Two years ago KPMG International published a paper suggesting the emergence of what is commonly referred to as ‘Basel 4’, even before Basel 3 had been fully implemented.

**Basel 4 is now part of the regular vernacular.**
EXECUTIVE SUMMARY

IN PARTICULAR, KPMG SPECIALISTS WERE CONCERNED ABOUT:

- A higher minimum leverage ratio being adopted rather than the 3 percent benchmark put forward by the Basel Committee;
- Restrictions on the extent to which banks can benefit from using internal models to calculate their capital requirements;
- A tougher approach to stress testing, Pillar 2 capital add-ons and liquidity requirements; and
- More disclosure by banks.

Our 2013 concerns have been proved correct. Each of these elements have continued to evolve over the last two years, some at international level, some at European level, and some at national level. In total, ‘Basel 4’ will be as important as Basel 3 for some banks.

Some of the items discussed in our original paper have become even more onerous for banks over the last two years. Examples of these include:

- The Basel Committee proposals for the revised standardised approaches (in particular for credit risk), the capital floor and the trading book, all of which are likely to increase banks’ risk-weighted assets significantly – indeed, market analysts are focusing increasingly on ‘RWA inflation’ from these proposals;
- The linking of the asset quality review and stress testing in the European banking union during 2014;
- The increasing emphasis in the US on the qualitative aspects of banks’ stress testing; and
- Moves by the European Central Bank to introduce a more harmonised approach to the setting of Pillar 2 capital add-ons and the use of banks’ internal models in the European banking union.

We also highlighted two years ago the many ‘parallel tracks’ that would potentially have an impact on banks’ capital and liquidity requirements, including capital surcharges for systemically important banks, the use of macro-prudential instruments, resolution and structural separation within banking groups.

Again, all of these have been taken forward by international and national standard setters over the last two years, and in some cases this has gone significantly beyond what might have been predicted two years ago. Higher capital surcharges on US global systemically important banks, the Financial Stability Board proposals for total loss absorbing capital, and the use of multiple macro-prudential instruments in countries such as Norway and Sweden are all examples of this. Our view is that macro-prudential policy tools are likely to become increasingly more important in the coming years because of the political need to reshape national economies.

Global regulators are also progressing down a parallel track to change culture and raise conduct standards – including by strengthening personal accountability, where they must be mindful of potential unintended consequences as some individuals become more risk averse and seek to protect themselves rather than to manage valid risks effectively.
REGULATORY REQUIREMENTS

BASEL 3
STRENGTHENED GLOBAL CAPITAL AND LIQUIDITY REGULATIONS

CAPITAL REFORM
› QUALITY OF CAPITAL BASE
› QUANTITY OF CAPITAL
› LEVERAGE
› COUNTERPARTY CREDIT RISK

LIQUIDITY REFORM
› LIQUID ASSETS BUFFER (LCR)
› STRUCTURAL POSITION (NSFR)

BASEL 4
ADDITIONAL CAPITAL AND LIQUIDITY REQUIREMENTS

› HIGHER MINIMUM LEVERAGE RATIO
› LESS RELIANCE ON INTERNAL MODELS
› REVISED STANDARDISED APPROACHES
› CAPITAL FLOOR
› STRESS TESTING
› PILLAR 2
› LIQUIDITY
› DISCLOSURE

PARALLEL TRACKS

LARGE EXPOSURES   SHADOW BANKING
SECURITISATION      MACRO-PRUDENTIAL
LOCALISATION        IFRS 9
BAIL-IN LIABILITIES  EU BANKING UNION
OTC DERIVATIVES AND CCPS
G-SIB AND D-SIB SURCHARGES
STRUCTURAL SEPARATION

EMERGENCE OF BASEL 4

TIME

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IMPLICATIONS FOR BANKS

AS THE TERM BASEL 4 HAS DEVELOPED, THE STRATEGIC AND BUSINESS IMPLICATIONS FOR BANKS WE SET OUT TWO YEARS AGO HAVE BECOME EVEN MORE PRONOUNCED. MANY BANKS HAVE:

› Raised more capital and/or reduced their on- and off-balance sheet activities. This in turn has increased the cost and reduced the availability of bank finance for individuals, corporates and other bank customers; and reduced liquidity in some markets.

