 basis points and 10-year yields rising by about 130 basis points since the start of the year. Real yields in TIPs (Treasury inflation-protected securities) have also risen but lagged the rise in the yields of nominal Treasury securities as inflation expectations have continued to increase.

Council members agree that tightening monetary policy is appropriate at this point in the cycle and that significant balance sheet reduction is a key part of that policy. Some Council members believe the Federal Reserve is properly positioned to address inflationary threats, and they are broadly supportive of both the rate-hiking cycle and the asset runoff program the Federal Reserve has outlined.

With inflation at 41-year highs, several Council members believe that monetary policy remains unsuitably accommodative and that even more aggressive rate hikes and balance sheet reductions over the next two years may be necessary. Demand is still outstripping supply in most categories of spending, and the federal funds target rate is well below the FOMC's median neutral target rate of 2.4%. One Council member suggested that the Federal Reserve should move to a neutral rate (2.375% median amid a 2% to 3% range) by September or as early as July -- and once a neutral rate is achieved, start hiking rates more cautiously but still regularly (e.g., 25 basis points every meeting or two) until disinflationary trends are well established amid meaningfully lower inflation prints. The federal funds rate futures market is currently pricing in a slightly faster and more aggressive rate-hike path for the Federal Reserve in 2022 and 2023 than what was projected in the March FOMC median dot-plot chart, which should give the FOMC room to tighten a bit more aggressively at upcoming meetings without triggering a severely adverse financial market shock.

However, some Council members believe that an even more hawkish approach could create undue recessionary risks and that some contraction in economic activity is starting to develop as the market digests the hawkish path of rate hikes and quantitative tightening. One Council member thought demand is already fairly weak after a year of inflation eroding spending power and the loss of fiscal stimulus.

One Council member noted that the Federal Reserve's portfolio activities can impact both short-end rates and liquidity. From a liquidity viewpoint, the Council member noted a defensive stance from dealers, given rising rates, uncertainty around monetary policy, pending quantitative tightening (QT), and the absence of regulatory reforms. This dealer stance has resulted in wider bid-ask spreads in Treasury bills and other money market securities, particularly when risk aversion spikes and trades become one sided. Once the uncertainty abates and rate hikes and QT plans are fully priced in, the Council member expects these spreads to normalize. In the interim, regulatory reforms, such as a decision to exempt Treasuries and other high-quality money market securities from U.S. leverage capital ratios, could help alleviate these stresses, which could become exacerbated as QT gathers steam in 2023. However, Council members do not expect QT to have a significant adverse impact on repo rates, and they do not expect a spike similar to what occurred in September 2019 as a result of QT filling up dealer balance sheets. The Federal Reserve's Standing Repurchase Agreement Facility, installed in July 2021, helps facilitate the smooth and seamless functioning of the repo market, as the facility effectively caps repo rates at the upper end of the target range.

One challenge for policymakers will be knowing when to stop tightening — in other words, where the terminal federal funds rate will be in this cycle and what will happen after it is reached. This challenge is always true when the Federal Reserve raises rates, but it is even more true now because inflation is high enough to discourage policymakers from pausing on tightening when they are unsure whether the terminal rate has been reached. The goal is to slow demand and inflation pressures without precipitating a collapse in demand and a retrenchment in the U.S. labor market. The Federal Reserve should also be on guard to make sure that balance sheet runoff does not lead to a breakdown in the functioning of the money market, bank deposits, or the Treasury markets. Because the pace of balance sheet runoff in this cycle is faster than in the past, the Federal Reserve should be willing to use its balance sheet to facilitate the liquidity and orderly functioning of these markets.

Item 6: Economic Sanctions

The federal government is relying heavily on many industries, including the banking industry, to sanction Russian companies and individuals in retaliation for the invasion of Ukraine. What are Council members' experiences regarding the implementation of sanctions? What costs, if any, are banks bearing to implement economic sanctions? Are the sanctions working as intended?

What are Council members' experiences regarding the implementation of sanctions?

