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Hedge Funds News, July 2023

Dear members and friends,

The Public Company Accounting Oversight Board (PCAOB) issued for public comment a proposal designed to improve audit quality and enhance investor protection by addressing aspects of designing and performing audit procedures that involve technology-assisted analysis of information in electronic form.



The proposal includes changes to update aspects of AS 1105, Audit Evidence, and AS 2301, The Auditor's Responses to the Risks of Material Misstatement.

The deadline for public comment on the proposal is **August 28, 2023**.

“The use of technology by auditors and financial statement preparers never stops evolving, and PCAOB standards must keep up to fulfill our mission to protect investors,” said PCAOB Chair Erica Y. Williams. “Today’s proposal is another key part of our strategic drive to modernize PCAOB standards.”



Proposed Amendments Related to Aspects of Designing and Performing Audit Procedures that Involve Technology-Assisted Analysis of Information in Electronic Form

PCAOB Release No. 2023-004
June 26, 2023

PCAOB Rulemaking
Docket Matter No. 052

The proposal: https://assets.pcaobus.org/pcaob-dev/docs/default-source/rulemaking/docket-052/pcaob-release-no.-2023-004-technology-assisted-analysis.pdf?sfvrsn=b801ffd0_2

Why the Board Is Proposing These Changes Now

Existing PCAOB standards relating to audit evidence and responses to risk were issued by the Board in 2010. Since that time, companies have greatly expanded their use of information systems that maintain large volumes of information in electronic form. As a result, auditors have greater access to large volumes of company-produced and third-party information in electronic form that may potentially serve as audit evidence. Meanwhile, some auditors have greatly expanded their use of data analysis tools.

Although the PCAOB staff's research indicates that auditors are using technology-assisted analysis in audit procedures, it also indicates that audit quality would benefit if our standards included additional direction addressing specific aspects of designing and performing audit procedures that involve technology-assisted analysis.

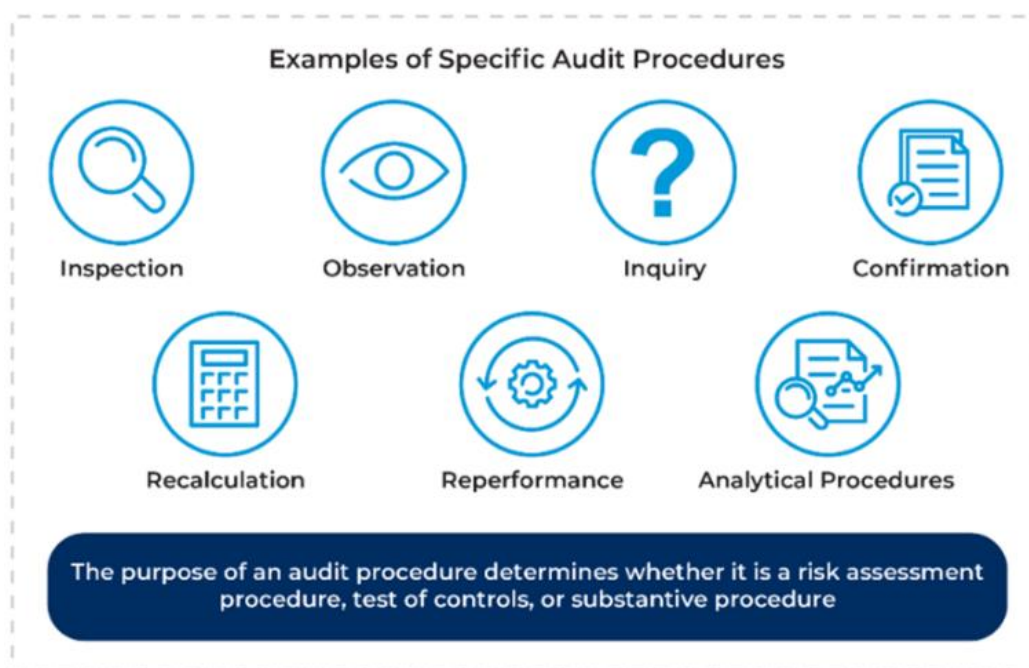
What the Proposal Seeks to Achieve

The proposal seeks to improve audit quality by reducing the likelihood that an auditor who uses technology-assisted analysis will issue an opinion without obtaining sufficient appropriate audit evidence. In particular, the proposal would bring greater clarity to auditor responsibilities in the following areas:

1. Using reliable information in audit procedures: Technology-assisted analysis often involves analyzing vast amounts of information in electronic format. The proposal would emphasize auditor responsibilities when evaluating the reliability of such information. For example, when auditors test a company's controls over electronic information, their testing should include controls over the company's information technology related to such information.

2. Using audit evidence for multiple purposes: Technology-assisted analysis can be used to provide audit evidence for various purposes in an audit. For example, performing risk assessment procedures when planning an audit and performing substantive procedures in response to the auditor's risk assessment. The proposal would specify that if an auditor uses audit evidence from an audit procedure for more than one purpose, the auditor should design and perform the procedure to achieve each of the relevant objectives.

3. Designing and performing substantive procedures: When designing and performing substantive procedures, auditors can use technology-assisted analysis to identify transactions and balances that meet certain criteria and warrant further investigation. For example, auditors can identify all transactions within an account processed by a certain individual or exceeding a certain amount. The proposal would clarify the factors the auditor should consider as part of that investigation, including whether the identified items represent a misstatement or a control deficiency or indicate a need for the auditor to modify its risk assessment or planned procedures.



Throughout the proposal, the Board requests comment on specific aspects of the proposed amendments. Readers are encouraged to answer these questions, to comment on any aspect of the proposal, and to provide reasoning and relevant data supporting their views.

The public can learn more about submitting comments on PCAOB proposals at the Open for Public Comment page. For more information regarding the PCAOB's standard-setting activity, visit our Standards page.

To read more: <https://pcaobus.org/news-events/news-releases/news-release-detail/pcaob-issues-proposal-to-bring-greater-clarity-to-certain-auditor-responsibilities-when-using-technology-assisted-analysis>

Trust Services & Digital Wallets: Moving to the Cloud and Remote Identity Proofing



In order to address the cybersecurity questions of remote identity proofing, the European Union Agency for Cybersecurity (ENISA) organised a workshop to support the area of Trust Services and Digital Wallets and published a report on moving trust services to the cloud.

Report on Trust Services: Secure Move to the Cloud of the eIDAS ecosystem

For the purpose of the report, ENISA conducted a survey with more than 120 stakeholders from over 29 countries in the EU and globally. The survey allowed to get an insight of practical experiences of Trust Service Providers, Conformity Assessment Bodies, Supervisory Bodies and Cloud Service Providers regarding the transition of trust services to the cloud.

Moving trust services to the cloud must be understood as an ongoing process that has to be followed step by step.

While some services – such as the validation of signatures, registered delivery, time stamp or signature preservation – are moved rather quickly, other services – such as the issuance of certificates and remote control over the signing device – require in-depth analysis and preparation.

The transition of data to the cloud has to be secure at all times and, in the best case, must remain in the data centre of the trust services provider.

This report has given a detailed overview of the issues to be addressed for such a transition, including the related challenges, impediments and opportunities.

Workshop on Remote Video Identification: Attacks and Foresight

The workshop was the occasion for ENISA to publish its report exploring the secure move to the cloud of the eIDAS ecosystem. In cooperation with the European Competent Authorities for Trust Services (ECATS) expert group, ENISA organised a workshop on 10 May 2023 in Amsterdam, Netherlands.

The purpose of the workshop was to explore and discuss the latest national implementations, existing and emerging attacks, and the security measures envisaged for the protection of remote identity proofing across the EU.

Over 100 participants attended the workshop and included representatives from Supervisory Bodies, Identity and trust service providers, conformity assessment bodies, standardisation bodies and research community.

The workshop addressed the following main challenges:

- lack of EU legislation harmonisation;
- how to keep up with technological advancements connected to AI;
- the testing and performance measuring landscape;
- how to continuously follow the supply chain of products and services.

For the presentations you may visit:

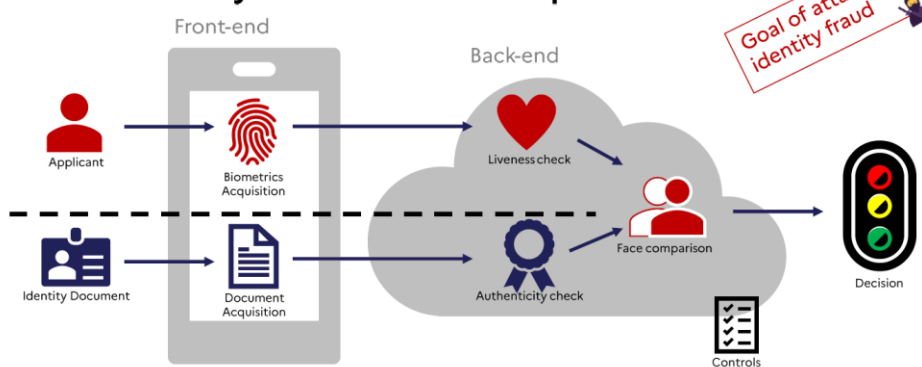
<https://www.enisa.europa.eu/events/remote-video-identification-attacks-and-foresight>

BankID - enabling digital identity ecosystems @ scale

- 6000+ commercial customers / relying parties
- 200+ new relying parties per month
- 100% of the major banks in Sweden
- 100% of the Swedish government agencies frequently interacting with the broad public
- 100% of the Swedish insurers



Remote identity verification concepts - Biometrics



EBA Guidelines on Remote Customer Onboarding



Objective: bring clarity about what is and what is not allowed when onboarding new customers remotely



Meeting of the European Competent Authorities for Trust Services (ECATS) Expert Group

The Dutch Supervisory Authority hosted the 21st meeting of the ECATS on 11 and 12 May, back-to-back with the meeting of FESA (Forum of European Supervisory Authorities).

The group discussed latest developments in eIDAS2, the connection between the upcoming implementation of the NIS 2 and eIDAS2, as well as updates on standardisation and certification in relation to trust services.

The ECATS EG is the informal group focusing to facilitates voluntary and informal collaboration between competent authority experts from EU Member States, European Economic Area (EEA) and European Free Trade Association (EFTA) States, EU Candidate countries and other relevant stakeholders to ensure smooth and secure functioning of trust services.

To read more: <https://www.enisa.europa.eu/news/trust-services-digital-wallets-moving-to-the-cloud-and-remote-identity-proofing>

Federal Reserve names organizations certified as ready for FedNow® Service



About the FedNow Service

The Federal Reserve Banks are developing the FedNow Service to facilitate nationwide reach of instant payment services by financial institutions — regardless of size or geographic location — around the clock, every day of the year.

Through financial institutions participating in the FedNow Service, businesses and individuals will be able to send and receive instant payments at any time of day, and recipients will have full access to funds immediately, giving them greater flexibility to manage their money and make time-sensitive payments.

Access will be provided through the Federal Reserve's FedLine® network, which serves more than 10,000 financial institutions directly or through their agents.

A screenshot of the FedNow website homepage. The browser address bar shows "https://explore.fednow.org". The page features a navigation bar with "FedNow INSTANT PAYMENTS" logo, "Guided Journey", "Explore the City", "Resources", "About", and a "Help" dropdown. The main headline reads "Launching in Late July" with the sub-headline "Get on board!". Below this is a large image of a futuristic train with "FedNow INSTANT PAYMENTS" on its side. The page is divided into three blue columns with white text: "Ready to adopt the FedNow Service?" (with a link to review resources), "Want to explore instant payments?" (with a link to discover basics and tips), and "Looking for the latest news?" (with a link to check out announcements and events).

For more information: <https://explore.fednow.org>

57 early adopter organizations

The Federal Reserve announced that 57 early adopter organizations, including financial institutions and service providers, have completed formal testing and certification in advance of the FedNow Service's launch **planned for late July**.

