

**International Association of Potential, New and Sitting Members
of the Board of Directors (IAMBD)**

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News for the Board of Directors, June 2019

Dear members and friends,

The Financial Stability Board (FSB) is seeking feedback from stakeholders as part of its evaluation of the effects of the too-big-to-fail (TBTf) reforms for banks that were agreed by the G20 in the aftermath of the global financial crisis.



The evaluation, which is being carried out by a working group chaired by Claudia Buch (Vice-President of the Deutsche Bundesbank), will assess whether the implemented reforms are reducing the systemic and moral hazard risks associated with systemically important banks (SIBs).

It will also examine the broader effects of the reforms to address TBTf for SIBs on the overall functioning of the financial system. More details on the evaluation can be found in the summary terms of reference.

Stakeholder outreach will be an important aspect of the evaluation, including through workshops to exchange views with stakeholders on this topic and through this call for public feedback.

In particular, the FSB invites feedback from banks, other financial institutions, academics, think tanks, industry and consumer associations on the following issues:

1. To what extent are TBTf reforms achieving their objectives as described in the terms of reference? Are they reducing the systemic and moral hazard risks associated with SIBs? Are they enhancing the ability of authorities to resolve systemic banks in an orderly manner and without exposing taxpayers to loss, while maintaining continuity of their economic functions? What evidence can be cited in support of your assessment?
2. Which types of TBTf policies (e.g. higher loss absorbency, more intensive supervision, resolution and resolvability, other) have had an

impact on SIBs and how? What evidence can be cited in support of your assessment?

3. Is there any evidence that the effects of these reforms differ by type of bank (e.g. global vs domestic SIBs)? If so, what might explain these differences?

4. What have been the broader effects of these reforms on financial system resilience and structure, the functioning of financial markets, global financial integration, or the cost and availability of financing? What evidence can be cited in support of your assessment?

5. Have there been any material unintended consequences from the implementation of these reforms to date? What evidence is available to substantiate this?

6. Are there other issues relating to the effects of TBTF reforms that are not covered in the questions above and on which you would like to provide your views? Please substantiate your comments with evidence.

Feedback, including evidence in support of the responses, should be submitted by 21 June 2019 to fsb@fsb.org under the subject heading “TBTF evaluation”.

Responses will be published on the FSB’s website unless respondents expressly request otherwise. The feedback will be considered by the FSB as it prepares the draft report, which will be issued for public consultation in June 2020. The final report will be published in late 2020.

Back to stable

Yves Mersch, Member of the Executive Board of the European Central Bank, at the Zahlungsverkehrssymposium, Deutsche Bundesbank, Frankfurt am Main



The primary objective of the ECB is to ensure price stability. This is also the best contribution we can make to achieving sustainable growth.

Since the launch of the euro, the ECB has delivered on this commitment and rendered price stability a reality, maintaining an average inflation rate of below, but close to, 2%. And that is why the majority of euro area citizens trust the euro.

Their trust is contingent on the independence of the central bank. Independence is granted to central banks to prevent politicians from seeking electoral gain through measures which boost economic activity in the short term but damage the long-term health of the economy and the country.

It is also recognised that legal tender needs to be issued by a public authority. In the case of the EU, it falls to the ECB to issue the euro and decide on the denomination of banknotes.

We could not accept a situation in which, for anti-European or populist motives, certain euro denominations were not allowed to be used in some parts of the EU.

This established consensus is being challenged by private initiatives triggered by technical innovation. We are seeing ever more solutions in search of a problem.

Bitcoin and other crypto-assets claim to need neither trust nor the backing of a sovereign. They reject the paradigm of state-supported currencies governed by central banks, along with the role of financial institutions as trusted intermediaries.

These self-proclaimed currencies, more accurately described as crypto-assets, have proved to be unfit for purpose, demonstrating that well-executed central bank policies are still the only sound basis for stability.

Trustless is pointless

The original bitcoin vision replaces trust in a dedicated intermediary with cryptographic proof. In other words, any two parties can transact directly with each other as peers without requiring a trusted third party. Their transactions rely on distributed ledger technology (DLT), sometimes floridly referred to as the "trust engine" of crypto-assets.

By leveraging cryptography and mechanisms to reach consensus among peers in a distributed system, DLT ensures the integrity and security of records which, in a centralised system, would be entrusted to a responsible third party. Users of crypto-assets can therefore depend on the underlying blockchains to avoid double spending and validate ownership.

However, trust isn't entirely dispensable. In fact, users place their trust in the opaqueness of the arrangements through which influence is dispersed across the blockchain.

Public blockchains still rely on key players to perform certain tasks, but these players are often unidentified and unaccountable.

A protocol has to be created, maintained and operated, while the transactions it supports need to be validated. Developers and miners perform actions that affect the outcome of public blockchains.

Furthermore, the practical usability of crypto-assets relies to a great extent on identifiable intermediaries to act as "gateways" between the crypto-asset ecosystem on the one hand and the financial markets and the economy on the other.

I have said before that we need to differentiate between "assets" such as bitcoin and the technology behind them, such as blockchain. Indeed, some of the technology is worth exploring and could also be of interest to central banks. That said, our role is not to drive technological adoption by the industry and the general public, but to ensure that changing preferences can be satisfied in a secure way.

While DLT is a necessary element of crypto-assets, it is not in itself their defining feature.

The single distinguishing feature of crypto-assets such as bitcoin is the absence of an underlying claim, which makes it difficult for them to maintain price stability.

Crucially, crypto-assets aren't backed by any sovereign authority and, unlike financial instruments, they don't give their holders ownership or

contractual rights. Central banks provide confidence in money - as a store of value, unit of account and means of payment - by safeguarding the stability of the currency.

By contrast with traditional currencies, bitcoin has been highly volatile over the past two years. Bitcoin's average volatility in that period was close to 80 %, while many other crypto-assets showed even higher levels of volatility. This makes it impossible to use crypto-assets for anything but outright speculation.

Some crypto-assets have recently emerged that strive to minimise fluctuations in value against a currency of reference, but even they are no alternative to the euro.

These so-called "stablecoins" broadly fall into two categories: those that are backed with an underlying asset and those that rely on an algorithm to continuously match the supply and demand of circulating units.

Unsurprisingly, the stablecoins that show the least volatility are those that back every issued unit with an equal amount of fiat currency. Why use a proxy, then, if you can have the real thing - unless the issuers of that proxy seek to interfere with the control of trusted assets circulating in the economy

The poor performance of crypto-assets is not an excuse for complacency, but rather a reminder of the importance of the central bank's objective to maintain price stability. Fulfilling this objective is conditional on the independence of the central bank, as ensured by a narrow but clearly defined mandate.

Central banks must not be overburdened with multiple goals without having the appropriate instruments to achieve them. This brings me to the role of the ECB in the oversight of market infrastructures.

Less is more

The ECB has a Treaty-based task to promote the smooth operation of payment systems, as part of which it takes a close interest in the regulatory framework for market infrastructures which clear and settle securities and derivatives in euro, in particular central counterparties (CCPs).

This reflects the systemic impact CCPs can have in situations of extreme stress, by disrupting repo markets or channelling liquidity strains to banks - which are also monetary policy counterparties - thus affecting the circulation of liquidity in payment systems.

Ultimately, CCPs may need to rely on central banks as lenders of last resort. Central banks therefore have an important role to play in the regulation of central clearing - a notion which is largely recognised but often misunderstood.

In this context, let me say a few words about recent developments in the area of CCP regulation, and in particular the outcome of the legislative process regarding the revision of the supervisory framework for CCPs, the European Market Infrastructure Regulation (EMIR II), and the recommendation to amend Article 22 of the Statute of the ESCB and the ECB.

The ECB recommended to EU legislators that its Statute be amended to clarify that the ECB had legal competence over CCPs, which would have allowed it to perform its statutory monetary policy role under EMIR II.

We made the case that the ECB needed explicit general competence to monitor and address risks relating to our mandate, including broad discretion to take necessary measures in exceptional situations where the stability of the euro is at stake.

We also cautioned repeatedly against the positions taken by some Member States - particularly those who traditionally uphold the independence of monetary policy - and ultimately reflected in the draft amended text of Article 22 discussed by EU legislators.

Under this approach, the ECB would have had no competence over EU CCPs, contrary to its mandate as central bank of issue for the euro, which calls for powers over all euro clearing regardless of its location.

The ECB would have been given an exhaustive list of specific and circumscribed powers - replicating the present and future provisions of EMIR II - in respect of some systemic third-country CCPs, as designated by the European Securities and Markets Authority (ESMA).

This would have been uncharacteristic and overly granular for the ESCB Statute, which is primary law and gives the ECB broad discretion in the exercise of its monetary mandate, and it would have violated the ECB's functional independence.

This was compounded by a requirement that ECB measures be "in alignment with" legislative acts and measures taken under those acts.

Given these grave legal concerns, the Governing Council concluded that the final text seriously distorted its recommendation and interfered with fundamental principles of the Treaty, including the independent exercise by the ECB of its monetary policy.

