



*Monday, April 23, 2018*

Top 10 risk and compliance related news stories and world events that (for better or for worse) shaped the week's agenda, and what is next

Dear members and friends,

What is [random](#)?

According to the Merriam-Webster dictionary, [random](#) is something without definite aim, direction, rule, or method.



I am often [surprised](#) when I see this word in quotes and articles. [Franz Kafka](#), for example has said: “Self-control means wanting to be effective at some [random](#) point in the infinite radiations of my spiritual existence”.

What [Albert Camus](#) has said is not better: “It is necessary to fall in love... if only to provide an alibi for all the [random](#) despair you are going to feel anyway.”

Randomness is very important in [cryptography](#). In many cryptographic systems, the generation of random (or pseudorandom) numbers, directly determines the strength of the encryption.

A [pseudorandom number generator \(PRNG\)](#) is an algorithm that generates sequences of numbers, that have properties similar to sequences of random numbers. The PRNG-generated sequence is not truly random, as it is determined by an initial value (the seed).

PRNGs are also important in simulations, like the [Monte Carlo simulations](#) that are used in so many banks for the “measurement” of market risk.

Today we have an interesting development: Researchers at the National Institute of Standards and Technology (NIST) have developed a method for [generating numbers guaranteed to be random](#) by quantum mechanics.

The new NIST method [generates digital bits \(1s and 0s\) with photons](#), or particles of light, using data generated in an improved version of a landmark 2015 NIST physics experiment:

That experiment [showed conclusively](#) that [what Einstein derided as “spooky action at a distance” is real](#). In the new work, researchers process the spooky output to certify and quantify the randomness available in the data and generate a string of much more random bits.

“Random” numbers are used [hundreds of billions of times a day to encrypt data in electronic networks](#). But these numbers are not certifiably random in an absolute sense.

That’s because they are generated by software formulas or physical devices whose [supposedly random](#) output could be [undermined](#) by factors such as predictable sources of noise.

Read more at Number 7 below. Welcome to the Top 10 list.

*Best Regards,*

*George Lekatis*

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*Number 1 (Page 7)***Run-off: Protecting life insurance customers**

The term "run-off" describes a **variety** of related scenarios for winding up part or all of an insurance undertaking's book of business.

Beyond cessation of underwriting in certain business lines or regions, the term run-off includes an active element: the insurer endeavours to end the business activities in question as profitably – or at least with as little loss – as possible.

*Number 2 (Page 10)***Cyber Storm VI: Testing the Ability to Respond to a Cyber Incident**

**Cyber Storm VI** was led by the Department of Homeland Security (DHS) and involved more than 1,000 members of the private industry, government and international partners who participated in a three-day distributed exercise that focused on the critical manufacturing and transportation sectors.

*Number 3 (Page 12)***The importance of incentives in ensuring a resilient and robust financial system**

William C Dudley, President and Chief Executive Officer of the Federal Reserve Bank of New York, at the US Chamber of Commerce, Washington DC



“We have come a long way since the global financial crisis in building a more resilient financial system-one that can better support the provision of financial services to American households and businesses such as those represented here, both in good times and in bad. [But, there is still unfinished business.](#)”

*Number 4 (Page 25)*

### [Thoughts on technology and the economy](#)

Ms Cecilia Skingsley, Deputy Governor of the Sveriges Riksbank, at Handelsbanken, Södertälje.



“We human beings constantly strive to make things a little better. When we achieve technological breakthroughs, lives and entire societies are revolutionised.

[Important examples](#) include steam power, which made mechanised industries independent of water power possible, followed by rail transportation.”

*Number 5 (Page 32)*

### [EMIR Bridge Programme for Data Science](#) [Deadline: 23 April 2018](#)



Ten years after the global financial crisis, granular big data are becoming [increasingly available](#) to policymakers in order to improve the transparency and understanding of financial markets.

The European Market Infrastructure Regulation (EMIR) requires transaction-level data on [derivatives contracts](#) to be reported to trade repositories and grants the ESRB access to the EU-wide dataset.

*Number 6 (Page 34)***Cyber-criminal groups identified on social media**

Facebook deleted around 120 private discussion groups - equating to more than 300,000 members - that were promoting a host of illicit cyber-criminal activities, including [spamming](#), [selling stolen debit and credit account credentials](#), [phony tax refunds](#), [DDoS-for-hire services](#) and [botnet creation tools](#).

*Number 7 (Page 35)***NIST's New Quantum Method Generates *Really* Random Numbers**

Researchers at the National Institute of Standards and Technology (NIST) have developed a method for [generating numbers guaranteed to be random](#) by quantum mechanics.

*Number 8 (Page 38)***National Risk Assessment of Money Laundering and Terrorist Financing – what next for Industry**

Since October, the JFSC has spent a substantial amount of time with Industry discussing the data which it intends to collect in order to allow it to better identify, assess and understand ML and TF risks at entity level – something [that supervisors are expected to do in order to support risk-based supervision under international standards](#).

*Number 9 (Page 39)*

## Replacing checklists with engagement

Presentation by Ryozo Himino, Vice Minister for International Affairs, Financial Services Agency, Japan, at Session I, Supervisory approaches for Oversight of Intermediaries, of the CFTC International Regulators Meeting, Boca Raton, Florida



“Indeed, it is widely considered that Japan mismanaged itself in late 1980s, in 1990s and in 2000s, was too-little-too-late in policy responses, and lost its once renowned competitiveness largely due to inability to change itself.

What can one learn from that country? But difficult problems Japan had to face during the last two decades led it to experiment many novel policy initiatives.

For example, unconventional monetary policy measures, such as zero-interest rate policy, forward guidance and quantitative easing, **were all first experimented with in Japan.**”

*Number 10 (Page 47)*

## China Banking and Insurance Regulatory Commission officially unveiled

China Banking and Insurance Regulatory Commission (CBIRC)



On 8 April 2018, China Banking and Insurance Regulatory Commission (CBIRC) was formally unveiled in Beijing, marking the **official launch** of the new regulatory authority into operation.

In the first quarter of 2018, with effective measures taken by the banking and insurance regulators, substantial progress has been made in preventing risks, handling irregularities and misconducts, shoring up weak links, facilitating reforms and boosting service capabilities, which further consolidated the efforts of guiding capital to serve the real economy while maintaining the steady and sound operations of the banking and insurance industries.

*Number 1***Run-off: Protecting life insurance customers**

Federal Financial  
Supervisory Authority

The term "run-off" describes a **variety** of related scenarios for winding up part or all of an insurance undertaking's book of business.

Beyond cessation of underwriting in certain business lines or regions, the term run-off includes an active element: the insurer endeavours to end the business activities in question as profitably – or at least with as little loss – as possible.

The undertaking can also work with external parties to this end.

The **spectrum ranges** from consulting to outsourcing activities to spinning off operating activities, transferring portfolios and, if an undertaking's whole portfolio is in run-off, the sale of the undertaking.

**Reasons**

In light of developments on the capital markets since the financial crisis, an intense preoccupation on the part of all insurance groups with their own business models can be observed in recent years.

Along with low interest rates, the **increasing pace of change** in the societal, regulatory and technical framework is also contributing to this.

It is understandable that the undertakings will examine all their business lines to see whether they can continue to be operated successfully in their current form.

In particular in the case of the **most important** life insurance product in Germany, i.e. traditional with-profits life insurance, the providers are faced with the problem that earnings prospects are falling at the same time as the requirements for modernisation of business processes and capital requirements have increased.

The undertakings' reactions to this vary, with some of them deciding to no longer offer traditional life insurance.

In the case of insurance groups, this can mean that one or – if there is more than one life insurer in the group – several life insurance undertakings will de facto or even officially cease writing new business and go into "internal run-off".