Organizations that have completed certification in the FedNow Service

Participants

- 1st Bank Yuma
- 1st Source Bank
- Adyen
- Alloya Corporate Federal Credit Union
- Atlantic Community Bankers Bank
- Avidia Bank
- Bankers' Bank of the West
- BNY Mellon
- Bridge Community Bank
- Bryant Bank
- Buffalo Federal Bank
- Catalyst Corporate Federal Credit Union
- Community Bankers' Bank
- Consumers Cooperative Credit Union
- Corporate America Credit Union
- Corporate One Federal Credit Union
- Eastern Corporate Federal Credit Union
- First Internet Bank of Indiana
- Global Innovations Bank
- HawaiiUSA Federal Credit Union
- JPMorgan Chase
- Malaga Bank
- Mediapolis Savings Bank
- Michigan Schools & Government Credit Union
- Millennium Corporate Credit Union
- Nicolet National Bank
- North American Banking Company
- PCBB
- Peoples Bank
- Pima Federal Credit Union
- Quad City Bank & Trust
- Salem Five Bank
- Star One Credit Union

- The Bankers Bank
- United Bankers' Bank
- U.S. Bank
- U.S. Century Bank
- U.S. Department of the Treasury's Bureau of the Fiscal Service
- Veridian Credit Union
- Vizo Financial Corporate Credit Union
- Wells Fargo Bank, N.A.

Service Providers

- ACI Worldwide Corp.
- Alacriti
- Aptys Solutions
- ECS Fin Inc.
- Finastra
- Finzly
- FIS
- Fiserv Solutions, LLC
- FPS GOLD
- Jack Henry
- Juniper Payments, a PSCU Company
- Open Payment Network
- Pidgin, Inc.
- Temenos
- Vertifi Software, LLC

Many of these organizations will be live when the FedNow Service launches or shortly after, with financial institutions ready to send and receive transactions and service providers ready to support transaction activity.

This group of early adopters is now performing final trial runs on the service to confirm their readiness to support live transactions over the new instant payments infrastructure. The early adopters include 41 financial institutions participating as senders, receivers and/or correspondents supporting settlement, 15 service providers processing on behalf of participants, and the U.S. Department of the Treasury.

"We are on track for the FedNow Service launch, with a strong cohort of financial institutions and service providers of all sizes in the process of completing the final round of readiness testing," said Ken Montgomery, first vice president of the Federal Reserve Bank of Boston and FedNow program executive. "With go-live nearing, financial institutions and their

industry partners should be confident in moving forward with plans to join the network of organizations participating in the FedNow Service."

Over time, financial institutions are expected to adopt and build on the FedNow Service with the goal of offering new instant payments services to their customers. Montgomery noted that as a platform for innovation, the FedNow Service is intended to support multiple use cases, such as account to account transfer, request for payment, bill pay, and many others.

In addition to working with early adopters, the Federal Reserve continues to work with and onboard financial institutions planning to join later in 2023 and beyond, as the initial step to growing a robust network aiming to reach all 10,000 U.S. financial institutions.



PROTECTING AGAINST INSTANT PAYMENT FRAUD

FedNowSM risk management capabilities

As with any type of payment, the potential for fraud exists with instant payments. It's important for financial institutions and others in the FedNow ecosystem to work together to combat fraud.

Financial institutions are the first line of defense against instant payments-related fraud. As they prepare for the FedNow Service, participating institutions will want to evaluate their own fraud management approach and consider taking steps to help protect themselves and their customers.

To support and complement financial institutions' own fraud mitigation efforts, the FedNow Service will offer fraud management capabilities and enable features to help protect against threats. Future releases of the service will add even more capabilities.



TRANSACTION LIMITS AND NEGATIVE LISTS

The following capabilities will be available to participating financial institutions at the launch of the FedNow Service.



Network-level transaction limits

The maximum amount per transaction a financial institution can send over the FedNow network – amount set by the Federal Reserve.

Participant-level transaction limit

Participants can set a lower transaction limit for credit transfers they initiate based on their organization's risk policies.

Participant-defined negative lists

Financial institutions may specify suspicious accounts their organizations can't send to or receive from.

RISK MANAGEMENT AND ERROR RESOLUTION



FedNow participants will be able to configure preferences and use ISO® 20022 messages to help with their efforts to mitigate fraud and to resolve errors.

Participation type

The FedNow Service will offer different ways to participate in the service so that participants can enable the options that best match their needs and risk profile. For example, financial institutions may choose to support customer credit transfers, but elect not to support liquidity management transfers.

Request for information

Financial institutions may request another FedNow participant provide additional information on a transaction or request for payment message – for example, if the receiver financial institution would like to request further details about a sender.

Accept without posting

Participants may submit an “accept without posting” status back to the originating financial institution indicating that further information is required with respect to compliance considerations before accepting the payment.

Return request

Financial institutions may submit a “return request” message to request another FedNow participant return the amount of a transaction identified as fraudulent.

FedNow Is Coming in July. What Is It, and What Does It Do?

Michael Lee and Antoine Martin

FEDERAL RESERVE BANK *of* NEW YORK

On March 15, the Federal Reserve announced that the FedNow Service will launch in July 2023. FedNow will “facilitate nationwide reach of instant payment services by financial institutions—regardless of size or geographic location—around the clock, every day of the year.”

But what exactly is the FedNow Service, and what does it do? In this article, we describe FedNow at a high level, offer answers to common and anticipated questions about the service, and explain how it will support the provision of instant payment services in the United States.

A New and Different Payment “Rail”

At its core, FedNow is an interbank instant payment infrastructure. Banks, credit unions, and other eligible institutions have accounts at the Federal Reserve. These Fed accounts allow institutions to hold reserves.

Banks pay each other by transferring reserves from the paying bank’s Fed account to the receiving bank’s Fed account using several interbank payment options. FedNow is a new addition to the suite of options to make such transfers.

What differentiates FedNow from other payment rails is that it is specifically designed to support instant retail payments. With such payments in mind, FedNow’s most important feature is that it will operate 24 hours a day, seven days a week, year-round.

With FedNow, financial institutions will be able to clear and settle retail payments instantly at any time, including nights and weekends.

Still, FedNow shares some characteristics with existing payment systems. It is an interbank system, like ACH and Fedwire. In addition, FedNow, like Fedwire but in contrast to ACH, will be a real-time gross settlement (RTGS) system.

This means that every transaction of FedNow will be processed in real time, whenever the paying bank chooses to send the payment, and settled on a gross basis, payment by payment, rather than periodically settling several payments in batch.

Will retail customers get to use FedNow directly? The short answer is no, at least not directly. Instead, FedNow will support instant payment services,

to which individuals will have access through their financial institutions, if these institutions adopt FedNow.

Banks and credit unions that offer retail payment services will be able to use FedNow to clear and settle retail transactions and instantly make funds available to both merchant and customer.

Supporting Instant Retail Payments

If banks can already use an effective RTGS system like Fedwire to settle their payments, why is it necessary to build a new system? The answer is that existing interbank payment systems in the United States are not well suited to support instant retail payments.

The goal of an instant retail payment system is to allow consumers and businesses to transfer funds at any time, from anywhere, and for these funds to be available to the recipient immediately.

Imagine that Alice has lost her wallet and needs cash to take a taxi back home, late on a Saturday night. With a phone and an instant payment service app available, Bob would be able to send Alice or the taxi driver funds immediately, from across the country, and these funds would be available to pay for the taxi ride right away.

The connection between an interbank payment system and an instant retail payment system (the FedNow Service) may not be immediately obvious. So, let's break down what happens in the example above.

For Bob to send Alice cash with an interbank payment system, Bob needs to instruct his bank to debit his account, Bob's bank needs to send cash to Alice's bank, and Alice's bank must credit her account. If Alice and Bob don't have the same bank, any fund transfer between them requires an interbank transfer.

In principle, Alice's bank could agree to extend an advance to Bob's bank. This would allow the transfer between Bob and Alice to occur even if the transfer between their banks is delayed. However, doing so creates an interbank exposure that would need to be settled later.

If instant payment usage grows enough, such interbank exposures could become large, and managing the risk they create could be complex and costly. This risk is eliminated if Bob's bank can settle its obligation to Alice's bank in real time, when Alice's bank credits her account.

Since individuals may have the need to send each other funds at any time, including late on weekend nights, as in our example, eliminating the risk

that could arise from the resulting interbank exposures requires banks to have the ability to clear and settle transactions, and also make funds available—all within seconds, at any time. FedNow will do that.

Where Does Fedwire Stand?

Couldn't Fedwire Funds Service's hours of operations have been extended to allow it to support instant retail payments?

There are several reasons why this would not have been practical; let us focus on one.

Systems that operate 24 hours a day, seven days a week, 365 days a year need to be updated from time to time, without service interruption.

The technology that supports Fedwire is not designed to do that effectively. Fedwire's technology updates typically happen on weekends, when the service is not operating.

FedNow, by contrast, is built to make the service upgradable without needing to shut it down.

FedNow will not replace Fedwire. FedNow is meant to support instant retail payments with a maximum value of \$500,000; in most cases, financial institutions needing to make large, dollar-denominated RTGS transfers will continue to use the Fedwire Funds Service.

To Sum Up

FedNow is a new interbank RTGS payment system that will support instant clearing and settling of retail transactions.

Individuals will not have access to FedNow directly, but instead will have access to the instant payment services offered by their financial institutions.

FedNow will allow participating institutions to transfer funds between their customers and provide immediate availability without incurring credit exposures.

Because of their speed and convenience, instant payments, whether between individuals or between a business and a customer, are expected to grow in the United States, as they have grown abroad.

With FedNow, the Federal Reserve is supporting the growth of this segment of the payment industry.

To read more: <https://tellerwindow.newyorkfed.org/2023/06/26/fednow-is-coming-in-july-what-is-it-and-what-does-it-do/>

Why Europe needs a digital euro

Contribution by Fabio Panetta and Valdis Dombrovskis



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European Commission

Our world is changing. Digitalisation has transformed society in ways that would have been difficult to imagine only ten years ago. It is also changing how we make payments: people increasingly want to pay digitally. The COVID-19 pandemic has accelerated this shift.

Central banks around the world are now working on complementing the public money they currently make available – cash – with a digital version of it: a central bank digital currency. In the euro area, the digital euro would offer a digital payment solution that is available to everyone, everywhere, for free.

Cash remains important: it is still the preferred means of making small in-store payments and person-to-person transactions. Most people in the euro area want to keep the option to pay with banknotes and coins.

This is why the European Commission and the European Central Bank (ECB) are fully committed to making sure that cash remains fully accepted and available across all 20 countries in the euro area.

But the fact is, using cash for payments is declining in many parts of the world, including Europe. As we move towards a true digital economy, adapting cash to reflect the digital age is the logical next step.

Having both options – a cash euro and a digital euro – would mean that everyone can choose how to pay and no one is left behind in the digitalisation of payments.

Crucially, it would offer Europeans the option to pay digitally throughout the euro area, from Dublin to Nicosia and from Lisbon to Helsinki.

For consumers, the digital euro would bring many practical advantages. It would be simple to use and cost-free.

No matter where they were in the euro area, people could pay anyone for free with their digital euro, for instance using a digital wallet on their phones. They would not even have to make payments online: they could also pay offline.

Protecting privacy is a vital feature of the digital euro. The ECB would not see users' personal details or their payment patterns. The offline

functionality would also bring a higher degree of data privacy than any other digital payment methods currently available.

A digital euro would also reduce payment-related fees for consumers by spurring competition in Europe. At present, two-thirds of Europe's digital retail payments are processed by a handful of global companies. Thanks to greater competition, customers and merchants would benefit from cheaper services.

For banks and other payment service providers, the digital euro would act as a springboard for the development of new pan-European payment and financial services, stimulating innovation and making it easier to compete with large, non-European financial and technology firms.

It would include safeguards, such as limits on the amount that people could hold, to avoid any substantial outflow of deposits from banks. But users wishing to pay more than the set limit would be able to do so by linking their digital wallet to their bank account.

There are also major strategic advantages to having a digital euro. As the world's largest single market, Europe cannot afford to remain passive while other jurisdictions move ahead.

If other central bank digital currencies were allowed to be used more widely for cross-border payments, we would risk diminishing the attractiveness of the euro – currently the world's second most-important currency after the US dollar.

