Basel Committee
on Banking Supervision

Regulatory Consistency Assessment Programme (RCAP)

Assessment of Basel III regulations in Brazil

December 2013

BANK FOR INTERNATIONAL SETTLEMENTS

This publication is available on the BIS website (www.bis.org).

ISBN 92-9131-977-5 (print)

ISBN 92-9197-977-5 (online)

Contents

Glossary

ABCP	Asset-backed commercial paper
AMA	Advanced Measurement Approaches (for operational risk)
ASA	Alternative Standardised Approach (for operational risk)
AT1	Additional Tier 1 Capital
BCBS	Basel Committee on Banking Supervision
BCB	Banco Central do Brasil
BIA	Basic Indicator Approach (for operational risk)
BIS	Bank for International Settlements
BNDES	Banco Nacional de Desenvolvimento Econômico e Social (National Development Bank)
BRL	Brazilian Real
CCP	Central counterparty
CCF	Credit Conversion Factor
CGF	Credit Guarantee Fund
CEM	Current Exposure Method (for counterparty credit risk)
CET1	Common Equity Tier 1 Capital
CRI	Certificados de Recebíveis Imobiliários (Real Estate Receivables Certificates)
CMN	Conselho Monetário Nacional (National Monetary Council)
CRM	Comprehensive Risk Measure (for correlation trading)
CRM	Credit risk mitigation (for credit risk)
CVA	Credit Valuation Adjustments
D-SIB	Domestic Systemically Important Bank
DTA	Deferred tax asset
ECAI	External credit assessment institution
EL	Expected loss
FAQ	Frequently asked question
FIDC	Fundos de Investimento em Direitos Creditórios (Receivables Investment Funds Shares)
G-SIB	Global Systemically Important Bank
IAA	Internal Assessment Approach (for securitisations)
ICAAP	Internal Capital Adequacy Assessment Process (for Pillar 2 – supervisory review)
IRB	Internal Ratings-based Approach (for credit risk)
IMA	Internal Models Approach (for market risk)
IMM	Internal Models Method (for counterparty credit risk)
IRC	Incremental Risk Charge (for market risk)
LGD	Loss-given-default
MDB	Multilateral Development Bank
NPL	Non-performing loan
PD	Probability of default
PON	Point of non-viability
RCAP	Regulatory Consistency Assessment Programme
RWA	Risk-weighted assets
SA	Standardised Approach (for credit risk)
SIG	Supervision and Implementation Group
SME	Small and medium-sized Enterprises
SVaR	Stressed Value-at-Risk
TSA	The Standardised Approach (for operational risk)
UL	Unexpected loss
VaR	Value-at-risk

Preface

The Basel Committee on Banking Supervision (Basel Committee) sets a high priority on the implementation of the regulatory standards underpinning the Basel III framework. The benefits of the agreed global reforms can only accrue if these standards are made part of the regulatory framework and put to work. In 2011, the Basel Committee therefore established the Regulatory Consistency Assessment Programme (RCAP) to monitor and assess its members' implementation of Basel III standards. The RCAP assessments aim to ensure that each jurisdiction adopts Basel III standards in a manner consistent with the Basel III framework's letter and spirit. The intention is that prudential requirements based on a sound and transparent set of regulations will help strengthen the international banking system, improve market confidence in regulatory ratios, and ensure a level playing field.

This report presents the findings of the Basel Committee's RCAP Assessment Team on the domestic adoption of Basel III risk-based capital standards in Brazil and their consistency with Basel Committee requirements.[1] The team was led by Mr Tokio Morita of the Japanese Financial Services Agency and comprised six technical experts. The assessment was carried out in 2013 using information available as of 31 October 2013. The counterpart for the assessment was the Central Bank of Brazil (Banco Central do Brasil or BCB), which published Basel III risk-based capital regulations on 1 March 2013 and 4 March 2013 and brought them into force on 1 October 2013. The BCB published additional regulations on 31 October 2013 to clarify and improve its capital regulations demonstrating Brazil's strong commitment to align with the minimum requirements agreed by the Basel Committee.

The assessment work consisted of three phases: (i) self-assessment by the BCB; (ii) an on- and off-site assessment phase; and (iii) a post-assessment review phase. The on-site assessment phase included a visit to Brasilia and São Paulo during which the Assessment Team held discussions with senior officials of the BCB and staff from its regulatory and supervisory areas. The team also met with select senior representatives of Brazilian banks, one accounting/auditing firm and a rating agency. These discussions provided the Assessment Team with a comprehensive overview and a deeper understanding of the implementation of the Basel risk-based capital standards in Brazil. The third phase provided the Assessment Team with technical feedback on its findings. The work of the Assessment Team and its interactions with the BCB were coordinated by the Basel Committee Secretariat.

The scope of the assessment was limited to the consistency of domestic capital regulations in Brazil with Basel III standards; issues relating to the functioning of the regulatory framework and the prudential outcomes were not part of the assessment exercise. Where domestic regulations and provisions were identified to be inconsistent with the Basel framework, those deviations were evaluated for their (potential) impact on the capital ratios and the international level playing field for banks. The Assessment Team did not make an evaluation of the capital levels of individual banks, the adequacy of loan classification practices, or the way banks currently calculate risk-weighted assets and regulatory capital ratios. As such, the assessment covers neither the soundness nor the stability of the financial banking sector in Brazil. Nor does it assess BCB's supervisory effectiveness.

The RCAP Assessment Team sincerely thanks the staff of the BCB for the professional, constructive and efficient engagement throughout the assessment process.

[1] It should be noted that Brazil's compliance with other Basel III standards, namely the leverage ratio, the liquidity ratios and the framework for global systemically important banks (G-SIBs) will be assessed at a later date once those standards become effective as per the internationally agreed phase-in arrangements.

Executive summary

The BCB published its Basel III capital regulations in March 2013. The regulations came into force on 1 October 2013 and apply to all banks operating in Brazil. Additional regulations and some important amendments were issued on 31 October 2013 to clarify and improve the risk-based capital framework.

Given the recent set of changes – especially those relating to the definition of capital and other aspects of Pillar 1 – the Assessment Team found Brazil to be overall a "Compliant jurisdiction", with its capital standards aligned with the international minimum requirements for Basel Committee members. For the definition of capital component, the most important difference is the phase-in of the deduction of goodwill from regulatory capital. The new regulation adopted in October 2013 and its implementation is expected to make it immaterial from 2016. The goodwill deduction will definitely be eliminated by no later than 2018.[2] Given the fact that a binding regulation is now in place and goodwill related materiality will be eliminated over a short implementation period, the Assessment Team assessed the definition of capital to be in compliance with the Basel requirements.

In three areas, the Assessment Team suggests that the framework should be kept under review. These relate to credit risk standardised approach, capital buffers and Pillar 2 (Supervisory Review Process) which were assessed as being Largely Compliant. For credit risk standardised approach, the Assessment Team considered that the deviations are mostly potentially material in nature where the current Brazilian treatment generates higher capital requirements for some of the asset classes on average but can be reversed in a stressed scenario. For this reason, the Assessment Team judged the finding to be potentially material. On the capital buffer and Pillar 2, the deviations were assessed as currently immaterial and areas for follow-up.

All other components were assessed as Compliant. It should be noted that in some areas the Brazilian regulations differ from Basel standards to reflect local circumstances. For example, the Brazilian regulations do not make specific reference to external credit ratings. Also, for market risk, the BCB has implemented a quasi-modelled approach in place of the Basel standardised approach, to take account of higher spreads and different levels of volatility in Brazil. The approach is conceptually a hybrid between the Basel standardised approach and the Basel modelled approach, where the BCB fixes the parameters. The approach to market risk was found to be more prudent and more risk-sensitive than the current Basel standardised approach. So, while the Brazilian regulations are tailored to suit local conditions, the Assessment Team has concluded that the Brazilian framework achieves a similar, but generally more conservative, practical effect.

The Brazilian regulations allow banks to apply to use modelled approaches for credit, market and operational risk. However, in practice, only one bank is authorised to use its own value-at-risk (VaR) model for market risk, and no banks are authorised to use credit or operational risk models. Here the Assessment Team looked at the potential materiality of deviations while noting that no banks are likely to gain modelling approval in the next two to three years.

The Assessment Team recommends that a follow-up assessment of Brazil is conducted to review progress made and steps taken to further improve consistency in the implementation of areas indicated above.

[2] It may be noted that the materiality of the difference will become immaterial in 2016 provided no new goodwill is constituted during the period 2014-2017. If new goodwill arises then this will also be subject to the phase-in.

Response from the BCB

Having applied the Basel standards from their outset, Brazil is fully committed to implementing Basel III as a key element of the global regulatory reforms towards a more resilient financial system. By ensuring that the regulations of Basel Committee members comply with international requirements, the RCAP Level 2 review programme is an essential step towards promoting full and consistent implementation of Basel III, with the aim of enhancing market confidence in regulatory ratios and providing a level playing field.

The BCB supports the RCAP assessment methodology, which is regarded as fair and comprehensive, and largely agrees with its results. In particular, the dialogue with the Assessment Team was an important mechanism to reach a clear understanding about the Basel text and to identify areas where the Basel framework would benefit from further clarification.

Financial stability is the ultimate goal of all prudential regulation. To this end, the implementation of international standards may require adjustments to reflect local circumstances. In this regard, the BCB has adjusted some specific points of the Basel III framework when implementing it, while always respecting the international standards as a floor for the local requirements. One such adjustment excludes the use of third-party ratings in prudential regulation. Instead, the risk weights used in place of the external ratings prescribed by the international framework are calibrated so that the Brazilian regulations generate higher capital requirements than the ones generated by the use of external ratings. In addition, the BCB continuously monitors the risk of banks' exposures and the phase-in of the regulatory adjustments. The BCB remains fully committed to recalibrating its framework and taking additional steps whenever necessary, so that actual risk exposures are always correctly reflected in the regulations and the convergence to Basel Standards following the internationally agreed time line.