Similar considerations may also arise in relation to Pensionskassen (occupational pension providers) which belong to the group.

It is important to stress that [the transition from being an active insurer to internal run-off is fluid](#).

On the other hand, there are currently many investors which are willing to invest in closed life insurance books.

In total, it appears that [billions of euros are available for investment](#).

These actual or potential investors come mainly, though not exclusively, from outside Europe.

The transactions themselves, however, are concluded via holding companies (run-off platforms) in Germany.

Closed life insurance books are [interesting to investors](#) primarily because the cash flows that result from them can be easily forecasted, even for decades to come.

In particular, money may be made in this area if the portfolios can be managed effectively using modern approaches.

Run-off platforms do not have any old, and therefore [difficult to master](#), management systems and do not expend any resources on product development and distribution.

The business model thus influences whether or not closed insurance books are viewed as being loss-making or worthwhile.

Whether or not concrete transactions are concluded also depends of course on the prices which the undertakings concerned have in mind.

### [Good or bad for customers?](#)

Is this good or bad for the customers? The dominant opinion held by the general public is that it is clearly "bad". However, this blanket judgement does not stand up to closer scrutiny.



First, one must make a differentiation between internal and external run-off. It is external run-off that is currently dominating the public debate.

The fears that exist on the matter are based primarily on the **assumption** that run-off specialists are not dependent on potential customers having a positive image of them.

The worry is that, because of this, they would reduce profit participation as far as legally possible and that their customer service would deteriorate.

However, run-off specialists can by no means afford to be indifferent about their image.

Their business model requires them to maintain an interest in managing the portfolios for the long term. **A high lapse rate is not lucrative.**

Moreover, they usually want to take over further portfolios, and a good reputation is crucial for the success of future transactions.

The customers' interests are also of vital importance to the sellers: no insurance group planning a sale will be **under the illusion that their reputation would remain unharmed** if its customers' interests were abandoned just after the sale.

This is because all groups which are in line for an external run-off remain active in Germany. In addition, it must be remembered that, even in the case of an internal run-off, the incentives for new business are lacking.

It should also be borne in mind that there have been insurers writing new business whose profit participation was not any higher than that required under the German Minimum Allocation Regulation (Mindestzuführungsverordnung – MindZV - only available in German).

To read more:

[https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2018/fa\\_bj\\_1802\\_RunOff\\_en.html](https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2018/fa_bj_1802_RunOff_en.html)



*Number 2*

## Cyber Storm VI: Testing the Ability to Respond to a Cyber Incident



Cyber threats to government networks and other critical infrastructure are one of our Nation's most pressing security challenges. **Consequences** from attacks threaten the safety and security of the homeland, our economic competitiveness, and our way of life.

With the majority of critical infrastructure owned and operated by the **private** sector, securing cyberspace is only possible through close collaboration, what we described as a "Collective Defense" model of shared responsibility.

**Exercises** are critical to testing this coordination, and more importantly, to building and maintaining strong relationships among the cyber incident response community. Carried out regularly, these exercises allow us to achieve solutions to some of the biggest challenges facing the homeland as well as raise the overall profile of cyber events and cyberattacks.

**Cyber Storm VI** was led by the Department of Homeland Security (DHS) and involved more than 1,000 members of the private industry, government and international partners who participated in a three-day distributed exercise that focused on the critical manufacturing and transportation sectors.

The exercise **evaluated and improved** the capabilities of the cyber response community, informed preparedness and resilience planning efforts, and evaluated the effectiveness of the National Cyber Incident Response Plan in guiding response.

Growth in this community of partners acknowledges the increasing value of information sharing and the benefits of exercising their organizations cyber response plans.

During the exercise, participants faced a **simulated cyber crisis of national and international consequence** that required them to use their training,

policies, processes, and procedures for identifying and responding to a multi-sector cyberattack targeting critical infrastructure. The Cyber Storm VI scenario was an environment where [no single organization was in a position to stop or mitigate the impacts of the attack by itself](#).

Thus, the scenario promoted cooperation and information sharing across the United States government, states, the private sector, and international partners.

The [DHS National Cybersecurity and Communications Integration Center \(NCCIC\)](#) served as the focal point for federal response and coordination during the event.

NCCIC is a 24x7 cyber situational awareness, incident response, and management center that is a national nexus of cyber and communications integration for the Federal Government, intelligence community, and law enforcement.

The NCCIC is also designated as the federal interface for private sector information sharing, cross-sector coordination, and incident response.

A comprehensive after-action process will take place to discuss initial, high-level findings. An [after-action conference](#) will also be held to validate these findings and inform the development of an after action report.

This information, along with the lessons from previous exercises and real-world incidents, is integral for strengthening the Nation's capacity to respond to a cyber incident.

It also assists DHS in creating more challenging scenarios to test the security and resiliency of their partners in the years to come.

For more information about the Cyber Storm exercise series, and to view the final reports from Cyber Storms I-V, you may visit:

<https://www.dhs.gov/cyber-storm>



*Number 3*

## The importance of incentives in ensuring a resilient and robust financial system

William C Dudley, President and Chief Executive Officer of the Federal Reserve Bank of New York, at the US Chamber of Commerce, Washington DC



It is a pleasure to have this opportunity to speak to you. In my remarks today, I will discuss financial regulation and the ways in which proper incentives help ensure resiliency in the financial system. As always, what I have to say reflects my own views and not necessarily those of the Federal Open Market Committee or the Federal Reserve System.

We have come a long way since the global financial crisis in building a more resilient financial system—one that can better support the provision of financial services to American households and businesses such as those represented here, both in good times and in bad. **But, there is still unfinished business.**

On the regulatory side, for example, there is more work to be done to ensure that a systemically important bank can be resolved effectively on a cross-border basis in the event of failure.

Additionally, the efficiency, transparency, and simplicity of the regulatory system could be improved without weakening the core reforms to capital, liquidity, and resolution that have made the financial system much stronger.

Most importantly, we need to recognize that an effective regulatory regime and comprehensive supervision are not sufficient. We also need to focus on the **incentives** facing banks and their employees. After all, misaligned incentives contributed greatly to the financial crisis and continue to affect bank conduct and behavior.

**Today, I will address this issue of incentives, with emphasis on the complementary roles of regulation, supervision, and bank culture.** Each of these is necessary to ensure that we have a robust and resilient financial system not just today, but also in the future.

## Progress since the financial crisis

The financial crisis was a watershed event that exposed severe deficiencies in the financial system-including the inadequacy of bank capital and liquidity buffers, poor risk management and internal controls, and bad bank cultures.

Many financial firms took on an **excessive amount of risk** and did not always act in ways consistent with the interests of their customers or the broader public. The crisis revealed woeful shortcomings in many of these elements, with terrible consequences for the economy and millions of people.

Over the past decade, the official sector and the financial industry have made considerable progress in addressing these problems. The banking system is much sounder and more resilient as a result, in a number of ways.

**First**, systemically important banks are much safer. They have much bigger liquidity and capital buffers, and the quality of capital is much improved.

Moreover, the capital regime now has a forward-looking element in which annual stress tests examine banks' ability to withstand losses under severely adverse economic conditions and constrain the amount of capital that can be returned to shareholders via dividends and share repurchases.

Strengthened liquidity standards have given the market greater confidence that banks possess adequate resources to weather temporary storms that arise.

At the global level, **Basel III** has helped to level the competitive playing field in a number of ways-including, most recently, by imposing constraints on banks' use of internal models to meet their capital requirements, and by introducing a leverage buffer for systemically important firms, similar to what we already have in place in the United States.

**New regulatory standards** have been complemented by a supervisory framework for the largest banks that explicitly acknowledges the impact that distress at such firms could have on financial markets and the economy. These efforts have led to considerable improvement in risk management at banks, which should help better sustain the flow of credit to the real economy throughout the business cycle.

