THINK ACT

BEYOND MAINSTREAM

PART 1

January 2017

New realities in central banking

The organizational challenge

Roland Berger

THE BIG 3

PLUS
BANKNOTE PRINTING: OVERVIEW OF STRATEGIC OPTIONS
→ P. 12

19%

Cost efficiencies realized via bank-wide organizational transformation projects.

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1/3

Best practice central banks operate with 1/3 support staff - pooling them in a dedicated organizational unit.

Page 6

7.4 bn

Banknotes p.a. produced in the Eurosystem. Still, banknote printing is unprofitable for most national central banks in the Eurosystem.

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Central banks stand on the precipice of change. To embrace the digital future and emerge as innovative leaders, organizational shifts are required.

Over the last 10 years, public scrutiny of central banks has increased dramatically as a result of the financial crisis and subsequent sovereign debt crisis. Monetary authorities are progressively confronted with demands for higher transparency and accountability around policy decisions. Prior to the financial crisis, central banks largely operated behind the scenes as highly effective and powerful independent institutions. They safeguarded price stability and provided the backbone for the smooth functioning of national financial systems. By doing this, they enabled efficient transactions for all participants in the financial market.

Now, aggressive low interest regimes in developed economies combined with general pressure on public spending are magnifying public attention on central banks around the world. Not only that, cyber security risks, such as the Bangladesh Bank heist in February, 2016, the arrival of alternative payment methods like Bitcoin, and innovations from FinTech companies threaten to disrupt entire industries - and replace incumbent institutions with dynamic up-and-coming startups, to which traditional regulatory practices do not apply.

In order to become leaders and shapers in the global financial system, central banks require transformation. They are called upon to become profoundly efficient organizations, able to attract top talent, and build up the capabilities necessary to assess the opportunities and threats posed by new technologies.

Extended mandates, stricter regulation of financial markets and institutions, and increased globalization, combined with the interdependence of financial systems have resulted in growing organizational complexity. To cope with these challenges and drive change within traditional and often hierarchical organizations, central banks must attract the brightest minds to bring life to new innovations. When it comes to participating in and potentially shaping the future of digital currencies, central banks are tasked with developing and devising the necessary capabilities and organizational structures to make sense of the ongoing developments in the field of digital currencies. Central banks need to revamp their organizations to achieve a cultural change. A fresh mindset is required to embrace working with new technologies, attract talent with the necessary skill set, and bolster capabilities for engaging in strategic alliances with third parties. Transformation is reliant on four key elements for success. These include reorganization, governance, human resource management, and operational efficiency. In many cases, the organizational structures of central banks grew organically and still include activities that are not immediately relevant to fulfill official mandates.