The BCB has adopted a number of recommendations from the Assessment Team to complement and elucidate certain of its regulations. Most of these complementary elements were previously dealt with under the supervisory process or deemed not applicable due to local business practices and the absence of specific financial products in the local market. Nevertheless, these adjustments, including the accelerated pace for the deduction of goodwill, represent an important step towards international convergence and reinforce the traditional conservatism of Brazilian regulation, which provides for a wider scope of application and more prudent requirements in some important areas.

The BCB would like to thank the RCAP team for the excellent review of our Basel III implementation. The BCB highly appreciates the team's expertise, commitment and cooperative attitude. We take this opportunity to reaffirm our commitment to the Basel Committee's efforts towards the implementation of financial reforms.

1. Assessment context and main findings

1.1 Context

Status of implementation

The BCB implemented Basel II in Brazil in 2007. The regulations established a minimum total regulatory capital ratio of 11%, ie 3 percentage points above the 8% minimum set out in the Basel II framework. The regulations cover all financial institutions, including the 131 deposit-taking banks operating in Brazil (128 banks, one savings bank and two cooperative banks) as at 31 March 2013.

The BCB introduced its regulations that implemented Basel 2.5 with effect from 1 January 2012, in line with the globally agreed timeline.

On 1 March 2013 and 4 March 2013, the authorities published a set of four resolutions and 15 circulars implementing Basel III.[3] The regulations came into force on 1 October 2013. This new set of regulations covers the revised definition of capital, capital requirements, capital buffers, credit valuation adjustments (CVA) and exposures to central counterparties (CCPs). Certain risk weightings, for example exposures to securitisations, were also revised. Three of the four resolutions and six of the 15 circulars were amended or replaced by regulation published on 31 October 2013. In addition, a new circular for Pillar 3 (Market Discipline) was finalised and a new resolution was introduced for prudent valuation. The timeline for implementation is later than the globally agreed start date of 1 January 2013 but includes accelerated transitional arrangements such that Common Equity Tier 1 (CET1) of 4.5% is the minimum from 1 October 2013 (compared with Basel III phase-in arrangements that require a CET1 minimum of 3.5% in 2013). At the same time, there is also a corresponding reduction in Brazil's current 11% total minimum capital requirement to bring it into line with the Basel minimum of 8% by 2019.

Basel III implementation phase-in arrangements — Table 1

	2013	2014	2015	2016	2017	2018	2019
Basel CET1	3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
BCB CET1	(from 1 Oct) 4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Basel total capital	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
BCB total capital	11.0%	11.0%	11.0%	9.875%	9.25%	8.625%	8.0%

Structure of the banking system and financial soundness

The Brazilian banking system is characterised by conglomeration, public sector presence, limited foreign bank participation, and a low level of international interconnectedness compared to some other Basel Committee member countries. Banks' assets and liabilities are denominated mostly in local currency, and foreign currency lending within the domestic market is prohibited. A key feature of the Brazilian banking sector in recent years has been consolidation, with a number of significant mergers taking place between 2008 and 2011. As a result, the Brazilian banking sector is concentrated, with the six largest banks

[3] The Assessment Team relied on English translations provided by the BCB of the domestic regulations. In a few specific instances, eg for IRB and securitisation, the team assessed the appropriateness of the English translation of the Brazilian rules with the original text in Portuguese. For these sections, the translation was found to be appropriate.

accounting for 79% of banking assets (as at end-March 2013). The Brazilian banks are focused predominantly on domestic banking activities. Two of the six largest Brazilian deposit-taking banks are government-controlled – Banco do Brasil and Caixa Economica Federal. Brazil does not currently have any global systemically important banks (G-SIBs).

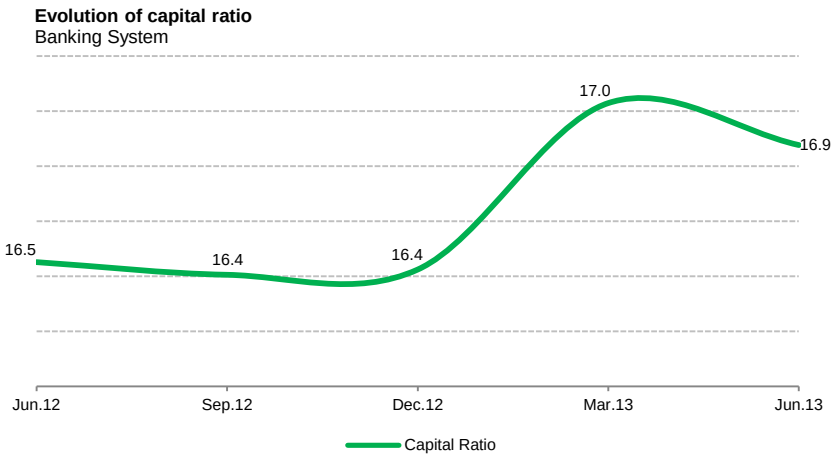
The two largest banks – Banco do Brasil and Itaú Unibanco – have operations in neighbouring regions in Latin America and other regions. However, these operations are small in comparison with their domestic operations.

The size of the banking sector relative to the Brazilian economy is just over 110% of GDP, and the size of credit assets is approximately 55% of GDP as at end-2012.[4] This is higher than in other Latin American countries but much lower than in countries of other regions such as Europe, North America and Asia.

The main activity of Brazilian banks is still classic intermediation. A new bankruptcy law came into effect from 2005 which improved creditor rights, thereby making banks more willing to lend. Banks have also increased payroll-deducted lending in the same period, although the rate of increase has now stabilised.

The BCB has established a Credit Information System (Sistema de Informações de Crédito – SRC). This allows the BCB to assess credit risk at individual banks and systemic risk across the banking system. The SRC contains information on all loans granted by financial institutions covering 99% of outstanding balances. It is used by the BCB for supervisory purposes and by the banks as a credit bureau to help them assess and price credit risk.

The aggregated capitalisation of the Brazilian banking system is approximately 17% as shown in the graph below. In addition, reserve requirements are higher than in other countries and average 25% for deposits and savings accounts, and 44% for demand deposits.[5] These provide an additional liquidity cushion for Brazilian banks.[6]



4 World Bank data.

5 The reserve requirements are set at different amounts according to each different type of deposit.

6 In 2012, Brazil underwent an assessment under the Joint IMF-World Bank Financial Sector Assessment Programme (FSAP). In that context, an assessment of Brazil's compliance with the Basel Committee's *Core Principles for effective banking supervision* was also conducted. The report can be found at www.imf.org.

International activities of Brazilian banks

Table 2

Bank	Total assets (BRL billions)	% foreign subsidiary assets/total assets
Banco do Brasil	1,111	4.5%
Itaú Unibanco	965	10.1%
Bradesco	774	0.2%
Caixa Economica Federal	678	0.0%
Santander	459	0.0%
HSBC	142	0.0%

Status of adopting the Basel approaches

Basel implementation in Brazil has focused on the standardised approaches to credit, market and operational risk. This is now changing as the BCB has implemented regulations to permit the use of banks' own internal models for calculating regulatory capital. First, regulations for VaR models were established from 2009. One bank – Bradesco – received BCB's approval in 2012 to use its own VaR model for calculating its market risk capital requirements.

The BCB issued final regulations allowing banks to apply for the use of internal ratings-based (IRB) models for credit risk from December 2012. Final regulations for the advanced measurement approach (AMA) for operational risk were issued alongside the Basel III regulations in March 2013 and allow banks to apply to adopt AMA from 1 October 2013. Amendments to further strengthen the regulations were published on 31 October 2013 including new regulations covering market risk valuation and Pillar 3 disclosure requirements.

A number of banks are developing models to adopt VaR, IRB and AMA, but remain at relatively early stages of planning and model development. No formal applications have yet been received by the BCB. This means that, for the purposes of assessing the Brazilian regulations for modelling approaches, the consistency of regulations has been judged on a forward-looking basis of future potential materiality. That said, the Assessment Team believes it is unlikely that any bank will be approved to use IRB and AMA within the next three-year period given the typical time taken to first develop and then gain approval for such models. Three years is the typical prospective time taken by an assessment under the RCAP.

Regulatory system and mode of supervision

The National Financial System in Brazil comprises the National Monetary Council (Conselho Monetário Nacional – CMN), and similar bodies for insurance and pensions. The system was established by Brazilian Banking Law (Law 4,595) of 31 December 1964. The CMN comprises the Minister of Finance, the Minister of Planning, Budget and Administration and the President of the BCB. The CMN is the main regulatory authority of the financial market, and is responsible for establishing monetary, currency and credit policies (such as inflation targets) as well as prudential regulations for banks.

Banking prudential regulations are proposed by the BCB and approved by the CMN in the form of "resolutions". These are the highest level of primary regulation. Regulations approved by the Board of the BCB within the scope of its regulatory powers are published in the form of "circulars". Banking regulations published in the form of resolutions and circulars are considered to be equally enforceable and non-compliance with either can lead to supervisory actions by the BCB.

Additional guidance to clarify specific points of resolutions and circulars may be issued in the form of "Cartas-Circulares" (circular letters) by BCB Heads of Department.

All three levels of regulations – resolutions, circulars and circular letters – are considered legally binding. The consequences of firms not meeting the regulations range from fines to licence cancellation.

In addition, for specific issues, other legal documents that impact the regulatory framework for banks in Brazil were also reviewed by the Assessment Team. These included, for example, certain extracts of the Brazilian Banking Act, corporate law, tax law and accounting regulations.

1.2 Scope of the assessment

Scope

The objective of the RCAP assessment was to evaluate whether domestic regulations in Brazil are consistent with the risk-based capital standards under the Basel framework in both letter and spirit. This was done by undertaking a systematic review of the regulations that implement Basel III in Brazil. The assessment focused on two dimensions:

- A comparison of domestic regulations with the capital standards under the Basel framework to determine if all the required provisions of these standards have been adopted (*completeness* of the domestic regulations); and
- Independent of the form of the requirements, whether there are any differences in substance between the domestic regulations and the capital standards under the Basel framework (*consistency* of the domestic regulations).

The identified gaps were then subject to a materiality assessment and noted as areas identified for future follow-up.

Bank coverage

The RCAP assessment looked at bank-level capital ratio and exposure data for the six largest banks[7] covering approximately 79% of banking system assets (as at end-March 2013). The selection of banks was based on their domestic significance, and regional and international activities.