To start, Council members fully support efforts by the United States and other nations in response to Russian aggression against Ukraine, including the global effort to impose financial sanctions against Russian organizations and individuals.

Overall, engagement and guidance from the U.S. government, particularly from the Office of Foreign Assets Control (OFAC), has been helpful and constructive. Banks have generally been able to implement the new sanctions using existing, albeit expanded, systems and processes, in contrast to the 2020 China sanctions -- which adopted opaque new sanctions approaches, and at least initially, lacked clear OFAC guidance.

The sanctions against Russia are unprecedented in their scope and complexity, and despite the U.S. government's commendable efforts to facilitate smooth implementation, compliance for some banks has been quite challenging. Compared to previous targets of sanctions, U.S. firms were engaged in relatively

high levels of commercial activity in Russia prior to the sanctions, adding significant volume and complexity to implementation of the current sanctions regime. Banks also face significant demands to facilitate family remittances and humanitarian efforts, further complicating implementation.

Other implementation challenges included a high number of false-positive findings, which should decline as experience grows. In addition, the data challenges are substantial, and while not new, could perhaps be addressed going forward with some kind of public/private "data utility" For sanctions. Finally, while the strategic thrust of international coalition sanctions is aligned, the details of sanctions programs among the different countries are often not identical, creating implementation challenges and potentially reducing sanctions' effectiveness. Further international coordination and specificity of the Russia sanctions are critical.

The Russia sanctions and related efforts have also highlighted challenges with "stranded assets," particularly in the asset management space. Investment funds holding Russian assets now valued at or near zero are facing social, political, or investor demands to dispose of such assets, creating challenges for fiduciaries in the absence of open trading venues or other reliable pricing options.

What costs, if any, are banks bearing to implement economic sanctions?

The cost of implementation of the sanctions varies considerably across Council members' institutions, based primarily on their size and market scope.

Smaller banks that have limited Russia-related activities have not seen significant cost increases, though one Council member noted increases in related indirect costs for smaller banks due to heightened cyber-security risks.

While it is difficult (and too soon) to quantify, larger banks reported significant increases in compliance costs, which have required them to add internal and external resources to interpret and implement the sanctions. While staffing remains the primary cost driver of implementation, and while banks' existing systems have generally proved adequate to meet the new demands, the scope and complexity of the Russia sanctions efforts may also, over time, lead banks to invest in enhanced systems for sanctions monitoring and tracking.

Are the sanctions working as intended?

Council members are not in a position to fully evaluate the geopolitical effectiveness of the sanctions, but they believe the sanctions have effectively disconnected Russia from the global financial system, blocked access to assets by key Russian organizations and individuals, and reduced Russia's ability to use global financial resources in support of its aggression against Ukraine.

While challenges to the sanctions' effectiveness remain, particularly the potential for "leakage" outside the U.S.'s jurisdiction, the international coalition in support of Ukraine has so far held up well, greatly increasing the effectiveness of the U.S. implementation of sanctions.

Longer term, the continued effectiveness of the U.S. implementation of sanctions will depend on the continued dominance of the dollar in international trade finance and invoicing. Sanctions represent a significant threat to potential "sanctionees" and, therefore, should be used judiciously. The emergence of other currencies being accepted for activities subject to sanctions (such as in the energy sector) could risk reducing the effectiveness of sanctions over time.

Item 7: Climate-Related Disclosures

The Securities and Exchange Commission (SEC) recently proposed rules changes that would require domestic and foreign companies registered with the SEC to include certain climate-related information in their registration statements and periodic reports. In the Council's view, what would be the key consequences of the proposed disclosure requirements for banks and bank regulators? How, if at all, do those consequences differ depending on the size of the banking institution, its business model, geographic footprint, customer base, or other factors? What additional information do banks need from their clients in order to identify and measure climate-related risks?

In the Council's view, what would be the key consequences of the proposed disclosure requirements for banks and bank regulators?