The recommendation to amend the Statute was therefore withdrawn, which is a matter of regret. The Governing Council did, however, make it clear that the ECB remains supportive of the objectives of EMIR II and is fully committed to contributing to its implementation where legally possible and in line with its mandate. The ECB looks forward to fruitful cooperation with ESMA and other authorities in taking this forward.

In times of upheaval in global payment markets, it is all the more important for Europe to close ranks. In the United States we have already seen two mergers of two significant payment service providers this year.

Both mega-mergers had a market value of \$55 billion and more could follow. In such dynamic markets, in which economies of scale play a pivotal role, we should not get lost in national details but should self-confidently enhance the conditions of the European single market and the competitiveness of its participants, without, however, putting up protectionist barriers.

Conclusions

Allow me to conclude. As central banks, we must remain true to our core mandate. Through change or crisis, we must retain the capacity to adapt to evolving needs and do what needs to be done. But that should not come at the expense of independence or accountability.

Ultimately, we will be judged on how we deliver price stability. Trust is the central bank's most valuable asset.

PCAOB Announces New Liaison for Investors, Audit Committees, and Preparers

PCAOB

Public Company Accounting Oversight Board

The Public Company Accounting Oversight Board announced that Erin Dwyer has been named deputy director of the Office of External Affairs where she will serve as the direct point of contact for and liaison to investors, audit committees, and preparers.

As outlined in its 2018-2022 Strategic Plan, the PCAOB is committed to advancing its engagement with investors, audit committees, and preparers. This newly-created role will be dedicated to expanding outreach to and events for these key stakeholders.

"The Board is dedicated to enhancing transparency and accessibility through proactive engagement," said PCAOB Chairman William D. Duhnke. "Erin brings more than twenty years of experience working with investors and in the past several years, audit committees and preparers, which will be critical to the Board's ability to cultivate a more dynamic dialogue with them. We encourage investors, audit committees, and preparers to reach out to Erin at any time with questions or feedback for the PCAOB."

Prior to joining the PCAOB, Ms. Dwyer served as managing director of stakeholder engagement and communications at the Center for Audit Quality, where she led strategic initiatives to build and strengthen relationships with key capital markets participants, including institutional investors, boards of directors, issuers, and other key governance leaders. She started her career as a sell-side analyst for eight years in Prudential Financial's Washington D.C. equity research office.

"This Board is undertaking significant, positive steps to connect with its stakeholders, solicit their views, and provide relevant and useful information to all interested parties," said Ms. Dwyer. "I am delighted to join the PCAOB and Office of External Affairs at this exciting time and look forward to continuing to work with key members of the capital markets ecosystem."

Ms. Dwyer can be reached at dwyere@pcaobus.org or (202) 591-4176.

SEC Awards \$4.5 Million to Whistleblower Whose Internal Reporting Led to Successful SEC Case and Related Action



U.S. SECURITIES AND
EXCHANGE
COMMISSION

The Securities and Exchange Commission awarded more than \$4.5 million to a whistleblower whose tip triggered the company to review the allegations as part of an internal investigation and subsequently report the whistleblower's allegations to the SEC and another agency.

The whistleblower sent an anonymous tip to the company alleging significant wrongdoing and submitted the same information to the SEC within 120 days of reporting it to the company.

This information prompted the company to review the whistleblower's allegations of misconduct and led the company to report the allegations to the SEC and the other agency.

As a result of the self-report by the company, the SEC opened its own investigation into the alleged misconduct.

Ultimately, when the company completed its internal investigation, the results were reported to the SEC and the other agency.

This is the first time a claimant is being awarded under this provision of the whistleblower rules, which was designed to incentivize internal reporting by whistleblowers who also report to the SEC within 120 days.

"In this case, the whistleblower was credited with the results of the company's internal investigation, which were reported to the SEC by the company and led to the Commission's resulting enforcement action and the related action," said Jane Norberg, Chief of the SEC's Office of the Whistleblower. "The whistleblower gets credit for the company's internal investigation because the allegations were reported to the Commission within 120 days of the report to the company."

The SEC has now awarded approximately \$381 million to 62 individuals since issuing its first award in 2012.

All payments are made out of an investor protection fund established by Congress that is financed entirely through monetary sanctions paid to the SEC by securities law violators. No money has been taken or withheld from harmed investors to pay whistleblower awards.

Whistleblowers may be eligible for an award when they voluntarily provide the SEC with original, timely, and credible information that leads to a successful enforcement action. Whistleblower awards can range from 10 percent to 30 percent of the money collected when the monetary sanctions exceed \$1 million.

On Feb. 21, 2018, the U.S. Supreme Court issued an opinion in *Digital Realty Trust, Inc. v. Somers* stating that the Dodd-Frank anti-retaliation provisions only extend to those persons who provide information relating to a violation of the securities laws to the SEC.

The SEC protects the confidentiality of whistleblowers and does not disclose information that could reveal a whistleblower's identity as required by the Dodd-Frank Act.

For more information about the whistleblower program and Dodd-Frank anti-retaliation provisions: www.sec.gov/whistleblower/retaliation

What is behind the recent slowdown?

Hyun Song Shin, Economic Adviser and Head of Research of the BIS, at the "Public Finance Dialogue" workshop arranged by German Federal Ministry of Finance and Centre for European Economic Research (ZEW), Berlin.



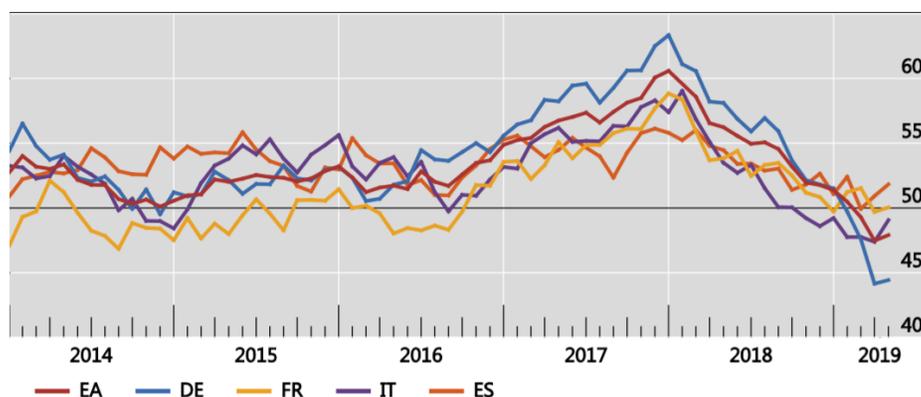
Manufacturing and trade have slowed in recent months, even as domestic consumption has remained relatively more resilient, underpinned by the services sector and strong employment.

Surveys of the manufacturing sector in Europe began to show weaker activity in 2018, and the weakness has deepened into 2019, as can be seen in Graph 1 on the purchasing managers' indices (PMIs) in manufacturing.

PMIs for the manufacturing sector

Diffusion indices¹

Graph 1



¹ A value of 50 indicates that the number of firms reporting improvement and deterioration is equal; a value above 50 indicates improvement.

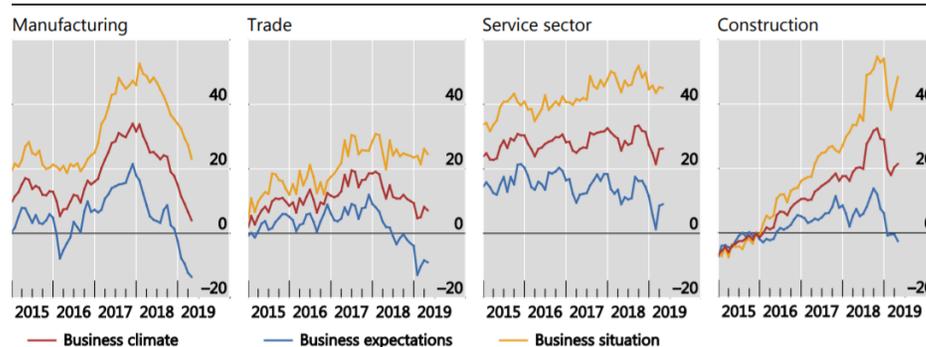
Source: IHS Markit.

Germany has been at the sharp end of the manufacturing slowdown. The Ifo business climate indices by sector in Graph 2 highlight the weakness in manufacturing and in trade, and their contrast with the relatively stronger picture in the services and property sectors.

Germany: Ifo business climate index by sector

Balances, seasonally adjusted¹

Graph 2



¹ The balance value for the business situation (expectations) is computed as the difference between the percentages of the responses "good" ("more favourable") and "poor" ("more unfavourable"). The business climate is a transformed mean of the balances of the business situation and the expectations.

Source: Ifo Institute for Economic Research, *Business Survey*, April 2019.

These two domestically oriented sectors (services and property) have so far supported employment and domestic consumption in Germany, although this divergence cannot be expected to continue indefinitely.

Importantly, the weakness in manufacturing and trade has not been confined to Europe - far from it. That weakness has been more widespread, and has followed the contours of the trade links in manufactured goods through global value chains (GVCs). Asian economies that are enmeshed in supply chains with firms in China have been particularly hard hit.