The assessment of the materiality of areas where the Basel standards were not consistently applied has been guided by the methodology approved by the Basel Committee and included quantitative and qualitative elements. In making the assessment, the team evaluated the current and the potential future materiality of the gaps identified and applied their expert judgement based on the local structure, appropriateness of the regulations and consistency across other assessments under the RCAP.

1.3 Assessment grading and methodology

Following the RCAP methodology published by the Basel Committee,[8] the assessment applied a four-grade scale, both at the level of each of the key components of the Basel capital framework and for the overall assessment of compliance by a jurisdiction: ie Compliant, Largely Compliant, Materially Non-Compliant and Non-Compliant.[9] A regulatory framework is considered:

[7] For the purpose of the RCAP, these six banks were used as a proxy for "internationally active banks" in Brazil.

[8] *Regulatory Consistency Assessment Programme,* October 2013, www.bis.org/publ/bcbs264.html.

[9] This four-grade scale is consistent with the approach used for assessing countries' compliance with the Basel Committee's *Core principles for effective banking supervision*. The actual definition of the four grades has been adjusted to take into

- *Compliant* with the Basel framework if all minimum provisions of the international framework have been satisfied and if no material differences have been identified that would give rise to prudential concerns or provide a competitive advantage to internationally active banks;
- *Largely Compliant* with the Basel framework if only minor provisions of the international framework have not been satisfied and if only differences that have a limited impact on financial stability or the international level playing field have been identified;
- *Materially Non-Compliant* with the Basel framework if key provisions of the Basel framework have not been satisfied or if differences that could materially impact financial stability or the international level playing field have been identified; and
- *Non-Compliant* with the Basel framework if the regulation has not been adopted or if differences that could severely impact financial stability or the international level playing field have been identified.

Materiality of the deviations was assessed in terms of their current, or, where applicable, the potential future impact on the capital ratios of banks, thereby affecting the level playing field between internationally active banks and/or raising financial stability concerns. Where relevant and feasible, an attempt was made to quantify the impact of deviations based on data collected from Brazilian banks in the sample.

For the quantifiable gaps arising from identified deviations, the Assessment Team, together with the BCB, attempted to quantify the impact, both in terms of current materiality and potential future materiality. As such, consideration was given to the number of banks having relevant exposure, the size of exposures impacted, the range of impact and possibility of any rise in the relative proportion of the impacted exposures in the balance sheets of banks in the foreseeable future.

The non-quantifiable gaps were discussed with the BCB and decisions were based on the Assessment Team's expert judgement and past approaches taken in earlier RCAPs.

The assessment team also took into account that, as a general principle, where there are two equally plausible outcomes, the burden of proof lies with the assessed jurisdiction to show that a finding is not material. Also, areas of super-equivalence are not taken into account to compensate for identified inconsistencies in meeting the Basel minimum standards.

1.4 Main findings

Overall

Brazil's capital regulations were found to be Compliant with the internationally agreed minimum Basel III standards. The set of regulations published on 31 October 2013 has strengthened the Brazilian capital regulation. This recent set of amendments played a significant part in the overall positive outcome of the assessment. Some of the revisions came into force from November 2013 and others will become effective from July 2014. The Assessment Team recommends that a follow-up assessment of Brazil is conducted to monitor progress and to ensure consistent practice.

The international activities of Brazilian banks are relatively limited compared to those of major banks in Asia, North America and Europe, and their operations are relatively less complex when compared with those of large banks from more developed economies. This means that Brazil's

account the different nature of the two exercises. In addition, components of Basel III that are not relevant to an individual jurisdiction may be assessed as not applicable (N/A).

implementation of the Basel standards has been tailored in a number of areas to suit local circumstances. For example, the BCB has opted not to refer to credit ratings in any of its banking regulations.

The tailoring of Basel standards often results in banking regulations that are conservative relative to the Basel minimums in some areas but less conservative in others (see Annex 10 for details on areas where the Brazilian regulations go beyond the Basel minimum standards).

Summary assessment grading — Table 3

Key components of the Basel capital framework	Grade
Overall grade:	C
Scope of application	C
Calculation of minimum capital requirements and transitional arrangements	C
Pillar 1: Minimum capital requirements	
Definition of capital	C
Credit risk: Standardised Approach	LC
Credit risk: Internal Ratings-based Approach	C
Securitisation framework	C
Counterparty credit risk standards	C
Market risk: The Standardised Measurement Method	C
Market risk: Internal Models Approach	C
Operational risk: Basic Indicator Approach and the Standardised Approach	C
Operational risk: Advanced Measurement Approaches	C
Capital buffers (conservation and countercyclical)	LC
G-SIB additional loss absorbency requirements	N/A
Pillar 2: Supervisory review process	
Legal and regulatory framework for the Supervisory Review Process and for taking supervisory actions	LC
Pillar 3: Market Discipline	
Disclosure requirements	C

Scope of application and transitional arrangements

The Brazilian regulations are applied at the consolidated level in line with the Basel framework. However, the regulations do not require calculations based on a separate test for capitalisation on a sub-consolidated or on a standalone basis. This precludes the scope of application from fully and consistently assessing whether individual entities or subgroups within a wider banking group are adequately capitalised based on the standardised minimum capital ratios. To date, Basel Standards have not yet set out clear criteria on how they are applied at each bank within an internationally active banking group and where the entities themselves are not internationally active. Practices seem to differ across member jurisdictions, and further work is underway by the Basel Committee on this issue. This issue is left out of the assessment in the current round. The scope of application is therefore assessed as Compliant.

Definition of capital

The Basel III framework sets out recognition criteria applicable to all financial instruments eligible to be recognised as CET1 including common shares. For joint stock companies, most of the criteria are not reflected directly in the Brazilian banking regulations. Instead, the BCB relies on the provisions of the Joint Stock Companies Act, which are applicable to all banks in Brazil. The Assessment Team concluded that most but not all of the criteria are fully met by the provisions in the Joint Stock Companies Act, but the differences were considered not material.

Brazilian banks are required to make provisions for loan losses based on the initial credit standing of the borrower as soon as the loan is granted. During the lifetime of the loan, the level of provisions has to be adjusted if the credit standing of the borrower deteriorates. These provisions are not tax-deductible and will only be recognised for tax purposes once the borrower has actually defaulted on the loan. This means that Brazilian banks have a tendency to build up large amounts of deferred tax assets (DTAs). The Basel III framework requires banks to deduct DTAs from CET1 to the extent that those DTAs rely on the future profitability of the bank to be realised. However, Brazil's Law 12,838, passed in July 2013, allows banks to convert DTAs relating to loan loss provisions into a tax credit when the bank reports a loss, is liquidated or becomes bankrupt. The team has compared this approach to the FAQ issued by the Basel Committee, and views the provision foreseen in Law 12,838 as essentially equivalent to the situation described in the related Basel Committee FAQ.

Under the Brazilian capital requirements, goodwill and other intangibles were not deducted from bank's regulatory capital. Under Brazilian accounting regulations, however, goodwill is amortised over five years. The new regulations supplement this amortisation process with the phase-in of the deduction from CET1 as required by Basel III. It should be noted that, as part of the goodwill that is not yet amortised or subject to phasing-in of the deduction treatment is still included in regulatory capital, this leads to an overstatement of banks' capital ratios during the transitional period until December 2017 relative to fully phased-in Basel II/Basel III requirements.[10] Annex 12 shows the aggregated impact of the deviation on the six banks in the period until 2018. Once the new deduction of goodwill starts from 2014, the impact of the difference for those three banks is reduced significantly and becomes negligible in 2016.

With respect to the definition of capital provisions relating to the point of non-viability (PON), no deviations were identified by the Assessment Team. However, the PON regulations in Brazil came into force on 1 October 2013 rather than on 1 January 2013 as required by Basel. This means that capital instruments that would otherwise qualify as additional Tier 1 (AT1) and which were issued before 31 December 2012 are now grandfathered because of the absence of a contractual PON clause in their terms and conditions. The BCB have indicated that between September 2010 and 1 October 2013, no instruments that would benefit from the delayed cut-off for grandfathering were issued, and the finding is therefore assessed as not material. In addition, capital instruments issued after 1 January 2013 that do not include a PON clause in their terms and conditions are completely excluded from regulatory capital.

The most important deviation for the component of the definition of capital is the late phase-in of goodwill from regulatory capital. This finding is material in 2013 but it expected to become immaterial from 2016.[11] The team has chosen to recognise that the materiality of the difference is falling and is

[10] Paragraph 94(d) of the Basel III framework states "the remainder not deducted from Common Equity Tier 1 will continue to be subject to existing national treatments". The BCB's interpretation is that the deduction of goodwill can be phased-in despite the requirements in Basel 1 and II to deduct it from Tier 1 capital.

[11] The materiality of the deviation will become immaterial in 2016 if no new goodwill is constituted during the period 2014-2017. If new goodwill arises then this will also be subject to the phase-in.

expected to become not material in 2016 and will be fully eliminated in 2018. The Assessment Team believes this is a pragmatic choice by the Brazilian authorities to rectify their regulations while avoiding the potential cliff effects of implementing the full deduction immediately. The phase-in allows the most affected banks to adjust to the new regulations in an orderly manner. Taking these aspects into account, the component is therefore assessed as Compliant. The Compliant rating reflects the current material difference while recognising that full compliance is achieved after the phase-in period.

Credit risk: Standardised Approach

Under the Basel standardised approach, risk weights for claims on sovereigns, public sector entities, banks, securities firms and corporates are linked to external credit assessments. The Brazilian regulations do not employ external credit ratings, and instead use the Basel national discretions, fixed risk weights or alternative simpler methodologies. The alternative methodologies used in Brazil, despite being more prudent in some cases, are not as risk-sensitive as those of the Basel framework. This has led to certain deviations, especially with respect to the risk weighting of exposures to:

- large corporates (ie corporates with loans in the financial system of more than BRL 100 million)
- domestic banks with an original maturity of more than three months
- sovereigns that are not denominated and funded in domestic currency

In these cases, either fixed risk weights or alternative methodologies are used. At present, this leads to different risk weights than those prescribed by the Basel standards, given the current ratings of the obligors. Generally, the Brazilian risk weights are higher than the Basel risk weights. Those that are lower are considered not currently material. However, the deviation is assessed as potentially material with respect to exposures to large corporates, and claims on banks with an original maturity of more than three months.