Council members agreed with the need for consistency in nonfinancial disclosures related to environmental, social, and governance (ESG) matters. Addressing issues related to climate change is a priority for all Council members, and the fragmentation of voluntary standards has created a complicated disclosure landscape for issuing companies, shareholders, and other stakeholders. The Council noted, however, that the SEC proposal in its current form would have significant consequences for the industry and client base, which would need to be addressed or mitigated prior to implementation of the disclosures.

First and foremost, many Council members noted that the expertise and skill level needed to meet the SEC's disclosure requirements do not currently exist within most companies, so they would need to make significant investments in people, tools, and competencies. Many of the data sources needed to provide the requested information also do not currently exist, and the granularity of the data required, particularly for Scope 3 disclosures, could produce misleading disclosures due to the immaturity of the models used, lags in data availability, and the imprecise nature of the outputs -- all of which could call into question the overall utility of the disclosures.

The majority of Council members also noted that the increase in reporting is likely to slow down companies that are seeking to go public and could create additional liabilities for management and board members. The SEC's timeline for implementation is very aggressive, and the likely near-term implication is that financing sources for certain industries and geographies will be diminished, as the banking industry seeks to limit its exposure to them.

How do those consequences differ depending on the size of the banking institution, its business model, geographic footprint, customer base, or other factors?

Council members agreed that a bank's size and geographic location would greatly affect the combination of tools and strategies it used to produce the disclosures, resulting in a higher reporting burden for some banks, particularly smaller institutions. This burden would also impact small businesses whose operations would need to be captured for disclosures under Scope 3.

Banks whose customer base includes a significant number of fossil fuel producers or high emissions generators will face pressure to disengage from these clients or report higher Scope 3 emissions, which could create disincentives to supporting financing for these companies as they migrate toward "greener" operations.

Council members also noted that financial institutions with operations in U.S. states that have significant fossil fuel operations, such as Texas and Wyoming, could face political pressure from state governments due to "fair access" to credit laws, which would make it illegal for banks to refuse to extend credit to customers based on their particular industries.

What additional information do banks need from their clients in order to identify and measure climate-related risks?

Council members noted that they would be asking their clients to provide information similar to that being requested of their banks. This information would help banks to understand their own supply chain exposure to climate risks, as well as help them understand the value of providing companies with financing solutions for transitioning to more sustainable business models. This information would also help banks understand where capital needs to be mobilized to reduce emissions.

Finally, Council members would like to propose a delay in the SEC's implementation period in order to give institutions sufficient time to develop the processes and controls necessary to produce the required data, as well as a two-year "safe harbor" to enable a smooth transition period. Council members also recommend that additional policies be put in place to encourage investment and innovation in alternative energy technology, which could lead to lower emissions for the overall economy.

Item 8: Cybersecurity-Incident Reporting

Starting May 1, 2022, firms are required to notify their primary federal regulator of material cybersecurity breaches within 36 hours. Please provide the Council's perspective on the costs and benefits of that initial notification, as well as the subsequent regulatory engagement after a cyber incident. Do you have suggestions on how to reduce burden on a stricken institution while maintaining a timely information flow to regulators and appropriate confidentiality for institutions?

The Council agrees that prompt notification of computer-security incidents, as defined in the interagency guidance (Rule) could be beneficial in keeping potentially systemic issues from occurring. For example, information sharing with the banking industry could alert other banking organizations of a threat or suggest recommended measures to better manage or respond to a specific threat or vulnerability. This information could be especially beneficial to smaller organizations, which may not have access to the cyber intelligence that larger organizations have. For larger organizations, much of the potential knowledge gain about cyber risks is already provided by organizations such as the Financial Services Information Sharing and Analysis Center (FS-ISAC), a globally focused industry-specific organization for sharing cyber intelligence, and the Analysis and Resilience Center for Systemic Risk (ARC), a cross-sector coalition designed to mitigate systemic risk to the nation's most critical infrastructure from existing and emerging threats. However, to keep cyber incidents from becoming systemic and to protect the safety and soundness of the industry, more details regarding the specific threat needs to be shared, while maintaining the confidentiality of the afflicted institution. True information sharing about actual incidents (with appropriate redactions) would be beneficial and strengthen the security of all institutions, as opposed to only sharing general best practices for patching, using a firewall, and backing up data -- institutions of all sizes are already aware of these practices.

