

Central banking 2020: Ahead of the curve

Central banking has entered a new era marked by financial system upheaval, ever rising public expectations and tense policymaking experimentation. By 2020, many aspects of central banking will have been transformed. How can you make sure your central bank is primed and ready for the shake-up ahead?

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Introduction:

The pressing questions facing central banks

Welcome to *Central banking 2020: Ahead of the curve*, the latest in PwC's perspectives on the world in 2020.

Central banks are scanning a new and uncertain landscape. Many commentators believe that the era of one policy objective – inflation targeting – and one tool – interest rates – is over. And their operational independence, which took such work to cement during the 'Great Moderation' that preceded the financial crisis, has been severely questioned by the nature of the crisis interventions. So where do central banks go from here?

Ensuring a stable monetary system is no longer enough. Central banks are now increasingly expected to fulfil a number of varied functions, including containing inflation and stimulating economic growth, while guarding against financial system instability and crises at the same time. But their ability to moderate the business cycle has arguably become more constrained by markets that have become accustomed to the 'emergency' measures of low interest rates and fiscal stimulus. With few precedents to fall back on, central banks have pursued a series of policymaking experiments, with the societies they serve acting as the laboratory.

The shifts in policy and expectations emanating from the financial crisis aren't the only drivers of change. The world is being transformed by accelerating developments in a number of areas including technology, demographics, urbanisation and shifts in global economic power. We have encapsulated the changes in the world we live in and their implications into five 'mega-trends', which we explore further online¹. These mega-trends have limited the margin of error in central bank policies and made the need for effective forecasting and decisive response even more important. They have also made the right outcomes more achievable through advances in analytics and forecasting.

In our view there are many challenges that central banks face, which would be the subject of more than just this one paper. For now, however, we pose two fundamental questions that central banks and their key stakeholders will need to address if they're to successfully address the challenges through to 2020 and beyond.

"The world of one policy objective with one instrument is well and truly gone."

Participant at PwC Central Bank Forum

The answers will reshape central bank agendas and determine both the success of their policies and their relevance within societies and economies in transformation:

- 1 What is your role in the management of the economy, and what are the key measures of success?
- 2 How can you keep pace with the rapid transformation in societies, economies, communications and the systemic risks this generates?

¹ <http://www.pwc.com/gx/en/issues/megatrends/index.html>



Fresh thinking is essential

These questions aren't new. Indeed, in many ways they take us back to the more interventionist and less independent central banking era that preceded the Great Moderation. There remains the same pressing need for leadership, credibility, analytical competence and effective communication in order to address these questions. What has changed is the level of expectation being imposed by governments and society, the interconnectivity and pace of change in markets worldwide and, not least, the mounting financial and reputational risks central banks now bear.

Compounding the tough task already facing central banks is the absence of a practical consensus on many of the issues thrown up by the financial crisis. What defines 'financial stability'? What is the role of central banks in managing it? How do financial stability tools interact with traditional monetary policy objectives? These myriad challenges demand new policies, new ways of exerting authority, new forms of oversight, analysis and decision making and new ways of conveying critical messages.

In this paper, we explore a number of the issues surrounding these fundamental questions and provide some initial priorities for response. This paper, which is designed to contribute to the wider debate, combines our perspectives with the ideas discussed at the annual central bank forum that we host for central bankers from around the world.

I hope that you find the ideas we explore here thought-provoking and useful. If you have any queries or would like to discuss any of the issues in more detail, please speak to your usual PwC contact or one of the authors listed on page 23.

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What has changed is the level of expectation being imposed by governments and society, the interconnectivity and pace of change in markets worldwide and, not least, the mounting financial and reputational risks central banks now bear.

In this paper we explore the issues surrounding these fundamental questions and seek to provide actionable answers. Further papers in this series will look more closely at the specific areas of sustaining financial stability and the nature of central bank authority and independence in this new landscape.