**Second**, considerable progress has been made in terms of resolution. Systemically important banks now have living wills that provide a roadmap

for how these firms would be resolved in the event of imminent failure. Moreover, there is now a well-defined mechanism under [Title II of the Dodd-Frank Act](#) for recapitalization of a failed systemically important firm.

The FDIC now has the authority to initiate a "single point of entry" resolution, which places the parent holding company into FDIC receivership and transfers its subsidiaries to a new parent company.

Total loss-absorbing capacity, or TLAC, of the old parent company would be available to absorb losses and could be used to recapitalize the new parent company. But, the task of operationalizing resolution for large, global banks-including achieving full clarity on the roles of the home and host supervisors-is still not complete.

It is key that work continues on this front to ensure that a systemically important firm can fail without threatening to topple the rest of the financial system-an important step toward ending "too big to fail."

[Third](#), some of the obvious systemic vulnerabilities exposed by the financial crisis have been remedied. Important changes include mandatory clearing of standardized over-the-counter derivatives through central counterparties, or CCPs; more intensive supervision of systemically important CCPs; and reforms of the tri-party repo system and the money market mutual fund industry.

But, even as we reduce or eliminate old vulnerabilities, we must not rest on our laurels, for new vulnerabilities will inevitably take their place.

These accomplishments notwithstanding, I have no doubt that the current regulatory framework [could be improved](#). Indeed, the official sector should assess the efficiency and effectiveness of regulations on an ongoing basis.

I agree with Vice Chairman Quarles' observation that there is more we can do to make the regulatory regime more efficient, transparent, and simple-including relief for small banks, greater tailoring based on a firm's level of systemic importance, and simplifying the Volcker Rule. Some of these changes have already been adopted or are in process.

### [Greater focus on incentives is needed](#)

But, I also think we must take a broader view of what characterizes a resilient and robust financial system. To that end, we need to carefully monitor the incentives that influence the behavior of financial firms and their employees.

Indeed, the record from the crisis and more recent years shows just how powerful incentives can be in driving firms and individuals to do things that are imprudent and/or unethical. Bad incentives can lead to conduct that not only generates large risk exposures and market excess, but also erodes trust and confidence in the financial system.

For example, the pre-crisis housing boom would not have gone so far, for so long, without the widespread breakdown in mortgage underwriting practices that was driven by poor incentives.

[Some examples](#) of bad incentives that contributed to the financial boom and bust included:

- Compensation practices at financial firms that rewarded volume and short-term performance over longer-term, sustainable returns;
- The willingness of the credit rating agencies to designate tranches of subprime mortgages triple-A in exchange for fees paid by a small number of issuers of mortgage-backed securities;
- The willingness of Fannie Mae and Freddie Mac to use their implicit government support to take on large amounts of mortgage risk with very little capital backing;
- The willingness of AIG to use its triple-A rating to provide credit protection to banks and securities firms against complex mortgage obligations with little direct capital support or an adequate liquidity backstop; and,
- The pegging of money market mutual fund share prices at par, which led to investors running at the first sign of trouble.

[Since then](#), we have seen a number of other costly breakdowns that were driven, in part, by poor incentives.

- In the LIBOR scandal, a relatively small number of banks manipulated LIBOR to their benefit through rate-setting submissions that were not based on actual transactions. In contrast, a new U.S. Treasury repo reference rate will be based on actual transactions in a deep and liquid market, and is designed to be compliant with new principles set forth by the International Organization of Securities Commissions.
- In the foreign-exchange market, bad incentives helped encourage rate rigging at particular rate-fixing times. Reforms were subsequently introduced, including recommendations from the Financial Stability

Board's Report on Foreign Exchange Benchmarks and the recent publication of the FX Global Code, developed by central banks and market participants.

- The creation of millions of unauthorized accounts at Wells Fargo also reflected bad incentives. Bank employees were compensated on sales volume with aggressive cross-selling targets without customers actually receiving beneficial services. In response, the Federal Reserve Board entered into a consent cease-and-desist order with Wells Fargo that requires the firm to improve its governance and risk management processes.

These recent cases were particularly disturbing in terms of their scale and flagrancy, and-in the case of the rate-rigging scandals-the collusion by employees across firms.

I am **particularly struck** by the fact that manipulation of the foreign exchange market occurred even after the LIBOR scandal was well known. These episodes underscore the tremendous power that incentives have to influence and distort behavior, potentially leading to massive damage to bank cultures, reputations, and finances.

**Some lessons** on incentives that stand out for me include:

- Guarding against technical design flaws that can be manipulated and exploited for profit;
- Ensuring that incentives are aligned and consistent with desired behaviors;
- Recognizing how rules, however well-intentioned, can be gamed; and,
- Having appropriate mechanisms in place to identify problems early and to ensure rapid escalation and amelioration.

**Many of these issues and risks likely also apply to your companies.** But, I think they are particularly important for financial institutions-especially those that are systemically important. The scale of such firms magnifies the impact of bad incentives on the financial system and economy.

At the same time, that scale also makes it more difficult for senior management to properly control a firm's activities and monitor the conduct and behavior of its employees.



For these reasons, we need strong internal and external checks on banks-an area to which I will now turn.

## The complementary roles of regulation, supervision, and culture

As I said earlier, a sound financial system is one that is safe and resilient, can support the provision of financial services at a reasonable price to the real economy in good times and in bad, and promotes confidence and trust among its customers and counterparties.

Financial institutions should be prudently managed and subject to strong internal checks-including risk management policies and procedures, internal controls, compliance, and audit. Meanwhile, an effective financial regulatory and supervisory regime should be as efficient, transparent, and simple as possible.

I think these goals are **broadly shared** by supervisors and banks alike, which suggests to me that the relationship between supervisors and banks does not always need to be adversarial. Indeed, a healthy dialogue helps this supervisory process to work well.

For example, it is important that firms are proactive in revealing problems to their supervisors. And, individual institutions can certainly benefit from the horizontal perspective that supervisors bring to examinations. This perspective can highlight where the firm stands vis-à-vis best practices, or where there may be important vulnerabilities in its operations.

Of course, there is an irreducible amount of **tension** built into this relationship, given that each party's roles, interests, and responsibilities will not always coincide.

Banks are naturally more sensitive to constraints on their profit opportunities or dividend policies and to the costs of regulation. They may also question how much protection is necessary-for example, how stringent the capital requirements or how severe stress testing assumptions should be. These are areas where I would expect perspectives to differ.

Supervisors are principally focused on compliance with laws and regulations as well as issues of safety and soundness. They also bring to their work a perspective on financial stability that may not match the more narrow interests of the firm.

For example, supervisors seek to address the externalities created by the failure of a systemically important firm by imposing higher capital and

other requirements than the firm would likely select if left to its own devices.

The financial crisis is a **vivid reminder** that there can be many risks to financial stability, and of the need for strong internal and external constraints on banks.

Here, the **"three pillars" of regulation, supervision, and bank culture must all play effective roles.**

Regulation establishes what is legally permissible for banks to do; supervision helps to reinforce those rules and evaluate whether the bank's controls and other processes are conducive to safety and soundness; and bank culture sets the norms for what is appropriate behavior.

But, at the same time, these pillars are **mutually reinforcing**. Regulation and supervision, for example, attempt to address various market failures in banking that can contribute to excessive risk taking. Bank culture, in turn, helps establish norms in areas where regulation may be silent.

In this way, regulation, supervision, and bank culture are complements, and deficiencies in any of these pillars can be problematic.

For example, as we have seen in cases of unsafe or unethical behavior in recent years, strong regulation and supervision cannot substitute for deficiencies in bank culture-especially not on a timely basis.