› Improved their capital management, not least in terms of recognising the need to understand better the capital required to support their various businesses and linking this more clearly to their strategy, risk appetite and business models. However, most banks do not have an overarching ‘Basel 4’ project and are instead dealing with each component individually, which is not conducive to taking a strategic approach.

› Re-evaluated the balance between lower and higher risk businesses as regulation takes a less risk-sensitive approach to capital requirements. Once liquidity needs have been met, there is a strong perverse incentive for banks to reduce their holding of less risky assets, including sovereign debt, other highly rated securities, prime mortgage lending, high quality corporate lending and fully secured exposures.

This may lead to a significant shift in some banks’ business models, and in the price and availability of these types of bank intermediation.

› Banks also need to respond to the data and systems implications of Basel 4, not least in calculating (and disclosing) the revised standardised approaches and the leverage ratio; and in undertaking a range of stress tests. The initial apparent inertia to address the challenges set out in Basel Committee principles on risk data aggregation and reporting (BCBS 239) has now been set aside – in Europe, the data challenges from the AQR were the primary driver for this change.

› More generally, as discussed in Part Two of our Evolving Banking Regulation series (April 2015), the multiple regulatory and commercial pressures on banks are making it more difficult for banks to develop and implement viable and sustainable business strategies, and to meet the expectations of their customers, investors and regulators simultaneously.

We estimated in 2013 that major UK banks might need an additional £50 billion of CET1 capital (an increase of around 25 percent) to meet all the regulatory requirements beyond Basel 3, or to make a corresponding reduction in risk weighted assets. In practice, between June 2013 and June 2015 these banks have increased their CET1 capital by £20 billion (and could have achieved twice this amount in the absence of large conduct-related fines and redress payments), and reduced their risk weighted assets by £350 billion, thereby increasing their CET1 capital ratios from 9.4% to 12.0%.

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3 These data are based on estimates of banks' positions if Basel 3 (CRD4) had been fully applied at both dates.
EVOLUTION OF BASEL 4

THE TABLE BELOW PRESENTS A SUMMARY OF THE KPMG SEPTEMBER 2013 ANALYSIS OF BASEL 4 AND RELATED CAPITAL AND LIQUIDITY REGULATORY REQUIREMENTS; DEVELOPMENTS IN THESE AREAS OVER THE PAST TWO YEARS; AND UNFINISHED REGULATORY BUSINESS. THE MAIN THEMES ILLUSTRATED IN THE TABLE ARE:

- The continuing evolution of Basel 4 and the related parallel tracks; and
- The extent of unfinished business which banks need to take into account.

<table>
<thead>
<tr>
<th>Basel 4 components</th>
<th>Position in 2013</th>
<th>Developments since 2013</th>
<th>Next steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tougher approach to internal model based calculations of capital requirements</td>
<td>First set of BCBS and EBA working papers on variances in model results across banks’ banking and trading books</td>
<td>Further BCBS and EBA papers on the extent of variances across banks</td>
<td>BCBS finalisation and implementation of revised standardised approaches, capital floor, and other constraints on the use of internal models</td>
</tr>
<tr>
<td></td>
<td>Early stages of BCBS fundamental review of the trading book</td>
<td>BCBS proposals on revised standardised approaches for credit, market, securitisation and operational risk</td>
<td>BCBS revised (lower) risk weights for simple high quality securitisations</td>
</tr>
<tr>
<td></td>
<td>BCBS paper on simplicity versus complexity</td>
<td>BCBS proposals for a capital floor based on the revised standardised approaches</td>
<td>BCBS review of sovereign risk exposures</td>
</tr>
<tr>
<td></td>
<td>Indications of possible policy measures on disclosure, supervisory guidance, and explicit constraints on the flexibility of internal model approaches</td>
<td>Proposals from the BCBS fundamental review of the trading book</td>
<td>ECB model quality review of banks’ use of internal models</td>
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<td></td>
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<td>Increasing focus on the quality and accuracy of risk weighted asset calculations</td>
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</tbody>
</table>

*Many of the developments since 2013 and unfinished business are covered in more detail in Evolving Banking Regulation Part One, KPMG International, March 2015.*
### Basel 4 components