On the surface, the interagency guidance requirement for an institution to notify its primary regulator within 36 hours of determining that a "notification incident" has occurred seems relatively innocuous and would not appear to create a significant burden. However, regulatory expectations over and above the apparent content of the Rule itself – around processes, controls, documentation, the length of time required to determine whether a "notification incident" has occurred, along with the nature, form, and extent of the follow-up engagement – could create a significant burden on financial institutions during the critical time that they are responding to a cybersecurity incident. These considerations are not specifically addressed by the issued guidance. Additionally, a significant amount of judgment will often be required in determining whether a cybersecurity incident meets the definition of a "notification incident," and the extent of an incident may not be fully known within the first 36 hours, as these incidents are often fluid situations. While the guidance provides some examples of reportable incidents, additional clarity with respect to what the

regulatory agencies would consider to be a reportable incident, or alternatively, what would not, would be beneficial.

A major area of concern for institutions is the conflicting requirements for notifying multiple agencies, as well as what information is required to be shared between multiple agencies. For example, in addition to the reporting requirements of the Rule, certain state-level regulators require specific content, formatting, timelines, or other detailed reporting requirements as part of their notification requirements. These state-level requirements are different from the Rule's requirements, thus adding an undue burden on banking organizations. Additionally, the SEC has recently issued a broad-based and comprehensive proposed rulemaking for cybersecurity disclosures in Forms 8-K, 10-Q, and 10-K. Finally, the recently enacted Cyber Incident Reporting for Critical Infrastructure Act, which applies to the financial-services sector, will require separate notifications, although a rulemaking with respect to this legislation has not yet been promulgated. Ensuring all of the relevant agencies are notified in the required format and time takes an institution's resources and attention away from dealing with a specific computer-security incident. The Council believes federal regulators should work to achieve some consistency and inter-departmental sharing of information in order to reduce the burden on the banking organizations to whom these various requirements apply. Consideration should be given to appointing one agency for reporting an incident, which would then disseminate the information to other agencies as appropriate.

Finally, in addition to the benefits of knowledge sharing about incidents at financial institutions, Council members see benefits from the Rule's requirement for bank service providers. Under the Rule, service providers whose services are subject to the Bank Service Company Act must notify each of their affected customer banking organizations as soon as possible when the service provider determines that it has experienced a computer-security incident that has materially disrupted or degraded, or is reasonably likely to disrupt or degrade, for four or more hours, covered services provided to a banking organization. Although contractual obligations between banking organizations and service providers already include notification requirements, the Council believes the additional transparency and consistent notice from bank service providers to their banking organization customers will benefit the safety and soundness of the financial system.

Item 9: Advantages and Disadvantages of Decentralized Finance (DeFi)

Below is a (modified) comparison table used by a major cryptocurrency provider on the advantages of DeFi over traditional finance. Are any of these advantages substantial? What do Council members believe are the most significant advantages and disadvantages of DeFi versus tradition finance? What are the key implications for the banking industry and for regulators?

DeFi	Traditional finance
You control where your money goes and how it is spent.	You must rely on companies not to mismanage your money.
Transfers of funds happen in minutes.	Payments can take days due to manual processes.
Transaction activity is pseudonymous.	Financial activity is tightly coupled with your identity.
DeFi is open to anyone.	You must apply to use financial services.
The markets are always open.	Markets can be closed.
DeFi is built on transparency – anyone can look at a product's data and inspect prior transactions.	Financial institution information may be challenging to access.

Summary

At its core, DeFi is a mechanism by which a transaction can occur peer to peer without any human intervention and be transparently recorded on blockchain. This transaction can be done at any time of the day, instantaneously. The DeFi ecosystem currently operates outside of traditional infrastructure, regulation, and public policy frameworks. DeFi services are built using a combination of blockchain, decentralized applications (dApps), and smart contracts without traditional intermediaries. DeFi aims to offer services similar to those provided by Traditional Finance, including lending, borrowing, insurance, asset management, and derivatives trading.