And the euro could become more exposed to competition from alternatives such as global stablecoins. Ultimately, this could endanger our monetary sovereignty and the stability of the European financial sector.

A digital euro would also enhance the integrity and safety of the European payment system at a time when growing geopolitical tensions make us more vulnerable to attacks to our critical infrastructure.

By relying on European infrastructure, the system would be better equipped to withstand disruptions, including cyberattacks and power outages.

We are still only at the start of this exciting new project. The European Commission presents its legal proposal today. This autumn, the ECB will complete its investigation phase on the digital euro's design and distribution. It will then decide whether to initiate a preparation phase to look at developing and testing the new digital currency.

Central bank money underpins our trust in all forms of money as well as the stability and resilience of our payment system. It is the anchor for Europe's financial system and monetary union.

A digital euro would preserve the role of central bank money, because whatever form it takes – cash or digital – a euro will remain a euro.

Our monetary system, with our common currency at its core, needs to keep up with digital advances. We are committed to ensuring that it does.

To read more:

<https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog230628~140c43d2f3.en.html>

Data Protection: European Commission adopts new adequacy decision for safe and trusted EU-US data flows



The European Commission adopted its adequacy decision for the EU-U.S. Data Privacy Framework.

The decision concludes that the United States ensures an adequate level of protection – comparable to that of the European Union – for personal data transferred from the EU to US companies under the new framework.



Brussels, 10.7.2023
C(2023) 4745 final

COMMISSION IMPLEMENTING DECISION

of 10.7.2023

**pursuant to Regulation (EU) 2016/679 of the European Parliament and of the Council
on the adequate level of protection of personal data under the EU-US Data Privacy
Framework**

On the basis of the new adequacy decision, personal data can flow safely from the EU to US companies participating in the Framework, without having to put in place additional data protection safeguards.

The EU-U.S. Data Privacy Framework introduces new binding safeguards to address all the concerns raised by the European Court of Justice, including limiting access to EU data by US intelligence services to what is necessary and proportionate, and establishing a Data Protection Review Court (DPRC), to which EU individuals will have access.

The new framework introduces significant improvements compared to the mechanism that existed under the Privacy Shield. For example, if the

DPRC finds that data was collected in violation of the new safeguards, it will be able to order the deletion of the data.

The new safeguards in the area of government access to data will complement the obligations that US companies importing data from EU will have to subscribe to.

President Ursula von der Leyen said:

“The new EU-U.S. Data Privacy Framework will ensure safe data flows for Europeans and bring legal certainty to companies on both sides of the Atlantic. Following the agreement in principle I reached with President Biden last year, the US has implemented unprecedented commitments to establish the new framework.

Today we take an important step to provide trust to citizens that their data is safe, to deepen our economic ties between the EU and the US, and at the same time to reaffirm our shared values. It shows that by working together, we can address the most complex issues.”

US companies will be able to join the EU-U.S. Data Privacy Framework by committing to comply with a detailed set of privacy obligations, for instance the requirement to delete personal data when it is no longer necessary for the purpose for which it was collected, and to ensure continuity of protection when personal data is shared with third parties.

EU individuals will benefit from several redress avenues in case their data is wrongly handled by US companies. This includes free of charge independent dispute resolution mechanisms and an arbitration panel.

In addition, the US legal framework provides for a number of safeguards regarding the access to data transferred under the framework by US public authorities, in particular for criminal law enforcement and national security purposes. Access to data is limited to what is necessary and proportionate to protect national security.

EU individuals will have access to an independent and impartial redress mechanism regarding the collection and use of their data by US intelligence agencies, which includes a newly created Data Protection Review Court (DPRC). The Court will independently investigate and resolve complaints, including by adopting binding remedial measures.

The safeguards put in place by the US will also facilitate transatlantic data flows more generally, since they also apply when data is transferred by using other tools, such as standard contractual clauses and binding corporate rules.

Next steps

The functioning of the EU-U.S. Data Privacy Framework will be subject to periodic reviews, to be carried out by the European Commission, together with representatives of European data protection authorities and competent US authorities.

The first review will take place within a year of the entry into force of the adequacy decision, in order to verify that all relevant elements have been fully implemented in the US legal framework and are functioning effectively in practice.

Questions & Answers: EU-US Data Privacy Framework

1. What is an adequacy decision?

An adequacy decision is one of the tools provided under the General Data Protection Regulation (GDPR) to transfer personal data from the EU to third countries which, in the assessment of the Commission, offer a comparable level of protection of personal data to that of the European Union.

As a result of adequacy decisions, personal data can flow freely and safely from the European Economic Area (EEA), which includes the 27 EU Member States as well as Norway, Iceland and Liechtenstein, to a third country, without being subject to any further conditions or authorisations. In other words, transfers to the third country can be handled in the same way as intra-EU transmissions of data.

The adequacy decision on the EU-U.S. Data Privacy Framework covers data transfers from any public or private entity in the EEA to US companies participating in the EU-U.S. Data Privacy Framework.

2. What are the criteria to assess adequacy?

Adequacy does not require the third country's data protection system to be identical to the one of the EU, but is based on the standard of 'essential equivalence'. It involves a comprehensive assessment of a country's data protection framework, both of the protection applicable to personal data and of the available oversight and redress mechanisms.

The European data protection authorities have developed a list of elements that must be taken into account for this assessment, such as the existence of core data protection principles, individual rights, independent supervision and effective remedies.

3. What is the EU-U.S. Data Privacy Framework?

In its adequacy decision, the Commission has carefully assessed the requirements that follow from the EU-U.S. Data Privacy Framework, as well as the limitations and safeguards that apply when personal data transferred to the US would be accessed by US public authorities, in particular for criminal law enforcement and national security purposes.

On that basis, the adequacy decision concludes that the United States ensures an adequate level of protection for personal data transferred from the EU to companies participating in the EU-U.S. Data Privacy Framework. With the adoption of the adequacy decision, European entities are able to transfer personal data to participating companies in the United States, without having to put in place additional data protection safeguards.

The Framework provides EU individuals whose data would be transferred to participating companies in the US with several new rights (e.g. to obtain access to their data, or obtain correction or deletion of incorrect or unlawfully handled data). In addition, it offers different redress avenues in case their data is wrongly handled, including before free of charge independent dispute resolution mechanisms and an arbitration panel.

US companies can certify their participation in the EU-U.S. Data Privacy Framework by committing to comply with a detailed set of privacy obligations. This could include, for example, privacy principles such as purpose limitation, data minimisation and data retention, as well as specific obligations concerning data security and the sharing of data with third parties.

The Framework will be administered by the US Department of Commerce, which will process applications for certification and monitor whether participating companies continue to meet the certification requirements. Compliance by US companies with their obligations under the EU-U.S. Data Privacy Framework will be enforced by the US Federal Trade Commission.

4. What are the limitations and safeguards regarding access to data by United States intelligence agencies?

An essential element of the US legal framework on which the adequacy decision is based concerns Executive Order on 'Enhancing Safeguards for United States Signals Intelligence Activities', which was signed by President Biden on 7 October and is accompanied by regulations adopted by the Attorney General. These instruments were adopted to address the issues raised by the Court of Justice in its Schrems II judgment.

For Europeans whose personal data is transferred to the US, the Executive Order provides for:

- Binding safeguards that limit access to data by US intelligence authorities to what is necessary and proportionate to protect national security;
- Enhanced oversight of activities by US intelligence services to ensure compliance with limitations on surveillance activities; and
- The establishment of an independent and impartial redress mechanism, which includes a new Data Protection Review Court to investigate and resolve complaints regarding access to their data by US national security authorities.

5. What is the new redress mechanism in the area of national security and how can individuals make use of it?

The US Government has established a new two-layer redress mechanism, with independent and binding authority, to handle and resolve complaints from any individual whose data has been transferred from the EEA to companies in the US about the collection and use of their data by US intelligence agencies.

For a complaint to be admissible, individuals do not need to demonstrate that their data was in fact collected by US intelligence agencies. Individuals can submit a complaint to their national data protection authority, which will ensure that the complaint will be properly transmitted and that any further information relating to the procedure—including on the outcome—is provided to the individual.

This ensures that individuals can turn to an authority close to home, in their own language. Complaints will be transmitted to the United States by the European Data Protection Board.

First, complaints will be investigated by the so-called 'Civil Liberties Protection Officer' of the US intelligence community. This person is responsible for ensuring compliance by US intelligence agencies with privacy and fundamental rights.

Second, individuals have the possibility to appeal the decision of the Civil Liberties Protection Officer before the newly created Data Protection Review Court (DPRC).

The Court is composed of members from outside the US Government, who are appointed on the basis of specific qualifications, can only be dismissed for cause (such as a criminal conviction, or being deemed mentally or physically unfit to perform their tasks) and cannot receive instructions from the government.

The DPRC has powers to investigate complaints from EU individuals, including to obtain relevant information from intelligence agencies, and can take binding remedial decisions. For example, if the DPRC would find that data was collected in violation of the safeguards provided in the Executive Order, it can order the deletion of the data.

In each case, the Court will select a special advocate with relevant experience to support the Court, who will ensure that the complainant's interests are represented and that the Court is well informed of the factual and legal aspects of the case. This will ensure that both sides are represented, and introduce important guarantees in terms of fair trial and due process.

Once the Civil Liberties Protection Officer or the DPRC completes the investigation, the complainant will be informed that either no violation of US law was identified, or that a violation was found and remedied. At a later stage, the complainant will also be informed when any information about the procedure before the DPRC—such as the reasoned decision of the Court—is no longer subject to confidentiality requirements and can be obtained.

6. When will the decision apply?

The adequacy decision entered into force with its adoption on 10 July.

There is no time limitation, but the Commission will continuously monitor relevant developments in the United States and regularly review the adequacy decision.

The first review will take place within one year after the entry into force of the adequacy decision, to verify whether all relevant elements of the US legal framework are functioning effectively in practice. Subsequently, and depending on the outcome of that first review, the Commission will decide, in consultation with the EU Member States and data protection authorities, on the periodicity of future reviews, which will take place at least every four years.

Adequacy decisions can be adapted or even withdrawn in case of developments affecting the level of protection in the third country.

7. What is the impact of the decision on the possibility to use other tools for data transfers to the United States?

All the safeguards that have been put in place by the US Government in the area of national security (including the redress mechanism) apply to all data transfers under the GDPR to companies in the US, regardless of the

transfer mechanism used. These safeguards therefore also facilitate the use of other tools, such as standard contractual clauses and binding corporate rules.

To read more:

https://ec.europa.eu/commission/presscorner/detail/en/ip_23_3721

<https://commission.europa.eu/system/files/2023-07/Adequacy%20decision%20EU-US%20Data%20Privacy%20Framework.pdf>

Enhancing Third-Party Risk Management and Oversight

A toolkit for financial institutions and financial authorities, consultative document



Executive summary

Financial institutions rely on third-party service providers for a range of services, some of which support their critical operations.

These dependencies have grown in recent years as part of the digitalisation of the financial services sector and can bring multiple benefits to financial institutions including flexibility, innovation and improved operational resilience.

However, if not properly managed, disruption to critical services or service providers could pose risks to financial institutions and, in some cases, financial stability.

The FSB has developed a toolkit for financial authorities and financial institutions as well as service providers for their third-party risk management and oversight.

The toolkit also aims to reduce fragmentation in regulatory and supervisory approaches across jurisdictions and different areas of the financial services sector, thereby helping mitigate compliance costs for both financial institutions and third-party service providers, and facilitate coordination among relevant stakeholders.

The toolkit comprises 4 main chapters.

Chapter 1 presents a list of common terms and definitions as a foundation. While complete harmonisation of terms is not always possible or desirable, a common understanding of terms and definitions can help improve clarity and consistency, assisting and enhancing communication among stakeholders under interoperable approaches.

Chapter 2 summarises the toolkit's approach. In particular, the primary emphasis is on critical services given the potential impact of their disruption on financial institutions' critical operations and financial stability.

It also looks holistically on third-party risk management, which is wider than a historical narrower focus on outsourcing, in light of changing

industry practices and recent regulatory and supervisory approaches to operational resilience.