**It is the public sector's job** to establish and enforce rules, but rules are inherently limited in their ability to constrain conduct and behavior. Much of our regulatory regime has been developed in response to financial problems that have arisen over time.

Because regulation is typically reactive in this way, it may not always keep pace with the evolution of the financial system or the broader economic environment.

Also, we must recognize that, at times, actions will be taken that are clearly inconsistent with the spirit of the rules that are place, or the rules will simply be violated.

Consider the use by **Lehman Brothers** of so-called Repo 105 transactions to window-dress its balance sheet. Beginning in late 2007, Lehman used Repo 105 transactions to temporarily remove securities from its balance sheet for a few days in order to mislead investors and counterparties about its financial condition. These transactions had the benefit of being recognized

as "sales" even though they were nearly identical to standard repo transactions that stayed on the balance sheet.

In another example, following the introduction of [Basel III](#), some banks tried to reduce their capital requirements by [transferring risk to other counterparties](#).

In certain cases, this occurred even when those counterparties did not provide any additional resources to absorb potential losses-either because they were very thinly capitalized, or were affiliated with the banks in question.

I would also note that the establishment of too many bright-line rules may prove counterproductive to the goal of encouraging good bank cultures. For one thing, detailed rules can be construed as implying that the responsibility for good conduct rests with the public authorities.

For another, rules may create opportunities or incentives for legal or regulatory arbitrage. When banks work to find creative ways around rules, it can have an insidious effect on culture.

As I see it, an organization's culture gets into trouble when it equates "what is right" with what is legally permissible, and when "what is wrong" becomes viewed as what is legally impermissible.

[A proliferation of rules-followed by the gaming of these rules-can be ultimately self-defeating](#). The end result may not only be a loss of trust, but also over time a more burdensome regulatory regime than would otherwise be the case.

So, while regulation and supervision are necessary to ensure a resilient and robust financial system, I very much doubt that they are sufficient.

They need to be supplemented by bank management that pays close attention to incentives, conduct, and culture. As I have previously said, [incentives drive conduct](#), which establishes the social norms that help define a firm's culture.

The first step is for firms to [evaluate](#) the incentives that they have in place with respect to personnel evaluation, compensation, and promotion and to make sure they are consistent with the type of behaviors they want to encourage.

For example, how are compliance violations treated in compensation and promotion decisions? Are incentives in place to encourage people to speak

up early, when problems are smaller and more manageable? When employees do speak up, how are they subsequently treated?

My colleagues and I at the New York Fed have commented previously on the essential role of good culture in a bank's reputation, financial condition and performance, and in customer confidence and trust.

As we have argued, "[cultural capital](#)"-through its ability to limit misconduct risk-can be an important bulwark to a firm's financial capital.

Culture is often viewed as a "soft" topic, but I would disagree. The financial penalties associated with misconduct are anything but soft-with bank fines since the crisis estimated at more than \$320 billion as of year-end 2016.

The hit to a bank's reputation from misconduct can also be quantified through, for example, the associated impact on its share price or funding costs. Culture should be about concrete incentives and behaviors that help achieve specific goals, implying that it should not be viewed as a "soft" issue.

I have argued on several occasions that bank leaders could get a better view into their firms' progress on conduct and culture by doing more collectively.

For example, major banks in the United States could participate in an industry-wide survey of their employees conducted by an independent third party, with the results anonymized to encourage respondents to be candid in their assessments.

I suspect that these results would create a more accurate picture of how banks are doing, and would likely [underscore how much work](#) continues to be needed to improve bank cultures.

Another idea that I have discussed is the creation of a database of banker misconduct to combat the problem of "rolling bad apples." In these cases, employees who are dismissed due to suspicion or proof of misconduct are unwittingly hired by other firms in the industry, where they have the opportunity to repeat their actions.

Understandably, firms are [concerned about legal risk](#) if they share information about banker misconduct, but there may be ways to address these concerns through legislation. Once again, I invite the industry to take the initiative on these issues, and to look to the public sector for support.

For their part, I believe that supervisors have a special role to play in assessing incentives at the firm level and their possible implications for bank behavior and misconduct.

**Supervisors can mitigate misconduct risks** by supporting the development of effective corporate governance regimes, prudent risk management policies, and strong compliance and control structures—all within a framework of effective oversight from the firm's board of directors.

Ultimately, establishing and maintaining an effective culture with appropriate risk governance and controls is the responsibility of individual firms and the industry, but the official sector can help by highlighting best practices and addressing collective action problems and other market failures.

### **Areas where further work on incentives is warranted**

I would like to briefly touch on some areas where further work on incentives may be warranted, including regulatory changes that might address certain incentive and first-mover problems.

At the outset, let me say that **I do not have all the answers** and do not mean to suggest that these are the only areas that need improvement. But, these issues are ones where more investigation into possible solutions may be warranted.

As I discussed earlier, we have made substantial progress in raising banks' capital buffers. But, I believe it would also be worthwhile to evaluate other changes to our capital regime to encourage earlier action by banks when the economic environment deteriorates.

**Banks are naturally reluctant** to raise capital due to concerns about stigma and potential equity dilution. This hesitancy was demonstrated clearly during the financial crisis.

Bank management may also **delay** such a move because they may be prone to over-optimism about the outlook for their firm or the economy. There is also an externality problem, as a bank does not internalize the benefit that accrues to the financial system when it takes steps to strengthen its own financial condition.

Although supervisors have tools available in such circumstances, these require a safety-and-soundness basis that may not always be available in a timely manner.

Changes in the 2018 Comprehensive Capital Analysis and Review program enable banks to avoid a Federal Reserve Board objection based on the quantitative assessment by raising new capital. While this is a step in the right direction, the current regime may not be sufficient to ensure that banks will raise capital more proactively.

Compensation is also a powerful incentive. As I mentioned earlier, the emphasis in compensation practices on short-term performance over longer-term sustainable returns was a key vulnerability revealed during the crisis that helped motivate imprudent behavior.

Currently, senior bankers are paid mainly in cash and deferred stock grants. This structure creates incentives to take actions to maximize a bank's share price, rather than to minimize the risk of the bank's failure.

While compensation practices today feature a larger deferred component, greater emphasis on deferral in the form of long-term debt-which can also be recognized as TLAC-could better align senior managers' interests with the long-term safety and soundness of the firm.

As I see it, this approach could have two benefits. For one, it would reduce the incentives for risk-taking. For another, if TLAC debt holdings were at risk of conversion to equity in the event of failure, I believe senior bankers would be incentivized to cut dividends or raise equity capital earlier to reduce the risk of failure.

Having a regime in place that creates strong incentives for management to steer aggressively away from bad outcomes would be better than one in which management has incentives to temporize in the face of rising risks.

Some banks have experimented with such compensation schemes, and I would encourage more to do so. But, this type of reform may also need a push from the regulatory side.

Banks may be reluctant to adopt such pay structures on their own for competitive reasons. They may perceive that there is a first-mover disadvantage in attracting and retaining talent.

Another possible reform could involve putting a greater onus on senior management for the costs incurred from regulatory fines or other legal liabilities, rather than on shareholders alone.

Shareholders should not be shielded from such costs and fines-as they may have also profited from associated gains-but it doesn't seem fair or prudent

to shield the decision-makers from responsibility for costly breakdowns as much as they are now.

**Greater personal liability** may also be a powerful incentive to promote better behavior. I suspect changes in these areas would lead senior managers to encourage their staff to speak up earlier about emerging risks, be more attentive when red flags were raised, and respond sooner and more forcefully.

I would also note that the many regulatory reforms introduced over the past decade may create incentives of their own, with important implications for bank behavior. Such incentives may alter the nature and locus of risk-taking, and therefore need to be closely monitored.

Risks could be **shifted outside** the banking system, or the incentives could lead to different bank strategies, business models, and product offerings that introduce new risks.