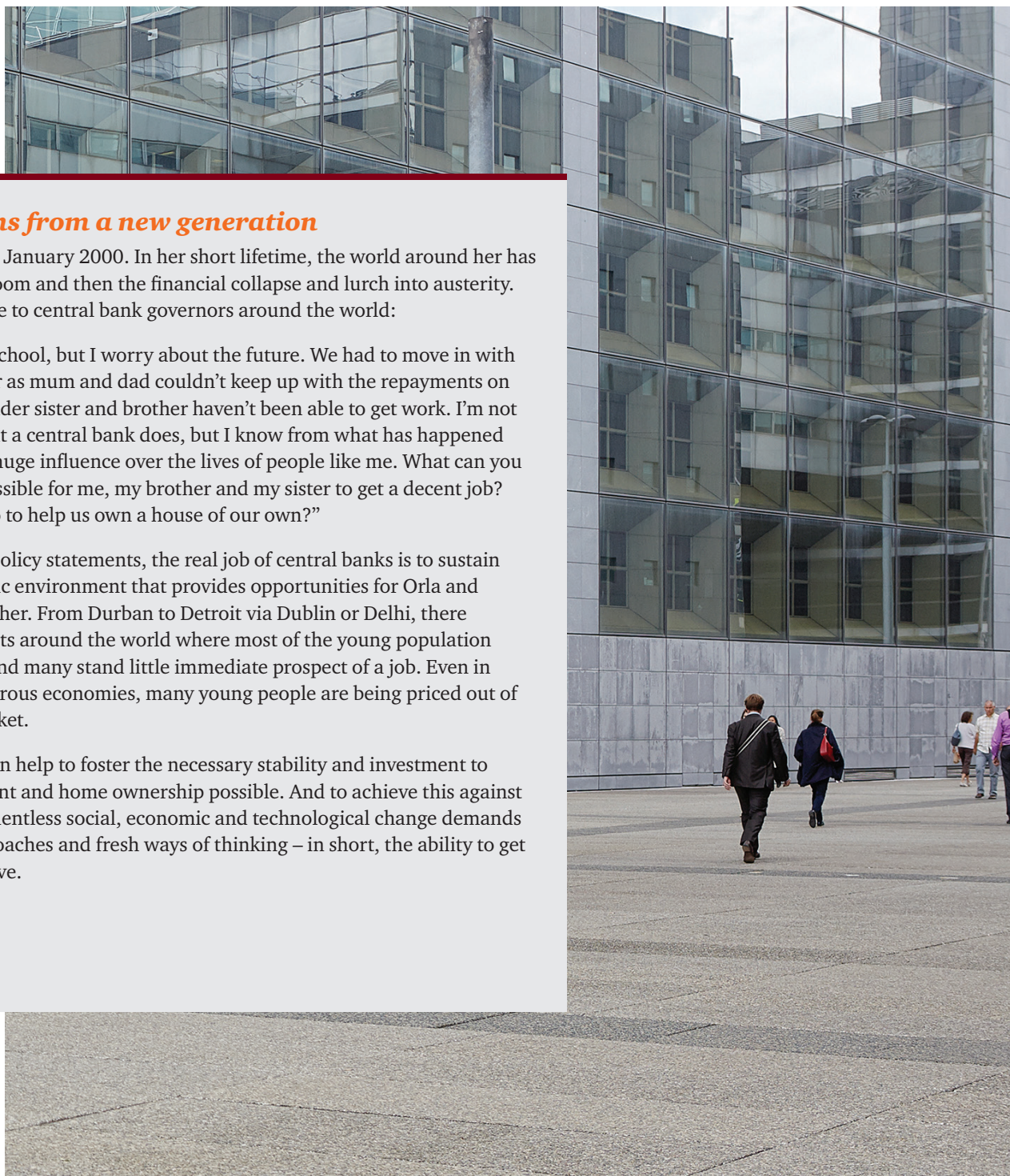
Expectations from a new generation

Orla was born in January 2000. In her short lifetime, the world around her has experienced a boom and then the financial collapse and lurch into austerity. Hers is a message to central bank governors around the world:

“I work hard at school, but I worry about the future. We had to move in with my grandmother as mum and dad couldn’t keep up with the repayments on our house. My older sister and brother haven’t been able to get work. I’m not exactly sure what a central bank does, but I know from what has happened that you have a huge influence over the lives of people like me. What can you do to make it possible for me, my brother and my sister to get a decent job? What can you do to help us own a house of our own?”

Behind the dry policy statements, the real job of central banks is to sustain a stable economic environment that provides opportunities for Orla and the millions like her. From Durban to Detroit via Dublin or Delhi, there are whole districts around the world where most of the young population is unemployed and many stand little immediate prospect of a job. Even in relatively prosperous economies, many young people are being priced out of the housing market.

Central banks can help to foster the necessary stability and investment to make employment and home ownership possible. And to achieve this against a backdrop of relentless social, economic and technological change demands new policy approaches and fresh ways of thinking – in short, the ability to get ahead of the curve.



1

Meeting the rising bar of expectation

What is your role in the management of the economy and how can you make it work?

The fallout from the financial crisis continues to pose policy dilemmas for central banks and create heightened expectations among politicians and the public.

“The post-crisis process of policymaking in some countries could be described as ‘fire, aim, load’ as laws are enacted before it’s clear how they will be applied.”

Participant at PwC Central Bank Forum

Developed market central banks have employed a range of stimuli measures to sustain economic growth since 2008. But what began as temporary expedients are beginning to acquire an air of permanence. The destabilising impact of these measures has been keenly felt in developing markets that were less affected by the crisis, making this an issue for central bankers globally.

Central banks are playing a more prominent role in managing financial stability. Yet there is no agreed definition of what stability means or clear consensus on how to manage the potentially distorting interactions with credit supply and market competition.

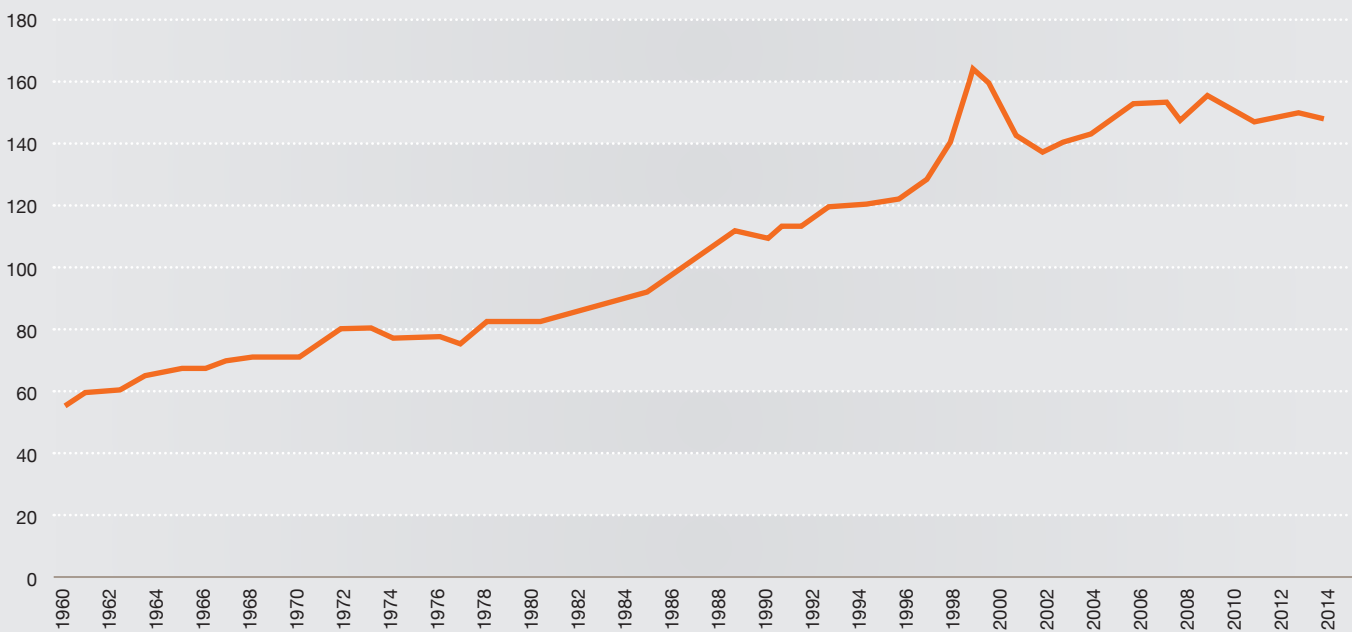
Alongside record low interest rates, the financial crisis demanded policy innovation and experimentation. With little or no scope to reduce rates any further, many central banks are pursuing a fresh set of largely untried and

untested strategies in an attempt to boost GDP growth.