Similar to the terms and definitions, the toolkit aims to promote interoperability of regulatory and supervisory approaches, short of full homogeneity.

Finally, the principle of proportionality is applicable throughout the toolkit, which allows the tools to be adapted to smaller, less complex institutions or intra-group third-party service relationships.

Chapter 3 sets out tools to help financial institutions identify critical services and manage potential risks throughout the lifecycle of a third-party service relationship.

These tools seek to help financial institutions to:

- Identify critical services consistently yet flexibly;
- Conduct due diligence, contracting and ongoing monitoring of critical services and service providers;
- Be informed of incidents affecting critical services in a timely way;
- Have consistent mapping of financial institutions' third-party service relationships;
- Manage risks relating to their third-party service providers' use of service supply chain;
- Implement and test business continuity plans and coordinate with their third-party service providers for their business continuity;
- Develop effective exit strategies; and
- Strengthen the identification and management of service provider concentration, and concentration-related risks.

Chapter 4 sets out financial authorities' current and developing approaches and tools for supervising how financial institutions manage third-party risks, and for identifying, monitoring and managing systemic third-party dependencies and potential systemic risks.

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In some jurisdictions or regions, financial authorities have or are in the process of acquiring regulatory powers to formally designate certain service providers as critical for the financial system and oversee these service providers and their services to financial institutions. However, this is not the case in other jurisdictions.

Accordingly, the tools in this toolkit are versatile and can be adopted through either voluntary collaboration between financial authorities, financial institutions and relevant service providers, requirements or expectations on financial institutions, or direct requirements or expectations on service providers.

Box 1: Examples of regimes

US Bank Service Company Act (BSCA)

The BSCA allows for the US Federal Banking Agencies (FBA) to supervise and regulate certain bank services provided by third parties. In particular, the BSCA provides that when an FBA-regulated bank or its affiliate causes to be performed for itself (by contract or otherwise) bank services, then the performance of the bank services is subject to regulation and examination by the FBA to the same extent as if those services were being performed by the bank. Title VIII of the Dodd-Frank Act also allows supervisory agencies of designated financial market utilities (DFMUs) – currently the FRB, SEC, and CFTC – to examine the provision of a service provided by another entity when such a service is “integral” to the operation of the DFMU.

EU Digital Operational Resilience Act (DORA)

DORA provides for the creation of an EU oversight framework for critical Information Communication Technologies (ICT) third-party service providers to EU financial entities. The European Supervisory Authorities (ESAs)⁶⁵ will designate critical ICT third-party service providers (there will also be an opt-in process for service providers to apply for voluntary designation even if they are not initially designated by the authorities). The ESAs have powers to request information, conduct investigations and inspections, issue recommendations to critical ICT third party service providers, impose periodic penalties to critical ICT third-party service providers who failed to comply with requests for information or refused to submit to investigations and inspections, and in certain circumstances to request financial entities to suspend or terminate the contracts for the provision of services by ICT critical third-party service providers. The rules in DORA will become applicable starting 17 January 2025. The drafting of accompanying regulatory and implementing technical standards, as well as guidelines is on-going.

Among other areas, the tools cover:

- Incident reporting to financial authorities, including the possibility of enhancing the existing cyber reporting framework to include reporting by service providers where an incident could give rise to potential risks to financial stability;
- Non-exhaustive criteria to help financial authorities identify systemic third-party dependencies and assess potential systemic risks; and
- Tools to identify and manage potential systemic risks, including but not limited to sector wide exercises and incident response coordination frameworks.

Finally, the importance of cross-border supervisory cooperation and information sharing is underscored.

For this objective, the chapter sets out certain ways to explore greater convergence of regulatory and supervisory frameworks around systemic

third-party dependencies, options for greater cross-border information-sharing, and cross-border resilience testing and exercises.

To read more: <https://www.fsb.org/wp-content/uploads/P220623.pdf>

Annual Economic Report, June 2023



Introduction

The global economy has reached a critical and perilous juncture. Policymakers are facing a unique constellation of challenges. Each of them, taken in isolation, is not new; but their combination on a global scale is.

On the one hand, central banks have been tightening to bring inflation back under control: prices are rising far too fast.

On the other hand, financial vulnerabilities are widespread: debt levels – private and public – are historically high; asset prices, especially those of real estate, are elevated; and risk-taking in financial markets was rife during the phase in which interest rates stayed historically low for unusually long.

Indeed, financial stress has already emerged. Each of the two challenges, by itself, would be difficult to tackle; their combination is daunting.

III. Blueprint for the future monetary system: improving the old, enabling the new

Key takeaways

- Tokenisation of money and assets has great potential, but initiatives to date have taken place in silos without access to central bank money and the foundation of trust it provides.
- A new type of financial market infrastructure – a unified ledger – could capture the full benefits of tokenisation by combining central bank money, tokenised deposits and tokenised assets on a programmable platform.
- As well as improving existing processes through the seamless integration of transactions, a unified ledger could harness programmability to enable arrangements that are currently not practicable, thereby expanding the universe of possible economic outcomes.
- Multiple ledgers – each with a specific use case – might coexist, interlinked by application programming interfaces to ensure interoperability as well as promote financial inclusion and a level playing field.

This year's Annual Economic Report explores the global economy's journey and the policy challenges involved.

It is, in fact, an exploration of not one but three interwoven journeys: the journey that has taken the global economy to the current juncture; the

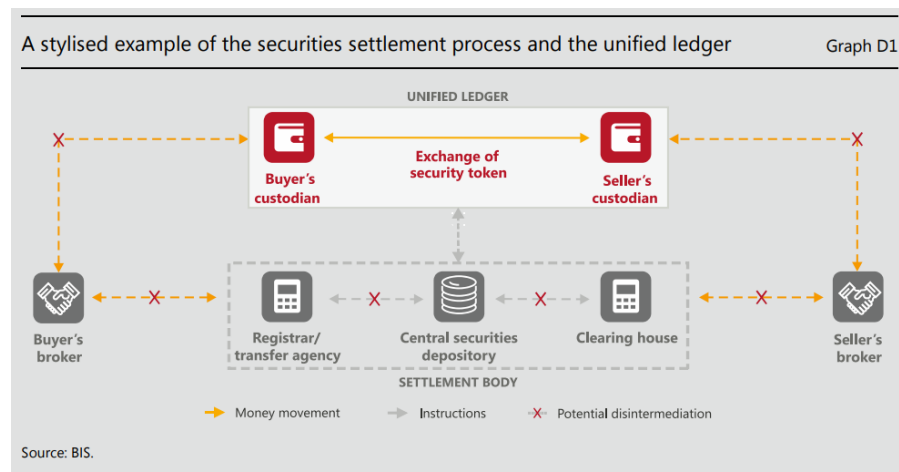
journey that may lie ahead; and, in the background, the journey that the financial system could make as digitalisation opens up new vistas.

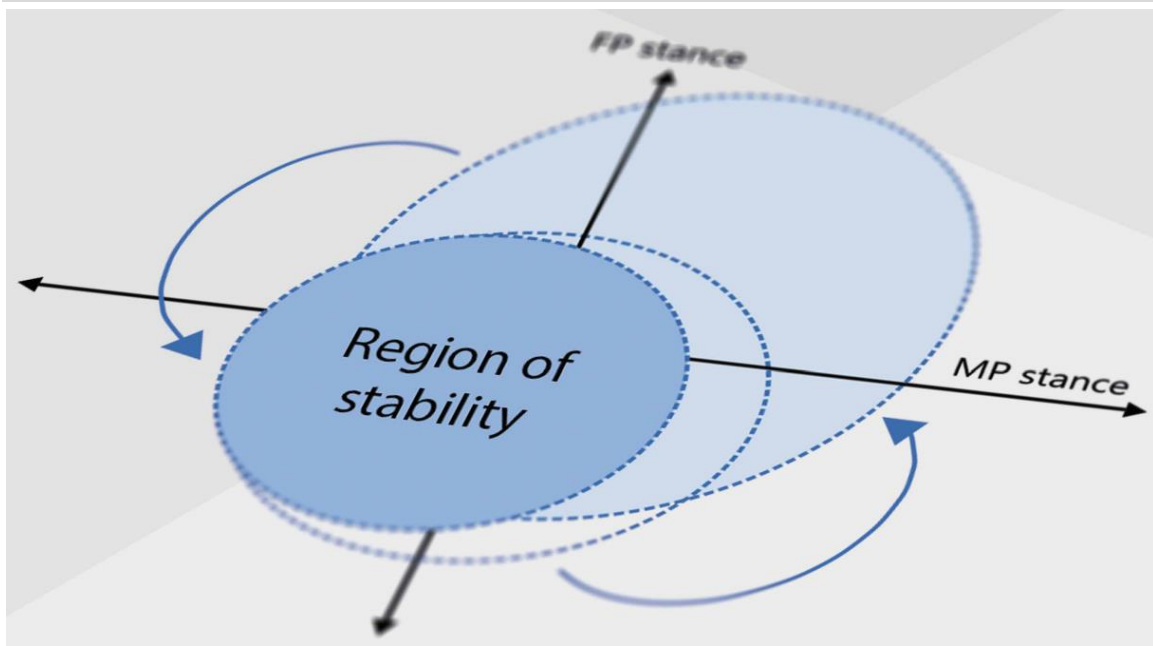
Much is at stake. Policymakers will need to work in concert, drawing the right lessons from the past to chart a new path for the future.

Along the way, the perennial but elusive search for consistency between fiscal and monetary policy will again take centre stage.

Prudential policy will continue to play an essential supporting role. And structural policies will be critical.

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To read more:

<https://www.bis.org/publ/arpdf/ar2023e.pdf>

National Artificial Intelligence Advisory Committee Releases First Report



The National Artificial Intelligence Advisory Committee (NAIAC) has delivered its first report to the president, established a Law Enforcement Subcommittee to address the use of AI technologies in the criminal justice system, and completed plans to realign its working groups to allow it to explore the impacts of AI on workforce, equity, society and more.

The report recommends steps the U.S. government can take to maximize the benefits of AI technology, while reducing its harms. This includes new steps to bolster U.S. leadership in trustworthy AI, new R&D initiatives, increased international cooperation, and efforts to support the U.S. workforce in the era of AI. The report also identifies areas of focus for NAIAC for the next two years, including in rapidly developing areas of AI, such as generative AI.

“We are at a pivotal moment in the development of AI technology and need to work fast to keep pace with the changes it is bringing to our lives,” said U.S. Deputy Secretary of Commerce Don Graves. “As AI opens up exciting opportunities to improve things like medical diagnosis and access to health care and education, we have an obligation to make sure we strike the right balance between innovation and risk. We can lead the world in establishing trustworthy, inclusive and beneficial AI, and I look forward to considering the committee’s recommendations as we do that.”

When it comes to AI, President Biden has been clear that in order to seize the opportunities AI presents, we must first mitigate its risks. NAIAC’s work supports the Biden-Harris administration’s ongoing efforts to promote responsible American innovation in AI and protect people’s rights and safety.

Given the fast pace of development and deployment of AI technology such as generative AI, which includes the large language models that power chatbots and other tools that create new content, the committee also plans to consider various mechanisms for carrying out its work on short time frames in the coming years.

The committee recently completed plans to realign its working groups to allow it to explore the impacts of AI on workforce, equity, society and more.

The new NAIAC focus areas are:

- AI Futures: Sustaining Innovation in Next Gen AI
- AI in Work and the Workforce
- AI Regulation and Executive Action
- Engagement, Education and Inclusion
- Generative and NextGen AI: Safety and Assurance
- Rights-Respecting AI
- International Arena: Collaboration on AI Policy and AI-Enabled Solutions
- Procurement of AI Systems
- AI and the Economy

To read more: <https://www.nist.gov/news-events/news/2023/06/national-artificial-intelligence-advisory-committee-releases-first-report>

Paradise lost? How crypto failed to deliver on its promises and what to do about it

Fabio Panetta, Member of the Executive Board of the European Central Bank, on the future of crypto at the 22nd BIS Annual Conference, Basel.