The BCB gathers a large amount of data at the level of individual loans made by Brazilian banks through its SRC. This system was created in 1997 and includes information on all outstanding loans (99% of individual loans and the remaining 1% in aggregate). This tool is used by supervisors and banks to supplement the simpler flat risk weights employed in the Brazilian regulations.

The Brazilian regulations include two additional entities in the list of entities to be risk weighted at 0% – Banco Nacional de Desenvolvimento Econômico e Social (National Bank for the Economic and Social Development or BNDES) and contribution advances to the Credit Guarantee Fund (CGF), neither of which are multilateral development banks (MDBs). Under the Basel framework, it may be appropriate to treat the claims on CGF and BNDES in the same manner as claims on corporates and banks respectively. However, given the limited current exposure to these entities, the effect was considered to be not material.

Further, the Basel capital framework requires that collateral must be marked to market or revalued with a minimum frequency of six months. There is a corresponding requirement in the Brazilian regulations that collateral must be revalued but there is no reference to a minimum frequency. Instead the frequency is enforced through supervision and generally stated to be annually, and there is also a 20% risk weight floor on the collateral portion of the exposures, which protects against very sharp declines in collateral values. The deviation is therefore not considered material. Similarly, although not currently material, the Brazilian regulations do not include requirements for credit risk mitigation (CRM) techniques relating to first-to-default and second-to-default credit derivatives or on capital treatment for failed trades and non-DVP transactions.

Finally, a deviation was observed in respect of eligible financial collateral relative to the Basel capital standards. The agreements for the clearing and settlement of obligations in the scope of the national financial system are included under eligible financial collateral, although they do not fall under any of the six categories defined in the Basel standards. The finding is currently not material given that

netting agreements cover only 0.17% of exposures in the financial system, but could potentially become material in future depending on how rapidly the clearing and settlement system in Brazil evolves.

Overall, for Brazil's standardised approach for credit risk, the deviations are mostly potentially material in nature and all relate to the decision not to refer to credit ratings. This is true for claims on large corporates, domestic banks with an original maturity of more than three months and sovereigns that are not denominated and funded in domestic currency. The current Brazilian treatment for these asset classes generates higher capital requirements on average but there is the potential for this to be reversed in a stress scenario. The component was therefore assessed as being Largely Compliant with the Basel III framework.

Credit risk: Internal Ratings-Based (IRB) approach

The Basel framework recognises that a bank adopting the internal ratings-based approach (IRB) may not be able to develop models for all of its exposures. It therefore allows banks to apply the standardised approach on a permanent basis for exposures in non-significant business units or asset classes if the exposures are immaterial in terms of size and perceived risk profile and subject to supervisory approval. The regulations in Brazil allow for permanent partial use and include a restriction that this should only be applied to non-material portfolios. In addition, the regulations permit certain items such as intragroup exposures, assets deducted from regulatory capital, and CCPs exposures to be exempt from IRB.

There are also deviations in the application of haircuts as a function of maturity and credit ratings. In particular, regarding sovereign exposures and listed equities the current haircuts, despite being the most prudent ones recommended in the Basel framework for the standardised approach, are not a direct function of maturity and credit ratings, as expected in the IRB approaches.

The impact of these deviations is potentially material as no bank currently uses the IRB in Brazil. Consequently, the use of IRB for credit risk needs to be considered for follow-up analysis.

Credit risk: Securitisation framework

The securitisation market in Brazil is small. Higher growth was observed in 2010 and 2011, when issuance totalled BRL 31.4 billion and BRL 50.8 billion respectively. Issuance in 2012 was more subdued at BRL 26.4 billion. A number of factors affect the level of securitisation in Brazil such as high interest rates, structural and legal constraints, although this could change in the future.

The most common instruments are Real Estate Receivables Certificates (Certificados de Recebíveis Imobiliários – CRI) and Receivables Investment Funds Shares (Fundos de Investimento em Direitos Creditórios – FIDC). Both are treated as securitisations within the Brazilian regulations but, under a Basel definition, CRIs would not generally be considered as securitisations because they comprise only a single tranche. However, using the Brazilian definitions, including CRIs, total securitised assets amounted to BRL 32.0 billion or 0.7% of Brazilian banks' assets as at 31 March 2013. Of these, 99% are registered in the banking book and 1% in the trading book.

The Brazilian securitisation regulations do not rely on credit ratings. Instead, the regulations apply a combination of the "look through" approach and a risk-weighting of 1250%. This compares to the risk-weightings in the Basel framework ranging between 20% and 350% depending on the rating, and a deduction for unrated securitisations or securitisations rated B+ or lower. The Brazilian "look through" approach is only permitted for senior tranches. In addition, the 1250% is applied to all subordinated tranches (either junior or mezzanine) irrespective of the rating. This is considered conservative given that junior and mezzanine tranches are the largest in Brazil. The comparison between the Brazilian regulations and the Basel ratings-based framework shows that using the look-through approach or applying 1250% (effectively the same as deduction) is more conservative than the risk weightings in the Basel II framework.

The assessment found a number of deviations but the aggregate effect was assessed as unlikely to be material given the size and complexity both of the current securitisation market in Brazil and the

likely evolution over the next three years. There are a number of structural reasons why a sudden growth in securitisation is considered unlikely, such as high interest rates and spreads, and the comfortable capital ratios of Brazilian banks (ie less of an incentive to securitise). However, these structural factors could change, which could then trigger an increase in the size of the securitisation market in the future. For these reasons it is considered important to conduct a follow-up analysis given the potential future increase and also the interaction with the non-reliance on external credit ratings. There are no regulations for securitisation exposures for liquidity facilities and credit enhancements (egg asset-backed commercial paper (ABCP) programmes) because there are currently no exposures extended to ABCP programmes. Collectively, the deviations were not considered to be material and the Brazilian regulations were assessed to be consistently applied and Compliant.

Counterparty credit risk

Brazil has implemented the Current Exposure Method (CEM) for the calculation of counterparty credit risk. Currently, there is only limited use of complex derivatives in the Brazilian market, most of the instruments being plain vanilla.[12] In order to obtain capital relief, the applicable credit risk approach is applied. The Basel framework requires that collateral must be marked to market or revalued with a minimum frequency of six months. There are no corresponding requirements in the Brazilian regulations. Given that the current impact of deviations is limited, the deviations are not currently considered material, but could potentially become so in the future.

Some deviations were observed in respect of eligible financial collateral. The agreements for the clearing and settlement of obligations in the scope of the national financial system are included under eligible financial collaterals, although they do not fall under any of the six categories defined in the Basel standards. The finding is currently not material given that netting agreements account for only 0.17% of exposures, but could potentially become so in the future. Overall, the assessment grade was Compliant.

Market risk

Brazilian banks do not have significant or complex trading books. The key source of market risk relates to Brazilian sovereign bonds held in the trading book. These are not as actively traded as might be expected in large banks such as G-SIBs in other regions. The products traded are also mainly plain vanilla, and therefore the BCB has chosen to implement the Basel market risk requirements in a way that has been tailored and simplified to suit the Brazilian markets. The Brazilian regulations, as for credit risk, do not use credit ratings.

For exposures in fixed interest rates denominated in local currency,[13] the BCB has developed an approach that is different from the Basel standardised approach, and built on the concept of being a hybrid between the Basel standardised and modelled approaches. Following this approach, the capital requirements are equal to the sum of a parametric VaR and a parametric stressed VaR (SVaR), where coefficients such as volatility, correlation parameters and multiplicative factor are estimated by the BCB. This is done on a daily basis for the VaR, and when necessary for the SVaR.

Although the objectives of the Brazilian and the Basel approach may be the same ie to capture market risk correctly, the methodology developed by the BCB is significantly different by taking some elements from the standardised approach and some from the Internal Models Approach (IMA). The BCB developed its own approach to be more risk-sensitive than the Basel standardised approach, and to

[12] As at end-June 2013, outstanding derivatives in Brazil amounted to BRL 5,311 billion (notional), of which BRL 19 billion or 0.3% were complex derivatives.

[13] This is the main market risk factor in Brazilian trading books accounting for 85% of all exposures.

make it more relevant for Brazil. The BCB has then chosen to design a new methodology which is more conservative and more risk-sensitive. It has been modified to incorporate a "stressed VaR" component, which can be considered as a floor so that, even if the volatility of the Brazilian capital markets should decline, the capital requirements cannot fall below this floor. The prudence of the BCB approach has also been confirmed by numerical computations for several banks and on different periods provided by the BCB.

The Brazilian approach to measure market risk under the standardised approach can then be considered a conservative adaptation of Basel standards to the specificities of the local market. It is built on a conceptual framework that is similar to the Basel framework but taking elements from both the standardised and modelled approaches and achieves a similar, but more conservative, practical effect. The standardised approach should, therefore be considered Compliant with the Basel text.

The second main finding concerns internal models. Brazilian banks opting for the IMA are required under the Brazilian regulations to develop a VaR but not an Incremental Risk Charge (IRC) model. As a result, Brazilian banks using models will develop a VaR model but use the standardised approach to capture the specific risk of their trading book. The approach is not the same as the Basel approach, but leads to more conservative capital requirements in the Brazilian local environment than the Basel approach. It consists of computing VaR and SVaR excluding specific risk, and then applying the standardised approach for specific risk. However, due to the size of sovereign bond positions in the trading books of Brazilian banks, the method could lead to lower capital requirements than applying an IRC.

The Assessment Team understood that a large part of the sovereign bonds booked in the trading book may relate not to a strict trading intent, but more to a medium- or long-term investment or to liquidity management. Excluding these positions from the trading book would reduce the size of an additional capital requirement resulting from an IRC computation, but also their capital requirements.

Considering all these elements, the Assessment Team deems the capital requirements resulting from the Brazilian framework to be Compliant with the Basel framework. However, the team observed that the application of the regulations defining the boundary between trading book and banking book could be strengthened. If the BCB then considers that the capital requirements resulting from this strict application could be underestimated due to the specificities of the Brazilian market, the BCB should define new additional capital requirements. The Assessment Team recommends that this is considered in a follow-up assessment.