In this section we look how central banks can successfully navigate through these uncharted waters and how the responses will shape their nature and policies through to 2020 and beyond.

New normal, new challenges

Global growth is uneven². A gradual pick-up in advanced economies is set against a slowdown in many emerging markets. The maintenance (and possibly even extension) of monetary stimulus suggests that many countries are still relying on low interest rates and accommodative monetary policy to sustain growth. There has even been talk of deploying fresh stimulus tools such as higher inflation targets if growth stalls. This struggle to sustain growth, particularly at the levels seen in some

Figure 1: Domestic credit to the private sector (advanced economies, % of GDP) 1960–2014

Source: World Bank (2015)

emerging economies, is the hallmark of what we see as the ‘new normal’, though this needn’t be the end of the story.

As history has shown, well-functioning and flexible economies can and do regenerate themselves. While the next growth phase may not be like the one that preceded the financial crisis, a supportive financial system and confidence in the stability and sustainability of economic policy will continue to be among the key foundations. For central banks, this underlines the importance of not just adapting to changing conditions, but anticipating the shifts ahead and how they’re going to change the playing field for monetary policy and financial stability.

Living in the new normal

The immediate central banking challenge presented by this new normal is how to balance the eventual unwinding of monetary stimulus with the need to sustain growth and reduce the risks of market instability that could follow such a move. The combined impact of continuing stimulus and record low interest rates could risk

holding up much-needed improvements in productivity by failing to weed out of uncompetitive enterprises. The risks of delaying a rise in interest rates and hence having to move in a hurry are highlighted by the 17 consecutive rate rises in the US between 2004 and 2006, which generated a spike in defaults that some believe helped trigger the financial crisis. An overly rapid rise in interest rates could create the same default risk today.

As Figure 1 shows, the challenge of reinvigorating growth is heightened by record debt within advanced economies. The economic theories of the 20th century need to be revised for this new normal. The economic paradigms of the 20th century need to be revised for this new normal and central bankers will play a pivotal role in defining the new economic consensus that emerges. Confidence in their actions depends on their ability to forecast effectively. It’s therefore important to explore all the analytical possibilities opened up by technological advances and big data.

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The rising bar of expectation

Central banks face an increased burden of expectation as a result of the financial crisis. The public, media, politicians and market participants want central banks to deliver both monetary and financial stability. The financial crisis provided a stark reminder that price stability cannot on its own ensure financial stability. The problem is that it's not always clear what form this stability should take or how it can be achieved.

Further problems are rooted in the definition of financial stability, or perhaps lack of it. In the absence of anything better, the de facto definition is no crashes. Yet by its very nature, an absence of crashes will never be celebrated as there's no one defining moment of success. Moreover, the longer we go without experiencing another financial collapse, the more complacent people could become that the calm will continue indefinitely.

Monetary and financial stability

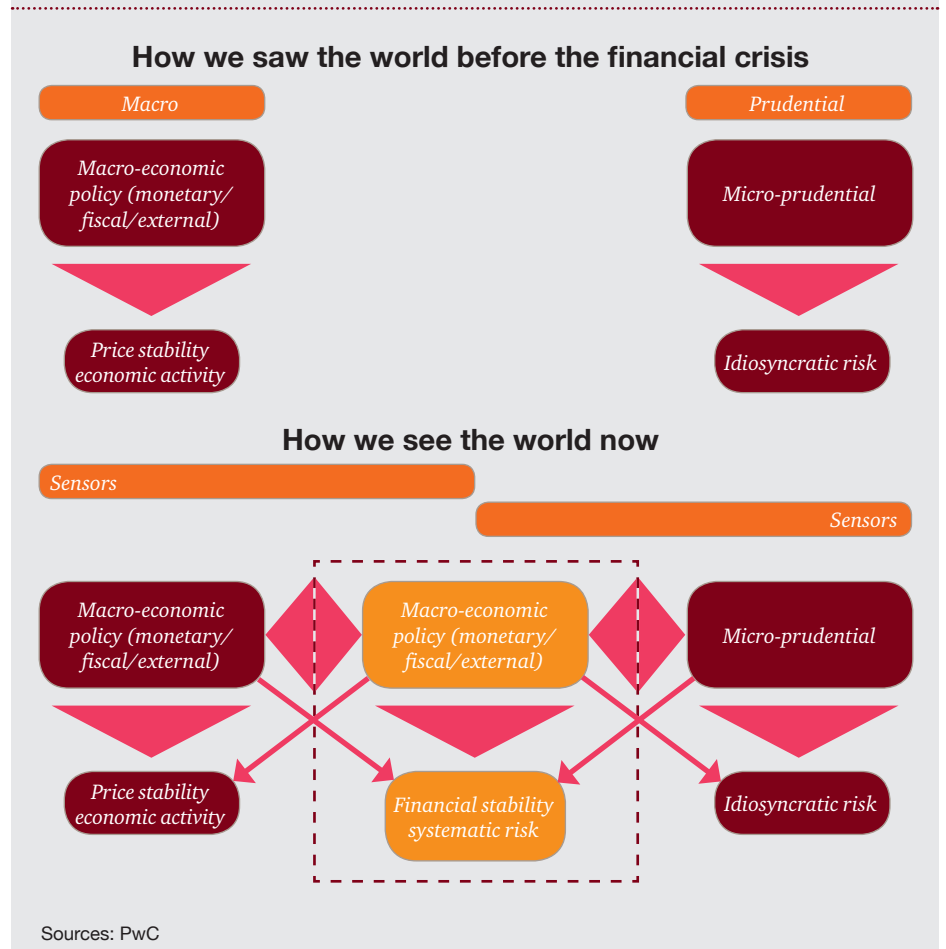
Before the global financial crisis, the primary objectives of macroeconomic policies were price stability and supporting economic activity. Financial supervision governed the soundness of individual financial institutions with the expectation that this would lead to the stability of the financial ecosystem as a whole.