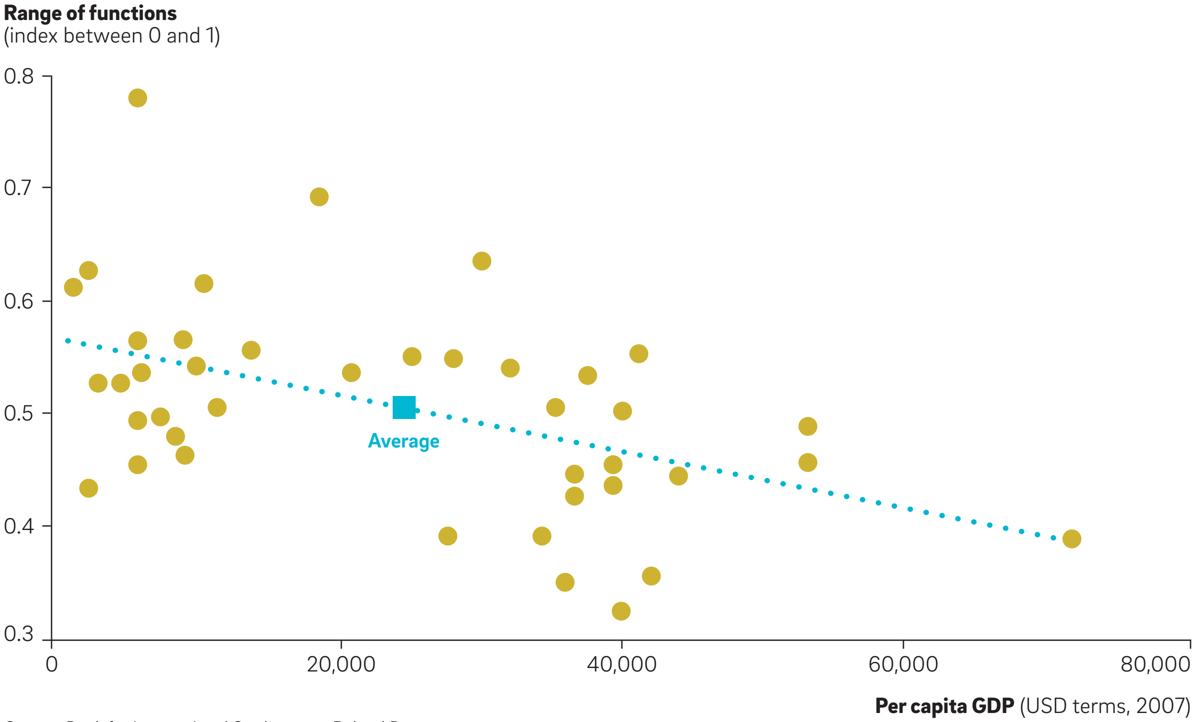
While private organizations have been engaging in organizational transformation programs to focus on their core business activities, central banks were not confronted with demands by shareholders to regularly review their organizational set-up, professionalize core and support functions, and spin-off or outsource functions that are not core to the business.

Observing central banks on a global scale, it is clear to see that central banks in developed economies are already, at least partially, engaged in organizational transformation programs. In comparison, central banks in developing economies have a longer road ahead of them. → A

A

THE RANGE OF CENTRAL BANK FUNCTIONS HAVE A REVERSE CORRELATION TO GDP PER CAPITA

Range of central bank functions vs. GDP per capita



Source: Bank for International Settlements, Roland Berger

Re-thinking organizational structure: Focus on the core business.

A functional analysis performed by Roland Berger on central banks in the Eurosystem reveals support functions typically represent 45 percent of the workforce in central banks. Furthermore, best practice central banks operate with only one third support staff. The pooling of support functions will create streamlined organizations out of central banks. At present we are dealing with outdated structures that no longer serve central banks. → B

EXAMPLE

In the early 2000s, the Swedish Riksbank decided to focus on its core activities and after 300-years sold the operations of a paper mill and note printing factory to concentrate resources and management attention on monetary and financial stability, which also allowed manufacturing operations to specialize their activities and increase efficiency.[1]

To improve the efficiency of support functions and transform them into a strategic cost or quality advantage, five key principles need to be considered during the organizational transformation process:

1. A clear organizational split between core and non-core functions is required.
2. The pooling of support functions in one division, which is then managed by a chief services officer, who holds the main responsibility to professionalize internal support services. Of particular importance is the introduction of business partner models in human resources, the establishment of service level agreements, and a focus on effective demand management.
3. Quantitatively driven processes. These should be measured by key performance indicators, management by objectives, and targets. The results of these measures will include improved organizational efficiency and will also contribute to and encourage performance orientation in employees.
4. Market orientation should be a core focus point. Service levels and the efficiency of costs and processes needs to be comparable with the external market.
5. Clear responsibility allocation, accountability and ownership for cross-divisional topics. This includes IT budgets, controlling, and planning, as well as other aspects of the organizational structure.