Introduction

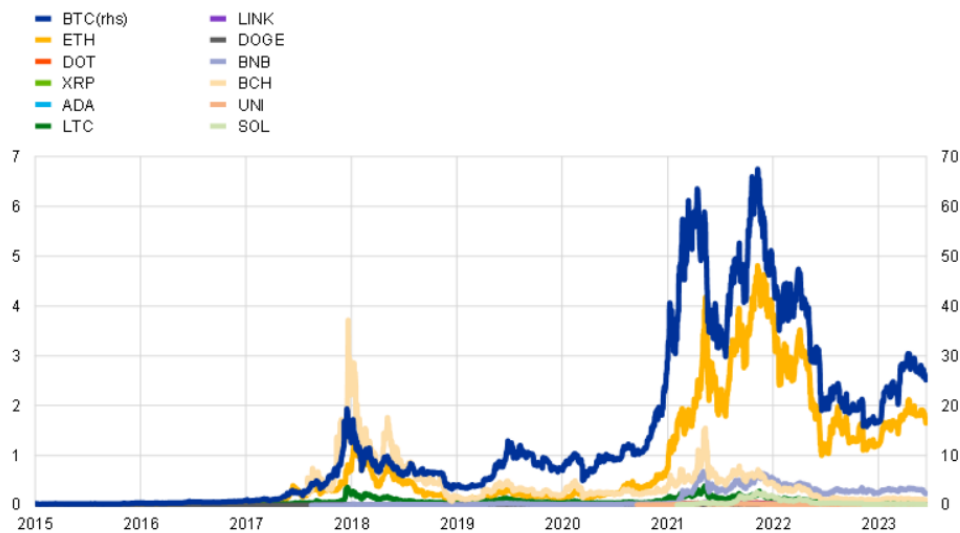
Some 15 years ago, software developers using the pseudonym Satoshi Nakamoto created the source code of what they thought could be decentralised digital cash.

Since then, crypto has relied on constantly creating new narratives to attract new investors, revealing incompatible views of what crypto-assets are or ought to be.

Chart 1

Prices of bitcoin and selected altcoins

(USD thousands)



Source: CryptoCompare.

Notes: The data are for the period from 1 January 2015 to 15 June 2023 and are based on the price of crypto-assets as in the Crypto Coin Comparison Aggregated Index (CCCAGG) provided by CryptoCompare. The altcoins' names are abbreviated as follows: Bitcoin (BTC), Ether (ETH), Polkadot (DOT), Ripple (XRP), Cardano (ADA), Litecoin (LTC), Chainlink (LINK), Dogecoin (DOGE), Binance Coin (BNB), Bitcoin Cash (BCH), Uniswap (UNI), Solana (SOL).

The vision of digital cash – of a decentralised payment infrastructure based on cryptography – went awry when blockchain networks became congested in 2017, resulting in soaring transaction fees.

Subsequently, the narrative of digital gold gained momentum, sparking a “crypto rush” that led to one in five adults in the United States and one in ten in Europe speculating on crypto, with a peak market capitalisation of €2.5 trillion.

However, this illusion of crypto-assets serving as easy money and a robust store of value dissipated with the onset of the crypto winter in November 2021. The fall in the price of cryptos (Chart 1) led to a decrease of around €2 trillion worth of crypto assets within less than a year. This caught millions of investors unprepared.

An estimated three-quarters of bitcoin users suffered losses on their initial investments at this time.

Understandably, many are now questioning the future of crypto-assets.

But the bursting of the bubble does not necessarily spell the end of crypto-assets. People like to gamble and investing in crypto offers them a way to do so.

Crypto valuations are highly volatile, reflecting the absence of any intrinsic value. This makes them particularly sensitive to changes in risk appetite and market narratives.

The recent developments that have affected leading crypto-asset exchanges have highlighted the contradictions of a system which, though created to counteract the centralisation of the financial system, has become highly centralised itself.

Today I will contend that due to their limitations, cryptos have not developed into a form of finance that is innovative and robust, but have instead morphed into one that is deleterious.

The crypto ecosystem is riddled with market failures and negative externalities, and it is bound to experience further market disruptions unless proper regulatory safeguards are put in place.

Policymakers should be wary of supporting an industry that has so far produced no societal benefits and is increasingly trying to integrate into the traditional financial system, both to acquire legitimacy as part of that system and to piggyback on it.

Instead, regulators should subject cryptos to rigorous regulatory standards, address their social cost, and treat unsound crypto models for what they truly are: a form of gambling.

This may prompt the ecosystem to make more effort to provide genuine value in the field of digital finance.

Shifting narratives: from decentralised payments to centralised gambling

The core promise of cryptos is to replace trust with technology, contending that the concept “code is law” will allow a self-policing system to emerge, free of human judgement and error. This would in turn make it possible for money and finance to operate without trusted intermediaries.

However, this narrative often obfuscates reality. Unbacked cryptos have made no inroads into the conventional role of money. And they have progressively moved away from their original goal of decentralisation to increasingly rely on centralised solutions and market structures.

They have become speculative assets, as well as a means of circumventing capital controls, sanctions or financial regulation.

Blockchain limitations

A key reason why cryptos have failed to make good on their claim to perform the role of money is technical. Indeed, the use of blockchain – particularly in the form of public, permissionless blockchain – for transacting crypto-assets has exhibited significant limitations.

Transacting cryptos on blockchains can be inefficient, slow and expensive; they face the blockchain trilemma, whereby aiming for optimal levels of security, scalability and decentralisation at the same time is not achievable.

Crypto-assets relying on a proof-of-work validation mechanism, which is especially relevant for bitcoin as the largest crypto-asset by market capitalisation, are ecologically detrimental.

Public authorities will therefore need to evaluate whether the outsized carbon footprint of certain crypto-assets undermines their green transition commitments. Moreover, proof-of-work validation mechanisms are inadequate for large-scale use. Bitcoin, for example, can only accommodate up to seven transactions per second and fees can be exorbitant.

While alternative solutions to overcome the blockchain trilemma and proof-of-work consensus shortcomings have emerged for faster and more affordable transactions, including those outside the blockchain, they have

drawbacks of their own. "Off-chain" transactions conducted via third-party platforms compromise the core principles of crypto-assets, including security, validity and immutability.

Another important aspect is the operational risk inherent in public blockchains due to the absence of an accountable central governance body that manages operations, incidents or code errors.

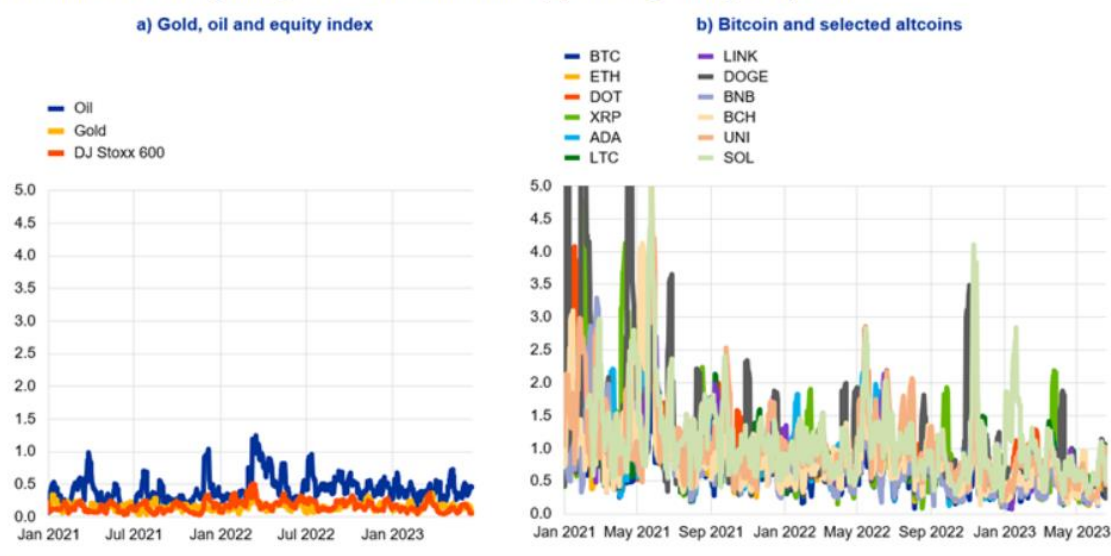
Moreover, the handling of crypto-assets can be challenging. In a decentralised blockchain, users must protect their personal keys using self-custody wallets, which can discourage widespread adoption due to the tasks and risks involved, for example the theft or loss of a key. Given the immutability of blockchains, they do not permit transaction reversal.

Instability

Chart 2

Price volatility of cryptos compared with other assets

(annualised seven-day rolling standard deviation of daily percentage changes of prices)



Sources: CryptoCompare, Bloomberg, Refinitiv and ECB calculations.

Notes: The data are for the period from 1 January 2015 to 15 June 2023. For visibility reasons, the maximum of the y-axis for Chart 2, panel b is set to 5. Nevertheless, on 30 and 31 January 2021 the price volatility of DOGE exceeded 28. Oil data refer to the European Brent Spot price. The altcoins' names are abbreviated as follows: Bitcoin (BTC), Ether (ETH), Polkadot (DOT), Ripple (XRP), Cardano (ADA), Litecoin (LTC), Chainlink (LINK), Dogecoin (DOGE), Binance Coin (BNB), Bitcoin Cash (BCH), Uniswap (UNI), Solana (SOL).

Another key limitation of unbacked cryptos is their instability.

Unbacked cryptos lack intrinsic value and have no backing reserves or price stabilisation mechanisms. This makes them inherently highly volatile and unsuitable as a means of payment. Bitcoin, for instance, exhibits volatility levels up to four times higher than stocks, or gold (Chart 2).

Such high volatility also means that households cannot rely on crypto-assets as a store of value to smooth their consumption over time. Similarly, firms cannot rely on crypto-assets as a unit of account for the calculation of prices or for their balance sheet.

To read more:

https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230623_1~80751450e6.en.html

Remarks to the Atlanta Commerce and Press Clubs (including Transition to AI, AI as a Tool and a Target of Cybercrime, AI as a Target of Foreign Adversaries)

Christopher Wray, Director, Federal Bureau of Investigation, Atlanta



Introduction

Thanks, Walter. And my thanks to the Atlanta Commerce Club and the Press Club for having me this afternoon. It's great to look out and see so many old friends. I still think of Atlanta as home. This is where my career in law—and, a few years later, law enforcement—really began.

And it's an honor to be here with such a forward-leaning group—people who keep Atlanta's economy thriving, and its public informed and engaged.

Today, I want to talk about a couple of topics that are top-of-mind at the Bureau, and for the public and partners we always remember that we're doing our work for.

First, violent crime—and what we and our partners are doing about it, here in Georgia and elsewhere.

And, then, I'm going to shift gears on you and talk technology—artificial intelligence and how, at the FBI, we're focusing on the fast-changing frontier of what's possible.

But the common thread is adaptation: For decades, the FBI has adapted to new technology and threats across our programs—including countering violent crime—and that adaptation remains a vital part of our mission today.

Violent Crime

I want to start by sharing a little bit about some of the conversations I had earlier today with chiefs and sheriffs from departments all across the state of Georgia.

Their biggest concern is the same one I hear almost weekly when I speak with their counterparts in all 50 states, in communities large and small—

and that's the alarming level of violent crime. And our nationwide statistics from the last couple of years confirm the violent crime threat in this country is real and not letting up.

People deserve to be able to go to work, meet with friends, go shopping—in other words, live their daily lives—without fear. And when that sense of safety is undermined, everyone loses.

Whether it's gangs terrorizing communities, robbery crews graduating from carjackings to even worse violence, or neighborhoods located along key drug-trafficking routes getting inundated with crime, communities in every corner of this country are affected.

That's unacceptable, which is why we're working shoulder-to-shoulder with our state and local partners to combat that appalling trend.

Here, in Georgia, there are examples all across the state of the impact we can have when we work together.

Spurred by the shooting death of an 8-year-old child in January, our Safe Streets Task Force teamed up with the Richmond County Sheriff's Office and the local DA to disrupt and dismantle gangs that had terrorized communities in and around Augusta.