A sole focus on micro-prudential regulation allowed imbalances to build up in the financial system overall. Excessive risk-taking, over-leverage and fragile composition of liabilities were largely overlooked. The promise of macro-prudential tools is that they can target the root causes of these imbalances within specific sectors or lending practices, mitigating the build-up of systemic risks that threaten the financial system as a whole (see Figure 2).

“Quantitative easing is losing its capacity for ‘shock and awe’”

Participant at PwC Central Bank Forum

Figure 2: The shift in macro-economic policy frameworks





If done well, communication can strengthen understanding of central bank objectives, help shape the market mood and provide reassurance in times of stress. The challenge is how to convey this message, particularly given the character limitations required to create concise social media messages.

While many central banks are now able to draw on a macro-prudential as well as a monetary policy toolkit, there is little consensus on how the two should be deployed together. Some argue they should be kept apart, determined separately and, if required, applied in different directions. Others argue that they work best when they complement each other, arguing that it is impossible to disentangle the impact of the financial system on monetary stability and vice-versa as they both share broadly the same transmission mechanism. Some central banks have even started to use macro-prudential tools to achieve monetary policy outcomes. For its part, BIS' latest analysis shows that policy rates may influence asset and credit prices more than we first thought, and this relationship has strengthened as financial systems have liberalised over time.³

The need to explain what the central bank is doing, how it will be achieved and by when is likely to require quality disclosure and targeted communications for different audiences. For a relatively informed audience, the management commentary in the annual reports can provide useful context to decisions.

We would argue that monetary and financial stability are two inseparable and necessary components of economic stability. We think this calls for some level of co-ordination between monetary and macro-prudential policy, but not necessarily for the full centralisation of powers within the central bank. While different governance models will be tried and tested, we think central bank's success in fostering economic stability comes more down to its competence in identifying and monitoring sources of systemic risk and its ability to effectively calibrate its interventions to manage these risks.

“The instruments being used by central banks are being increasingly politicised...especially as some people are better off and others less as a result.”

Participant at PwC Central Bank Forum

New tools, new powers

The renewed emphasis on macro-prudential regulation has armed central banks with powerful new tools to help steward the economy and enabled them to once again assume the role of guarantors of financial stability that they held prior to the advent of the Great Moderation. However, to deliver financial stability in a world that is now so financially interconnected poses fresh challenges. The tools have not been tested in such an environment and the expertise of policymakers is not yet developed. Moreover, measuring systemic risk and timing interventions may be more art than science and some research suggests that macro-prudential tools work better when monetary policy is pulling in the same direction. Evidence gained so far also points to the greater effectiveness of targeted macro-prudential measures, reinforcing one of the main drawbacks associated with these tools – their inability to ‘get in all the cracks.’ All of which suggests caution as the new focus on macro-prudential tools may not necessarily be the panacea some have envisaged.

Perhaps one of the biggest issues surrounding the tools are the redistributive consequences of using

them, which could put central bankers in a political bind and raise further questions over their independence. The legitimacy of central banks could even be brought into focus as people ask how un-elected officials now make decisions that intimately affect their lives. Central bankers who believe in their ability to predict financial bubbles and efficacy of the tools being developed to combat them may come up against those who prefer to focus on narrower price stability objectives. Clear communication of the reasons for action and the intended outcomes will therefore be of vital importance for central banks when using these tools.

The knock-on effects of these tools are also hard to predict and address. These include leakage between sectors (e.g. controls on bank lending increasing bond issuance) or leakage between countries (e.g. capital flows from one economy diverted to another as a result of their application). It may not be possible to design flawless measures, but central banks will need to be vigilant and quick to react to unintended consequences. Accurate data and strong decision making will be key.

A final issue centres on the importance of international co-ordination to ensure the tools are effective within today's increasingly interdependent markets and avoid the risk of unintended and potentially destabilising consequences. The current international framework remains a work in progress but could be crucial if circumvention by internationally mobile capital is to be avoided. Establishing a framework in advance also has the potential to reduce the risk of political fallout both within and between countries. Over the next five years, we expect to see more experimentation as central bankers embark on a steep learning curve and moves to create an international framework are likely to accompany this.

International institutions such as the FSB and the IMF are already conducting research and performing studies into the efficacy of existing regimes laying the groundwork for more coordinated use of macro-prudential tools.

Although there is a strong rationale for developing an international framework for macro-prudential tools, the experience creating an international resolution framework is instructive of the obstacles ahead as trust between authorities in different countries takes time to develop. However, advances in the macro-prudential framework come in the context of broader reform of the financial system. Measures to strengthen the global “Lender of Last Resort” function could act as a complement to the macro-prudential framework and we expect to see the international financial architecture evolve to reflect this.

Strengthening influence and legitimacy

Cutting across all the issues is central banks’ power to act with authority and independence. While this has always been a challenge, the renewed focus on financial stability and powers that come within have increased the risk of politicisation.

In most cases, central banks enjoy legal ‘de jure’ independence, though history suggests that this can be overridden by governments. Real ‘de facto’ independence primarily stems from the credibility of the central bank, which if in place allows it to exert the necessary influence over markets, regulators and other policymakers, but if lost can very quickly push it to the side-lines. So what fosters this credibility? In our view, credibility is rooted in three key capabilities:

Leadership

- strong and decisive decision-making present throughout the organisation, but particularly at the executive level.

Institutional capabilities

- a competent and motivated personnel overseeing high-quality analytical functions within a supportive infrastructural environment

Communication

- clarity and authority of communication to markets, policymakers and the public

Many of these attributes build on traditional central bank strengths. But there are also new departures.

The ability to lead depends on a clear mandate. The starting point is a public debate and subsequent articulation of what society wants from the financial system – this could be likened to a constitutional premise such as the right to free speech that sits above politics.