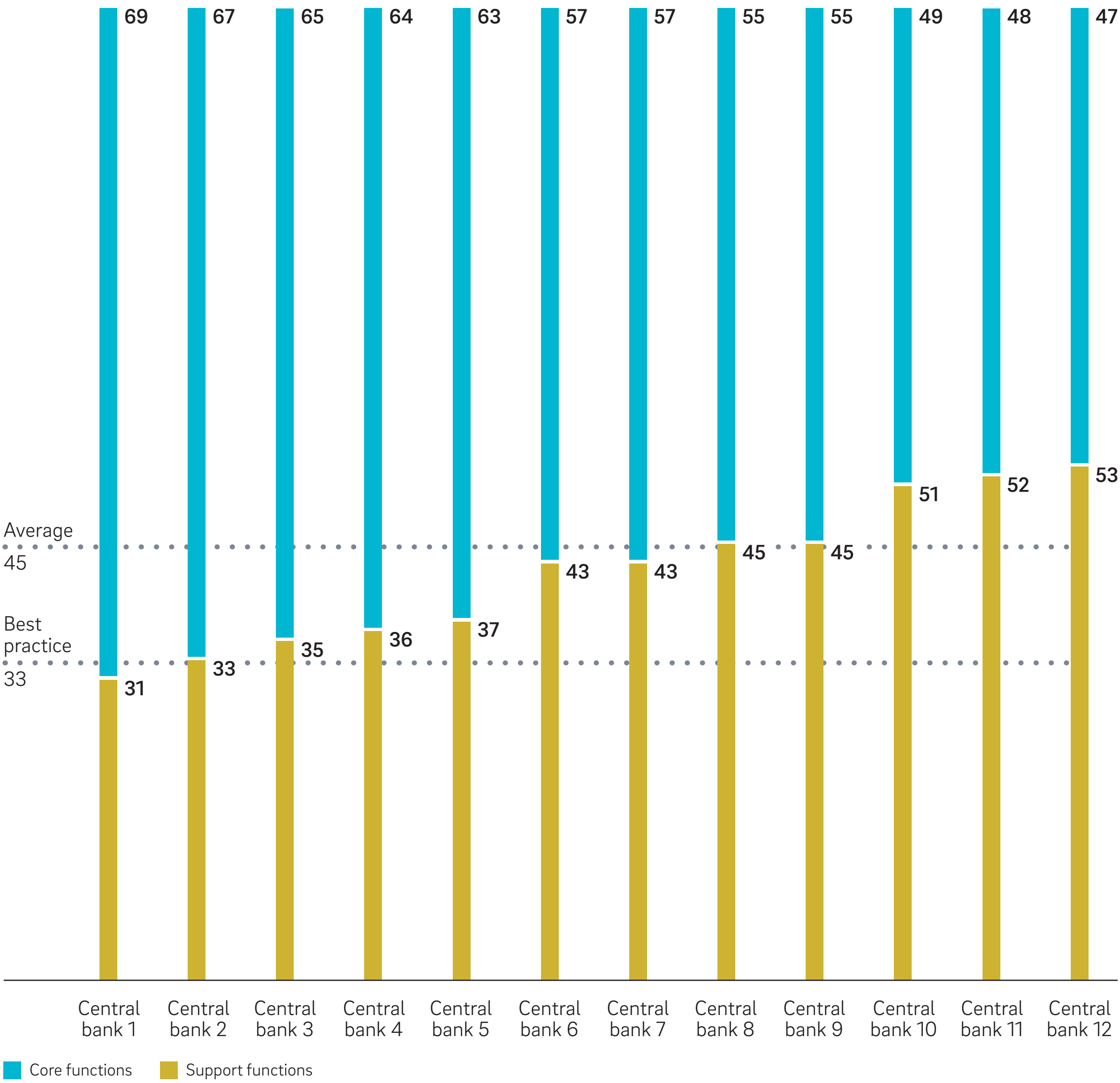
As proven in numerous projects, an organizational transformation, including a strict pooling of support functions and the implementation of the above mentioned optimization levers, yields a 14 to 19 percent efficiency improvement and lays the foundation for future oriented investments in technology and innovation related capabilities. Furthermore, the effectiveness of service delivery, not only to internal customers but also to third parties, increases substantially.

[1] BIS Review 24/2003

B

BEST PRACTICE PRINCIPLES FOR CORE AND SUPPORT FUNCTIONS

Our exclusive analysis reveals high functioning central banks operate optimally with only one third support staff



Source: Roland Berger

Introducing three proven organizational levers: Lean and efficient structures, leverage of managerial capacities and effective decision making.

OPTIMIZING THE SPAN OF CONTROL

Public sector institutions, including central banks, have a large number of managerial positions and contain complex hierarchies. The organizational structures of central banks are made up of a large number of hierarchical levels that have grown historically and have not been touched by reorganization efforts. By taking a fresh approach to organizational structure to streamline efforts within outdated models, central banks have the potential to reinvent themselves.