There is a long history of such behavior. For example, off-balance-sheet instruments rose sharply in the 1980s in response to the introduction of minimum primary and total capital requirements based on balance sheet size.

More recently, in some jurisdictions the use of leverage ratios based on period-end reporting of assets-as compared to period averages in the United States-has encouraged **window-dressing behavior** by some banks at quarter-end.

So, while the reforms have mostly had the intended effect of encouraging safer institutions, authorities and financial institutions should also be mindful of potential unintended consequences.

## Conclusion

To sum up, we have made considerable progress toward a more resilient and robust financial system.

While we should do more to make the regulatory regime more efficient, transparent, and simple, there are outstanding issues that still require additional work-such as the cross-border resolution of large global banks.

We should also **focus more on incentives**, which can help ensure that regulations are dynamic and work well, and that banks are incentivized to take action early to steer away from trouble.

Finally, regulation and supervision are necessary but not sufficient—they must be supplemented by bank cultures that encourage ethical behavior, the early identification of problems, and a willingness to address those problems proactively.

Thank you for your kind attention. I would be happy to take a few questions.





*Number 4***Thoughts on technology and the economy**

Ms Cecilia Skingsley, Deputy Governor of the Sveriges Riksbank, at Handelsbanken, Södertälje.



Thank you for your invitation to visit Södertälje. Many people come here to spend hours playing with their children at the science museum Tom Tits Experiment, which can be found here in town.

This is a place where you can experiment with the laws of physics, puzzle over medical phenomena and observe chemical effects. I dare say that many of today's and tomorrow's Swedish scientists had their first insights into science there.

My speech today does not deal with scientific laws but with how important technological advances are redesigning the playing field for the economy and thus the way in which economic policy is conducted. I will also discuss how the Riksbank assesses the current economic situation and its forecasts for the years ahead.

Finally, I will describe how monetary policy can facilitate economic development in Sweden.

**Technological breakthroughs transform our society.**

We human beings constantly strive to make things a little better. When we achieve technological breakthroughs, lives and entire societies are revolutionised.

**Important examples** include steam power, which made mechanised industries independent of water power possible, followed by rail transportation.

The internal combustion engine enabled transportation independently of the rail network in the form of motor vehicles and aircraft, and electricity has given us light, warmth and the power of movement.

Now, at the start of the 21st century, we have to deal with all the opportunities, but also challenges, brought by the Internet, digitalisation, robotics, biotechnology and artificial intelligence.

Experts often disagree over how revolutionary these technologies will turn out to be for the economy in the long run, but we can see how they affect us in our daily lives.

Take, for example, digitalisation, which is impacting sector after sector. How many record shops are there these days? Where's the nearest video rental store? How often do you find yourself keeping an eye on the time so as not to miss a certain TV or radio programme?

Increasing numbers of us subscribe to streaming music and film services, read the news on the Internet instead of in paper newspapers, listen to podcasts and use catch-up TV services and YouTube channels. It's quite fun being a consumer these days.

Also on the other side of the economy, the producing side, can we see markets being reshaped and both the number and nature of jobs being changed.

My sector, the financial system, and my workplace, the Riksbank, are also being affected by these changes.

In our monetary policy assignment of maintaining price stability in Swedish kronor, specified as inflation of around 2 per cent, we need to understand not only cyclical developments but also structural transformations in the economy.

This knowledge forms a precondition if we are to be able to make good forecasts and calibrate a well-balanced monetary policy, thereby fulfilling our mandatory task.

To make good forecasts, we need models, and models assume that economic relationships are stable. It therefore becomes complicated when structural changes delay or even transform old relationships.

If important structural changes have occurred, they turn up as so-called shocks in the models. For example, new and better working methods should entail a positive shock in productivity.

Another structural change, for example increased e-commerce, means that competition increases, putting pressure on companies' profit margins.

However, when data on productivity and companies' profit margins is studied, it is difficult to observe larger changes. Productivity growth in recent years [cannot be described as remarkably high](#).

In turn, this has an effect on wage development, which I shall return to. My point, however, is that technological shifts do not necessarily change the way the economy works.

But it is nevertheless clear that technological breakthroughs [can push forward changes](#) in what have historically been fairly stable operations and open them up for new participants.

For example, technological developments in society have contributed to the use of cash, the money the Riksbank offers society, going into decline. If the present trend continues, cash could actually be phased out as a means of payment in a few years, as many banks and [a growing number of retailers no longer offer services involving cash](#).

Sweden is a world leader in developing electronic means of payment. This is positive. But, at the same time, the public sector in a wide sense needs to ensure that everybody who lives in Sweden will continue to have access to secure and efficient payment services.

Consequently, over the last year, the Riksbank has [prioritized](#) the analysis and strategic development of the payment market. The Riksbank has also proposed that, via legislation, Sveriges Riksdag, the Swedish parliament, should clarify the banks' responsibilities for supplying cash.

## [Financial crises, technology and competition have restrained wage increases](#)

In a city like Södertälje, with, for example, the vehicle manufacturer Scania, the pharmaceutical manufacturer AstraZeneca and the Port of Södertälje, there is long experience of working in the global economy and of technological shifts. For you, change is nothing new.

If we zoom out to the entire Swedish economy, we have also been [quite good, as a country, at managing change](#).

But let me start in the present day, where we can see that the international economy is growing increasingly strong. The United States is in one of the longest phases of rising GDP of the post-war period and, last year, the euro area had the highest growth in ten years. However, it takes time for the strong economic activity to affect inflation.

Although the recovery has come far after the years of financial crises and low growth, wage increases have been unexpectedly low in many advanced economies.

In large economies such as the United States, Canada, Germany, Australia, as well as in Sweden, unemployment is close to or below levels at which wage growth, historically speaking, tends to pick up.

In Sweden, we have had a number of years with a combination of low productivity and low expectations of inflation and wages, which partly explains the low wage demands up to now.

Even if Sweden has had a strong employment trend in recent years, technological innovations and international competition will entail a transformation in which jobs will disappear and need to be replaced by new ones.

These forces, in combination with long-term stagnation in the euro area after the financial crisis, are also leading to employees becoming more cautious with their demands.

It is feasible that the upheaval these forces cause at workplaces may also make it difficult for individuals to assess whether they risk becoming unemployed and, if so, what their position might be on the labour market.

Low wage expectations are a global phenomenon and can contribute towards those already in employment becoming less interested in looking for a better-paid job.

Thus, even in an economic boom, employers can hold back wage increases without the risk of losing valuable labour. Of course, these changes in wage formation may vary considerably in different economies.

But they interact with each other due to the global market for goods and to a growing part of the service sector also being traded globally.

The increase in the number of self-employed people, the many part-time positions and the changed wage composition are factors that tend to crop up as explanations for low wage growth in other economies but which I consider to be less important for understanding wage formation in Sweden.

On the other hand, what is special for Sweden is that we have become many more on the labour market.

The number of persons between 15 and 74 in the labour force increased by just over half a million between 2006 and 2016. This increase is largely due to high immigration but the labour force is also growing due to changed rules and reforms on the labour market and to tax, benefits and pension rules.

A higher labour supply leads to greater competition for vacant jobs, thus restraining the rate of wage increases.

My assessment is that there are **overarching cyclical forces** that suggest wages will rise during the forecast period, but that the rate of increase may remain low despite the high level of resource utilisation.

When the effect on the economy from upheavals such as technological advances, demographic changes or increased cross-border trade has worn off, employees should be able to increase their pay again.

However, this can take time and, during the transition, the best contribution monetary policy can make is to facilitate, via high resource utilisation and as far as is compatible with the inflation target, the various adjustments demanded by structural transformation and demographics.