The public debate would shape the central bank’s role in the management of the desired financial system and wider economy. Questions include the extent to which it is responsible for ensuring credit goes to the productive economy and can it take actions if this comes up against public or political opposition. There would also need to be clarity over defined policy areas such as inflation targets or measures of stability, against which progress and success could be judged.

“Big data is set to emerge as a vital component of crisis prediction and management.”

Participant at PwC Central Bank Forum

The final question is the division of responsibilities with government and other agencies involved in the management of the economy and financial stability. While macro-prudential management is a collaborative process, it's important to delineate who does what and when among regulators, governments and central banks. This would include triggers for when central banks need to call upon governments for financial assurances.

Strengthening risk management

A key element of credibility is sustaining a resilient and robust balance sheet, even when it is expanding. To do this, central banks will need to ensure their risk function keeps pace with new types of risk they face during the course of their operations.

This has become a whole lot more complicated. Although central banks have always been exposed to some degree of risk, a low risk appetite and conservative investment strategies contained these on the balance sheet. Now, many central banks face the increased credit and market risks of investments acquired through asset purchasing schemes (see Figure 4). Strategic risks have increased by their evolving role within broader economic and financial stability management. And reputations are more vulnerable to the vagaries of media scrutiny and public perception.

These developments underline the need for a more informed, integrated and accountable enterprise-wide approach to risk management. This would strengthen governance and enhance decision making by providing greater insight into the nature of the risks being run, their possible impacts and new or emerging risks. It would also allow for the development of cost-effective strategies to mitigate and manage risks, which link to the annual priority-setting and budget processes.

“Big data is set to emerge as a vital component of crisis prediction and management.”

Participant at PwC Central Bank Forum

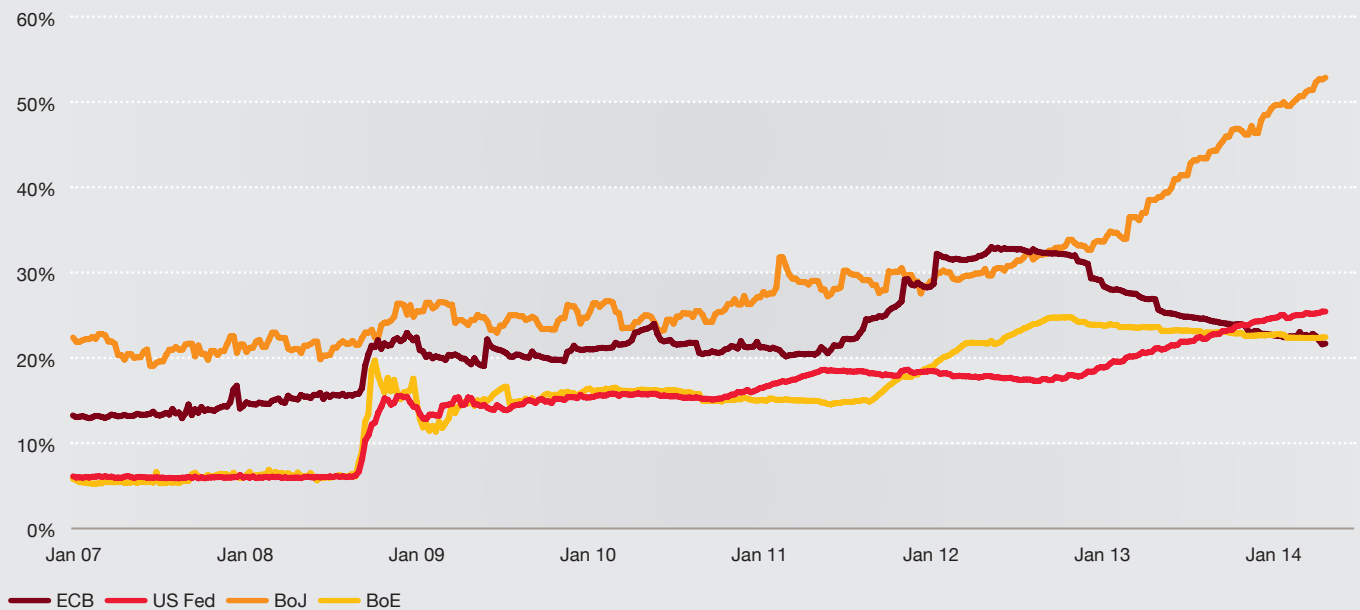
Media-savvy

Communication has become as important as financial monitoring and management to effective central bank operations. If done well, communication can strengthen understanding of central bank objectives, help shape the market mood and provide reassurance in times of stress. The challenge is how to look beyond an informed audience to convey difficult and potentially controversial messages to a wider public and media.

Central bank chiefs therefore need to be media savvy as well as sharp economists and shrewd political operators. They and their banks also ‘live or die by their reputations’, which could be undermined by any policy indecision or backtracking on commitments set out in forward guidance. It may therefore be better to make fewer commitments and stick by them, even if this risks creating uncertainty in the areas where the central bank's intentions are less clear. As such, the forward guidance we're likely to see in 2020 will be as much about shaping the mood as setting and pursuing quantifiable targets. It's also important to explain that many central bank actions don't have an immediate impact, even if this doesn't sit well with political timetables or the world of rolling 24-hour news.

Figure 3: Expanding balance sheets

Central bank assets (% of nominal GDP)



The challenge within many central banks is how to best organise this within the institution. While most central banks have adopted, or are adopting, the ‘three lines of defence’ model, in our experience, there is no ‘one size fits all’ model beyond this. A number of central banks have adopted centralised risk management functions covering both financial and non-financial risk, while others have separate units. Many central banks have established a Board Risk Committee and this might be complemented by specialised committees focussed on one risk type such as a Credit Risk Committee.

What is clearer, however, is that risk management needs to be elevated from just another function to the heart of a central bank – providing a key input into policy-making, day-to-day execution decisions and overall organisational strategy. And independent of the organisational design of the risk

function, it’s equally as important how these units work together. Given the interdependencies across policy areas, open working styles and new collaborative methods will become the norm across the organisation in order to make the most-informed trade-offs.