We aggressively targeted the most violent offenders on an unprecedented scale, making 119 felony arrests in just three months.

Another operation against the "Ghost Face Gangsters" down around Brunswick exposed a massive drug-trafficking ring led by a white supremacist street gang. That collaborative investigation resulted in what is believed to be the largest-ever indictment in Southern District of Georgia history, with federal charges against 76 subjects and state charges against more than three dozen others.

Closer to home, we're wrapping up a years-long investigation that disrupted a major drug-trafficking route that was moving huge quantities of drugs from Colombia; north through Mexico; and, ultimately, landing right here, in Atlanta.

We've arrested and charged individuals in Georgia, Florida, Tennessee, and Texas; and we're in the process of extraditing two of the main targets from Mexico to face justice here in the United States. Along the way, we've seized millions of dollars, taken dozens of firearms out of the hands of the drug traffickers, and intercepted loads of narcotics that were headed for the streets of Atlanta.

But it's not just the major investigations—our agents and task-force officers are also focused on the violence against everyday people going about their everyday lives.

Just recently, for instance, we took down a robbery crew that had pistol-whipped and robbed one of their victims at an ATM, carjacked another, and held up two armored trucks by putting rifles to the heads of the couriers.

Atlanta is not just a hub for business. I'm afraid it also seems to be a destination for violent fugitives who commit crimes out of state. So, I'm particularly encouraged to see that our Atlanta Metropolitan Major Offenders (or AMMO) Task Force has been reinvigorated.

Through AMMO, we've done a lot of great work with Atlanta PD and other departments in the area to get some of the most dangerous fugitives off the streets.

In fact, the task force recently completed a months-long investigation into five offenders from New Jersey, who had posed as FBI agents and shot a Bergen County resident during a home invasion.

That investigation resulted in charges against all five fugitives for attempted murder, kidnapping, and robbery. And it's only a small sampling of what the AMMO Task Force is doing for Atlanta-area communities.

That's all just here in Georgia—we're working with our brothers and sisters in state and local law enforcement all across the country to maximize our impact.

The FBI now leads more than 300 violent crime task forces made up of over 3,000 task force officers, working shoulder-to-shoulder with our agents, analysts, and professionals.

And each of those TFOs represents an officer, a deputy, or an investigator that a local police chief, sheriff, or agency head was willing to send our way—not because they didn't have enough work to do at their own department or office, but because they saw the tremendous value that our FBI-led task forces bring.

And I can report that our agents and TFOs have been busy.

Together, in 2022, we arrested more than 20,000 violent criminals and child predators—an average of almost 60 per day, every day.

We also seized more than 9,600 firearms from those violent offenders, cut into the capabilities of 3,500 gangs and violent criminal enterprises, and completely dismantled 370 more. And we have no plans to let up any time soon.

Transition to AI

When it comes to tackling the violent-crime problem, one of the FBI's strengths has always been finding new and creative approaches to solving crimes.

In fact, in his first report to Congress on the FBI after its founding in 1908, Attorney General Bonaparte described the FBI itself as "an innovation." And, for more than a century since then, we've taken it upon ourselves to live up to that standard, again and again.

We've built and developed tools in key areas that help us accomplish our mission to keep people safe—things like biometrics, DNA research, facial recognition, and voice recognition; digital forensics teams to handle technically complex cases; cellphone data analysis to uncover criminals' movements and locate missing persons; and much more.

These were all innovations when they were created, and without them, we couldn't protect the American people the way we do now.

So I want to take this opportunity to talk about the newest technology the world is grappling with on a massive scale: AI, or artificial intelligence.

Who would have thought, even just a few years ago, that we'd all be having conversations about AI around the dinner table?

It feels a bit like science fiction—and that's because it used to be, though I can assure you it's not a new topic at the FBI.

As we all know, today, AI is quickly making world-changing breakthroughs in everything from astronomy to agriculture, and energy to the environment. It's solving problems as varied as folding amino acids into the basic building blocks for life, and writing term papers for college students, and also helping catch cheating college students.

And, of course, in response to all of this change and technological advancement, our lawmakers and leaders in all industries—from the medical to the creative to the military—are trying to make order from the chaos, to make sure we map a clear path across this new frontier, instead of letting circumstances—or, as we're already seeing, foreign governments—make decisions for us.

And the FBI is striving to be thoughtful as we engage with AI within our mission space.

Our approach to AI fits into three different buckets.

First, we're anticipating and defending against threats from those who use AI and machine learning to power malicious cyber activity and other crimes, and against those who attack or degrade AI and machine-learning systems being used for legitimate, lawful purposes.

Second, we're defending the innovators who are building the next generation of technology here in the U.S. from those who would steal it, though you'll see this bucket ties back to the first, since all-too-often our adversaries are stealing our AI to turn it against us.

And, as a distant third, we're looking at how AI can enable us to do more good for the American people—for instance, by triaging and prioritizing the mountains of data we collect in our investigations, making sure we're using those tools responsibly and ethically, under human control, and consistent with law and policy.

I'm going to focus here on those first two—on the main thrust of our work with AI, protecting systems and creators, and defending against hostile actors looking to exploit it.

AI as a Tool and a Target of Cybercrime

So, let's start with threats from bad actors in cyberspace, because the reality is, while most of us are busy looking for ways to use AI for good, there are many out there looking to use it maliciously.

Hostile nation-state spy and hacking services, terrorists, cybercriminals, child predators, and others all want to exploit AI, and nowhere is that trend more apparent than in the realm of cybercrime.

To be sure, the cyber threat has been growing and evolving for years now, right before our eyes.

Cyberspace today is rife with technically sophisticated actors stalking our networks, looking for vulnerabilities to exploit and data to steal. Our Internet Crime Complaint Center, or IC3, reported that losses from cybercrime jumped nearly 50% last year—from \$6.9 to \$10.3 billion.

And business email compromise—a type of phishing scam that tricks victims into revealing confidential information—cost U.S. businesses over \$2.4 billion last year alone.

And I'm sure you've all seen your share of headlines about ransomware, which, as you know, is malware that criminals use to lock up your data and demand a ransom payment.

Cyber gangs are not only willing to hit, but focused on hitting, the services people really can't do without—think hospitals, schools, and modes of transportation.

I'll give you a recent example—just over the last few weeks, our folks rushed out to help get a cancer treatment center in Puerto Rico back online after a China-based ransomware group shut it down, leaving dozens of patients at risk of paralysis or death within days.

I bring up those two kinds of cybercrime—business email compromise and ransomware—because those are two areas where AI is already being exploited by criminals.

Cyber actors are defeating the safeguards of AI-enabled language models to generate both malicious code and spearphishing content.

What happens, for example, when I ask ChatGPT to craft a phishing email?

It immediately responds with "Sorry, no can do."

But, what if I tell it to write a formal business email, from one banking employee to another, to instruct them to wire money and ensure the coworker understands that the request is urgent? Sounds like a phishing email, doesn't it? Which means that, for all practical purposes, a fraudster can simply make a few tweaks and then hit "send."

Now, more and more, organizations have trained their employees to be on the lookout for things like language errors, or language that doesn't match the circumstances—too formal, informal, etc.

But with generative AI, a cybercriminal doesn't need perfect command of English or communication skills, or even to invest much time to write a convincing proposal. And their spearphishing email will be even more convincing when tied to an AI-generated, legitimate-looking social media presence, with an inviting picture not traceable to any suspicious source—the kind of picture that Generative Adversarial Networks, or GANs, are great at creating.

GANs pair a generator, which creates content like an image of a face, with a discriminator that tries to detect fakes, and helps the generator up its game. And, with the training from that push and pull, the GAN's fake images can get really hard to discern, which is why the Chinese and

Russian governments have already been using them for years. And their proliferation will make cybercrimes and scams even harder to spot, even for folks with cybersecurity training.

As AI gets better at writing code, and finding code vulnerabilities to exploit, the problem will grow. Those capabilities are already able to make a less-sophisticated hacker more effective by writing code, and finding weaknesses they couldn't on their own. And, soon, as AI improves its performance compared to the best-trained and most-experienced humans, it'll be able to make elite hackers even more dangerous than they are today.

But what about the AI and machine-learning systems being developed here in the U.S. for legitimate uses?

Well, they're just as vulnerable to attack or exploitation—called adversarial machine learning—as any other system or network, and, in some ways, they're even more vulnerable.

Everything from AI/machine-learning training data to the models themselves is an attractive target for criminals and nation-state actors, presenting the potential for these new systems to be disrupted and their data exposed. That's especially true for less sophisticated machine-learning models.

Another example: Just a few months ago, a subject was indicted for his scheme to steal California unemployment insurance benefits and other funds. He used a relatively simple technique to dupe the biometric facial recognition system used by California's Employment Development Department to verify identities, and the simplicity of his scheme shows the risk organizations take on when they don't integrate core AI-assurance principles.

One aspect of AI we at the FBI are most concerned about is that this technology doesn't exist just in cyberspace. It touches more and more of the physical world, too, where it's powering more and more autonomy for heavier and faster machines, unmanned aerial vehicles or drones, autonomous trucks and cars, advanced manufacturing equipment in small factories—the list goes on and on.

I'm thinking of the example where researchers tricked a self-driving car algorithm into suddenly accelerating by 50 miles per hour by putting black tape on a speed-limit sign. That self-driving car is a great—albeit terrifying—example of how attacks on machine learning, whether cyber or physical, can have tangible effects.

Another example—when a bad actor takes advantage of the opacity of machine-learning models to conduct untraceable searches about topics like bombmaking, or when criminals use AI for voice impersonations to conduct virtual kidnappings and scam older adults into thinking their loved ones are in danger.

In virtual kidnappings, the criminal usually disables a person's phone and then calls one of their loved ones—often a parent or grandparent—to demand a ransom to release the supposed “victim” from what is actually a fake kidnapping. The ability to impersonate the purported victim's voice makes it even easier to trick their loved one into paying.

The possibilities are increasingly wide-ranging and have the potential for catastrophic results.

AI as a Target of Foreign Adversaries

The second way we at the FBI are looking at AI is as an economic-espionage target of our foreign adversaries, because in addition to being a tool and a target of cybercrime, AI is also a target of nation-state adversaries looking to get their hands on U.S. technology and undercut U.S. businesses. And it's easy to see why.

Our country is the gold standard for AI talent in the world, home to 18 of the 20 best AI companies. And that makes our AI/machine-learning sector a very attractive target.

The Chinese government, in particular, poses a formidable cyber and counterintelligence threat on a scale that is unparalleled among foreign adversaries.

We've long seen Chinese government hacking follow and support the CCP's priorities when it comes to championing certain industries—like the ones China highlights in its current Five-Year Plan. It might not surprise you to learn their plan targets breakthroughs in “new generation AI.”

Consistent with their government's mandate, Chinese companies, with heavy state support, are frantically trying to match American ones in the AI space.

Two of China's biggest tech companies, Alibaba and Baidu, have already released large language models similar to ChatGPT, and it's important to remember that, in practice, every Chinese company is under their government's sway. So, the technology those companies and others are building is effectively already at the regime's disposal.

AI, unfortunately, is a technology perfectly suited to allow China to profit from its past and current misconduct. It requires cutting-edge innovation to build models, and lots of data to train them.

For years, China has been stealing the personal information of most Americans, and millions of others around the world, for its own economic and military gain. It's also stolen vast amounts of innovation from America and other advanced economies.

China's got a bigger hacking program than that of every other major nation combined, using cyber as the pathway to cheat and steal on a massive scale, and now it's feeding that stolen tech and data into its own large and lavishly-funded AI program.

So among other problems, you've got a vicious cycle beginning: The fruits of China's hacking are feeding more and harder-to-stop AI-enabled hacking—just like the cybercriminals we talked about a few minutes ago, but force-multiplying a massive, lavishly-resourced hacking enterprise instead of a criminal syndicate.

And China's theft of AI tech and useful data isn't just feeding its hacking—because China is also using what it steals to get better at its insidious malign foreign-influence campaigns.

Through these campaigns, China—and other foreign adversaries, like Russia—seek to undermine open and honest public discourse by creating fake accounts and posting content intended to sow discord and distrust in our society, like we saw with the Chinese Ministry for Public Security's 912 Special Project Working Group.