#### Leverage ratio above 3 percent

**Position in 2013**

- Moves in Switzerland, the UK and the US towards the imposition of minimum leverage ratios higher than 3 percent
- Switzerland: largest banks required to meet a minimum leverage ratio against total capital of around 4.3 per cent by 2019
- US: Federal Reserve Board proposing a minimum leverage ratio of 5 per cent for systemically important banks and 6 per cent for retail banks owned by a systemically important bank
- UK: preference for a more restrictive definition of capital (CET1 capital rather than the Basel 3 use of the wider total tier 1 definition), and to calculate the leverage ratio after the imposition of a severe stress scenario

**Developments since 2013**

- BCBS finalisation of definition of total exposure
- UK: linkage between minimum leverage ratio and capital buffers for large banks (leverage ratio increased by 0.35 percentage points for every 1 percentage point increase in risk-weighted buffer rates)
- US: proposals finalised
- Netherlands: 4 percent minimum leverage ratio for systemically important banks

**Next steps**

- BCBS calibration of minimum leverage ratio and definition of the capital numerator
- Implementation as a Pillar 1 minimum requirement from January 2018
- EBA review of proportional application
### EVOLUTION OF BASEL 4

<table>
<thead>
<tr>
<th><strong>Basel 4 components</strong></th>
<th><strong>Position in 2013</strong></th>
<th><strong>Developments since 2013</strong></th>
<th><strong>Next steps</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stress tests</strong></td>
<td>Requiring banks in the US and the EU to meet minimum capital ratios (excluding capital buffers) after the impact of severe stress tests</td>
<td>EU banking union asset quality review and EU-wide EBA stress tests, with some countries (for example the UK) imposing additional stresses&lt;br&gt;US emphasis on qualitative aspects of stress testing, with some banks failing the CCAR because of deficiencies in internal data and systems</td>
<td>UK 2015 stress test to focus on different risks, including trading book; and to include the impact on leverage ratios&lt;br&gt;Scenario for EBA 2016 stress test to be released in Q1 2016&lt;br&gt;Likely increasing focus on funding and liquidity risks</td>
</tr>
<tr>
<td><strong>Pillar 2 capital add-ons</strong></td>
<td>Unclear how Pillar 2 capital requirements would take account of higher Pillar 1 requirements and additional buffer requirements&lt;br&gt;UK consideration of whether Pillar 2 capital should be held primarily through CET1 capital</td>
<td>UK revised Pillar 2 regime&lt;br&gt;EBA SREP Guidelines&lt;br&gt;ECB working on a more consistent approach to Pillar 2 requirements for major banks in the banking union&lt;br&gt;BCBS proposals for introducing a Pillar 1 minimum capital requirement for interest rate risk in the banking book</td>
<td>Implementation of revised national and ECB Pillar 2 regimes&lt;br&gt;Finalisation of treatment of interest rate risk in the banking book and confirmation of whether Pillar 1 or Pillar 2</td>
</tr>
<tr>
<td>Greater disclosure by banks</td>
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<tr>
<td>Potential requirements on banks to explain and justify why their risk weightings based on internal models differed from the standardised approach risk weightings</td>
<td>BCBS finalised phase one of revised requirements for banks’ Pillar 3 disclosures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposals from the Enhanced Disclosure Task Force to enhance banks’ public risk disclosures</td>
<td>FSB common data template for G-SIBs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liquidity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>US suggestion to link capital requirements to banks’ reliance on wholesale funding</td>
<td>US G-SIB capital surcharges linked to wholesale funding</td>
</tr>
<tr>
<td></td>
<td>Development of banks’ individual liquidity</td>
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</tbody>
</table>

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# EVOLUTION OF BASEL 4

## Parallel tracks

### Capital surcharges for SIBs

**Position in 2013**
- BCBS designation of G-SIBs and prospective capital surcharges

**Developments since 2013**
- National designation of D-SIBs and capital surcharges
- Tougher US variant on G-SIB capital surcharges

**Next steps**
- Implementation of capital surcharges from 2016

### Macro-prudential policy instruments

**Position in 2013**
- CRR/CRD4 provisions for use of macro-prudential instruments

**Developments since 2013**
- Growing use of macro-prudential instruments by national authorities – not just the Basel 3 counter cyclical capital buffer, but also systemic risk buffers, sector specific capital requirements, and maximum loan to value ratios and affordability ratios on residential mortgages