What explains the slowdown in manufacturing and trade, even as the services sector and employment remain strong?

To read more:

<https://www.bis.org/speeches/sp190514.htm>

ESAs launch consultation on technical standards on the reporting of intra-group transactions and risk concentration for Financial Conglomerates



The three European Supervisory Authorities, the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities Markets Supervisory Authority (ESMA) launched today a consultation on draft Implementing Technical Standards (ITSs) on the reporting of intra-group transactions and risk concentration for Financial Conglomerates.

The draft technical standards were developed based on the mandate included in Financial Conglomerates Directive (FICOD).

The consultation runs until **15 August 2019**.

The draft technical standards aim at offering a single framework of requirements for the reporting of intra-group transactions and risk concentration by financial conglomerates subject to supplementary supervision in the European Union.

The ITSs provide the foundation for the harmonisation of reporting, with one single set of templates and a single embedded dictionary using common definitions and a single set of instructions to fill in the templates.

The ITSs will help the coordinators and other relevant competent authorities to identify relevant issues and exchange information more efficiently, thereby reducing costs and fostering a level playing field across financial conglomerates in the European Union.

Consultation process

For responding to this consultation please use the following link:
https://ec.europa.eu/eusurvey/runner/JC_CP_2019_01_on_FICO_reporting_templates

Please note that the deadline for the submission of comments is Thursday, 15 August 2019 at 23.59 hrs CET.

All contributions received will be published following the close of the consultation, unless requested otherwise.

These draft ITS have been developed according to the mandate provided in Article 21 a (2b) and (2c) of Directive 2002/87/EC.

To read more:

<https://eiopa.europa.eu/Publications/Technical%20Standards/JC%20CP%202019%2001%20%28CONSULTATION%20PAPER%20-%20Draft%20ITS%20on%20IGT%20and%20RC%20reporting%20for%20Conglomerates%209.pdf>



JOINT COMMITTEE OF THE EUROPEAN
SUPERVISORY AUTHORITIES

Indictment

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNITED STATES OF AMERICA)	
)	Criminal No. 19-104
v.)	
)	[UNDER SEAL]
ALEXANDER KONOVOLOV)	
a/k/a "NoNe")	(18 U.S.C. §§ 371, 1349 and 1956(h))
a/k/a "none_1")	
MARAT KAZANDJIAN)	
a/k/a "phant0m")	
VLADIMIR GORIN)	
a/k/a "Voland")	
a/k/a "mrv")	
a/k/a "riddler")	
GENNADY KAPKANOV)	
a/k/a "Hennadiy Kapkanov")	
a/k/a "flux")	
a/k/a "ffhost")	
a/k/a "firestarter")	
a/k/a "User41")	
EDUARD MALANICI)	
a/k/a "JekaProf")	
a/k/a "procryptgroup")	
KONSTANTIN VOLCHKOV)	
a/k/a "elvi")	
RUSLAN VLADIMIROVICH KATIRKIN)	
a/k/a "stratos")	
a/k/a "xen")	
VIKTOR VLADIMIROVICH EREMenko)	
a/k/a "nfcorpi")	
FARKHAD RAUF OGLY MANOKHIN)	
a/k/a "frusa")	
ALEXANDER VAN HOOF)	
a/k/a "al666")	

FILED

APR 17 2019

CLERK U.S. DISTRICT COURT
WEST. DIST. OF PENNSYLVANIA

The objectives of the conspiracy included:

- (a) infecting victims' computers with GozNym malware designed to capture victims' online banking login credentials;
- (b) using the captured login credentials to gain unauthorized access to victims' online bank accounts at U.S. financial institutions; and
- (c) stealing funds from victims' U.S. bank accounts and laundering those funds using U.S. and foreign beneficiary bank accounts provided and controlled by conspirators.

Manner and Means of the Conspiracy

The manner and means used to accomplish the objectives of the conspiracy are set forth in paragraphs 28 through 55 of this Indictment.

In order to infect victims' computer with GozNym malware, the defendants and conspirators known and unknown to the grand jury crafted and transmitted through the Internet in interstate and foreign commerce phishing emails containing malicious hyperlinks or attachments which, when clicked, downloaded GozNym malware onto victims' computers without the victims' knowledge or consent.

The phishing emails were falsely designed to appear as legitimate business emails from companies and financial institutions in order to deceive victim recipients into opening the emails.

The malicious hyperlinks and attachments were falsely represented to be legitimate links and attachments, such as business invoices, in order to fraudulently entice the victim recipients to click on them. GozNym malware captured the victims' online banking login credentials.

To read more:

https://www.justice.gov/file/1163056/download?utm_medium=email&utm_source=govdelivery

Tokenisation

Hagen Weiß, BaFin Division for Policy Issues, Directorate for Prospectuses, Supervision of Research Analysts



Capital investment or security? Blockchain technology blurs the boundaries between the two.

Traditional capital investments under the German Capital Investment Act (Vermögensanlagegesetz - VermAnlG) are not usually considered securities within the meaning of the German Securities Prospectus Act (Wertpapierprospektgesetz - WpPG) or the German Securities Trading Act (Wertpapierhandelsgesetz - WpHG).

This is because they cannot be compared with securities in terms of transferability, standardisation or negotiability (on the capital market).

However, this is changing due to blockchain technology (see info box and BaFin Perspectives 1/2018). You may visit:

https://www.bafin.de/SharedDocs/Downloads/EN/BaFinPerspektiven/2018/bp_18-1_digitalisierung_en.html?nn=8249098



As a result of these changes, the two different financial instruments may even merge together.

This can be explained as follows: if a financial instrument, the content of which is structured or described as a capital investment under section 1 (2) of the VermAnlG, is converted into a freely transferable and negotiable digital token (see info box), then this financial instrument is not a capital investment within the meaning of the VermAnlG, but a security within the meaning of the WpPG and WpHG.

This is at least the case if rights are attached to the financial instrument that are similar to shares or membership rights or a property right of a contractual nature and if the financial instrument is freely transferable.

Tokens as a separate class of securities

Tokens of this type represent a security class of their own (*sui generis*) because they have been converted into investments which can be traded on the financial market by tokenisation, and they must therefore be classified as securities.

Definition

Protection of good faith (*Gutgläubensschutz*)

Protection of good faith (*Gutgläubensschutz*) is a legal institution that theoretically makes it possible to acquire a right even from an unauthorised party. It is sometimes argued that the possibility of such an acquisition in good faith is important in order to affirm the security status of an asset, as this is the only way to ensure orderly processing and negotiating on the financial market. However, the Markets in Financial Instruments Directive II - MiFID II), the Securities Prospectus Act (Wertpapierprospektgesetz - WpPG) and the Securities Trading Act (Wertpapierhandelsgesetz - WpHG) do not presuppose this, but merely lay down the conditions of transferability, negotiability on the financial market and rights comparable to securities.

The “substance over form” approach, which was developed by the European Securities and Markets Authority (ESMA), further clarifies this.

According to this approach, the material components, rather than the formal name of a financial instrument, are always the decisive factors.

This administrative practice applies in particular to shares which grant participation in the profits of a company or which constitute participation rights and registered bonds.

These instruments were previously covered by the *VermAnlG* and not by the *WpPG*, as they were not negotiable on the financial markets.

If they are not converted into freely transferable digital tokens that can be negotiated on the financial markets, they remain classified as a capital investment within the meaning of the *VermAnlG*.

Criteria for classification as a security

The general rule for classification of a financial instrument as a security within the meaning of section 2 no. 1 *WpPG* is that it be transferable, negotiable on the financial market and encompasses rights comparable to securities.

A securitisation in the form of a certificate, which ensures the marketability of financial instruments in the case of traditional securities, is not required for a token to be classified as a security.

The term “securities” is to be interpreted uniformly due to the desired EU-wide supervisory convergence; both the WpHG and the WpPG use the term „securities“ as defined by the second European Financial Markets Directive (Markets in Financial Instruments Directive II - MiFID II), thus transposing this legal definition into national law (Article 4(1) no. 44 of the MiFID II).

If rights comparable to those associated with securities are attached to a token, then the token facilitates increased marketability through simplified transferability and greater negotiability (but without necessarily being a certificate in the legal sense).

Transferability

In technical terms, token transferability requires that the token can be transferred to other users.

For a security to be transferable in terms of its class it is also required that the legal content or technical nature of the security remains unchanged when it is transferred to another acquirer.

This is generally not a problem for common token standards.

To read more:

https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2019/fa_bj_1904_Tokenisierung_en.html

INDUSTRY 4.0 CYBERSECURITY: CHALLENGES & RECOMMENDATIONS



The ENISA study on "Good Practices for Security of IoT in the context of Smart Manufacturing" focuses on addressing the security and privacy challenges related to the evolution of industrial systems and services precipitated by the introduction of IoT innovations.