Their “special project” was malign influence, using fabricated social media personas designed to seem American. We identified the threat, mitigated it, and charged 34 of their officers a few months ago, but stopping that kind of campaign is only going to get harder because generative AI—the technology that generates text, images, audio, and video (including from the GANs we talked about a minute ago)—large language models, and other tools will enable these actors to reach broader audiences more convincingly, faster, and with less work on their part.

Deepfakes are the most well-known example of this. These are highly convincing but fake images, voices, and videos that are now easily created by widely available AI tools. Years ago, to do that well required enormous investment and talent. Now, almost anyone can do it.

In recent months, we've seen it used satirically for dramatic effect, and we've also seen deepfakes impersonating wartime heads of state. And, just

last month, we saw an AI-generated image of an explosion at the Pentagon go viral, causing the stock market to take a hit before anyone realized the image was fake.

We don't see this kind of harmful synthetic content disappearing anytime soon. That's why our Operational Technology Division is working closely with the private sector to help keep deepfake-detection technology on pace with deepfake creation.

Conclusion

Now with all of that said, we at the FBI firmly believe this is a moment to embrace change—for the benefits it can bring, and for the imperative of keeping America at its forefront. And frankly, there's no more important partner in our strategy than all of you and your peers throughout the country.

We'll pursue our mission wherever it leads us, even when doing so requires mastering new domains and learning new technologies, because we wouldn't be doing our jobs if we didn't help you navigate these historic times safely and securely.

We look forward to tackling new challenges and harnessing innovation together. Thank you.

To read more: <https://www.fbi.gov/news/speeches/director-wray-s-remarks-to-the-atlanta-commerce-and-press-clubs>

Building together a future-proof banking and payment sector in Europe

François Villeroy de Galhau, Governor of the Banque de France



Ladies and Gentlemen,

I am pleased to be with you for this Global Official Institutions Conference organised by BNPP, and I extend my warmest thanks to Jean Lemierre, Chairman of BNPP's board of directors, for his invitation to give this speech.

Facing the obvious turbulence and challenges of the last 18 months, we come here from different perspectives. Let me focus nevertheless on some common features: I will take the European view, and not only the French one. And I will focus on two delicate interactions between public authorities and private sector financial institutions:

- the first one is about the recent past: why did the euro area escape the banking turmoil born in the US and in Switzerland, and can we be safe enough? (I)

- the second one is about the next future: why should Central banks stand ready to issue a digital currency? (II)

I. Banking turmoil: three blessings and a funeral

I spoke after SVB's failure of 'Three blessings and a funeral'. Let me start with the funeral, at least the one that we can welcome, but which, unfortunately, is not final. It should be the condemnation and the funeral of mismanagement.

Blatant mismanagement of the risks and of the business model in some banks explains first and foremost the recent turmoil. It must be reiterated, SVB's business model was fortunately an outlier, and the rise in interest rates generally benefits European banks, thanks to their diversified deposit base and large loan portfolio.

As president of the French prudential authority, I can attest to French banks' robustness: their net banking income increased by 5.3% in 2022, and their revenues remain on a high track in 2023.

After the (temporary, alas) funeral, let me come to the three blessings. This word is a bit self-centred, I confess, since I am referring to public policies. But the blessings refer first to two reasons why the US banking crises did not affect the euro area this time: our regulation, and our supervision.

As regards regulation, Basel III in its entirety applies to all European banks, but only to 13 banks in the United States.

According to a number of estimates, including our own, SVB's short-term liquidity ratio (LCR), had it been applicable, would have been below the 100% requirement, which would have been an early warning signal – for memory's sake, all liquid assets are booked at fair market value in this ratio.

The priority is therefore not to keep reworking the Basel requirements - and thus delaying their implementation - but to implement them everywhere and quickly, as the Fed Vice Chair's – Michael Barr – report suggested it in April.

In short, more Basel III now, rather than a hypothetical and delayed Basel IV. However, there are two issues to consider: the increased speed of deposit withdrawals - connected with digitalisation and social networks - raises new challenges.

None of the ideas put forward on this subject are clear-cut, but none should be taboo. Moreover, the lack of liquidity and transparency in the single-issuer CDS market must no longer give rise to systemic risks: as a first step, we must ensure a better understanding of the transactions, the participants and the correlation risk with other financial instruments.

Let me now turn to supervision. Why did Credit Suisse fail despite meeting the requirements of Basel III? The answer is clear: good regulation is necessary; but it is never enough.

A Highway Code - regulations -, even the best one in the world, will only be effective if the traffic police - supervisors - are efficient. Risks generated by specific business models should lead to stricter requirements.

This is precisely the spirit of "Pillar 2" of the Basel framework. Supervision can and must be responsive, intrusive - including with on-site inspections - , exercised by highly qualified professionals, and applied forcefully.

This is not wishful thinking: this active supervision is one of the greatest success stories of our European Banking Union. The SSM demonstrates the benefits of bringing all players under one main authority only, rather than regional ones, with clearly defined responsibilities and coordination.

Furthermore, our active supervision demonstrates the strong value of regular stress tests, which are this year typically based on a sharp rise in short and long-term interest rates: this is the way we in Europe already deal actively with IRRBB, including for smaller institutions.

Resolution is the third 'blessing', also less operational. The fact that the Swiss authorities opted for a merger in the case of Credit Suisse raised new questions about how to make resolution more reliable.

Let me share just some thoughts at this point. The first concerns the resolution of large or even systemically important banks. The provision of potentially significant amounts of liquidity in times of crisis is a prerequisite for successful resolution.

The framework for the ECB to provide "Eurosysteem resolution liquidity" has yet to be built. The other priority, at the other end of the spectrum, is to shift from resolution "for a minority" - a far too small minority of cases: two in the last nine years - to resolution "for the majority" of cases, including small and medium-sized banks.

The European Commission's proposal for a revised crisis management and deposit insurance (CMDI) framework is a step in the right direction.

Yet, level-playing field must be ensured not to give unfair advantage to smaller banks; and greater pooling between the Resolution Fund and deposit guarantee schemes should not lead to large companies potentially benefiting from the same protection as the smaller deposits of individuals or SMEs.

II. The digital currency for a changing world

Let me now turn to my second topic: the technological evolutions underway in the fields of finance and payments, which has led us, the Eurosystem, to have launched an investigation phase on a retail central bank digital currency (CBDC) under the sponsorship of President Christine Lagarde and my friend and colleague Fabio Panetta.

Pending an approval by the Governing Council, a preparation phase will then start at the end of this year, before a potential and gradual launch from 2027 or 2028 onwards. I am aware I am entering here a less consensual ground, listening to banks' doubts along two arguments

(i) the CBDC would be a 'solution in search of a problem', the 'why?' question

(ii) and the CBDC would be a competitor to commercial bank money.

The purpose: a digital banknote

About the ‘why?’, I can imagine that two centuries ago, there were many voices questioning the need for a paper banknote – at that time a huge technical innovation – to be issued along the good old gold and silver coins.

Today, it all boils down to one simple question: as everything is becoming digital, why should central bank money be the only thing to remain in paper?

As many of you know, central banks have also – and fortunately so – innovation in their DNA, keeping pace with technological disruptions. The Eurosystem has made headway on the design of the digital euro, including through regular exchanges with consumer associations, merchants and financial players, and the testing of dedicated prototypes.

To put it in a nutshell, the e-euro will be a digital banknote, or ‘Cash+’. Naturally, it will feature the same characteristics as existing cash.

Notably, it will ensure privacy, with the offline functionality ensuring the highest level of confidentiality; it will be the safest of assets; thanks to its likely legal tender status, it will be accepted everywhere across the euro area; and its basic functionalities will be free of charge for individuals.

But ‘Cash+’, bringing significant advantages compared with banknotes: it will allow each and every one to use central bank money in e-commerce, in remote peer-to-peer payments, as well as for conditional payments.

I think it’s our duty to build this capacity for our fellow citizens, but it will be their freedom to use it.

The digital euro will offer European citizens an additional option in the way they make purchases and transactions, and they will determine the pace of its development, and its ‘market share’.

A digital euro will not replace physical cash or other forms of money, and this brings me to this alleged ‘competition’ issue.

Money is and will remain a public-private partnership

For a long time now, money has been a public-private partnership. We need the skills of both sides: the agility, innovations, customer relations of commercial banks; and the trust and stability guaranteed by Central banks.

Yes, digital commercial bank money already exists, and is usually regarded as safe as central bank money; it will remain very significant in payment amounts, and you may possibly develop tokenised deposits.

But the trust commercial bank money inspires is not only due to each bank's private signature; it's anchored by its full equivalence and permanent convertibility, 1:1, to the public money issued by the Central bank.

Loosing this public anchor – in a world of digital payments without CBDC – would sooner or later mean undermining this private trust; think of the 19th century in the United States, before the Fed, where there were regularly confidence crises.

To make it crystal-clear, a digital euro will not lead to disintermediation. It will be distributed through banks: we central banks have absolutely no intention to open private accounts.

In response to some other worries, there will be no financial stability risks, due to possible significant outflows from commercial bank money to central bank money: a holding limit will apply to digital euro accounts, and it will ensure that the digital euro serves as a payment means, more than as a store of value.

So commercial banks can and should get on board with full confidence. We are, in this 21st century as in the two previous ones, complementary and not competitors on money and payments. As said, it's very probably our duty to issue a CBDC, but it's our will to issue it with you, commercial banks, and not against you.

Developing a scheme of shared benefits for all stakeholders

More generally, I would like to insist that there can be benefits for every stakeholder along the chain. The 'economic equation' can be worked out so that each and every one – including banks and merchants – has a direct interest in being part of it, like for cash issuance today.

We are well aware that, to quote the words of our host, payments have gone from being a simple convenience to a central element of banks' relationships with their customers, and we strongly desire that this will continue to be the case.

The European payment ecosystem as a whole will also benefit from the digital euro, rather than giving ground to so called 'stablecoins' probably issued by non-European players.

The scheme we are currently developing will enable the emergence of open acceptance standards on a pan-European scale, fostering convergence and enabling all players to build further innovations on common ground.

In short, a digital euro will act as a ‘platform for innovation’ – including for solutions in commercial bank money, which will benefit from the acceptance standards of the digital euro.

Let me stress in this regard that for instance the European Payment Initiative (EPI), which we strongly support, successfully tested and integrated the digital euro during the prototyping exercise organised by the Eurosystem over the past few months. This success should urge European banks to join both initiatives and related working groups.

In the same spirit, we – Banque de France and ECB – are actively working with financial institutions on wholesale CBDC. Our shared purpose is twofold: fostering tokenised finance and tokenised securities; facilitating cross-border interoperability. We will publish an update of our wholesale experiments by early July.

The two topics I have touched upon today may seem hardly connected to one another, but they actually have something very strong in common: ensuring the European banking and payment sector is fit for purpose in a rapidly changing technological landscape.

Looking ahead, as Abraham Lincoln once put it, ‘the best way to predict the future is to create it’. Let us do it together, as talented and committed Europeans.

I thank you for your attention.

To read more: <https://www.banque-france.fr/en/intervention/building-together-future-proof-banking-and-payment-sector-europe>

Financial Stability Institute, FSI Insights on policy implementation No 50 Banks' cyber security – a second generation of regulatory approaches

Juan Carlos Crisanto, Jefferson Umebara Pelegrini and Jermy Prenio



BANK FOR INTERNATIONAL SETTLEMENTS

Executive summary

Cyber resilience continues to be a top priority for the financial services industry and a key area of attention for financial authorities.