### **Education and oversight of competition – to meet the future**

However, if Sweden as a country is to be able to meet these challenges over the long term, other policy areas than monetary policy will have to be used.

Here, I would like to name two important areas: **education and oversight of competition**. In light of technological developments and population increases, opportunities for life-long education and professional development will be completely decisive.

**Even well-educated** professional groups that have previously had low unemployment have started to become aware of a growing risk of being automated out of work.

This applies, for instance, to investment advice, financial accounting and legal support. Other experts can describe this area better and in more depth than I do here, but to me it seems obvious that increasing numbers of us will have develop our skills further several times in the courses of our professional lives.

The other important policy area is that of competition oversight and regulation.

New technology brings new actors and some of these have become very large global actors. In markets characterised by high entrance barriers, synergies and network effects, far too much power can easily be concentrated in the hands of a few dominant actors.

National politicians play an important part here: in cooperation with other countries, they must oversee and, when necessary, regulate different markets to safeguard the public interest.

### The contribution of monetary policy

At present, we can observe that the very low level of interest rates and the Riksbank's asset purchases have had [clear effects](#). Inflation, which has shown a rising trend since 2014, was around 2 per cent last year and long-term expectations are anchored to the target.

The Swedish labour market is moving in the right direction and employment has increased by 240,000 over the last three years. But unemployment for those born abroad remains high.

Refugees settling in Sweden often lack a strong link to the labour market when they arrive. Only half of refugees are in employment after eight years in Sweden. But it is positive that their establishment on the labour market looks like it is starting to go faster.

As you know, there are no guarantees in the forecasting business. It has taken a decade, but it seems as though the global economy has finally recovered enough from the after-shocks of the financial crisis to start a new chapter and that central banks in our part of the world will gradually be able to raise interest rates again.

For the small Swedish economy, with its [reliance on foreign trade](#), altogether premature or rapid rate rises would jeopardise the strong economy and development of inflation.

For the Riksbank, it is a question of remaining vigilant. A prerequisite for inflation to continue to develop in line with the target is that economic activity remains strong and has an impact on price developments.

Monetary policy therefore needs to remain expansionary for a while. But if everything goes as expected, the time to start normalising monetary policy will come closer. The assessment we made in February was that it is probably time to slowly start raising the repo rate during the second half of this year.

But such a turnaround requires considerable caution, in my opinion. I occasionally hear somebody say that it feels wrong to have a negative policy rate when the economy is going as well as it is now. But the Riksdag has assigned the Riksbank to conduct a monetary policy that [contributes](#) to suitably low inflation.

Therefore monetary policy cannot be governed by how one or another interest rate level might feel.

To finish where I began: [In an experimental world](#), with many uncertainties, clear game rules are needed so that all parties in the economy can take well-founded decisions on economic transactions.

Reliable price stability, in terms of purchasing power, is one such game rule. The alternative, which would lead to inflation developing more unsteadily, would be a poor contribution from monetary policy to Sweden's changeable society.



*Number 5***EMIR Bridge Programme for Data Science  
Deadline: 23 April 2018**

Ten years after the global financial crisis, granular big data are becoming [increasingly available](#) to policymakers in order to improve the transparency and understanding of financial markets.

The European Market Infrastructure Regulation (EMIR) requires transaction-level data on [derivatives contracts](#) to be reported to trade repositories and grants the ESRB access to the EU-wide dataset.

The full dataset consists of approximately [one hundred million observations per day](#).

### **Get involved**

In order to exploit the wealth of information from this newly available dataset, the European Central Bank and European Systemic Risk Board are running the EMIR Bridge Programme for Data Science, which aims to develop novel analytical methods and to foster interaction between the policymaking and research communities.

To this end [we are seeking leading policy experts and researchers](#) in the fields of finance and data science with ideas for analytical policy and research projects fulfilling the following aims:

- improve the understanding of derivatives markets and their systemic risk implications
- develop innovative analytical methods to enhance the understanding of this novel and rich dataset.

In a first step we are conducting a market survey with the aim of exploring and initiating collaboration opportunities with potentially interested parties.

The market survey will inform the subsequent Request for Proposals, which will be launched as procurement procedure PRO-003620.



Interested candidates are invited to submit their response to the market survey no later than Monday, 23 April 2018, 23:59 CET.



*Number 6***Cyber-criminal groups identified on social media**

Facebook deleted around 120 private discussion groups - equating to more than 300,000 members - that were promoting a host of illicit cyber-criminal activities, including [spamming](#), [selling stolen debit and credit account credentials](#), [phony tax refunds](#), [DDoS-for-hire services](#) and [botnet creation](#) tools.

The groups had reportedly been operating on Facebook for an average of two years, although some had been in operation for up to nine years. The deletions were a result of analysis work carried out by a cyber security researcher using common terminology for this type of activity and it is [likely that there are many more sites](#) of this nature on Facebook and other social media platforms.

The use of social media to advertise illicit goods and services is perhaps [not as well reported as the use of darknet](#) criminal marketplaces (such as Alphabay and Hansa that were taken down by law enforcement last year) but it is of no surprise that criminals will seek to utilise whatever means available to peddle their wares.

From past experience, Facebook's deletion of these groups is [unlikely](#) to have a long term impact, as the activity will likely be displaced elsewhere, or the groups will use names that are less obviously associated with cyber crime, to make their detection more difficult.



*Number 7*

## NIST's New Quantum Method Generates *Really* Random Numbers



Researchers at the National Institute of Standards and Technology (NIST) have developed a method for [generating numbers guaranteed to be random](#) by quantum mechanics.

The April 12 issue of “Nature” (<https://www.nature.com/articles/s41586-018-0019-0>), describes the experimental technique surpasses all previous methods for ensuring the unpredictability of its random numbers and may enhance security and trust in cryptographic systems.

The new NIST method [generates digital bits \(1s and 0s\) with photons](#), or particles of light, using data generated in an improved version of a landmark 2015 NIST physics experiment: <https://www.nist.gov/news-events/news/2015/11/nist-team-proves-spooky-action-distance-really-real>

That experiment [showed conclusively](#) that [what Einstein derided as “spooky action at a distance” is real](#). In the new work, researchers process the spooky output to certify and quantify the randomness available in the data and generate a string of much more random bits.

Random numbers are used [hundreds of billions of times a day to encrypt data in electronic networks](#). But these numbers are not certifiably random in an absolute sense.

That’s because they are generated by software formulas or physical devices whose supposedly random output could be undermined by factors such as predictable sources of noise.

Running statistical tests can help, but no statistical test on the output alone can absolutely guarantee that the output was unpredictable, especially if an adversary has tampered with the device.

“It’s hard to guarantee that a given classical source is really unpredictable,” NIST mathematician Peter Bierhorst said. “Our quantum source and protocol is like a fail-safe. We’re sure that no one can predict our numbers.”

“Something like a coin flip may seem random, but its outcome could be predicted if one could see the exact path of the coin as it tumbles. [Quantum randomness, on the other hand, is real randomness.](#)”

We’re very sure we’re seeing quantum randomness because only a quantum system could produce these statistical correlations between our measurement choices and outcomes.”

The new quantum-based method is part of an ongoing effort to enhance NIST’s public randomness beacon, which broadcasts random bits for applications such as secure multiparty computation. The NIST beacon currently relies on commercial sources.

Quantum mechanics provides a superior source of randomness because measurements of some quantum particles (those in a “superposition” of both 0 and 1 at the same time) have fundamentally unpredictable results. Researchers can easily measure a quantum system.

But it’s hard to prove that measurements are being made of a quantum system and not a classical system in disguise.

In NIST’s experiment, that proof comes from observing the spooky quantum correlations between pairs of distant photons while closing the “loopholes” that might otherwise allow non-random bits to appear to be random.