DIFFERENT TYPES OF ROLES HAVE DIFFERENT SPANS OF CONTROL WITHIN CENTRAL BANKS

An optimal span of control is dependent on the specific leadership role and the type of tasks being performed by staff: → C

Optimizing the span of control will help central banks create a lean and effective organization with three main benefits. The benefits that can be seen are made up of:

1. Faster decision making by reducing the number of managerial layers.
2. Improved flow of information due to easier cascading of information within the organization.
3. The reduction of staff costs by decreasing the overall number of managers.

The following example illustrates the potential to leverage managerial capacities and capabilities within a national central bank in the Eurosystem. We give recommendations on the optimal ratios, which deliver the best results within the framework of a monetary authority. Within each level of leadership and management, changes are required in order to bring about successful reform within the central bank's organizational structure. → D

C

VARYING ROLES ARE EFFECTIVE AT OVERSEEING AND MANAGING DIFFERING RATIOS OF EMPLOYEES

An optimal span of control is dependent on the role of the leader and the type of tasks being performed by staff

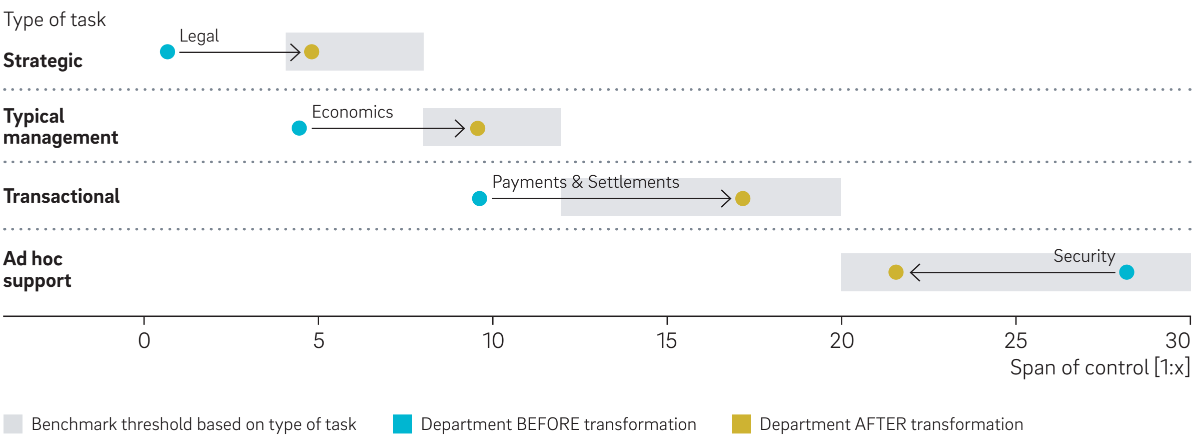
ROLE	OPTIMAL SPAN OF CONTROL (-)	TYPE OF TASKS	EXAMPLE
Leader	1:4 - 1:8	Strategic tasks	Governor Director of Research department Director of Strategy department Director of Supervision department
Manager	1:8 - 1:12	Typical management	Section Heads in Supervision department (e.g. overseeing on-site examiners)
Facilitator	1:12 - 1:20	Transactional tasks	Section Heads of Accounting
Supervisor	1:20 - 1:50	Ad hoc support	Section Heads (e.g. overseeing security and logistical tasks)

Source: Roland Berger

D

HOW TO LEVERAGE MANAGERIAL CAPACITIES - WHAT CAN BE ACHIEVED

Redesign of the organizational structure taking into consideration principles of span of control optimization results in an increase of the average span of control from 1:5 to 1:8



Source: Roland Berger

How to attract and retain top talent: Optimize your HR and performance management processes.

KEY CHALLENGES ALONG THE HR VALUE CHAIN OF THE NEXT GENERATION OF CENTRAL BANKS

Changes in external perception, regulatory mandates and bundling of competencies put central banks forcefully in the position to rethink the value creation of each of its HR value chain steps. The current central bank workforce is commonly characterized by aging employees and rigid employment contracts. It is necessary to bring in new graduates to encourage and facilitate fresh ideas and fill vacant positions with top talent and bright minds.