Most Council members note that the purported benefits of DeFi around cost savings, security, and efficiency have not been thoroughly proved at this time. Furthermore, all Council members agree that, left unregulated, DeFi will present significant risk to both consumers and financial market stability.

Advantages and Disadvantages of DeFi

Most Council members note that the primary advantage of DeFi is its use of blockchain technology and its smart contract capabilities. Many financial institutions have, and will continue to look at, this technology to determine "use cases" that can provide them with more efficiencies and transparency among their counterparties.

DeFi's strength lies in certain use cases: transactions that are easy to make self-executing, i.e., they can be governed by "smart contracts," and therefore do not need to involve an intermediary. In these types of routine and controllable transactions, code can be developed to provide for all contingencies such that the transaction can proceed in full reliance on the automated protocols, and the existence of anonymous participants does not cause a lack of trust or instability. More complex transactions that lack homogeneity are less likely to lend themselves to smart contract applications. Further, the traditional banking market can learn from the technical aspects of DeFi (e.g., smart contracts, open-source software, and design of decentralized networks), which can be applied to Traditional Finance with or without leveraging blockchain or distributed networks.

DeFi proponents tout the increased speed and lower cost of DeFi services, but these claims are to date unproven. Transactions conducted via DeFi often have very high fees that, depending on the transfer method, often increase in line with demand.

Conversely, banks have been taking significant steps to improve payment speed and lower costs. Several Council members brought up The Clearing House's real-time payments system, RTP, as an example. RTP allows payments to be transmitted within seconds and is available as a service to all U.S. depository institutions.

Several Council members noted that sophisticated BSA/AML/KYC (Bank Secrecy Act/anti-money-laundering/know-your-customer) controls are missing in the DeFi ecosystem, which can introduce significant risk. Further, to the extent that the ability to conduct payments activity in a pseudonymous manner via DeFi is of any benefit, this benefit is overstated. Users will ultimately need to connect with a regulated entity and establish their identity in to order utilize the digital currency in the real world.

The table highlights the transparency of DeFi but does not acknowledge the banking industry's efforts to provide consumers with access to their financial data, while also maintaining the privacy and security of consumers' data and giving them more control over the timing, frequency, and use of their data by third-party FinTechs and other data users. Despite assertions from its proponents, DeFi is not perfectly secure and completely transparent. DeFi protocols contain a set of conditions that a developer writes to produce a digital contract. This code is only as good as the developer who writes it. If the code contains errors, the transaction may not be reliable and could expose the user to tricks by "bad actors." While many DeFi

protocols operate using open-source software, wherein any user could theoretically review the rules and transaction record, the technical expertise required to effectively make informed decisions using data derived from this software is far beyond the skill of the average (or above-average) consumer.

Key Implications for the Banking Industry and Regulators

Council members agree that innovation in the financial-services market must occur. However, this innovation must occur safely, soundly, and in a manner that does not pose a threat to consumers or the financial system more broadly.

Currently, DeFi platforms are unregulated and lack basic protections to mitigate suitability risk. Furthermore, many of the perceived benefits of DeFi exist only because of the current lack of regulation. Many Council members observe that BSA/AML/KYC compliance is at risk in the DeFi ecosystem. The anonymity of a transaction's participants and the lack of application of BSA/AML/KYC requirements expose DeFi to the risk of being used for illegal activities or market manipulation. At an aggregate level, these risks can also present financial stability concerns.

From a regulatory perspective, DeFi presents significant complications for imposing market-conduct standards. Because DeFi uses code native to decentralized and permissionless blockchains, market regulators will be challenged to hold bad actors accountable for acts such as market manipulation. Regulators may have to consider applying alternative theories of liability, potentially based on voting rights or control of various DeFi platforms, to police market abuses.