The main objectives are to collect good practices to ensure security of IoT in the context of Industry 4.0/Smart Manufacturing, while mapping the relevant security and privacy challenges, threats, risks and attack scenarios.

Building on this work, this document provides the results of a gap analysis conducted in order to identify main challenges to the adoption of the security measures and security of Industry 4.0 and Industrial IoT.

Moreover, ENISA lists high-level recommendations to different stakeholder groups in order to promote Industry 4.0 cybersecurity and facilitate wider take-up of relevant innovations in a secure manner.

The adoption of the high-level recommendations proposed by ENISA aims at contributing to the enhancement of Industry 4.0 cybersecurity across the European Union and at laying the foundations of the relevant forthcoming work, as well as at serving as a basis for future developments.

In this short paper, ENISA follows a holistic and comprehensive approach to the issues related to cybersecurity in Industry 4.0, whereby challenges and recommendations are associated with one of the following categories: People, Processes, and Technologies. This ensures consistency with the relevant ENISA study.

Additionally, recommendations are also categorised in terms the target audience groups to which they are addressed (the icons for the 5 stakeholder groups identified below may be used as a guidance, i.e. the presence of an icon next to a recommendation indicates that a particular set of recommendations is aimed at the corresponding stakeholder group).

STAKEHOLDERS GROUPS

Industry 4.0
security experts
(OT and IT
security)



Industry 4.0
operators (solution
providers &
manufacturers)



Regulators



Standardisation
community



Academia and R&D
bodies

To read more: <https://www.enisa.europa.eu/publications/industry-4-o-cybersecurity-challenges-and-recommendations>

Research on climate-related risks and financial stability: An "epistemological break"?

Based on remarks by Mr Luiz Awazu Pereira da Silva, Deputy General Manager of the BIS, at the Conference of the Central Banks and Supervisors Network for Greening the Financial System (NGFS), Paris.



A growing body of research and studies by academics, central banks, the NGFS and institutions such as the BIS focus on [climate-related risks \(CRRs\)](#).

This work is helping to trace the links between the effects of climate change (CC), or global warming, and the stability of our financial sectors. The potential financial consequences of CRRs amount to a new form of systemic risk with implications for financial stability.

Since financial stability has been explicitly or implicitly incorporated into the post-crisis mandate of many central banks, they have become more concerned with CRRs.

In addition, these studies are shifting the mindset of many private sector investors towards considering CC in their financial decisions. CC has therefore started to influence portfolio choices. Why is this? The main reason is that research reveals the lack of any proper valuation of CRR in current pricing practices.

Indeed, if the uninsured losses caused by weather-related accidents are so large, and if there is a growing likelihood of stricter regulation against greenhouse emissions, then the relative value of "brown" versus "green" assets must be revisited.

This is creating a new awareness that is beginning to produce a repricing of CRRs. That, in turn, is affecting resource allocation and tilting preferences towards lower-carbon projects and "greener" assets. All this awareness might therefore be acting, to some extent, as a shadow price for carbon emissions.

In a nutshell, what is happening with the repricing of climate-related risk in the financial sector is perhaps an illustration, as applied to financial risk management, of Bachelard's "epistemological break".

Our financial risk models used to neglect the CC dimension of investments, assuming that the impact of CRR on profitability, returns and financial health would be negligible. Such views probably need to be revised in line with new evidence.

The epistemological break or paradigm shift is happening because CRR is changing the perception of the financial consequences of CC. Agents are increasingly aware that the CRR consequences they thought lay in the distant future are now much closer.

CC poses, including for the financial sector, a clear and present danger. The ongoing repricing is changing the terms of the "tragedy of the horizon". The horizon has been brought forward. This is good news, but it also raises the possibility of a CC-related "Minsky moment" of financial fragility.

I will briefly examine first the growing volume of evidence that is helping to raise awareness regarding the financial effects of CC; then I will look at some ongoing research that is helping to change our minds by making it easier to price CRR more accurately. Finally, I will end these remarks by proposing a role for central banks, with implications for policy.

1. Facts: mounting evidence of CRR as a clear and present danger

Climate-related risk can impact financial stability through three types of risk.

First, physical risks such as meteorological events (storms and heavy rains), hydrological events (floods) and other climatological events (extreme temperature, drought, wildfire) are affecting the value of financial assets worldwide.

An increasing number of reports available to investors and the general public offer improved techniques for pricing CRR financial risk.

All this new information points to the need to reassess prices. Second, transition risks may result from the adjustment of asset prices towards a low-carbon economy.

Transition risks are possible in an environment where greater disclosure of financial assets is required, and new CC regulation creates new obligations to move towards a lower-carbon economy. These changes, while desirable per se, could impact the asset price of very large sectors of the economy such as coal, oil and gas but also of companies that produce cars, ships and aircraft.

All these assets could be subject to a change in investors' perception of profitability and business sustainability. If the changes are abrupt, an archetypal fire sale might result, potentially triggering a financial crisis. Finally, liability risks stem from the increased compensation paid to economic agents affected by climate change.

There are reports from the insurance industry showing a growing level of insured and uninsured losses resulting from CRR. These losses impact the financial health of both the insurer and also the equity value of firms that are subject to these weather-related events.

These developments are contributing to increase the "awareness" of all agents in the economy.

And this new mindset is indicating that climate-related risk is not necessarily a distant possibility in the future but rather a clear and present danger to financial stability since the assets at physical risk are large (for producers, for financial investors etc) and the costs of weather-related accidents are also very high and rising, for both insurance companies and their clients, and especially for uninsured parties.

2. New research: making progress towards pricing CRR more accurately

Current macroeconomic research on CC is often characterised as having two streams.

First, integrating climate change into macroeconomic models.

As stated in the April 2019 NGFS Report, our macroeconomic models may not be able to accurately predict the economic and financial impact of climate change, but the best science today states that action to mitigate and adapt to climate change is needed now.

That implies that the price of CRR from a macroeconomic perspective is most likely underestimated.

Second, models to assess financial stability risks from climate change (eg stress-testing models using global warming scenarios). Both strands of the literature are well established, and central banks are actively contributing to it, in particular to the financial stability strand.

But more relevant to our discussion on the paradigm shift is the strand of research that is more finance-related, focusing on the risks and returns of financial instruments, including green finance instruments (eg green bonds), as well as the measurement of financial risks associated with

climate change for particular industries and companies (as opposed to systemic risks).

The risks and returns of financial assets can become new key determinants of how effectively climate change can be combated.

If investors assess and price financial risks properly, then polluting assets will become more costly. In turn, more investments will flow into green assets, driving the transition to a low-carbon economy.

There are some indications that these risks are not yet fully priced in, but research is starting to change that state of benign neglect.

Several new vectors of academic research show that investors are not pricing in the risk of droughts for agricultural companies.

Another prime example of mispricing is stranded assets - typically defined as those covering fossil fuel extraction, which are very likely to lose value if carbon emissions are restricted.

Researchers at the Smith School (Oxford University) have done pioneering work on stranded assets, showing that the likely losses on those asset values are substantial.

Arguably, the prices of financial assets of fossil fuel-producing firms do not fully reflect their CRRs. Investors, at this stage, face a difficult task in assessing these risks - there is, for instance, no equivalent of credit ratings for climate-related financial risks, although this is changing rapidly.

But the greater availability of data and increased awareness may be changing investors' attitudes towards climate-related financial risks.

Future research has to go further and develop models and measures of CRRs that can be applied to individual assets.

That would not only help investors to make better decisions, but also help society as a whole, as much needed investment would be shifted towards greener assets.

Research conducted at the BIS is also looking into the potential mispricing of climate change-related risks.

The research examines if climate change risks, especially those related to climate policy risks, are priced in in the bank syndicated loan market by combining syndicated loan data with environmental exposure data.

The key findings are:

(i) the premia for CRRs, as measured by firm-specific CO₂ emissions, have significantly risen since the Paris accord; and

(ii) the rise in risk premia is especially due to increased awareness of transition risks.

We also look at the environmental risk exposures of institutional investors.

This research examines a global data set of individual fixed income holdings at institutional investor funds. Given their long investment horizon, such funds are naturally exposed to financial risks related to climate change.

Various classifications and techniques are used to determine the risk exposures of individual fixed income assets and overall exposures of institutional investors in different countries, and the international spillover of revaluation effects is then analysed, using scenario analysis combined with network analysis, as these effects might arise due to common asset holdings and potential amplification through fire sales.

This new research is contributing to a change in investors' mindset - what I referred to above as an "epistemological break".

Indeed, some of these changes are already tangible: insurance companies are reassessing their cost of insuring physical risk; rating agencies are repricing CRRs and reassessing the quality of credits; asset managers are becoming increasingly selective and inclined to start picking "green assets" for their portfolios; and pension funds are beginning to reassess their exposure to CRRs and "brown assets".

In general, since COP21, CRR reporting requirements have been strengthened, especially for the financial sector, eg Article 173 of the French Energy Transition Law, and the Task Force on Climate-related Financial Disclosures (TCFD).