Incentives are shifting and millennial graduates are placing value on new employment conditions. Financial compensation is still an important factor for top recruits, however development areas, training, internationality and responsibility are just as important and should be strategically addressed by HR departments in central banks. → E

CHALLENGE YOURSELF AND YOUR CANDIDATES

In order to attract high potential candidates, central banks are required to undergo a cultural shift and break out of archaic and outdated mental paradigms.

Central banks are no longer only competing against other national ministries, they are facing recruitment competition from banks, technology firms and international organizations. In order to face the war for talent, central banks have to actively overhaul their image from being a traditional institution to that of a modern shaper in the global financial system.

A new recruitment strategy has to be formulated. This strategy needs to touch upon every step in the value chain. New processes have to be adapted to create a challenging environment for applicants and establish an effective filtering system.

ALL EMPLOYEES ARE DIFFERENT – EMBRACE DIVERSITY IN CAREER DEVELOPMENT PATHS

As observed across many central banks, managers are responsible for both employee and content management. However, the nature of these two functions is very different and most people fit only one of these two roles. To facilitate both positions, a dual career path is commonly introduced as an alternative to the classical mono-career path or management path. Dual career paths separate these two distinct functions into two positions. These two functions can be differentiated as the manager and the expert.

Managers hold the responsibility for managing departments, sections or groups, fostering collaboration and creating an optimal working environment for employees.

Experts are knowledge owners, managing specific functional tasks, for example IT cyber security, stress tests and economics, as well as driving information and knowledge acquisition and distribution.

E

CORPORATE VALUES AND CULTURE

Typical HR issues along the value chain

COMMON ISSUES AT CENTRAL BANKS AROUND THE WORLD:

I. War for talent: Eurosystem central banks often compete against each other and the private sector to attract top talent.

II. Limited focus on personal development plans. KPIs are not tailored to individual positions.

III. Loosely defined job descriptions lead to deviation in job requirements and employee competence.

IV. Evaluation schemes only partially align individual goals with overarching targets.
Broadly defined assessment categories do not fully reflect individual challenges and achievements

V. Variable compensation not directly linked to individual and organizational performance.

VI. Limited flexibility in career paths and internal development prospects.

VII. Little focus on succession planning and apprentice programs for key positions. In some cases, a high percentage of key positions are on short-term contracts that are due within 12 months.

VIII. Limited strategic guidance and initiatives to form and foster organizational culture.
Little interaction between top management and support staff.

Source: Roland Berger

Maximizing efficiency: Creating transparency and accountability.

Even though public sector organizations such as central banks are not utilizing profitability indicators like earnings before interest and taxes to measure and steer their performance, they are increasingly challenged to manage their resources in an efficient and effective manner.

THE ACTIVE MANAGEMENT OF COST BASES IS OFTEN NOT A PRIORITY FOR CENTRAL BANKS

Central banks derive their mandates from national law and focus their efforts on fulfilling the respective mandates. Active management of their cost bases is often de-prioritized and does not receive the necessary management attention to increase operational efficiency.

This leads to a number of challenges. First of all, it is apparent that costs are often managed in a decentralized way by the respective departments, based on pre-defined budget targets. Secondly, the respective individual cost categories lack cost targets and directors can allocate costs to different categories. Finally, the yearly budgeting process is not "zero-based" and therefore not derived from the actual budget needs of the respective department but on historical budgets. Further challenges include limited transparency of the cost base due to a low level of detail and/or inaccurate allocation of costs to cost categories. A lack of accountability and ownership for cost categories also arises.

These challenges lead to limited possibilities for the central bank's management to monitor the cost base and achieve transparency on spending, as well as an inefficient mindset within the organization, and ultimately a misallocation of resources, which could be invested effectively to build up necessary capabilities.

EXPENSE LINE OWNERSHIP IS A PROVEN APPROACH TO MANAGE THE COST BASE

In order to address these challenges, central banks have to introduce an organization-wide cost category management framework to increase transparency, accountability and ownership. The ultimate aim of this endeavor is the transformation of the central bank organization and environment into an efficiency driven organizational culture. An approach that has been proven in practice is the introduction of expense line ownership.