Operational risk: Basic Indicator and Standardised Approaches

Brazil uses the Basic Indicator Approach (BIA), the Alternative Standardised Approach (ASA) and the Advanced Measurement Approach (AMA) to calculate capital requirements for operational risk. The BCB does not offer banks the option of the standardised approach (TSA). The BCB explained that the main reason for making only the ASA available to Brazilian banks relates to anomalous Brazilian interest rate spreads, which make the ASA's asset-based indicator a much better proxy for operational risk in the Brazilian environment than the gross income under the TSA.

All Brazilian banks in the RCAP sample apply the ASA. Data provided by the BCB indicates that if these banks were to apply the simpler operational risk approach available in Brazil (ie the BIA), their capital requirements would, on aggregate, double. So, given the relevance of the ASA for the largest Brazilian banks, the team paid particular attention to assessing the consistency of the Basel and Brazilian ASA frameworks. As a result of this assessment, the ASA regulations were modified to require the BCB's authorisation subject to qualifying criteria before a bank applies this methodology for operational risk capital purposes. Existing ASA banks will be assessed, as part of the on-going supervisory framework, to determine whether they meet the new ASA qualifying criteria. If any banks do not comply with these new requirements, they will instead apply BIA. The Assessment Team, therefore, judged the Brazilian regulations to be Compliant with the requirements of the Basel framework.

Operational risk: Advanced Measurement Approaches (AMA)

The AMA was made available to Brazilian banks as of 1 October 2013. Currently, no Brazilian bank has adopted or intends to adopt this framework. During its assessment, the team found the Brazilian AMA regulations to be Compliant with the Basel standards.

Capital buffers

Brazil has incorporated both the capital conservation and countercyclical capital buffers within its prudential framework. The levels of additional bank capital required by these buffers are aligned with the Basel standards.

When assessing the local requirements relating to the capital conservation buffer, the Assessment Team found deviations in the Brazilian framework with respect to the Basel requirements for banks to avoid operating within the buffer range for competitive reasons and to apply restrictions on discretionary bonus payments to their staff (and not only to their board and management as is the case in Brazil) when banks operate within the conservation buffer range. With respect to discretionary payments, the BCB explained that any restrictions on banks' staff compensation would need to be aligned with the broader requirements of domestic labour laws and public sector framework.

The capital conservation buffer framework imposes distribution constraints on banks when their capital levels fall within the capital conservation buffer range. These constraints relate to distributions of earnings. Although the Brazilian corporate law definition of earnings is broad enough to encompass the Basel concept, the local regulations lack the prudential calculation details specified in the Basel framework regarding (i) the sequencing for calculating earnings (Basel defines earnings as distributable profits calculated *prior* to the deduction of elements subject to the restriction on distributions); and (ii) the treatment of tax (Basel states that earnings are calculated *after* the tax which would have been reported had none of the distributable items had been paid. As such, the tax impact of making such distributions is reversed out).

Regarding the countercyclical capital buffer, there are key elements associated with the functioning of this buffer that are not yet included in the local regulations (eg the activation of the countercyclical buffer; reduction of the buffer; and the treatment of cross-jurisdictional exposures). The BCB explained that it is in the process of developing a technical note on the functioning of the countercyclical capital buffer in Brazil and that the missing requirements will be included in this technical note.

The assessment of this section reflects the domestic treatment of the capital conservation buffer and the fact that the local countercyclical capital buffer regulations are currently incomplete. The assessment of the latter has taken into account the BCB's commitment to issue a complementary technical note before the countercyclical capital buffer enters into force in 2016 (the Basel III timeline phases in both buffers between 1 January 2016 and 1 January 2019, and there is no deadline to issue the regulations beforehand). Nonetheless, the Assessment Team considers that a follow-up assessment on the countercyclical capital buffer should take place in due course.

Pillar 2: Supervisory Review Process

The Pillar 2 regulations have been in place in Brazil since June 2011 and are applied in a proportionate way. Banks are required to develop an Internal Capital Adequacy Assessment Process (ICAAP) if they satisfy any of these three conditions:

- Banks with total assets of over BRL 100 billion.
- Banks that are part of a financial conglomerate with total assets of more than BRL 100 billion and comprising at least one multiple, commercial, investment, development, exchange or savings bank.
- Banks authorised to use internal models for Pillar 1 purposes.

In line with these conditions, 10 banks in Brazil are required to develop and submit an ICAAP document to the BCB for review. The first review is currently under way of ICAAPs for the 10 banks based on June 2013 data. A follow-up exercise will begin in April 2014, based on December 2013 data.

The Basel capital framework on the second pillar details the requirements relating to non-contractual (implicit) support provided to securitisation transactions and requires that supervisors should take appropriate supervisory action that may include, but is not limited to, prohibiting the bank from providing any capital relief on securitised assets. The Brazilian regulations are silent on the issue of implicit support to securitisation transactions, except under the IRB framework, which is only relevant for IRB banks. No banks are approved to use the IRB. The securitisation market in Brazil is still at a nascent stage and thus the deviation is not currently material. The Assessment Team, however, considers this as potentially material as the securitisation market develops in Brazil.

With respect to compensation practices, the Basel 2.5 enhancements stipulate that firms must disclose clear, comprehensive and timely information about their compensation practices to facilitate constructive engagement by all stakeholders, including, in particular, shareholders. Boards of Directors must monitor and review the compensation system to ensure that controls are adequate and that the mix of cash, equity and other forms of compensation is aligned with risk and will vary depending on the employee's position and role.

Owing to security concerns, however, the Brazilian regulations require no public disclosure of compensation, nor do they specify that the compensation mix must be aligned with risk. On the issue of the monitoring and review framework of the compensation system, the relevant tasks are carried out by a compensation committee in the case of large banks for the board of directors and council; however, there is no similar mechanism for staff. Smaller banks are exempt from the requirement and thus there is no system to monitor and review the compensation system for staff as well as the board of directors and council, to ensure that the system includes adequate controls and operates as intended.

The Assessment Team considers these deviations as potentially material and has assessed the component as being Largely Compliant.

Pillar 3: Disclosure requirements

In general, most of the Pillar 3 disclosure requirements have been implemented in Brazil. In addition to the risk management frameworks to be disclosed according to the Basel framework (eg credit, market, operational, interest rate risk in the banking book, and equity), the BCB requires a separate disclosure of the liquidity risk management framework. The BCB published a new circular on disclosure requirements on 31 October 2013 including the requirements in the Basel framework that have previously not been addressed. The disclosure requirements for securitisation are not as prescriptive as the Basel framework. However, this finding is considered to be not material due to the small size of the Brazilian securitisation market. Owing to security concerns, Brazil has not introduced any regulations on disclosure requirements for remuneration.

With respect to the disclosure requirements for the definition of capital under Basel III, it was found that they will be applied to financial statements as of 30 June 2014.

The deviations found are not quantifiable but are considered to be not material. The team assessed Pillar 3 requirements to be consistent with the Basel requirements and thus to be Compliant.

2. Detailed assessment findings

The component-by-component assessment of Brazil's compliance with the risk-based capital standards of the Basel framework is detailed in this part of the report. The focus is on the identified deviations and their materiality.

2.1 Scope of application

Section grade	Compliant
Summary	The capital regulations in Brazil are applied on a consolidated basis, and do not require calculations based on a separate test for capitalisation of subgroups or individual banks included in the consolidated group. In addition, the Basel requirements for deducting banks' minority and majority investments in commercial entities to the extent that such investments exceed certain thresholds are not explicitly implemented in the domestic regulation. However, for this issue, the BCB has alternative authorisation and monitoring tools that ensure that the requirements of the Basel II framework are met in practice.
Basel paragraph no	Basel II, paragraphs 20–23
Reference in the domestic regulation	Resolution 4192/13 – Art.1; Resolution 4193/13 – Art.2; Resolution 4280/13 – Art.1 and 4.
Findings	The Basel II framework applies to internationally active banks on a fully consolidated basis and also at every tier within a banking group. Under Art.2 of Resolution 4,193, the Brazilian framework is applied on a fully consolidated basis. The Brazilian regulations, however, do not require calculations based on a separate test for capitalisation on a sub-consolidated (paragraph 22 of Basel II) or on a standalone basis (paragraph 23 of Basel II). Calculations are done at a subsidiary level only to compute the amount of minority interests eligible at group level. This precludes scope for fully and consistently assessing whether individual entities or subgroups within a wider banking group are adequately capitalised against standardised minimum capital ratios. However, the BCB explained to the Assessment Team that Brazilian banking groups' international banking activities are limited. In addition, through the supervisory process, the BCB also assesses the capitalisation and levels of risk at individual entities within the group. Any concerns related to these aspects can be addressed by the BCB through adopting prudential preventive measures to ensure the solidity, stability and the regular functioning of the financial system. This includes measures to increase the level or adjust the distribution of capital within the group or to reduce the level of risks. With respect to depositor protection, the BCB explained to the Assessment Team that, in case of a bank insolvency, the assets of the whole group are seized, thereby ensuring that depositors' claims are adequately protected. The BCB regards these processes and provisions in total as being equivalent to testing for solvency at a sub-consolidated or solo level within a banking group.
Materiality	Not assessed. It was deemed that further clarification of the interpretation of the Basel text would be necessary in order to make a final assessment of the materiality of this finding.
Basel paragraph no	Basel II, paragraphs 35–36
Reference in the domestic regulation	Resolution 4062/12 and Resolution 2283/96 Art.4
Findings	The Basel II framework requires the deduction of banks' minority and majority investments in commercial entities to the extent that such investments exceed certain thresholds. Although the limitations related to banks' investments in commercial entities are not explicitly mentioned in the Brazilian regulations, the supervisor through the authorisation procedure for such investments and through the

	monitoring of the relation between bank's fixed assets and their shareholders' equity, which is capped at 50%, has effective tools at hand to ensure that the limitations foreseen in the Basel II framework are not exceeded in practice. A quantitative survey conducted by the BCB including all banks in the RCAP sample also showed that no bank holds investments above the 15% threshold for individual investments or the 60% threshold for the aggregate amount of investments.
Materiality	Based on the information and data provided by the BCB, the Assessment Team judges this finding to be not material.