At the same time, the risk manager’s toolkit will need to expand – to move away from a reliance on stochastic models, and towards deterministic tools such as stress-testing. Risk managers will never be able to predict the future precisely, but they can conceive, prepare for and mitigate the potential risks that could affect the bank. Horizon scanning and scenario planning exercises will become much more important in this regard.

2

Seeing the future

How can you keep pace with the rapid transformation in societies, economies and the systemic risks this generates?

In a world being reshaped by new technology and shifts in the focus of investment and growth, central banks face the collective challenge of how to oversee the rapid expansion of the global financial system and the establishment of new transmission channels, platforms and currencies.

The default option may be to simply clamp down on activities deemed too hard to control. Yet in a globalised economy they will simply go elsewhere, be this less regulated markets or abroad. Innovation and development in the financial system are going to be crucial to sustaining growth and meeting consumer expectations in both mature and emerging markets. It's therefore vital that central banks develop the rapid monitoring and response to manage activities across the financial system.

Data and analysis

Much better data collection, analysis and forecasting, along with the systems and talent to support this are going to be crucial. Real-time monitoring and analysis is emerging. What should be in place by 2020 is much more effective anticipation in areas such a default patterns, segmental over-heating and the knock-on risks. The drive for greater

insight and foresight should ideally go beyond traditional financial metrics to embrace both non-financial and predictive data.

To meet evolving policy objectives, we believe that it will be important to take a fresh approach to what data central banks collect, how they collect it, how often they collect it, what they do with it and how securely they store the data. This will be especially crucial in realising the potential synergies between their expanding responsibilities and functions, while easing the burden on institutions struggling with increasing data demands.

It will be important to map the data stored and processed across the organisation so its existence can be documented and bank staff are made aware of all the data available. This will allow it to be disseminated to areas where it may be relevant, potentially improving the consistency and speed of the decisions made across the bank. This process can



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For central banks, the leap forward in analytics capabilities will not only improve their ability to anticipate and avert threats, but also give them an important edge in influencing the agenda.

be enhanced when accompanied by cultural change so that sharing the data needed to achieve the goals of the organisation rather than those of a single team becomes the norm. Controls and processes which cultivate trust in the integrity of data, its quality and security will facilitate the reliance on and sharing of data. Good governance and clear data ownership will reinforce this.

We therefore believe it's important to develop a framework for anticipating and discussing potential developments beyond the traditional analytical horizon and the contingency plans to address them.

Unknown unknowns

In many ways the biggest challenge is how to prepare contingencies for the unexpected 'black swans' that could be thrown up by a world in flux. Established market monitoring and stress testing can easily be outflanked and outpaced by the speed, connectivity and contagion of unfolding events, especially if the threats lie beyond the scope of conventional surveillance.



Our megatrend framework can help to provide a foundation for stimulating the imagination beyond the horizons of traditional analysis. The research is built around what we see as the five key developments facing business and society today⁴:

- Shift in global economic power
- Technological breakthroughs
- Demographic and social change
- Rapid urbanisation
- Climate change and resource scarcity

The megatrends will have a huge impact in themselves. For central banks this ranges from the rapid expansion of the global financial system to the establishment of new transmission channels, platforms and currencies. The trends could have even more impact when they coalesce and collide. Examples include the geopolitical tensions created by the competition for scarcer resources as growth in South America, Asia, Africa and the Middle East accelerates (together these regions form what PwC terms ‘SAAAME’).

Balancing the risks and rewards of rapid development

For emerging market central banks grappling with weak commodity prices, volatile currencies and a retrenchment in capital flows, 2020 must seem like a distant prospect. Central banks in these economies play a crucial stabilisation role in the short-term, preventing a slowdown from becoming a crisis. However, they can also use these challenging circumstances as a window of opportunity to build the lean, agile and flexible organisations that they will need to become to steer their economies on a healthy development path over the long-term. For example, market

movements may encourage some central banks to move much more quickly than they had ever anticipated from an external target (a fixed or managed exchange rate) towards a domestic one (an inflation target). In many of these cases, this journey was always an inevitable one as domestic consumers acquire purchasing power and higher value-add sectors grow in stature. It’s just that those central banks involved will now need to move much faster to stay ahead of the changing environment around them.

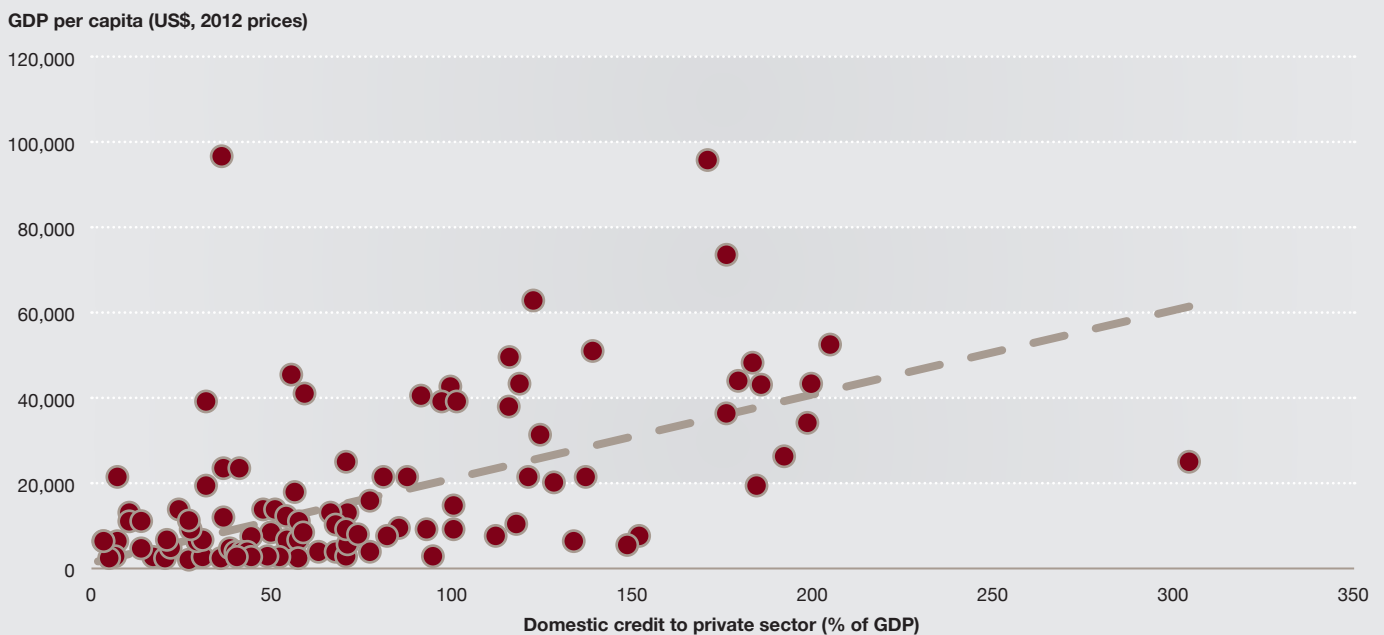
This journey will mean different things to different central banks – but we think all stand to gain something from taking a fresh look at their strategy and organisational priorities.