Institutional investors are encouraged to explain whether and how their policies and targets align with national strategies for energy and ecological transition. For industry-led TCFD, recommendations require companies to disclose how their governance, strategy and risk management take CRR into account, and to conduct scenario analysis referring at least to the two-degree scenario.

All these developments are reinforcing awareness, ie the perception is growing that CRRs are not yet properly priced and that some adjustment is taking place.

3. The role of central banks and policy implications

There is a promising and noticeable change in mindsets and progress in repricing CRRs.

But despite that, it might be necessary to accelerate the implementation of other public policies to combat CC because the effects of the ongoing changes that will control greenhouse gas (GHG) emissions and eventually reduce them might not be available in time to avoid irreversible damage.

As we discussed above, the present and clear danger of a climate-related financial crisis is rising.

There is no need for central banks, regulators and supervisors to become the "only game in town" in such a complex topic as CRRs.

But, equally, there is no need to dismiss their participation entirely, because this would not require their mission to be modified. Instead, they would be sticking to their existing mandates of price stability and financial stability.

CBs need to be concerned about CRRs because of their financial stability implications. CRRs impinge on global financial stability as soon as they are seen as a problem of the commons.

And CBs can be inspired by Elinor Ostrom's principles for governance of common pool resources (CPRs).

For example:

- (i) clearly identify and quantify the risks to the common pool resource, ie financial stability;
- (ii) find actions that reduce CRRs at the global level and also at a decentralised (local) level;
- (iii) monitor these arrangements; and
- (iv) design and enforce rules for system stability, which implies coordination, local participation, and a sense of fairness in burden-sharing, incentives and penalties etc.

The NGFS is contributing precisely in these three dimensions, having conducted an inventory of existing best practices and issued practical recommendations.

The G20, international financial institutions (IFIs), central banks and financial sector regulators/supervisors around the world are already acting on CRRs in a variety of ways.

However, support and guidance from central banks, regulators and supervisors are also necessary, especially to help explore the many ways of financing the adaptation to a lower-carbon economy.

Even if markets are already financing some of these costs, there is also a need for more public policy intervention to mitigate CRRs, through new research and also practical policy.

Developing "greener" financial investment instruments.

The market for these instruments has boomed, but more progress in the taxonomy of what is "green" is necessary to avoid "green-washing" and excessive free-riding on the green label.

Moreover, these instruments need to serve to finance technological innovation and not only investment projects that reduce the carbon footprint of firms and households.

The market for "green bonds" is growing fast, including though the incorporation of environmental-social-governance (ESG) criteria into the management of CBs' own reserves and pension funds, and also with new tools that are capable of handling extreme climate-related events (eg catastrophe or CAT bonds).

Assessing the cost-benefit of more regulatory, direct interventions.

In addition to progress on disclosure of CRRs, some regulators and supervisors are also exploring the pros and cons of more interventionist approaches: "green" relending facilities using adequate collateral; a subsidised administrative credit policy favouring "green" projects; and even ad hoc macroprudential measures, eg a "green" supporting risk factor or a "brown" penalising factor for corporate capital structures.

The obvious issue here is to assess whether this proactive approach could create other distortions that could hamper the greening of the financial system and delay some of the initiatives described above.

Coordinating with other policies. Finally, CBs and supervisors cannot take on these new CRR-related challenges alone.

They will need support from other policies conducted by other actors. However, we might currently be at a special juncture:

(i) combating the effects of CC could be the best way, over the next few decades, to create the necessary new science-technology-engineering-maths or STEM jobs in new green industries, services and infrastructure that will compensate for the jobs that will most likely be significantly reduced by technological progress in the new digital economy;

(ii) where fiscal space is available, financing the adaptation investment costs to CC with public debt could be politically less controversial than through carbon taxation.

It could also be economically sustainable in the post-crisis low interest rate environment, as somehow suggested by Olivier Blanchard, Larry Summers and Brad DeLong.

It is well known that the textbook solution to mitigate the effects of GHGs is a globally coordinated Pigovian tax, based on the adequate pricing of carbon through a carbon tax.

However, progress in the appropriate repricing of CRRs could produce complementary effects by reallocating financing towards a low-carbon economy.

Working on both the real and the financial side of our economies is complementary, and the epistemological changes that new research on CRRs is producing might just help to prove that.

Occasional Paper No. 95

Is This the Beginning of the End of Central Bank Independence?

Kenneth Rogoff, Published by Group of Thirty, Washington, D.C., May 2019



Central bank independence in advanced economies stands at a crossroads. Post-financial crisis, the public has come to expect central banks to shoulder responsibilities far beyond their power, and even farther beyond their remit.

At the same time, populist leaders have been pressing for having much more direct oversight and control over central bank policy choices.

Central banks have long been under assault from the right for expanding their balance sheets too much during the financial crisis, but now they are under attack from the ascendant left for expanding their balance sheets too little.

Just a short while ago, central bank independence had been celebrated as one of the most effective policy innovations of the past four decades, one that has led to a dramatic fall in inflation worldwide.

Are today's attacks an aberration or a sign of a deeper malaise?

Here I will argue that the case for having independent, technocratically competent central banks is as strong as ever.

If independence is taken away and inflation eventually rises back to uncomfortable levels, governments may find it harder to reestablish anti-inflation credibility than many now think, for some of the same reasons as the failure to reestablish the gold standard after World War I. Credibility, once lost, can be difficult to regain.

To read the paper:

https://group30.org/images/uploads/publications/G30_CentralBankIndependence.pdf

Flipboard NOTICE OF SECURITY INCIDENT



Flipboard recently identified and addressed a security incident involving a subset of user data. We know transparency is important to our community, and we have created this page to share what we have learned from our investigation, measures we have taken, and what steps users can take in response.

What happened

We recently identified unauthorized access to some of our databases containing certain Flipboard users' account information, including account credentials. In response to this discovery, we immediately launched an investigation and an external security firm was engaged to assist.

Findings from the investigation indicate an unauthorized person accessed and potentially obtained copies of certain databases containing Flipboard user information between June 2, 2018 and March 23, 2019 and April 21 – 22, 2019.

What information was involved

The databases involved contained some of our users' account information, including name, Flipboard username, cryptographically protected password and email address.

Flipboard has always cryptographically protected passwords using a technique known by security experts as "salted hashing".

The benefit of hashing passwords is that we never need to store the passwords in plain text. Moreover, using a unique salt for each password in combination with the hashing algorithms makes it very difficult and requires significant computer resources to crack these passwords.

If users created or changed their password after March 14, 2012, it is hashed with a function called bcrypt. If users have not changed their password since then, it is uniquely salted and hashed with SHA-1.

Additionally, if users connected their Flipboard account to a third-party account, including social media accounts, then the databases may have

contained digital tokens used to connect their Flipboard account to that third-party account.

We have not found any evidence the unauthorized person accessed third-party account(s) connected to users' Flipboard accounts. As a precaution, we have replaced or deleted all digital tokens.

Importantly, we do not collect from users, and this incident did not involve, Social Security numbers or other government-issued IDs, bank account, credit card, or other financial information.

What we are doing

As a precaution, we have reset all users' passwords, even though the passwords were cryptographically protected and not all users' account information was involved. You can continue to use Flipboard on devices from which you are already logged in.

When you access your Flipboard account from a new device, or the next time you log into Flipboard after logging out of your account, you will be asked to create a new password.

As another precautionary step, we disconnected tokens used to connect to all third-party accounts, and in collaboration with our partners, we replaced all digital tokens or deleted them where applicable.

Additionally, to help prevent something like this from happening in the future, we implemented enhanced security measures and continue to look for additional ways to strengthen the security of our systems. We also notified law enforcement.

What you can do

You can continue to use Flipboard without further action. However, next time you log into your account, you will notice your Flipboard account password needs to be updated.

You will find instructions on our support page (linked below) explaining how to create a new password.

Also, if you use the same username and password you created for Flipboard for any other online service, we recommend you change your password there, too.

If you connected your Flipboard account to a third-party account to see its content, you may notice in some cases that you need to reconnect it. On our support page you will also find instructions for how to do this.

To learn more: <https://about.flipboard.com/support-information-incident-May-2019/>

Monetary Policy and Financial Stability

Vice Chair for Supervision Randal K. Quarles, at "Developments in Empirical Macroeconomics," a research conference sponsored by the Federal Reserve Board and the Federal Reserve Bank of New York, Washington, D.C.



Thank you for the opportunity to take part in today's "Developments in Empirical Macroeconomics" conference. I would like to use my time here to talk about a topic of interest to many central bankers and macroeconomists: the interaction of monetary policy and financial stability.

As you well know, monetary policy has powerful effects on financial markets, the financial system, and the broader economy.

Conversely, financial instability, by impairing the provision of credit and other financial services, can depress economic growth, cause job losses, and push inflation too low.

Accordingly, financial stability, through its effects on the Federal Reserve's dual-mandate goals of maximum employment and stable prices, must be a consideration in the setting of monetary policy.

Against this backdrop, a natural—yet quite complex—question is whether monetary policy should be used to promote financial stability. This question is hotly debated in a large and growing academic literature, and any serious answer has to be subject to considerable nuance.