**Next steps**
- Further use of macro-prudential instruments

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<table>
<thead>
<tr>
<th>Resolution</th>
<th>Large exposures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Draft EU Bank Recovery and Resolution Directive, including minimum required eligible liabilities for bail-in</strong></td>
<td><strong>BCBS consultation paper on tighter limits on banks’ large exposures</strong></td>
</tr>
<tr>
<td><strong>Switzerland: minimum requirements for contingent convertible debt</strong></td>
<td><strong>BCBS proposals finalised</strong></td>
</tr>
<tr>
<td><strong>EU BRRD finalised</strong></td>
<td><strong>EU implementation</strong></td>
</tr>
<tr>
<td><strong>EBA guidelines on MREL</strong></td>
<td><strong>Finalisation of TLAC requirements</strong></td>
</tr>
<tr>
<td><strong>EU requirements on bank funding of resolution funds and deposit guarantee schemes</strong></td>
<td><strong>Application of TLAC beyond G-SIBs</strong></td>
</tr>
<tr>
<td><strong>FSB proposals on TLAC</strong></td>
<td><strong>Bringing MREL and TLAC together for major EU banks</strong></td>
</tr>
</tbody>
</table>
## EVOLUTION OF BASEL 4

### Parallel tracks

### Localisation

#### Position in 2013
Further localisation of national requirements in response to financial stability concerns and resolution planning
Liquidity self-sufficiency

#### Developments since 2013
Development of single and multiple points of entry approaches to resolution

#### Next steps
Cross-border resolution remains a major issue

### Structural separation

#### Position in 2013
National measures being introduced in the US, UK, France and Germany
EU road map on implementing the recommendations of the Liikanen Report

#### Developments since 2013
Finalisation of Volcker rule in the US
National legislation in Belgium, France, Germany and UK
Proposed EU Regulation on structural separation for EU banks – ban on proprietary trading and ring-fencing of investment banks

#### Next steps
Implementation of national requirements
Finalisation of EU Regulation
OTC derivatives and CCPs

National (but not always consistent) implementation of G20 proposals for the standardisation, exchange trading, central clearing and reporting of derivative transactions

BCBS and IOSCO development of capital adequacy requirements for exposures to CCPs and counterparty credit risk

BCBS/IOSCO finalisation of capital and margin requirements

Resolution of CCPs

Other

BCBS proposals on expected credit loss accounting
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# BASEL 4 ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AQR</td>
<td>Asset Quality Review</td>
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<tr>
<td>BCBS</td>
<td>Basel Committee on Banking Supervision</td>
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<td>BRRD</td>
<td>Bank Recovery and Resolution Directive</td>
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<td>CCAR</td>
<td>Comprehensive Capital Analysis and Review</td>
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<td>CCP</td>
<td>Central Counterparty</td>
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<td>CET1</td>
<td>Common Equity Tier 1</td>
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<td>COREP</td>
<td>Common Reporting</td>
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<td>CRD</td>
<td>Capital Requirements Directive</td>
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<td>CRR</td>
<td>Capital Requirements Regulation</td>
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<td>D-SIB</td>
<td>Domestic Systemically Important Bank</td>
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<td>EBA</td>
<td>European Banking Authority</td>
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<tr>
<td>FINREP</td>
<td>Financial Reporting</td>
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<tr>
<td>FSB</td>
<td>Financial Stability Board</td>
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<tr>
<td>G-SIB</td>
<td>Global Systemically Important Bank</td>
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<td>IFRS</td>
<td>International Financial Reporting Standard</td>
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<td>IOSCO</td>
<td>International Organisation of Securities Commissions</td>
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<tr>
<td>LCR</td>
<td>Liquidity Coverage Ratio</td>
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<td>MREL</td>
<td>Minimum Required Eligible Liabilities</td>
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<td>OTC</td>
<td>Over the Counter</td>
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<tr>
<td>NSFR</td>
<td>Net Stable Funding Ratio</td>
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<td>RWA</td>
<td>Risk Weighted Assets</td>
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<td>SIB</td>
<td>Systemically Important Bank</td>
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<td>SREP</td>
<td>Supervisory Review and Evaluation Process</td>
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<td>TLAC</td>
<td>Total Loss Absorbing Capacity</td>
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The fog begins to clear.

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OLIVER for KPMG | OM047357A | October 2015