The importance of institutional capabilities

While the financial crisis pushed developed market central banks to play a more direct role in economic management, central banks in emerging markets have long since played a more active and interventionist role. This often reflects a well-established mandate to contribute towards the ‘financial deepening’ or ‘stimulating economic development’ of the nation.

Many central banks in emerging market countries have been become highly adept at juggling objectives that can often be in conflict. The best have been able to play a leadership role in developing their economies by building a reputation for credible economic management. A key lesson from these cases is that acquiring credibility requires a conscious effort to invest in institutional capability building. Based on our experience working with central banks in developed and emerging economies, we find that institutional

⁴ <http://www.pwc.com/gx/en/issues/megatrends/index.html>

Figure 4 Charting the relationship between GDP and credit growth

Sources: PwC analysis of World Bank data

capability can be traced back to three core building blocks:

- 1 A clear and compelling vision, alongside a multi-year strategy for achieving this
- 2 Strong leadership, communication and co-ordination at every level of the organisation
- 3 A resilient organisational design, underpinned by operational excellence in analytical capability, competence of personnel and infrastructural strength.

As central banks look towards 2020, we think their existing capabilities will be increasingly tested and they will need to develop some new ones. We foresee a number of tensions in the road ahead through which the capable central bank will need to navigate.

One such tension will come from

a central bank's competing role in deepening capital markets and maintaining financial stability. Deep and liquid capital markets help to improve the monetary policy transmission mechanism, increase public and private access to long-term finance and widen participation in the economy. In this respect, Figure 4 highlights the strong correlation between GDP per head and private credit. Cases from West Africa to Singapore highlight that central banks can play a leading role in deepening and integrating capital markets, such as deploying their own tools and supporting financial market infrastructures.

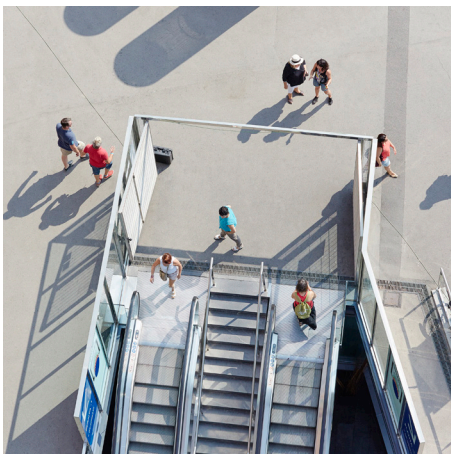
“Will Africa boom? As foreign investment floods in and financial development accelerates, the ability of the authorities to maintain oversight and control will be severely tested.”

Richard Boxshall, PwC UK

3

Managing the different scenarios of change

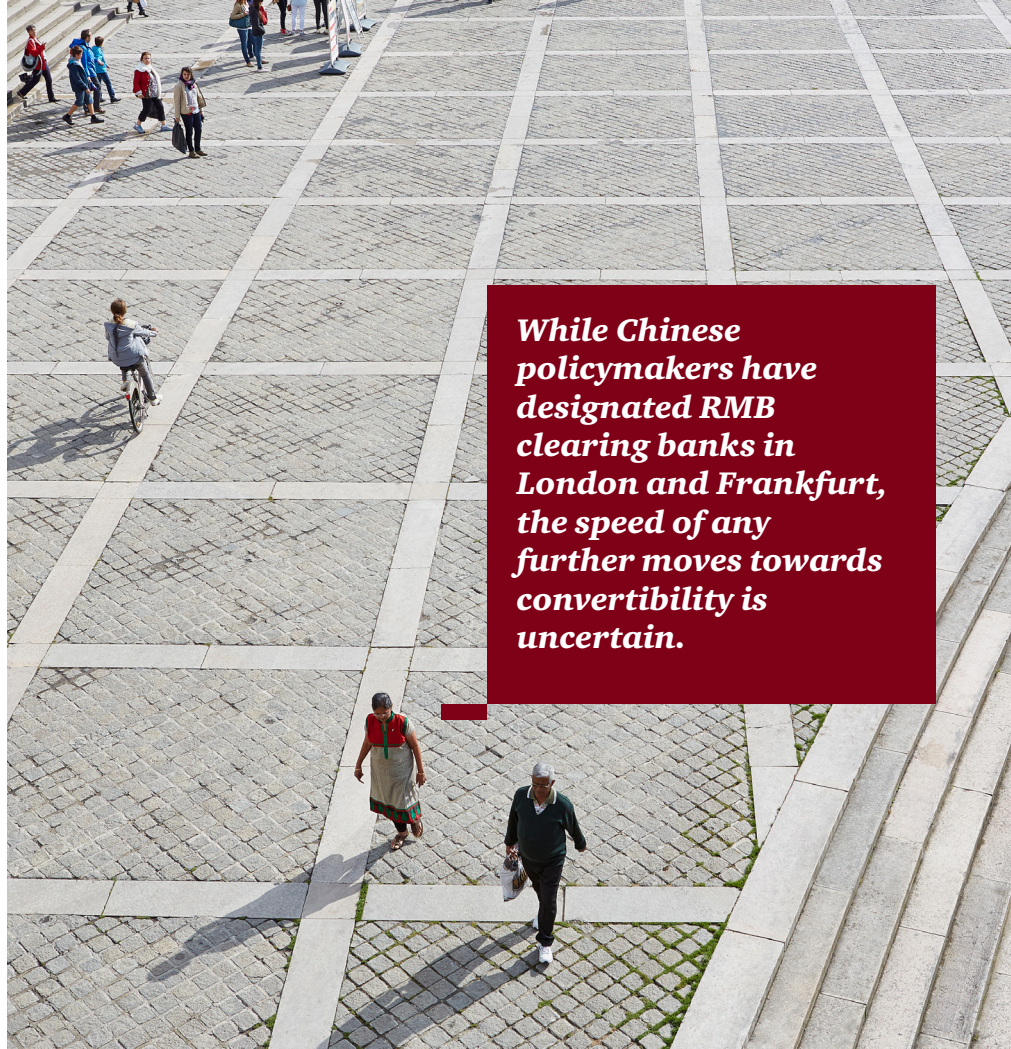
In our 2020 publications, we've said that the financial sector would emerge from the crisis to a world very different from the one we remember going in, partly as a result of the crisis itself, and partly due to other global trends and developments that have been gathering pace alongside it⁵.