At the same time, my sense is that the balance is clearly tilted toward the conclusion that macroprudential policies—through-the-cycle resilience, stress tests, and the countercyclical capital buffer (CCyB)—may be better targeted to promoting financial stability than monetary policy.

Before I wade into the lessons from past research and experience, I would like to highlight that this question is not just academic. As you know, the economy, monetary policy, and financial stability are intertwined. For example, the past three recessions were preceded by some combination of elevated asset prices, rapid increases in borrowing by businesses and households, and excessive risk-taking in the financial sector.

These financial vulnerabilities have amplified adverse shocks to the overall economy time and again. Such concerns have resurfaced among some observers, as the current long expansion has brought business borrowing to new heights.

My own assessment is that even though business debt is elevated, at least by some measures, overall financial stability risks are not, as the financial sector has substantial loss-absorbing capacity and is not overly reliant on unstable short-term funding.

Yet, even if the risk of financial system disruption does not seem high, it will remain true that if the economy weakens, some businesses may default on this debt, potentially leading to a contraction in investment, a slow-down in hiring, and possibly to an unusual tightening in financial conditions.

These concerns highlight how cyclical factors influencing monetary policy borrowers may overlap with financial stability considerations.

How Monetary Policy Can Influence Financial Stability

Let me begin by laying out how monetary policy can influence financial stability. Monetary policy, operating primarily through adjustments in the level of short-term interest rates, has powerful effects on the entire financial system. A more accommodative monetary policy lowers interest rates across the maturity spectrum.

The textbook result is that mortgage rates and corporate borrowing rates, among others, decline; equity prices rise; and the dollar exchange rate depreciates.

In other words, financial conditions broadly ease, spurring households to buy more and businesses to invest and hire, thereby supporting economic growth and price stability.

Monetary policy, however, if too accommodative, may lead to a buildup of financial vulnerabilities.

These incentives arrive through a number of channels. For instance, low interest rates reduce the cost of borrowing, and so may prompt businesses and households to overborrow.

Low rates may lead to a speculative bubble by compressing risk premiums for assets—such as equity, corporate bonds, and housing—and potentially

leading investors to extrapolate price gains into the future in a bout of irrational exuberance.

Low rates may also squeeze the profitability of financial intermediaries through narrow interest margins and other factors. In turn, these intermediaries as well as investors that had promised fixed nominal rates of return—such as insurance companies and pension funds—may "reach for yield," or take on more credit or duration risk in their portfolios in order to maintain high returns.

Taken to extremes, this story often does not end well. Periods of excessive leverage, rapid credit growth, or buoyant credit market sentiment increase the risk to economic growth.

These dynamics point to the possibility that accommodative monetary policy, while necessary to support activity during the early stages of an economic expansion, may also increase vulnerabilities in the financial system, especially if maintained for too long.

These vulnerabilities weaken the financial system's ability to absorb negative shocks, and so when a shock arrives, losses mount, the financial system weakens, lending slows, and economic activity slows by more than it would have otherwise, potentially leading to an economic downturn or a more severe recession.

Should Financial Vulnerabilities Affect the Stance of Monetary Policy?

These observations lead to the important question of whether and how financial vulnerabilities should affect the setting of monetary policy.

One simple framework for evaluating the tradeoffs associated with actively setting monetary policy to lean against the buildup of financial vulnerabilities is to examine the costs and benefits of such a policy in terms of unemployment and inflation.

In this approach, the costs of tightening monetary policy in response to a buildup of financial vulnerabilities are lower employment and potentially below target inflation in the near term.

The benefits are possibly reducing the risk of a future financial crisis, an event likely associated with a much larger fall in employment and inflation.

One view is that monetary policy curbs household and business borrowing only modestly but can boost the unemployment rate notably.

And so using monetary policy to damp borrowing does more harm than good. According to this view, using monetary policy to lean against financial vulnerabilities does not generate significant net benefits and may be counterproductive—increasing unemployment and decreasing inflation below a desired level with little reduction in risks to financial stability.

At the same time, some research has identified circumstances under which the benefits of using monetary policy to lean against financial vulnerabilities could outweigh the costs.

A key consideration is the estimated amount of economic activity lost in a financial crisis—and some research suggests such losses may be quite large, which raises the benefits of leaning against imbalances.

Similarly, monetary policy may affect a broad range of financial imbalances—excessively high house or equity prices and leverage within the financial sector—and the full set of these effects could shift the risk of financial instability sufficiently, at least under some circumstances, to make leaning against financial vulnerabilities with monetary policy desirable.

The broader point is that we do not fully understand the cost–benefit tradeoff and whether monetary policy adjustments for financial stability reasons may be appropriate at some times.

Whither Macroprudential Policy?

Of course, there is one additional and critical factor to consider when weighing adjustments to the stance of monetary policy for financial stability reasons: the availability and efficacy of other instruments to promote financial stability.

After all, the pursuit of multiple goals—full employment, price stability, and financial stability, for example—likely requires multiple tools. This is just common sense. Economists have a name for this common-sense notion: the Tinbergen principle.

Effective supervisory, regulatory, and macroprudential policy tools appear to be well placed to address financial vulnerabilities. In particular, these tools may be used to increase the resilience of the financial sector against a broad range of adverse shocks and, perhaps, lean against the buildup of specific financial vulnerabilities.

At the Federal Reserve, we have emphasized a set of structural, or through-the-cycle, regulatory and supervisory policies as our primary macroprudential tools to promote financial stability.

These measures include strong capital and liquidity requirements for banks, especially the largest and most systemic institutions.

In addition, our supervisory stress tests evaluate the ability of large banks to weather severe economic stress and the failure of their largest counterparty as well as examining the risk-management practices of the firms.

Moreover, the stress-test scenarios are designed to generally be more severe during buoyant economic periods when vulnerabilities may build. Furthermore, our stress tests consider the potential effects of specific risks we have identified in our financial stability monitoring work.

For example, the tests in recent years have included hypothetical severe strains in corporate debt markets, exploring the resilience of the participating banks to the risks associated with the increase in business borrowing.

In addition, the Federal Reserve monitors a wide range of indicators for signs of potential risks to financial stability that may merit a policy response, and we now publish a summary of this monitoring in our semiannual Financial Stability Report.

If vulnerabilities are identified as being meaningfully above normal, the Federal Reserve can require large banks to increase their loss-absorbing capacity through increases in the CCyB.

Despite all of these efforts, we understand that these tools have limitations.

First, central bankers' experience with macroprudential tools, including the CCyB, is limited.

Second, regulation and macroprudential tools can reduce economic efficiency and hamper economic growth by limiting the ability of the market to allocate financial resources.

For this reason, the Federal Reserve has been evaluating ways in which our supervisory and financial stability goals can be achieved more efficiently, and it has been participating in global efforts to evaluate the effects of reforms under the auspices of the Financial Stability Board.

Third, macroprudential policies that are targeted to banks may create an incentive for financial intermediation to migrate outside of the regulated banking system.

The vulnerabilities may still emerge, albeit elsewhere in the financial system—perhaps in institutions or structures that are less stable and

resilient than our banks. In part reflecting these incentives, we regularly monitor financial intermediation both inside and outside of the banking system.

Summary

To sum up, while there is evidence that financial vulnerabilities have the potential to translate into macroeconomic risks, a general consensus has emerged that monetary policy should be guided primarily by the outlook for unemployment and inflation and not by the state of financial vulnerabilities.

Financial system resilience, supported by strong through-the-cycle regulatory and supervisory policies, remains a key defense against financial system and macroeconomic shocks.

There is a clear need for new theory and empirics to address the questions about monetary policy and financial stability I have posed today. I encourage you to continue to contribute to these answers.

By engaging the help of the wider academic community, conferences such as this one provide an invaluable opportunity to make progress on issues of great importance for economic policy.

Our ongoing work to tackle hate



Official Blog

Over the past few years, we've been investing in the policies, resources and products needed to live up to our responsibility and protect the YouTube community from harmful content.

This work has focused on four pillars: removing violative content, raising up authoritative content, reducing the spread of borderline content and rewarding trusted creators.

Thanks to these investments, videos that violate our policies are removed faster than ever and users are seeing less borderline content and harmful misinformation.

As we do this, we're partnering closely with lawmakers and civil society around the globe to limit the spread of violent extremist content online.

We review our policies on an ongoing basis to make sure we are drawing the line in the right place: In 2018 alone, we made more than 30 policy updates. One of the most complex and constantly evolving areas we deal with is hate speech.

We've been taking a close look at our approach towards hateful content in consultation with dozens of experts in subjects like violent extremism, supremacism, civil rights, and free speech. Based on those learnings, we are making several updates:

Removing more hateful and supremacist content from YouTube

YouTube has always had rules of the road, including a longstanding policy against hate speech.

In 2017, we introduced a tougher stance towards videos with supremacist content, including limiting recommendations and features like comments and the ability to share the video.