2.2 Calculation of minimum capital requirements and transitional arrangements

Section grade	Compliant
Summary	The calculation of minimum capital requirements and transitional arrangements under the Brazilian regulations is in line with the requirements of the Basel II framework. No deviations were found.

2.3 Pillar 1: Minimum capital requirements

2.3.1 Definition of capital

Section grade	Compliant
Summary	The Assessment Team found the Brazilian regulations to be Compliant with the Basel III framework. With respect to the deduction requirements, it was found that the deduction of goodwill will be gradually phased in from 2014 onwards, with the effect that the residual amounts remain to be included in regulatory capital during the transitional period. This is because the Brazilian regulations did not previously deduct goodwill as required under the Basel II framework. By the end of the transitional period in 2018, the regulations in Brazil will be fully in line with the Basel II/ Basel III requirements on this issue. With respect to the point of non-viability (PON), no deviations were identified. However, the entry into force of the PON regulations on 1 October 2013 means that capital instruments that would otherwise qualify as AT1 are now grandfathered because of the absence of a contractual PON clause in their terms and conditions.
Basel paragraph no	Basel III, paragraphs 52–53
Reference in the domestic regulation	Resolution 4192/13 Art.4 and 16
Findings	The Basel III framework includes a list of recognition criteria applicable to all instruments to be included in CET1 including common shares. For joint stock companies in Brazil, some of the criteria are reflected directly in the Brazilian banking regulations, but for others the BCB relies on the provisions of the Joint Stock Companies Act. It was explained to the Assessment Team that the criteria were not included in the Brazilian regulations in order to discourage financial engineering by banks. However, the information provided by the BCB did not fully convince the Assessment Team that all the recognition criteria are met under the current legal framework. The Assessment Team raised concerns related to criterion 2, where, under the Brazilian Joint Stock Companies Act, deviations from the pro rata distribution of any insolvency excesses are allowed. However, any such deviations must be agreed by at least 90% of the shareholders and in case any minority shareholder who dissents from this decision and proves that the special apportionment conditions favour the majority to the detriment of the portion which would have been attributed to him if such

	conditions did not exist, the apportionment shall be suspended, if not perfected, or, if perfected, the majority shareholders shall indemnify the minority shareholders for any proved loss. The Assessment Team views these safeguards as sufficient to effectively ensure that all holders of CET1 instruments are put on an equal footing and the potential for deviations from the pro rata distribution is very limited. According to Art. 4(f) of Resolution 4192/2013, deposits in escrow accounts in the form of cash or in federal government bonds qualify, subject to certain conditions, as CET1 for 90 days in the event of non-compliance of the institution with its minimum capital requirements. Such accounts shall be kept in specific custody accounts in the BCB and their release is subject to prior authorisation. Such an extraordinary recognition of certain items as CET1 is not foreseen under the Basel framework. Finally, in its calculation of CET1 the BCB includes the net amount of revenue minus expenses on a monthly basis. For the first five months in each half year, this amount is not adjusted for any dividends that in the case of Brazil are paid out on a semiannual basis. This leads to an overstatement of capital ratios in the first five months of each semester, which, however, is fully adjusted at the end of each six-month period.
Materiality	Because of the safeguards foreseen under Brazilian company law, the fact that criterion 2 of the recognition criteria for CET1 instruments has not been transposed is considered to be not material. The recognition of deposits in escrow accounts under the custody of the BCB as CET1 for a period of up to 90 days is also assessed as not material, since the BCB explained that such instruments are used only in rare cases and provided data showing that the outstanding amounts of such instruments in the past and at present are negligible or zero and that such instruments are not used by the banks included in the RCAP sample. Finally, the impact of the revenue minus expenses calculation in the view of the Assessment Team is also not material, as any effects of this regulation are fully neutralised at the end of each semester, which is in line with the public disclosure of the capital ratios of the banks included in the RCAP sample.
Basel paragraph no	Basel III, paragraphs 54–56
Reference in the domestic regulation	Res. 4192/13 Art.6, 17, 18 and Art.19
Findings	Basel III introduced a requirement that, for capital instruments included in Additional Tier 1, banks must have full discretion at all times to cancel the payment of distributions. Items VI, VII and VIII of Art.17 mention certain cases where payments on AT 1 instruments have to be fully or partially suspended. This includes the insufficiency of distributable items, the restriction on distributions stemming from the capital buffer regulations and restrictions on distributions imposed by the BCB. However, these regulations do not meet the “full flexibility” requirement for AT1 instruments mentioned in the Basel III text in full, as the bank could bind itself to always pay out if none of the conditions mentioned were to be met. The BCB explained that it views the “full flexibility” requirement as too one-sided for a legal contract for investors, which might be problematic under Brazilian law, and that it holds the view that its approach provides for the cancellation of payments when needed. AT1 instruments are not currently significant in the six RCAP banks.
Materiality	The finding related to the lack of flexibility of payments is considered not material, as the BCB may at any time take action to prevent outflows from the bank.
Basel paragraph no	Basel III, paragraphs 62
Reference in the domestic regulation	Res. 4192/13 Art.9 paragraph 1
Findings	The recognition of minority interests issued by consolidated subsidiaries at group level is limited to the amount that is necessary to cover the minimum capital requirements of the subsidiary. For this calculation, banks must compare the capital requirements of the subsidiary at solo level with its contribution to the capital requirements at group level, with the lower of the two amounts being decisive for calculating the amount of minority interest at group level. The BCB regulations do not include this “lower-of” test; the calculation is based solely

	on the contribution of subsidiaries to the capital requirements at group level, which is consistent with the finding that minimum capital ratios only have to be met at a consolidated level.
Materiality	Based on the fact that, because of the elimination of intragroup transactions, the contribution of a subsidiary to the capital requirements at group level is usually lower than the solo capital requirements of the same subsidiary, the BCB will in most cases automatically use the lower of the two amounts. The finding is therefore not material.
Basel paragraph no	Basel III, paragraph 63
Reference in the domestic regulation	Res. 4192/13 Art.9 paragraph 2
Findings	The recognition of minority interests issued by consolidated subsidiaries at group level is limited to the amount that is necessary to cover the minimum capital requirements of the subsidiary. For this calculation, banks have to compare the capital requirements of the subsidiary at solo level with its contribution to the capital requirements at group level, with the lower of the two amounts being decisive for calculating the amount of minority interest at group level. The BCB regulations do not include the "lower-of" test; the calculation is based solely on the contribution of subsidiaries' to the capital requirements at group level, which is consistent with the finding that minimum capital ratios only have to be met at the consolidated level. However, based on the fact that, because of the elimination of intragroup transactions, the contribution of a subsidiary to the capital requirements at group level is usually lower than the solo capital requirements of the same subsidiary, the BCB will in most cases automatically use the lower of the two amounts. Art.9 paragraph 5 of Resolution 4,192 includes a grandfathering clause for debt instruments issued before 31 December 2012, which is not foreseen in Basel III. This clause excludes debt instruments issued before the cut-off date from the minority interest calculation making them fully eligible at group level subject to the general phase-in regulations. However, according to information and data provided by the BCB, subsidiaries of Brazilian banks are largely funded by direct capital contributions by the parent entity of the group and do not issue Additional Tier 1 or Tier 2 instruments themselves, which is consistent with the finding that on a solo basis, these entities are not subject to explicit capital requirements. In addition, the cut-off date for the use of the provision has already passed and according to the data of the BCB, no capital amounts are included at group level based on this provision.
Materiality	Not material
Basel paragraph no	Basel III, paragraphs 64–65
Reference in the domestic regulation	Res. 4192/13 Art.9 paragraph 3 and 24–2-I
Findings	The recognition of minority interests issued by consolidated subsidiaries at group level is limited to the amount that is necessary to cover the minimum capital requirements of the subsidiary. For this calculation, banks have to compare the capital requirements of the subsidiary at solo level with its contribution to the capital requirements at group level, with the lower of the two amounts being decisive for calculating the amount of minority interest at group level. The Brazilian regulations do not include the "lower-of" test; the calculation is based solely on the contribution of subsidiaries to the capital requirements at group level, which is consistent with the finding that minimum capital ratios only have to be met at a consolidated level. However, based on the elimination of intragroup transactions, the contribution of a subsidiary to the capital requirements at group level is usually lower than the solo capital requirements of the same subsidiary, the BCB will in most cases automatically use the lower of the two amounts. Art.9 paragraph 5 of Resolution 4,192 includes a grandfathering clause for debt instruments issued before 31 December 2012, which is not foreseen in Basel III. This clause excludes debt instruments issued before the cut-off date from the minority interest calculation, making them fully eligible at group level subject to the general phase-in regulations.