Given the regulatory reform that is still sweeping through the banking sector, it is tempting to see regulation as the key determinant of the industry's future shape. However, there are much more fundamental forces at work than regulation, ranging from the significant shifts in technology, change in public expectations, and the pressure to stay ahead of the migration of 'banking' activities beyond the traditional banking sector. In our view it is these wider shifts that will ultimately dictate both how the banking sector as a whole will reform, and also what the role and shape of banking regulation (and therefore central banks) will need to be.

Building on these observations, we've formulated three hypotheses, which we outline here, and provide alongside these our thoughts on the implications for central banks.

⁴ <http://www.pwc.com/gx/en/financial-services/publications/assets/pwc-the-future-shape-of-banking.pdf>



While Chinese policymakers have designated RMB clearing banks in London and Frankfurt, the speed of any further moves towards convertibility is uncertain.

Hypothesis 1: A future in which core banking services are delivered outside of the regulated banking industry

The crisis has challenged the trust previously placed in banks and disrupted the cost structures within regulated banks. In parallel, technology and changes in capital markets are opening up the banking market to new entrants. Overall, we expect that the barriers to entry for non-banks to provide formerly 'core' banking services will continue to decline and the links between traditional and shadow banking institutions will increase.

For central banks there is the challenge of overseeing ever extending industry boundaries in areas such as marketplace lending, new digital currencies, shadow banking and business models using block-chain technology. These developments are creating real-time, decentralised networks and potentially redefining payments transactions and trading. Central banks need new skills

and systems to keep pace with the complexity of evolving markets. As supervision evolves from historical to predictive tools, large investments will be needed to manage 'big data'. They will need data analytics tools to identify where risks are building up in the financial system, such as in the pricing of risk, cross-border risks, data quality and cyber-crime.

Hypothesis 2: Banks still have advantages but – to be part of the future – they need to invest heavily, rediscover and reassert their core role in society, and secure the ongoing support of policymakers

Trust and brand matter in financial transactions. Although tarnished by the financial crisis, banks' brands and reputations remain hugely recognisable and potentially powerful, shored up by familiarity, experience and regulation. To reassert their position, it will be important for banks to rebuild trust and meet public expectations by changing the culture and behaviours of their organisations and demonstrating security, integrity, dependability and quality of their service offerings.

Central banks will have an important role to play in facilitating the public debate over what society wants from the banking system under this scenario, which will shape what is expected from banks. The results of this debate will also determine the central bank's role in the management of the desired financial system and wider economy. Questions include the extent to which it is responsible for ensuring credit goes to the productive economy and can it take actions if this comes up against public or political opposition. There would also need to be clarity over defined

policy areas such as inflation targets or measures of stability, against which progress and success could be judged.

Hypothesis 3: Regulators and regulation need a radical re-orientation, realigning from policing to protecting and with public policy shifting its focus – to some extent – from institutions to markets and services.

Central banks and regulators are understandably focused on making sure banks are not too big to fail. But the resulting regulation can at times appear soloed and fragmented.

To mitigate this, regulators and central banks need to draw the regulatory strands back together and make regulation manageable for the firms they oversee. If a transition does take place to a system where banking services are more dispersed and diffuse, then it would be logical for regulation and

policy to move towards focusing on products and services rather than institutions. In this case, conduct regulation would become the primary firm-level regulation, with a much more limited form of micro and macro-prudential regulation increasingly focused on system-wide issues rather than on firms themselves.



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Conclusion: The new blueprint



Traditional banking methods and central bank orthodoxies are being eroded. By 2020, we will only begin to see what will have emerged in their place as the experimentation and transformation within central banking continue.

The financial services environment will be subject to many changes in the next few years. Central banks will need to adapt their strategies, structures, policies, operations and people to respond in a constructive, pragmatic and innovative way. Summarizing the perspectives set out in this paper, we believe that the central banks that will be best equipped to deal with the unfamiliar challenges ahead are firmly on the front foot rather than simply reacting to events:

- 1** A clear mandate that sets out what society wants from the financial system and the central banks' role in delivering and overseeing these priorities;
- 2** The institutional capabilities – talent, diversity, risk systems, data, governance and communication – needed to deliver the mandate;
- 3** Extending the analytical horizon to imagine and explore new scenarios needed to manage unknown as well as known threats to financial stability;

- 4** The informed and co-ordinated enterprise risk management framework needed to monitor and manage the full spectrum of financial, strategic, operational and reputational risks the bank faces; and

- 5** Maximising the possibilities presented by big data, including through development of a data strategy and opening up central bank data to a wider audience to stimulate intellectual inquiry and ideation.

The next five years and beyond will continue to be uncertain and the emergence of 'unknown-unknowns' is inevitable. But armed with these five attributes, we believe that central banks can make decisions and respond with greater confidence on the one side and generate the necessary credibility within government and society on the other. In short, they will be ahead of the curve rather than playing catch-up.

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