For example, the two measurement stations are positioned too far apart to allow hidden communications between them; by the laws of physics any such exchanges would be limited to the speed of light.

Random numbers are generated in two steps. First, [the spooky action experiment generates a long string of bits through a “Bell test,”](#) in which researchers measure correlations between the properties of the pairs of photons.

The timing of the measurements ensures that the correlations cannot be explained by classical processes such as pre-existing conditions or exchanges of information at, or slower than, the speed of light.

Statistical tests of the correlations demonstrate that quantum mechanics is at work, and these data allow the researchers to quantify the amount of randomness present in the long string of bits.

That randomness may be **spread very thin** throughout the long string of bits. **For example**, nearly every bit might be 0 with only a few being 1. To obtain a short, uniform string with concentrated randomness such that each bit has a 50/50 chance of being 0 or 1, a second step called “extraction” is performed.

NIST researchers developed software to process the Bell test data into a shorter string of bits that are nearly uniform; that is, with 0s and 1s equally likely.

The full process requires the input of two independent strings of random bits to select measurement settings for the Bell tests and to “seed” the software to help extract the randomness from the original data.

NIST researchers used a conventional random number generator to generate these input strings. From 55,110,210 trials of the Bell test, each of which produces two bits, researchers extracted 1,024 bits certified to be uniform to within one trillionth of 1 percent.

“A perfect coin toss would be uniform, and we made 1,024 bits almost perfectly uniform, each extremely close to equally likely to be 0 or 1,” Bierhorst said.

Other researchers have previously used Bell tests to generate random numbers, but the NIST method is the first to use a loophole-free Bell test and to process the resulting data through extraction.

Extractors and seeds are already used in classical random number generators; in fact, random seeds are essential in computer security and can be used as encryption keys.

In the new NIST method, the final numbers are certified to be random even if the measurement settings and seed are publicly known; the only requirement is that the Bell test experiment be physically isolated from customers and hackers.

“The idea is you get something better out (private randomness) than what you put in (public randomness),” Bierhorst said.



*Number 8*

## National Risk Assessment of Money Laundering and Terrorist Financing – what next for Industry



### Overview

In October 2017, Jersey's Financial Crime Strategy Group issued a statement concerning the Island's intention to conduct a National Risk Assessment (NRA) of money laundering and terrorist financing.

It explained:

- (i) that all countries are expected to **identify, assess and understand** money laundering (ML) and terrorist financing (TF) risks and take action and apply resources aimed at ensuring risks are mitigated effectively; and
- (ii) how this would be done.

The statement noted that mutually beneficial interactions and synergies had been identified between the NRA data requirement and data to support risk-based supervision by the Jersey Financial Services Commission (JFSC).

Since October, the JFSC has spent a substantial amount of time with Industry discussing the data which it intends to collect in order to allow it to better identify, assess and understand ML and TF risks at entity level – something **that supervisors are expected to do in order to support risk-based supervision under international standards**.

The JFSC has been supported in this exercise by the Government of Jersey (Government) due to the identified data interactions and synergies.

The NRA process, which will lead to a published report and action plan, will inform policy decisionmaking and identify any necessary remedial action such as legislative amendments or resource allocation. The collection of data from Industry is an absolutely critical part of this process such that decisions are fully supported by evidence.

To read more:

<https://www.jerseyfsc.org/media/1754/nra-briefing-march-2018-final.pdf>

*Number 9***Replacing checklists with engagement**

Presentation by Ryozo Himino, Vice Minister for International Affairs, Financial Services Agency, Japan, at Session I, Supervisory approaches for Oversight of Intermediaries, of the CFTC International Regulators Meeting, Boca Raton, Florida



Financial Services Agency

Thank you, Chris [Giancarlo] and Eric [Pan] for your kind words. Good morning, everyone. Thank you all for giving me this opportunity to present the Japan FSA's plan to transform its supervisory approaches and to seek your comments and advice on it.

But I suspect that some of you may be wondering what **benefit you will have by discussing the Japanese supervisory approaches.**

**Japan as an economic policy laboratory**

Indeed, it is widely considered that Japan mismanaged itself in late 1980s, in 1990s and in 2000s, was too-little-too-late in policy responses, and lost its once renowned competitiveness largely due to inability to change itself.

What can one learn from that country? But difficult problems Japan had to face during the last two decades led it to experiment many novel policy initiatives.

For example, unconventional monetary policy measures, such as zero-interest rate policy, forward guidance and quantitative easing, **were all first experimented with in Japan.**

Initially, they were considered as unique prescriptions to diseases unique to Japan, but as other advanced economies faced challenges similar to Japan's, those measures came to form a part of the standard toolkit of many central banks outside Japan, including the US Federal Reserve and the European Central Bank.

The JFSA's new supervisory approaches also include several **unconventional** elements. I hope you could look at it with open mind: They might be able to at least stimulate your thought.

This year, 2018, is the tenth anniversary of the global financial crisis. The enormous regulatory reform project during the last decade is now reaching its completion.

The global regulatory community is now in a position to ask what's next.

The agenda for the next decade should include implementation of the agreed reforms, assessments of the effectiveness and the side effects of regulatory changes, and addressing new risks such as those arising from crypto assets and [cyber-attacks](#).

And, as Chris often emphasizes, addressing cross border inconsistencies is becoming more and more important.

In addition to these, I would like to suggest that we should look more at supervision.

In my view, the last decade was characterized by too much optimism on the effectiveness of regulations and too much skepticism on supervision.

When dealing with general investors and issuers, we need to rely largely on regulations and enforcement.

However, if we rely solely on regulation in our dealing with regulated entities, we are likely to overregulate, invite arbitrage, and miss the symptoms of the next crisis.

We need to [restore the role of supervision](#).

In this respect as well, I hope the Japanese experiment on supervisory approaches could provide some food for thought.

The year 2018 is not just the tenth anniversary of the Global Financial Crisis.

It is the [twentieth anniversary](#) of the Japanese Financial Crisis as well.

Japan's problems were believed to have been due to deficiencies [unique](#) to Japan, but, after all, many other advanced economies also saw financial crisis and ensuing stagnation ten years later.

Lessons from what happened in Japan's second "lost decade" may be useful in preventing the world to follow a similar path. Japan has experienced twenty years of very low interest rates. It also has the fastest aging society in the world.



These factors are changing the assumptions on which financial markets operate. I would argue that Japan is a front runner in facing the difficult challenges of the future.

### FSA as Financial Sanctions Agency

So let's look at what has happened in Japan. The JFSA was created twenty years ago amid an acute banking crisis.

To end the crisis and resolve bad loan problems, the Agency conducted what we call special inspections.

Our inspectors examined the classifications of individual loans, [downgrading them from special mention to doubtful and from doubtful to loss](#).

The operation was successful and the long hoped for financial stability was finally attained by around 2003, giving the new born agency much needed public trust and confidence.

This successful experience led the Agency to repeat asset quality review year after year.

Bankers have become more and more risk averse, competing extremely hard for borrowers with strong balance sheets and good collaterals or guarantees.

On the other hand, lending on borrowers' business prospects has come to be considered more risky, not necessarily because of probability of defaults, but because explaining borrowers' business prospects to inspectors is more difficult than showing collateral or guarantees.

A parallel process proceeded with regard to our conduct policy.

In early years of the JFSA, there was [strong social anger](#) against multitudes of misconduct incidents by big banks, insurance companies and listed firms.

In response, the JFSA issued [253 cease and desist](#) orders in the peak year and, although the true name of the Agency is Financial Services Agency, it was often disparaged as Financial Sanctions Agency.

I believe that the "Sanctions Agency" contributed to enhancing internal controls at financial institutions.

It also may have helped the Agency establish a public confidence that it is a friend of consumers, not of bankers. But the repetition of compliance checks by the JFSA also had unintended consequences.