Expense line owners, ideally directors with the required capabilities and resources, are allocated to pre-defined, clear-cut cost categories, and are responsible for the definition of guidelines, target setting, monitoring and continuous improvement in the respective cost category. Expense line owners set the framework within which directors manage their respective budgets, yet they still have to take into consideration the guidelines and targets that have been set for the cost category.

A proven tool to increase resource optimization within organizations such as a central bank is a centralized demand management system that allows management to forecast, plan and manage the demand for internal service capacity.

CASE STUDY ONE: ORGANIZATIONAL TRANSFORMATION

Over the course of one year and with a team of up to ten consultants, Roland Berger successfully conducted a holistic transformation program at a large Eurosystem central bank.
The following results were achieved:

1. Decrease of the manageable cost base by some 14 percent.
2. In-depth review of all core and support functions of the central bank, and subsequent design of a new target operating model, which ran effectively by using the proposed implementation roadmap.
3. Further measures to professionalize the organization such as an adjusted governance model, a more centralized approach to cost management, and a bank-wide adjustment of spans of control.

CASE STUDY TWO: STRATEGIC OPTIONS IN BANKNOTE PRINTING

Despite the introduction of numerous digital payment systems, and cryptocurrencies such as Bitcoin and Ripple making headlines, cash is still king and the global demand for banknotes is rising due to a growing population, new currency issues, and also mistrust in the banking system and the regime of negative interest rates.

However, mid to long term, central bank digital currency, debit and credit card payments, and other alternative payment methods are expected to have a negative impact on banknote demand. The population in developing countries, who do not yet use banks, is expected to leapfrog physical banknotes and adopt digital payment systems right away.

At the same time, state-owned, central bank-owned and private banknote printers, particularly in Europe, are confronted with high overcapacities and operate in a challenging business environment. Additionally, a supplier oligopoly for paper, ink and printing machinery, heavy regulation, and political considerations to maintain national banknote printing facilities, results in a dysfunctional market and largely unprofitable banknote printing operations.

1. **RESTRUCTURE** Thoroughly analyze and implement structural efficiency measures.
2. **PARTNER** Assess strategic partnerships with other banknote printers (base-load or peak-load partners) or with suppliers of security features and testing equipment to build integrated operations along the value chain.
3. **EXIT** Spin off and shut down operations.

Primarily for political reasons, we expect banknote printing to remain within the mandate of central banks and inefficiencies will most likely prevail. A thorough analysis and benchmark of cost structures from a profitability perspective would result in the decision to exit banknote printing and spin off, sell, or shut down operations.

Transforming the organization: A prerequisite to mastering challenges.

SUCCESSFULLY TRANSFORM THE EXISTING CENTRAL BANK ORGANIZATIONAL STRUCTURE

Central banks' mandates have expanded over the past few decades. Increasing public scrutiny and a changing operating environment have brought a pressing need for central banks to transform their organizations.

Focusing on our findings, we have identified two main areas where transformation efforts should be concentrated:

→ **Improvement of core capabilities**
→ **Enhancement of operational efficiency**

Both goals should be addressed as part of the central bank transformation process. Organizational structures should be designed to leverage existing know-how and skills and improve cooperation among departments. Not only that, central banks are advised to take steps toward achieving operational efficiencies through the bundling of functions and the reduction of unnecessary management layers. Furthermore, the automation of processes is advisable to free up capacities for innovative, technology-related capabilities, which will pave the way for central banks to develop into innovative leaders.

In order to successfully transform a central bank, robust top management ownership is required, coupled with strategic program management and continuous effort to drive cultural change among employees, management and key stakeholders.

EMBRACING NEW REALITIES IN CURRENCIES – BECOMING INNOVATIVE LEADERS IN FINANCE

Several central banks have already successfully achieved the transformation necessary to develop into highly efficient and lean organizations. These changes are needed in order to attract and retain top talent and overcome common pitfalls during implementation. For many central banks, the next challenge looming on the horizon is that of developing strategies on how to embrace the opportunities resulting from the ongoing technological transformation. It is time to prepare central banks for the future of digital banking. We believe central banks have to develop into innovative leaders to make sense of the advent of cryptocurrencies and the ongoing debate on central bank digital currency. Furthermore, central banks need to become active shapers of ongoing developments and drive change proactively by collaborating with new players on the financial market as well as entrepreneurial innovators.