	However, according to information and data provided by the BCB, subsidiaries of Brazilian banks are largely funded by direct capital contributions by the parent entity of the group and do not issue Additional Tier 1 or Tier 2 instruments themselves, which is consistent with the finding that on a solo basis, these entities are not subject to explicit capital requirements. In addition, the cut-off date for the use of the provision has already passed and according to the data of the BCB, no capital amounts are included at group level based on this provision.
Materiality	Not material
Basel paragraph no	Basel III, paragraphs 67–68
Reference in the domestic regulation	Res. 4192/13 Art.5 – I, II paragraph 1 (as amended by Res 4278)
Findings	Under the Brazilian transposition of Basel II, goodwill and other intangibles are not deducted from bank's regulatory capital. Under Brazilian accounting regulations, this item is amortised over a five-year horizon. The BCB will combine this amortisation process with the phase-in of the deduction from CET1 as required under Basel III. It should be noted that, as part of the goodwill that is not yet amortised or subject to the phasing in of the deduction treatment is still included in regulatory capital, this leads to an overstatement of the Brazilian bank's capital ratios during the transitional period until December 2017 relative to fully phased-in Basel II/Basel III requirements. A worked example is included in annex 12 to show how the deduction of goodwill is phased-in and the difference is fully eliminated by 2018.
Materiality	Based on data available to the Assessment Team, the difference relative to a fully phased-in Basel II/Basel III is considered to be currently material. Its materiality varies across the six RCAP banks, but is significant in some cases. However, its relevance will diminish as the transitional period proceeds and it will be fully eliminated by 1 January 2018.
Basel paragraph no	Basel III, paragraphs 69–70
Reference in the domestic regulation	Res. 4192/13 Art.5 – VII, VIII paragraphs 3, 4 and 5
Findings	National legislation in Brazil provides that certain DTAs stemming from temporary differences do not depend on future profitability and are therefore not subject to the deduction treatment. The Assessment Team considered the related Basel Committee FAQ as a benchmark in order to assess whether such DTAs do indeed no longer rely on future profits to be realised. The Brazilian Law 12,838 provides in Art.4 paragraph 1 that the reimbursement, at the discretion of the Brazilian Ministry of Finance may take place either in cash or in government bonds, while the Basel FAQ reflects a cash reimbursement.
Materiality	The finding is assessed as not material by the team, as at the point of the reimbursement, the bank could immediately sell the government bonds it received in the market to fully realise the reimbursement.
Basel paragraph no	Basel III, paragraph 90
Reference in the domestic regulation	No reference in domestic regulations
Findings	There is no requirement in the Brazilian regulations to risk weight the equity exposures (paragraph 354 of Basel II) and the non-payment/delivery on non-DVP/non-PVP transactions (paragraph 89 and Annex 3 of Basel II) mentioned in paragraph 90 of the Basel III text at 1,250%. With respect to the first issue, the BCB explained that no bank is currently allowed to use the IRB approach to calculate its capital requirements for credit risk. For the second issue, the BCB provided data showing that the relevant exposures are negligible for Brazilian banks.
Materiality	Not material
Basel paragraph no	Basel III, paragraph 94(c)–94(d)
Reference in the domestic	Resolution 4192/2013 Art.5 paragraph 2-II, and Art.11 to 13

regulation	
Findings	For the deduction of goodwill under the Brazilian regulations transposing the Basel II framework, please refer to the assessment of paragraphs 67 to 68 above.
Materiality	Potentially material
Basel paragraph no	Basel III, paragraphs 95–96
Reference in the domestic regulation	Res. 4192/13 Art.28
Findings	The cut-off date for the grandfathering of "old" capital instruments under the Brazilian regulations is the entry into force of that Resolution, ie 1 October 2013. This is not in line with that of 12 September 2010, as set out in the Basel III text. This could allow for a larger amount of capital instruments to be counted towards regulatory capital during the transitional period. The BCB indicated that between September 2010 and 1 October 2013, no instruments that would benefit from the delayed cut-off date for their grandfathering were issued.
Materiality	Not material

2.3.2 Credit risk: Standardised Approach

Section grade	Largely Compliant
Summary	Under the standardised approach of the Basel Capital framework, risk weightings for claims on sovereigns (and their central banks), public sector entities, banks, securities firms and corporates are linked to external credit ratings. The Brazilian regulations do not employ external credit ratings, and instead use national discretion, assign fixed risk weights, or use alternative simpler methodologies. The alternative methodologies used in Brazil, despite being more prudent in some cases, lack risk sensitivity if compared to the Basel framework. This has led to certain inconsistencies, especially with respect to the risk weighting of exposures to large corporates (corporates with loans in the financial system of over BRL 100 million), domestic banks with an original maturity of more than three months and sovereigns that are not denominated and funded in domestic currency, where either fixed risk weights are used or alternative methodologies have been employed. At present, this leads in some cases to risk weights that differ from those prescribed by Basel II, given the current ratings of obligors. Generally the risk weights are higher than required by the Basel framework – those that are lower are considered not currently material. Compared with the Basel standards, the average potential negative impact on capital ratios is assessed to be 6 basis points in a scenario of rating downgrades of the corporates with 25% of probability in the next three years. The expected impact on the capital ratio for banks' portfolios with an original maturity of more than three months in a three-year time horizon would be 2 basis points. At present, exposures to banks with an original maturity of more than three months as a percentage of total assets are 2.84%. The effect was therefore considered not material at present, but potentially material. The Brazilian regulations have included two additional entities in the list of multilateral development banks to be risk weighted at 0%: National Bank for the Economic and Social Development (BNDES) and contribution advances to the Credit Guarantee Fund (CGF). Under the Basel framework, the exposures to CGF and BNDES should be treated in the same manner as claims on corporates (100%) and banks (50%) respectively. However, given the limited current exposures of the six RCAP banks to these entities (BRL 0.46 billion to CGF and BRL 0.16 billion to BNDES), the effect was considered not material. The Basel framework requires that collateral must be marked to market or revalued with a minimum frequency of six months. There are no corresponding requirements in the Brazilian regulations. The deviation is not considered material. Further, although

	not currently material, there are no requirements on credit risk mitigation (CRM) techniques relating to first-to-default and second-to-default credit derivatives. There are also no requirements on the capital treatment for failed trades and non-DVP transactions items in the Brazilian regulations. Finally, a deviation has been observed in respect of eligible financial collateral. The agreements for the clearing and settlement of obligations in the scope of the National Financial system are included under eligible financial collateral although they do not fall under any of the six categories defined in the Basel standards. The finding is currently not material, but could potentially become so in future. On account of the potential materiality with respect to exposures to large corporates and claims on banks with an original maturity of more than three months, as also some other potential material deviations, this component was assessed as Largely Compliant.
Basel paragraph no	Basel II, paragraphs 53–56
Reference in the domestic regulation	Circular 3644/13 Art.19, Art.21 and Art.25
Findings	Under Basel Paragraphs 53 and 55, claims on sovereigns and their central banks are risk weighted either according to the credit assessment by External Credit Assessment Institutions (ECAIs) or according to the country risk scores assigned by Export Credit Agencies (ECAs). Basel paragraph 54 however allows, at national discretion, a lower risk weight to be applied to banks' exposures to their own sovereign (or central bank) of incorporation, if denominated in the domestic currency and funded in that currency. Where this discretion is exercised, other national supervisory authorities may also permit their banks to apply the same risk weight to domestic currency exposures to this sovereign (or central bank) funded in that currency. The BCB does not depend on credit ratings from ECAIs or risk scores assigned by ECAs. The Brazilian regulations instead use the national discretion and alternative methodologies for the risk weighting of exposures to sovereigns. The banks' exposures to the Brazilian sovereign denominated and funded in domestic currency are assigned a risk weight of 0% as per the national discretion allowed under Basel paragraph 54. The exposures to other sovereigns and Brazil not denominated and funded in local currency are assigned a risk weight of 20% if none of the four listed credit events have been witnessed in the last five years (suspension of payment with respect to external obligations, unilateral alteration of the contractual term, moratorium or any other modality of rejection to accept the term of the external obligation, anticipation because of contract clause, or change in expiry date of obligation). For exposures to sovereigns that have witnessed any of the credit events, a 100% risk weight is assigned. Out of total exposures to sovereigns that are not denominated and funded in domestic currency, 74.68% of them would require a higher risk weight than 20% (ranging from 50% to 150%) if applying the external ratings of those sovereigns under the Basel approach. However, the exposures to such claims are not currently material. Also, in view of the unlikeliness of significant increase of total exposures to sovereign that are not denominated and funded in the domestic currency in the three-year period, the Assessment Team considered the deviation as not material.
Materiality	Not material
Basel paragraph no	Basel II, paragraph 59
Reference in the domestic regulation	Circular 3644/13 Art.19, Art.23 and Art.25
Findings	Basel paragraph 59 allows claims on Multilateral Development Banks (MDBs) to be risk weighted at 0%. The paragraph also provides the list of MDBs eligible for a 0% risk weight and prescribes eligibility criteria for such MDBs. The BCB has included two additional entities in the list of institutions to be risk weighted at 0%: the National Bank for the Economic and Social Development (BNDES) and contributions advances to the Credit Guarantee Fund (CGF). These entities are not MDBs. CGF is a private entity established to manage a protection mechanism for financial

	institution creditors in the case of default. The advances made by financial institutions to the CGF attract a risk weight of 0% while other exposures to the CGM are risk weighted at 50%. BNDES is a public development bank and fully owned by the sovereign. Any exposure to BNDES is risk weighted at 0%. BNDES does not benefit from an explicit government guarantee. Under the Basel framework, and in the absence of an explicit guarantee, claims on CGF and BNDES should be treated in the same manner as claims on corporates and banks respectively. CGF is not rated and should therefore receive a weighting of 100% and BNDES is rated BBB and should receive a risk weighting of 50%. The current exposures of the six RCAP banks to BNDES and CGF are BRL 0.16 billion and BRL 0.46 billion and therefore not material. Put together, claims on such exposures were found to be negligible compared to total assets of BRL 3458.36 billion. The Assessment Team considered that such exposures are unlikely to grow to a material level in the next three years.
Materiality	Not material
Basel paragraph no	Basel II, paragraphs 60–64
Reference in the domestic regulation	Circular 3644/13 Art.21, Art.23 and Art.25
Findings	Under Basel paragraphs 60–63, claims on banks are to be risk weighted, at national discretion, in accordance with either Option 1 or Option 2. Under Option 1, all banks incorporated in a given country will be assigned a risk weight one category less favourable than that assigned to claims on the sovereign of that country with a cap of 100%. Option 2 assigns risk weightings according to the external credit assessment of the bank itself. The claims on unrated exposure under Option 1 and Option 2 are assigned the risk weights of 100% and 50%, respectively. Basel Paragraph 64 provides discretion to the national supervisor to apply a risk weight that is one category less favourable than that assigned to claims on the sovereign (as per the discretion used under Basel paragraph 54), subject to a floor of 20%, to claims on banks of an original maturity of three months or less denominated and funded in domestic currency. The BCB does not depend on rating assessment from ECAIs. Instead, they apply a flat risk weighting of 50% for exposures to all banks with an original maturity of more than three months. For claims on banks of an original maturity of three months or less and denominated and funded in domestic currency, the BCB uses the national discretion under Basel paragraph 64 and assigns a risk weight of 20% . If compared to option 2, the Basel framework sets risk weights for claims on banks with an original maturity of more than three months of between 20% and 150% depending on the external rating, and 50% for unrated exposures. Exposures to banks rated below BBB– will benefit from a 50% risk weighting under the Brazilian approach, which would otherwise attract higher risk weights under the Basel approach (BB+ to B– at 100% and below B– at 150%). It also means that exposures to banks currently rated higher but that are subsequently downgraded to below BBB– would become less prudent than the Basel risk weights in the event of an economic downturn. The finding is not currently material as claims on banks with an original maturity of more than three months currently constitute 24.6% of total claims on banks, of which around 4.8% of such claims relate to the entities having a current external rating of less than BBB–. However, looking at the rating distribution of claims on banks with an original maturity of more than three months, the majority of claims on banks are either rated A or below (A– 18%; BBB– 35%) or unrated (37%), and will attract the risk weight of 50% under Option 2 of the Basel Paragraphs. In the case of any downgrade of these banks, say by one notch with 10% probability in next three years, the negative impact on capital ratios would be 2 basis points. This coupled with the fact that the total holding of claims on domestic banks with an original maturity of more than three months, as a percentage of total assets are currently at 2.84% and has the potential to grow further, this makes the deviation potentially material.
Materiality	Currently not material. However, the Assessment Team has considered this deviation as potentially material.