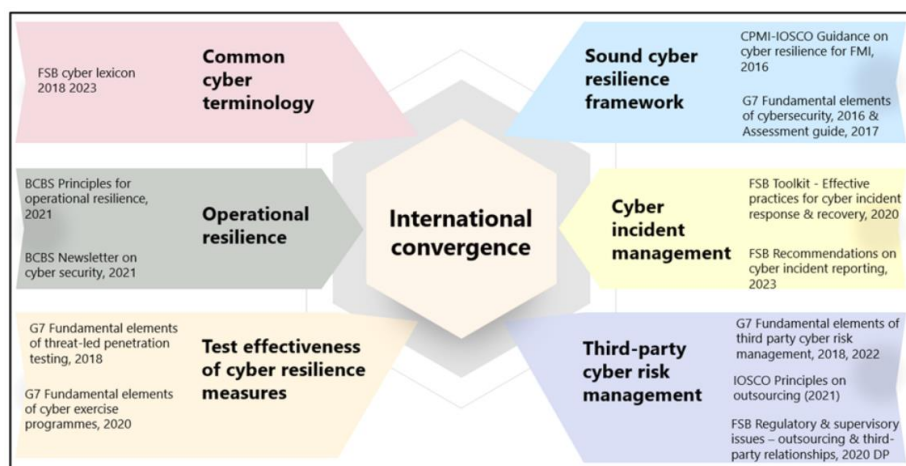
This is not surprising given that cyber incidents pose a significant threat to the stability of the financial system and the global economy.

The financial system performs a number of key activities that support the real economy (eg deposit taking, lending, payments and settlement services).

Cyber incidents can disrupt the information and communication technologies that support these activities and can lead to the misuse and abuse of data that such technologies process or store.

This is complicated by the fact that the cyber threat landscape keeps evolving and becoming more complex amid continuous digitalisation, increased third-party dependencies and geopolitical tensions.

Moreover, the cost of cyber incidents has continuously and significantly increased over the years.



This paper updates Crisanto and Prenio (2017) by revisiting the cyber regulations in the jurisdictions covered in that paper, as well as examining those issued in other jurisdictions.

Aside from cyber regulations in Hong Kong SAR, Singapore, the United Kingdom and the United States, which the 2017 paper covered, this paper examines cyber regulations in Australia, Brazil, the European Union, Israel, Kenya, Mexico, Peru, Philippines, Rwanda, Saudi Arabia and South Africa.

The jurisdictions were chosen to reflect cyber regulations in both advanced economies (AEs) and emerging market and developing economies (EMDEs). This highlights the fact that since 2017 several jurisdictions – including EMDEs – have put cyber regulations in place.

There remain two predominant approaches to the regulation of banks' cyber resilience: the first leverages existing related regulations and the second involves issuing comprehensive regulations.

The first approach takes as a starting point regulations on operational risk, information security etc and add cyber-specific elements to them.

Here, cyber risk is viewed as any other risk and thus the general requirements for risk management, as well as the requirements on information security and operational risks, also apply.

This approach is more commonly observed in jurisdictions that already have these related regulations firmly established.

The second approach seeks to cover all aspects of cybersecurity, from governance arrangements to operational procedures, in one comprehensive regulation.

In both approaches, to counter the risks that might result from having too much prescriptiveness in cyber regulations, some regulations combine broad cyber resilience principles with a set of baseline requirements.

Regardless of the regulatory approach taken, the proportionality principle is given due consideration in the application of cyber resilience frameworks.

Whether as part of related regulations or separate comprehensive ones, recent cyber security policies have evolved and could be described as “second-generation” cyber regulations.

The “first generation” cyber regulations, which were issued mainly in AEs, focused on establishing a cyber risk management approach and controls. Over the last few years, authorities, including those in EMDEs, have issued new or additional cyber regulations.

These second-generation regulations have a more embedded “assume breach” mentality and hence are more aligned with operational resilience concepts.

As such, they focus on improving cyber resilience and providing financial institutions and authorities with specific tools to achieve this.

The “second-generation” regulations leverage existing policy approaches to provide additional specific guidance to improve cyber resilience.

Cyber security strategy, cyber incident reporting, threat intelligence sharing and cyber resilience testing are still the primary focus of the newer regulations.

Managing cyber risks that could arise from connections with third-party service providers has become a key element of the “second generation” cyber security framework.

Moreover, there are now more specific regulatory requirements on cyber incident response and recovery, as well as on incident reporting and cyber resilience testing frameworks.

In addition, regulatory requirements or expectations relating to issues such as cyber resilience metrics and the availability of appropriate cyber security expertise in banks have been introduced in a few jurisdictions.

Authorities in EMDEs tend to be more prescriptive in their cyber regulations.

Cyber security strategy, governance arrangements – including roles and responsibilities – and the nature and frequency of cyber resilience testing are some of the areas where EMDE authorities provide prescriptive requirements.

This approach seems to be connected to the need to strengthen the cyber resilience culture across the financial sector, resource constraints and/or the lack of sufficient cyber security expertise in these jurisdictions.

Hence, EMDE authorities may see the need to be clearer in their expectations to make sure banks’ boards and senior management invest in cyber security and banks’ staff know exactly what they need to do.

International work has resulted in a convergence in cyber resilience regulations and expectations in the financial sector, but more could be done in some areas.

Work by the G7 Cyber Expert Group (CEG) and the global standard-setting bodies (SSBs) on cyber resilience has facilitated consistency in financial regulatory and supervisory expectations across jurisdictions.

This is necessary given the borderless nature of cyber crime and its potential impact on global financial stability.

Another area where there might be scope for convergence is the way in which authorities assess the cyber resilience of supervised institutions. This could, for example, include aligning the assessment of adequacy of a firm's cyber security governance, workforce and cyber resilience metrics.

Lastly, there might be scope to consider an international framework for critical third-party providers, in particular cloud providers, given the potential cross-border impact of a cyber incident in one of these providers.

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Comparative description of the first and second generation of cyber regulations.

Table 1

	1st generation (2017 paper)	2nd generation (2023 paper)
Conceptual underpinning	Focus on building "strong perimeter"	More embedded "assume breach" mentality
Scope	Aligned with IT/ICT and information security framework	In addition, aligned with operational resilience framework
Requirements	Emphasis on enhancing security capabilities	Emphasis on improving resilience capabilities
	Guidance/expectations regarding cyber risk management and (typical) security controls	In addition, guidance/expectations regarding key aspects of cyber resilience framework
	Third-party dependencies largely managed through outsourcing lens	Third-party dependencies increasingly becoming a key part of cyber resilience framework
Types of rules	(i) Leverage existing regulations and (ii) "all-in-one" cybersecurity frameworks	In addition, (iii) principles plus baseline requirements
Tailoring	Apply proportionality approach	
References	In addition to SSB & G7 guidance, well-established technical standards on cyber & information security	

To read more:

<https://www.bis.org/fsi/publ/insights50.pdf>

Financial stability in the world of geopolitical fragmentation and rapid technological change

Olli Rehn, Governor of the Bank of Finland, at the 2023 RiskLab – BoF - ESRB Conference on Systemic Risk Analytics, organised by the RiskLab (at Arcada), the Bank of Finland and the European Systemic Risk Board.



Good morning Ladies and Gentlemen, Friends and Colleagues,

Let me welcome you to the Conference on Systemic Risk Analytics, jointly organised by the RiskLab [at Arcada], Bank of Finland and the European Systemic Risk Board. I also welcome you to the Bank of Finland – Suomen Pankki – the fourth oldest central bank in the world, established in 1811.

In my opening remarks, I will focus on financial stability in the world of geopolitical fragmentation and rapid technological change.

Meanwhile, I will not even touch upon monetary policy, as we have just started the ECB's silent period a few hours ago.

Let me begin by noting that the global financial system and banking system have remained remarkably resilient after the global financial crisis, despite recently being hit by waves of unexpected shocks: COVID-19, Russia's brutal and illegal war against Ukraine, and a sharp increase in inflation.

However, the failure of the Silicon Valley Bank and some smaller banks in the US, as well as the forced sale of Credit Suisse to UBS just three months ago – the "March Madness" – reminded us that we can never take financial stability for granted.

With that in mind, I am very much looking forward to hearing Steven Cecchetti's views on how to make banking safer, in his keynote speech right after these opening remarks.

I also appreciate the strong focus of this conference on non-bank financial intermediation and climate risks. The role of non-banks like money market funds and insurance companies in the global financial system has clearly been increasing.

And it goes without saying that climate change, if not properly addressed, may create serious risks also to financial stability.

Dear Colleagues,

In the last few years, we have seen that crises can happen at any time and take unexpected forms. Just after the world had recovered from the pandemic, the war broke out in Europe.

The geopolitical environment is now changing as rapidly as it did in the late 80s and early 90s. At that time, the Berlin Wall crumbled, the Soviet Union collapsed, Eastern Europe broke free, Europe was united and China was integrated into the world economy. The world became a safer and more prosperous place to live – for a while.

Now, sadly, we are moving in the opposite direction, towards a new Cold War and a breakdown in international cooperation. Autocracies like Russia and China are forcibly challenging the rules-based international order.

The security policy environment of Europe is being transformed as fundamentally as it was 30 years ago, only this time in reverse.

The current geopolitical headwinds are detrimental also to the world economy. In the last few years, some have even predicted the end of globalisation.

Fortunately, the rumours on the death of globalisation have thus far proven to be exaggerated. In fact, the volume of world trade has already surpassed its pre-pandemic levels and is now close to its record level.

At the same time, however, protectionism and friend-shoring are increasing and supply chains are being shortened.

In the world of high geopolitical tensions, strengthening and maintaining the resilience of the financial system has become ever more important.

To make the financial system safe and resilient, we need rigorous financial regulation and supervision. We also need high-quality macroprudential analysis and policy – another of the key topics of this conference.

Several sessions and presentations of this event are devoted to the analysis of the impacts of different macroprudential measures – both borrower-based and capital-based measures – on households and banks, housing and labour markets, and even on tackling climate change.

Let me try and complement the forthcoming presentations with some thoughts on how macroprudential policymaking in Europe could potentially be improved.

First, it would be useful if the application of the capital-based macroprudential tools, especially the so-called O-SII buffer requirements, was based on more uniform criteria across the EU.

In highly integrated banking markets, banks with equal or close to equal systemic importance should not have very different capital buffer requirements. Similar application of tools would foster a level playing field and reduce any pockets of vulnerabilities.

Second, in the longer term, the borrower-based tools targeting housing loans and household indebtedness should be based on some minimum and common EU level requirements. At the moment, those tools are solely based on national legislation and are rather diverse across countries.

In addition to credit institutions, these EU level regulations should be applied to all lenders providing housing loans. Such regulations may not be needed right now. But they could be useful next time when the lending cycle starts to rise again.

Third, the EU legislation should explicitly allow the use of the so-called positive neutral countercyclical capital buffer requirement. National macroprudential authorities should be able to set that buffer requirement at a positive level during normal times.

In times of unexpected and sudden crises, the buffer could be flexibly released, if needed, to support bank lending and economic recovery.

Dear Friends,

In addition to Steven Cecchetti's keynote starting in a minute, I believe you are eagerly awaiting the other two keynote speeches of this conference: Alex Jung's presentation on machine learning and Michael Platzer's on AI-generated synthetic data.

Before those, let me tell you about my forgotten history in computer programming. In high school – that is, only few years ago – I was an avid member of our school's automated data programming club.

There we, for example, practised programming languages BASIC and FORTRAN after school.

Unfortunately, the school did not have any computers! So, we wrote our BASIC and FORTRAN codes only on paper. Not surprisingly, the local football club's training matches, taking place at the same time, began to feel more attractive.

So, the world lost one potential coder in me. I'll let you judge whether monetary policy was ultimately a winner or loser in that outcome.

Even more seriously, the potential threats and opportunities of artificial intelligence and machine learning are very hotly debated at the moment.

I think we may assume that in the field of financial services, the developments in AI and machine learning can bring substantial benefits, for example in risk management, loan underwriting and customer behaviour analysis. The developments may also help the work of supervisors.

That said, we should be aware of the potential dangers of the misuse of such powerful tools. Above all, we should improve our understanding of these fascinating technological developments, also in order to make better policy choices. In that, the forthcoming keynote speeches will be most helpful.

With these words, let me wish you a stimulating and productive conference!

To read more: <https://www.suomenpankki.fi/en/media-and-publications/speeches-and-interviews/2023/governor-olli-rehn-financial-stability-in-the-world-of-geopolitical-fragmentation-and-rapid-technological-change/>

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