Challenges since the financial crisis, including extended mandates, stricter regulation of financial markets and institutions, as well as globalization are increasing the complexity of the environment within which central banks function.

To overcome these challenges, central banks need to become lean and efficient organizations, capable of recruiting the brightest minds. Furthermore, they require the capacity to deal with the threats and challenges posed by emerging technologies in the digital era.

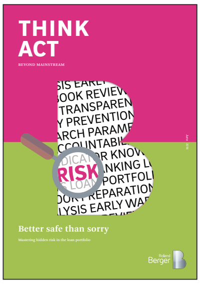
Looking ahead: The issuing and future possibilities of a central bank digital currency.

In our next publication, we look at the impact of digital currencies and other emerging technologies on central banks. Digital currency has existed since the advent of digital communications. Currently, nearly all money is held and exchanged by digital means in the form of information and only a small percentage of all money in circulation exists in a physical form. 2017 is being lauded as the dawn of digital currencies in the financial services industry. It is recognized as the most disruptive technology since the internet and has been embraced by both startups and incumbents. There is a strong consensus that blockchain, not Bitcoin, will shape the future of how we exchange value and will shake up the structures of a wide variety of industries by allowing individuals to conduct transactions without relying on a third party. The production, security, distribution and eventual destruction of notes and metal coinage is expensive. The Bank of America spends $1 billion each year on this process alone. By providing a digital means to store, transact and use assets, these costs are reduced, resulting in huge savings for central banks. But the many advantages brought forth by a central bank digital currency are not without their challenges. In order to proactively shape the future of digital currencies, central banks need to build up the necessary capabilities and organizational structures to make sense of ongoing developments in the field of digital currencies. As highlighted in our publication *New realities in central banking: The organizational challenge*, central banks need to transform their organizations in order to achieve a cultural change. They will have to embrace working with new technologies, attract the right talent with the necessary skills, and build up capabilities for engaging in strategic alliances with third parties. Blockchain technology and cryptocurrencies have left their mark on the financial system and are here to stay in one form or another. If ignored by central banks, private institutions and entrepreneurs will continue to innovate and drive the development of alternative technologies, new methods of payment and new forms of cryptocurrencies. The underlying technologies are still emerging and a dominant design is yet to be established. Central banks need to become active shapers in the current debate to fulfill their mandates, ensure monetary and price stability, issue legal tender and promote a stable financial system – in a new financial dimension. ◆

ABOUT US

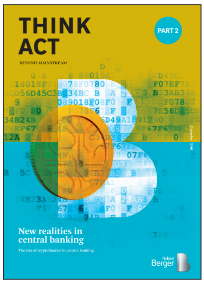
Roland Berger, founded in 1967, is the only leading global consultancy of German heritage and European origin. With 2,400 employees working from 34 countries, we have successful operations in all major international markets. Our 50 offices are located in the key global business hubs. The consultancy is an independent partnership owned exclusively by 220 Partners.

FURTHER READING



BETTER SAFE THAN SORRY –
Mastering hidden risk in the loan portfolio

Many banking crises of the past have followed a similar pattern. They begin within a positive macroeconomic environment, followed by a successive boom, including a massive expansion in financial assets. Eventually, a sudden shock causes a downturn. Major emerging economies have experienced solid growth as well as a substantial rise in commercial bank lending in recent years. The share of bank loans as a percentage of GDP in these markets has increased, from about 77% of GDP in 2007 to 128% in 2015.



NEW REALITIES IN CENTRAL BANKING –
The rise of cryptofinance in central banking

2017 is heralded as the dawn of digital currencies in the financial services industry. Emerging digital and virtual technologies are lauded as the most disruptive innovations since the advent of the internet. Both hoodies and suits · startups and incumbents · are embracing the arrival of digital currencies. Amidst all the hype, it is important to sift through and identify the key messages relevant in the world of finance in the digital age.

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