This step dramatically reduced views to these videos (on average 80%). Today, we're taking another step in our hate speech policy by specifically prohibiting videos alleging that a group is superior in order to justify discrimination, segregation or exclusion based on qualities like age, gender, race, caste, religion, sexual orientation or veteran status.

This would include, for example, videos that promote or glorify Nazi ideology, which is inherently discriminatory. Finally, we will remove content denying that well-documented violent events, like the Holocaust or the shooting at Sandy Hook Elementary, took place.

We recognize some of this content has value to researchers and NGOs looking to understand hate in order to combat it, and we are exploring options to make it available to them in the future.

And as always, context matters, so some videos could remain up because they discuss topics like pending legislation, aim to condemn or expose hate, or provide analysis of current events.

We will begin enforcing this updated policy today; however, it will take time for our systems to fully ramp up and we'll be gradually expanding coverage over the next several months.

Reducing borderline content and raising up authoritative voices

In addition to removing videos that violate our policies, we also want to reduce the spread of content that comes right up to the line.

In January, we piloted an update of our systems in the U.S. to limit recommendations of borderline content and harmful misinformation, such as videos promoting a phony miracle cure for a serious illness, or claiming the earth is flat.

We're looking to bring this updated system to more countries by the end of 2019. Thanks to this change, the number of views this type of content gets from recommendations has dropped by over 50% in the U.S.

Our systems are also getting smarter about what types of videos should get this treatment, and we'll be able to apply it to even more borderline videos moving forward.

As we do this, we'll also start raising up more authoritative content in recommendations, building on the changes we made to news last year.

For example, if a user is watching a video that comes close to violating our policies, our systems may include more videos from authoritative sources (like top news channels) in the "watch next" panel.

Continuing to reward trusted creators and enforce our monetization policies

Finally, it's critical that our monetization systems reward trusted creators who add value to YouTube.

We have longstanding advertiser-friendly guidelines that prohibit ads from running on videos that include hateful content and we enforce these rigorously. And in order to protect our ecosystem of creators, advertisers and viewers, we tightened our advertising criteria in 2017.

In the case of hate speech, we are strengthening enforcement of our existing YouTube Partner Program policies. Channels that repeatedly brush up against our hate speech policies will be suspended from the YouTube Partner program, meaning they can't run ads on their channel or use other monetization features like Super Chat.

The openness of YouTube's platform has helped creativity and access to information thrive. It's our responsibility to protect that, and prevent our platform from being used to incite hatred, harassment, discrimination and violence.

We are committed to taking the steps needed to live up to this responsibility today, tomorrow and in the years to come.

Common Framework for the Supervision of Internationally Active Insurance Groups - Executive Summary



The Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame) is a set of international standards published by the International Association of Insurance Supervisors (IAIS).

ComFrame is effectively an insurance-specific response to regulatory and supervisory gaps identified from the Great Financial Crisis (GFC) of 2007-09.

The GFC revealed issues specific to the supervision of internationally active insurance groups (IAIGs), which are the largest, most complex insurers and thus require tailored and more coordinated supervision across jurisdictions.

In particular, the GFC brought to light complexities in supervising cross-border insurance groups and regulatory arbitrage opportunities arising from differing requirements in different jurisdictions.

To read more:

https://www.bis.org/fsi/fsisummaries/cf_sup_iais.pdf

Keynote Remarks at the Mid-Atlantic Regional Conference

Chairman Jay Clayton, Washington D.C.



Thank you, Jeff [Boujoukos], for that kind introduction. I am pleased to have the opportunity to speak with the SEC's federal and state partners in my home town of Philadelphia. Thank you to the Philadelphia Regional Office for organizing this terrific event.

Before I start, let me remind you that the views I express today are my own and do not necessarily reflect the views of my fellow Commissioners or the SEC staff.

Today I will focus on recent legal decisions impacting our enforcement efforts, and how the thoughtful and responsible use and collection of data from market participants can strengthen our enforcement and examination functions to benefit Main Street investors.

I would also like to highlight the SEC's important relationships with you—our state and federal partners. I have previously identified regulatory coordination as a core principle to guide the work of the SEC.

Close regulatory coordination is particularly important to protect our Main Street investors. Many of you are the first calls Main Street investors will make when they have been harmed by unscrupulous actors.

And you, our state and federal partners, may be one of the first calls we at the SEC make when identifying areas of risk for retail investors.

I am pleased to mention just a few of the successes resulting from close coordination between the Philadelphia Regional Office (PLRO) and our partners here today.

- PLRO worked with the U.S. Attorney's Office in Maryland in a case involving an alleged Ponzi scheme that raised over \$345 million from more than 230 investors across the country. The defendants allegedly misappropriated investor funds to purchase luxury cars, homes, and jewelry, among other things, and to make Ponzi-like payments to earlier investors to maintain the scheme.

- PLRO worked with the U.S. Attorney's Office in the Eastern District of Pennsylvania in an alleged insider trading case involving a former linebacker for the Philadelphia Eagles, and a former investment banker.
- PLRO also worked with the U.S. Attorney's Office for the District of New Jersey in charging dozens of defendants for allegedly taking part in a scheme to profit from stolen nonpublic information about corporate earnings announcements. The SEC moved quickly to seize funds and ultimately recovered over \$50 million.
- PLRO partnered with FINRA and the Pennsylvania Department of Banking and Securities for a well-attended senior outreach event last year in Chester County, Pennsylvania and will be holding a similar event next week in Montgomery County.

I hope we can continue to work with our state partners on investor education and outreach. More specifically, I hope we can work with our state partners in helping our nation's teachers, veterans, and active duty military make informed financial decisions and keep their investments safe. Yesterday, the SEC announced the formation of two new initiatives aimed at protecting teachers, active duty military, and veterans.

I have spoken in depth with Michael Pieciak, President of the North American Securities Administrators Association (NASAA), about coordinating our efforts in these areas to maximum effect.

Closer to home, I note that our Philadelphia Regional Office has a robust outreach program that has focused on our service members. I am certain they would be pleased to partner with local regulators on this new initiative.

Recent Legal Developments

Now let me turn to recent legal developments affecting the SEC.

In the past few years, there have been significant new court decisions relating to the SEC's work.

As we assess the long-term impact of these decisions, our Division of Enforcement will continue to diligently pursue cases to advance our mission and ensure that we are focused on the interests of our long-term Main Street investors.

Kokesh v. SEC

Protecting retail investors is a multifaceted effort and includes putting money back in their pockets when they are harmed by violations of the federal securities laws.

In the 2017 and 2018 fiscal years, the SEC returned over \$1.8 billion to harmed investors. We remain committed to this important part of our work.

The recent Supreme Court decision in *Kokesh v. SEC*, however, has impacted our ability to return funds fraudulently taken from our Main Street investors.

In *Kokesh*, the SEC brought an enforcement action in late 2009, based on a fraud that began in the 1990s and continued until 2009.

The defendant argued that the Commission was time-barred from seeking disgorgement, because the fraud began outside the five-year period under 18 U.S.C. § 2462.

The Supreme Court held that our use of the disgorgement remedy was penal in nature (rather than equitable) and as such was subject to the five-year limitations period applicable to penalties.

The impact of the *Kokesh* decision was immediate. In that particular case, only about \$5 million out of the \$35 million sought in disgorgement fell within the five-year period.

The Division of Enforcement estimates that, for Fiscal Year (FY) 2018, the Court's ruling in *Kokesh* may cause the Commission to forgo up to approximately \$900 million in disgorgement in filed cases, of which a substantial amount potentially could have been returned to retail investors.

Of course, statutes of limitation serve many important functions in our legal system, and penalties should have limitations periods that are reasonable and reflect practical realities. Civil and criminal authorities should do everything in their power to bring appropriate actions swiftly.

But I am troubled by the substantial amount of losses that we may not be able to recover for retail investors as a result of Ponzi schemes and similar long-running, well-concealed frauds that are perpetrated by smooth talking "investment professionals." I have testified to Congress about the impact of *Kokesh* on Main Street investors and welcome the opportunity to work with Congress to address this gap in investor protection.

Lucia v. SEC

Lucia v. SEC was a constitutional challenge to the Administrative Law Judges (ALJs) in our administrative proceedings.

In short, the Supreme Court held that the SEC's ALJs had not been appointed in a manner consistent with the Constitution.

After Lucia, approximately 200 administrative proceedings had to be reassigned to new ALJs.

Many of those proceedings have now been substantially resolved, but the remaining reassigned administrative proceedings may require substantial litigation resources going forward.

Thanks to the skilled work and dedication of our Enforcement staff, and the Office of General Counsel, this was a speed bump, not a long-term issue.

One additional thought on administrative proceedings. The SEC has the flexibility to bring many of its contested actions in district court or through administrative proceedings.

As Chairman, I am committed to using the administrative process only for the cases that are most appropriate for that forum.

The Robare Group, Ltd. v. SEC

Last month, the D.C. Circuit issued an opinion involving misstatement liability for investment advisers.

In *The Robare Group, Ltd. et al. v. SEC*, the D.C. Circuit held that an investment adviser does not “willfully” omit material facts under Section 207 of the Investment Advisers Act if the adviser acted negligently.