When bankers meet customers, they have come to spend more time in creating evidence of compliance which can be shown to the JFSA inspectors rather than to identify customers' life plans and needs.

It is said that on one occasion one of the most respected economists in Japan visited a bank branch to buy a mutual fund and that the teller told him that at his age he had to be accompanied by one of his family members. The economist naturally protested but the teller only told him that they should follow the FSA's guidance.

[This legendary era of the Sanctions Agency](#) was even depicted in a television drama series, which was broadcasted on Sunday nights in the summer/autumn season of 2013. The viewer rating started from 20 percent and at the final episode reached 42.2 percent.

You might think [one could better spend Sunday nights](#) doing something other than watching bankers and inspectors, but 40 percent of the Japanese families, or tens of millions of Japanese, did so.

## The need for change

What could happen if we continue to apply the Sanctions Agency models? I think there can be three key risks.

[First](#), the resources of the JFSA and bankers may be diverted from key priority issues to minor ones.

It is much easier to identify minor misconducts than to discuss problems in culture, governance, risk management or business models.

As banks' practices improve after repeated inspections, inspectors will be incentivized to split hairs more meticulously.

[Second](#), although our approaches have been effective in cleaning up the mess after the crisis, they may not be effective in preventing future crises.

Today, the yield curve is low and flat. Local communities are shrinking and disappearing in Japan.

Traditional financial institutions will soon have to compete with [Google](#), [Amazon](#), [Alibaba](#) and other platform giants. Investors can be lured by virtual assets distributed by unregulated entities.

Policing misconducts and bad loans alone cannot address the problems to come in the future.

[Third](#), many Japanese firms have developed extensive and detailed internal rules which correspond to each and every item of the JFSA's Inspection Manuals.

Whichever item in the checklist is questioned by inspectors, firms can readily show corresponding internal rules.

And the implementation of those rules are meticulously documented and policed internally.

Suppose a banker takes an initiative to start a new project, process or product. She needs to persuade the firm to change a multitude of internal rules.

The existing rules, however, survived repeated inspections by the JFSA. Some of the rules might have been introduced in response to the business improvement order issued by the JFSA fifteen years ago.

Naturally, resistance to change can be strong. Innovation can be stifled.

### [JFSA's new approaches](#)

To address these risks, the JFSA has redefined its regulatory goals, and plans to expand its perspectives, adopt approaches different from those of the Sanctions Agency days, and transform itself.

[First](#), we have redefined our regulatory goals. In the past, we defined our goals as financial stability, consumer protection and market integrity.

It was consistent with IOSCO objectives, which are investor protection; fair, efficient and transparent market; and reduction of systemic risk.

However, what we have seen during the last twenty years is that attaining the three objectives alone does not pull Japan out of the post-crisis stagnation.

We included effective financial intermediation, better services, and market vigor in our basic goals, and defined our ultimate goal as maximizing

national welfare by promoting sustainable growth of the economy and national wealth.

I know that this definition of regulatory goals is somewhat unconventional: the [Basel Core Principles](#) argues that financial stability should be the key goal and any other missions should be subordinated to it.

However, I have an impression that the series of U.S. Treasury reports published since last June are heading for a direction somewhat similar to ours.

And the series of speeches by Chris, including the February one in New York, stand out in emphasizing market vigor and economic growth. Recent FSB statements also make it clear that the ultimate objective is strong, sustainable and balanced growth.

[Second](#), the JFSA intends to expand its supervisory perspectives. Our predecessor, the Ministry of Finance of Japan, was criticized that it misused its discretionary power and allowed forbearance.

At its onset, the JFSA tried not to repeat the same path of its predecessor by focusing on objective, rulebased, ex post compliance checks.

After [upholding this doctrine](#) for two decades, however, there emerged a tendency to look only at the form, the past and elements.

We intend to expand our perspectives to the substance, the future and the holistic analysis.

The UK PRA advocates forward-looking, judgment-based approaches and I imagine that there may be some commonalities between the directions which the UK and Japanese agencies pursue.

[Third](#), our new supervisory approaches will be composed of three pillars: enforcement; dynamic supervision; and disclosure and engagement.

[The first pillar](#) is enforcement. We will continue to enforce our rules but the emphasis will be on the overall effectiveness of firms' compliance system and governance, and we will try to address root causes, not just specific incidents.

[The second pillar](#) is dynamic supervision. We will put our emphasis on forward-looking analysis and shift from periodic on-site inspection to continuous and seamless monitoring.

The third pillar is disclosure and engagement. We will promote disclosure and engage with firms to support the pursuit of best practices.

Fourth, in order to make such changes possible, we will transform the JFSA itself.

Shifting supervisory focus to the substance, the future and holistic analysis requires more exercise of judgments, and thus could be accompanied by the risk of arbitrary, inconsistent, subjective exercise of regulatory power.

To mitigate the risk, we will enhance our own governance, internal quality control and make more effective use of feedback from outside the Agency.

We also intend to repeal the Inspection Manuals, or the checklist for inspectors, in April 2019 or after.

Even after the repeal, the existing five thousand pages of laws, regulations and supervisory guidelines will stay. In addition, they will be supplemented by theme-specific discussion papers which clarify principles and approaches.

But we will stop being prescriptive in specifying how firms should attain the goals set by laws and regulations. We also intend to change our organizational structure, our human resource policies, training programs, and IT infrastructure.

We have just completed sixty roundtable discussions on our new approaches in eleven cities in Japan, with financial institutions, audit firms and JFSA local office staff.

We intend to publish several discussion papers on more specific approaches, go forward with internal changes, and, about one year from now, repeal the Inspection Manuals. This is what we plan to do. I know this is not easy.

The success critically depends on the transformation of the JFSA's own culture, governance, employee skills, and processes, which is already difficult enough.

In addition, changes at the JFSA need to be matched by changes in financial institutions.

If firms are not willing to use the new room for innovation but prefer to have JFSA prescribe what they should do, the benefit of the changes will not be attained.

We need support from users of financial services as well.

If consumers, and also news media, insist on zero tolerance towards misconduct, it would become more difficult for bankers and regulators to adopt a risk-based approach.

I am very keen to learn if you have issues similar to those I have described, and, if so, how you deal with them.

I would also appreciate it if you could identify weaknesses and problems in our planned approaches, because such will help us do the job better. So I very much look forward to today's discussion.

Thank you for your attention.



*Number 10*

## China Banking and Insurance Regulatory Commission officially unveiled

China Banking and Insurance Regulatory Commission (CBIRC)



On 8 April 2018, China Banking and Insurance Regulatory Commission (CBIRC) was formally unveiled in Beijing, marking the **official launch** of the new regulatory authority into operation.

In the first quarter of 2018, with effective measures taken by the banking and insurance regulators, substantial progress has been made in preventing risks, handling irregularities and misconducts, shoring up weak links, facilitating reforms and boosting service capabilities, which further consolidated the efforts of guiding capital to serve the real economy while maintaining the steady and sound operations of the banking and insurance industries.

Banking assets grew steadily with liquidity further enhanced and loan quality remaining stable.

Capital and provisions rose steadily with risk resilience further stepped up. The insurance sector has made efforts to transform and improve its product structure.

The protection type business has grown steadily and its capability to serve the overall interest of the society has grown stronger.

Performance of insurance asset investment is steadily improving. The solvency status of the whole industry is strengthening.

Going forward, under the guidance of the central government, the CBIRC will stick to its mandates, and remain resolutely committed to its regulatory priorities of **guarding against and resolving significant financial risks**.

Meanwhile, the CBIRC will continue its efforts to deepen the reform and opening-up of the banking and insurance sectors as well as guiding the two sectors to enhance their efficiency in providing quality services to the real economy in the new era.

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