It is important to note that the Robare decision did not disturb the decades-old standard that has been adopted by most courts of appeals—that a willful violation of the securities laws means that the person intentionally committed the act that constitutes the violation, with no requirement that the person also be aware that they are violating the law.

Nevertheless, the Robare decision requires us to carefully consider the appropriate standard for future Investment Advisers Act cases in light of the specific language found in Section 207 of the Act.

Lorenzo v. SEC

I want to end this discussion on a high note—the SEC’s victory in Lorenzo v. SEC.

In Lorenzo, the Court affirmed the SEC’s long-held position that a person could be liable under the anti-fraud provisions for the knowing dissemination of false or misleading statements, even if he or she did not make the statements.

Lorenzo reinforces the SEC’s continued ability to bring charges against those involved in the dissemination of misstatements. This decision will help us to ensure that those who engage in deceptive conduct—particularly in private placements and schemes involving offshore actors—are held appropriately liable.

Despite some of the challenges I mentioned earlier, the Division of Enforcement—headed by Co-Directors Stephanie Avakian and Steve Peikin—have continued to achieve results.

As described in the Enforcement Division’s FY 2018 report, Enforcement measures its success by asking themselves tough questions:

- “Are we deterring future harm by bringing meaningful cases that send clear and important messages to market participants?”
- “Are we protecting investors and markets by holding individuals accountable for wrongdoing and removing bad actors from the securities markets?”
- “Are we stripping wrongdoers of their ill-gotten gains and returning money to victims?”
- “Are we acting quickly to stop frauds, prevent future losses, and return ill-gotten gains to harmed investors?”

This new legal landscape may frame some of our decision-making in pursuing new enforcement actions, but under Stephanie and Steve’s leadership, the answers to each of these questions will continue to be a resounding “Yes.”

The Use of Data Analytics to Support the SEC’s Mission

In addition to certain of the legal constraints I have discussed, the SEC faces operational constraints as well.

For example, we were, until very recently, subject to an agency-wide hiring freeze. And this year's government shutdown significantly affected our ability to continue non-emergency examinations and enforcement actions, among other areas.

These challenges, which we have faced head on with our eyes wide open, make our data analytics work more important than ever. Data analytics can help us use our existing resources more efficiently and effectively. I would like to highlight some specific issues around data collection and analytics that support our efforts to protect our markets and our Main Street investors.

Before I begin, however, I want to emphasize that at the SEC, our people—our human capital—are our most important resource. To be effective, data analytics needs smart people to support and advance the work of our experienced and dedicated staff.

As a threshold matter, it is important to note that data collection is not an end to itself, and the SEC must not be in the business of ill-defined and indefinite data warehousing. To remain a trusted, respected, and effective regulator, we must be mindful of the volume of data we collect, and its sensitive nature, and be principled and responsible users of data.

Office of Compliance Inspection and Examinations

The Office of Compliance Inspections and Examinations (OCIE), led by Pete Driscoll, conducts the National Examination Program—one of many examples in which the SEC has focused on doing more with our available resources.

OCIE completed over 3,150 examinations in FY 2018, a 10 percent increase over FY 2017.

The size of the securities industry precludes a comprehensive examination of each registrant by SEC examination staff each and every year.

OCIE has made it a priority to channel its limited resources by implementing a risk-based strategy across the entire examination program. Data analytics is an increasingly important part of OCIE's risk-based program, and OCIE has developed proprietary tools for analyzing data in support of the program:

- For example, OCIE's National Exam Analytics Tool (or NEAT) allows examiners to collect and analyze large datasets of trading records to identify potentially problematic activity and better understand a firm's business during examinations. NEAT initially focused on analysis of

investment adviser trading records, but it was subsequently expanded to provide analysis of broker-dealer trading records and anti-money laundering (AML) practices.

- OCIE has also developed HAL—the High-Frequency Analytics Lab—to enhance the SEC’s capabilities in examinations and oversight of market microstructure including high-frequency trading. HAL produces reports on SEC registrant and market behavior at relevant time resolutions down to microseconds. These reports help to identify registrants engaging in potentially unfair market practices, and to shed light on major market events.

Division of Enforcement

The Division of Enforcement uses a number of tools to identify suspicious trading and abuses perpetrated on retail investors by financial professionals. In one recent case, we charged an investment banker with misusing his access to confidential information.

This is a good example of the SEC’s use of trading pattern recognition (trading in front of deals advised by a single investment bank) to uncover a scheme.

This year, we also charged nine defendants—including a Ukrainian hacker—for their alleged roles in a scheme to hack into the SEC’s EDGAR system and extract nonpublic information for use in illegal trading.

This case required careful analysis of trading in the window between when the material nonpublic information was extracted and when it was disseminated to the public.

SEC staff also trace digital asset transactions on the blockchain. This tracing has been critical to several actions, including two cases in which the Commission obtained preliminary injunctions to stop alleged frauds.

Another example of the Enforcement’s use of data analytics is the establishment of the Retail Strategy Task Force (Task Force).

The Task Force, headed by Charu Chandrasekhar who is here with us today, has two primary objectives:

(1) to develop data-driven, analytical strategies for identifying practices in the securities markets that harm retail investors and generating enforcement matters in these areas; and

(2) to collaborate within and beyond the SEC on retail investor advocacy and outreach. Although it has been in operation for less than two years, the Task Force has already undertaken a number of lead-generation initiatives built on the use of data analytics.

A final example of Enforcement's use of data analytics is the ATLAS initiative, developed in the Philadelphia Regional Office by OCIE working with the Division of Enforcement.

ATLAS is an example of how the Commission's employees are collaborating to develop efficient and effective tools to identify misconduct in our markets. ATLAS allows our staff to harness multiple streams of data, including blue sheets, pricing, and public announcements.

Typical use cases of ATLAS include:

- evaluating activity prior to a particular equity event for possible insider trading;
- researching historical securities prices for litigation; and
- assessing an entire blotter for serial insider trading.

The ATLAS team recently used advanced data analysis technology to identify firms that failed in their obligation to submit accurate blue sheet data to the SEC.

ATLAS-generated leads led to the identification of over 80 million erroneous reports by three firms resulting in civil enforcement actions assessing over \$6 million in penalties. ATLAS has also generated many other promising leads using sophisticated artificial intelligence software.

The Importance of Responsible Collection and Safeguarding of Data

These are just a few examples of how the SEC is successfully leveraging data analytics. But, as I mentioned earlier, it is very important to recognize the great responsibility we have with respect to the data entrusted to us by our registrants and the public. I would like to illustrate my approach to this issue by describing a few of our recent challenges.

One ongoing data analytics project highlights the complexities of handling sensitive data. When completed by the self-regulatory organizations (SROs), the Consolidated Audit Trail (CAT) will provide a single, comprehensive database enabling regulators to more efficiently and thoroughly track all trading activity in equities and options throughout the

U.S. markets. However, given the nature of the data stored in the CAT, there have been substantial, and serious, concerns about the protection of investors' personally identifiable information (PII).

In order to reduce the PII footprint in the CAT, we support eliminating the requirement to maintain social security numbers in the CAT while still allowing regulators to track the activity of a single individual trading in multiple markets across multiple broker-dealers. We continue to monitor the SROs' progress in this area. These are important issues.

For that reason, I am pleased that Manisha Kimmel has recently joined the SEC to coordinate the SEC's oversight of the SROs' creation and implementation of the CAT, including with respect to the issues around PII and cybersecurity.

We are also working to strengthen security safeguards on our systems. A few months after my arrival at the Commission, I learned about an intrusion into the SEC's EDGAR system that occurred in 2016.

As a result of this intrusion, we initiated a number of different work streams to look at, among other things, the areas where we could make enhancements.

We have made progress to address these issues but work remains, and, to be sure, we are faced with the reality that no system can be 100 percent safe from a cyber intrusion.

We are fortunate, though, to be aided in our efforts by the addition of two key officials. We now have a Chief Risk Officer who helps coordinate our risk management efforts across the agency.

In addition, I have added a Senior Advisor for Cybersecurity Policy to my staff.

We hope that our state and federal partners can benefit from our experiences in particular when thinking about your own data security. Every agency in this room is undoubtedly a target of cyber attacks. We must all devote substantial resources and attention to cybersecurity, including the protection of PII.

One area in which we can collaborate with you on data security is when we share with you, our state and federal partners, nonpublic information that we have collected.

For example, as part of any data sharing arrangement, we should ask:

- Are best efforts being used to safeguard the data?

- Have we carefully considered the extent to which PII is needed or whether a more tailored, narrow set of information could suffice?
- Are there safeguards in place to protect the confidentiality of the information?
- How can we work together if there is an unauthorized disclosure?

We look forward to working with you on these important data security issues.

Thank you all for coming here today and for your collaborative work on behalf of our markets and Main Street investors.

You may visit: <https://www.sec.gov/news/speech/clayton-keynote-mid-atlantic-regional-conference-2019>

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