Basel paragraph no	Basel II, paragraphs 66–68
Reference in the domestic regulation	Circular 3644/13 Art.24 and Art.25 (as amended by Circular 3679)
Findings	Basel Paragraph 66 requires that claims on corporates be risk weighted based on the external credit assessment of the corporates. While Paragraph 67 provides the option of increasing the risk weight of unrated claims from 100% to a higher risk weight as per the default experience in the particular jurisdiction. There is also a national discretion to apply a flat risk weight of 100% for all corporate claims under Basel paragraph 68. The Brazilian regulations require exposures to corporates to be risk weighted at 100%, except when the counterparty has more than BRL 100 million in loans to the financial system and the total exposure to the counterparty is less than 10% of the regulatory capital. Claims on such large legal entities are assigned a preferential risk weight of 85%. The data provided by the BCB show that the exposures to such large corporates in the six RCAP banks are currently significant and constitute an average of 34% (ranging from 17% to 45%) of their total corporate exposure. Such claims on large corporates as a percentage of total assets are 13.8%. Although the deviation was found not currently material, the average potential negative impact on capital ratios is assessed to be 6 basis points and 12 basis points in a scenario of rating downgrades of corporates with 25% and 35% by one level respectively in the risk rating as per the Basel framework over the next three years. As per the present rating distribution of the corporate portfolio of the six RCAP banks, one level downgrade was found to be broadly equivalent to a respective 1.5 and 2 notches downgrade in the case of 25% and 35% downgrade stress scenarios, which are considered plausible under normal stress scenarios.
Materiality	Currently not material. However, the Assessment Team has considered this deviation as potentially material.
Basel paragraph no	Basel II, paragraph 81
Reference in the domestic regulation	Circular 3644/13 Art.19
Findings	Under footnote 32 of Basel paragraph 81, gold bullion held in own custody or on an allotted basis to the extent backed by bullion liabilities can be treated as cash and therefore risk weighted at 0%. In addition, cash items in the process of collection can be risk weighted at 20%. The Brazilian regulations require that investments in financial asset gold and exchange instruments as well as exposures to the underlying asset represented by the financial asset gold and exchange instrument should be assigned a risk weight of 0%. The specific requirements relating to “own custody” or “to the extent backed by bullion liabilities” are not included in the Brazilian regulations. As regards the risk weighting of cash items in the process of collection, it follows the risk weight of the counterparty, generally at 100%. The current exposure to gold as a financial asset is zero in the Brazilian financial system and there is no reason to believe that it is likely to increase significantly in the next three years. Further, the BCB regulations on risk weighting of cash items in the process of collection seem to be more conservative.
Materiality	Not material
Basel paragraph no	Basel II, paragraph 89 and Annex 3
Reference in the domestic regulation	No reference in domestic regulations
Findings	There is no requirement for capital treatment for failed trades and non-DVP transaction items in the Brazilian regulations. As per the data provided by the BCB, the total of failed DVP transactions stands at BRL 9.5 million, which represented 0.00016% of total exposures; while total non-DVP transactions amounted to BRL 272.4 million, representing 0.00471% of total exposures. Thus, exposures to failed DVP and non-DVP transactions are currently not

	material. The Assessment Team sees no reason to believe that failed transactions will increase significantly in the next three years.
Materiality	Not material
Basel paragraph no	Basel II, paragraph 145
Reference in the domestic regulation	BCB Circular 3644/13 Art.36
Findings	Basel paragraph 145 provides the details of collateral instruments that are eligible for recognition in the simple approach. The simple approach is followed under the Brazilian regulations. As per their regulations, agreements for the clearing and settlement of obligations in the scope of the National Financial system are included under eligible financial collateral although they do not fall under any of the six categories defined in the Basel paragraph. As per the data provided by the BCB, the netting agreements in Brazil are immaterial, covering only 0.17% of the entire financial system exposures.
Materiality	Currently not material. However, the Assessment Team has considered this deviation as potentially material.
Basel paragraph no	Basel II, paragraphs 182–187
Reference in the domestic regulation	BCB Circular 3644/13 Art.37, Art.38, Art.39; Resolution 2682/99 Art.4
Findings	Basel Paragraph 182 read with Annex 11 requires that collateral must be marked to market or revalued with a minimum frequency of six months. The Brazilian regulations are silent on this issue.
Materiality	Not material
Basel paragraph no	Basel II, paragraphs 207–210
Reference in the domestic regulation	No reference in domestic regulations
Findings	There are no requirements on CRM techniques relating to first-to-default and second-to-default credit derivatives in the Brazilian regulations. As per the data provided by the BCB, the amount of credit derivatives traded in the financial system (bought credit derivatives: BRL 2.2 billion -> 0.05% of total assets; sold credit derivatives: BRL 9.8 billion -> 0.21% of total assets) is presently very limited and thus not material. Looking at the overall trend of the derivative market in Brazil, the deviation is not considered likely to be become material in near future.
Materiality	Not material

2.3.3 Credit risk: Internal Ratings-based Approach

Section grade	Compliant
Summary	There are deviations in the application of haircuts as a function of maturity and credit ratings. In particular, regarding sovereign exposures and listed equities, the current haircuts, although prudent, are not a direct function of maturity and credit ratings. In summary, the current haircuts lack risk-sensitivity, and this is considered an important aspect in credit risk IRB for a follow-up assessment.
Basel paragraph no	Basel II, paragraphs 256-259
Reference in the domestic regulation	Circular 3648/13, Art.4, paragraph 1 and 3; Art.6, Art.11, Art.39 and Art.159 (as amended by Circular 3673).
Findings	The Basel framework allows a bank using the IRB approach to permanently apply the standardised approach for exposures in insignificant business units or asset classes if they are immaterial in terms of size and perceived risk profile, and subject to supervisory approval.

	In Art.11, paragraph 3, of Circular 3648 there is a general disposal covering the Basel requirement that the standardised approach could be used on a permanent basis for exposures in non-significant business units or asset classes if they are immaterial in terms of size and perceived risk profile, and subject to supervisory approval. In addition, the circular allows for the exemption of such items as intragroup exposures, assets deducted from regulatory capital and CCP exposures.
Materiality	Given that no banks are authorised to apply IRB approaches, materiality could not be assessed quantitatively. However, the finding is in line with the provisions in Basel where items such as exposures CCPs and DTAs are assigned a fixed risk weight and hence are not modelled.
Basel paragraph no	Basel II, paragraphs 134, 141, 157, 176, 294 and 296
Reference in the domestic regulation	Circular 3648/13 – Art.89
Findings	According to the Basel framework, the standard supervisory haircuts depend upon the issue rating for debt securities and residual maturity. However, in the Brazilian regulations, the value of standardised haircuts for sovereign bonds is a function of specific haircuts. In particular, for sovereign exposures and listed equities the current haircuts, although prudent, are not a direct function of maturity and credit ratings. Based on the qualitative assessment, the Assessment Team concluded that the haircuts, although prudent for some cases, are not a direct function of maturity and of the issue rating and lacks risk sensitivity.
Materiality	Given that no banks are authorised to apply IRB approaches, the materiality could not be assessed quantitatively. Based on the judgement of the Assessment Team this finding is considered as currently not material but potentially material.

2.3.4 Securitisation framework

Section grade	Compliant
Summary	The size and complexity both of the current securitisation market in Brazil and the likely evolution over the next three years are unlikely to be material. Some aspects of the Brazilian regulations, and some particular characteristics such as the non-reliance on external credit ratings, are at variance with the Basel framework requirements. Instead, the Brazilian regulations apply a combination of the “look through” approach and a risk weighting of 1250%. This compares to the risk weightings in the Basel framework ranging between 20% and 350% depending on the rating and deduction for unrated securitisations or securitisations rated B+ or lower. According to the Brazilian regulations, the “look through” approach is only applied to senior tranches. In addition, the 1250% weighting is applied to all sub-ordinated tranches (either junior or mezzanine) irrespective of the rating. The comparison between the Brazilian regulations and the Basel approach shows that using the look-through approach or applying 1250% (effectively the same as deduction) is more conservative than the risk weightings in the Basel II framework. Some deviations are described below but the aggregate effect was assessed as unlikely to be material, however, with issues for follow-up analysis given the possible size of the securitisation market in the future and the interaction with the non-reliance on external credit ratings. There are no regulations for securitisation exposures regarding possible liquidity facilities and credit enhancements among other aspects (eg ABCP programmes).
Basel paragraph no	Basel II, paragraphs 538–552 (as amended by Basel 2.5)
Reference in the domestic regulation	Circular 3648/13 – Art.115-I, II and XXV
Findings	The Basel framework states that banks’ exposures to a securitisation are hereafter referred to as “securitisation exposures”. Securitisation exposures can include but are not restricted to the following: asset-backed securities, mortgage-backed securities,

	credit enhancements, liquidity facilities, interest rate or currency swaps, credit derivatives and tranched cover as described in paragraph 199. Reserve accounts, such as cash collateral accounts, recorded as an asset by the originating bank must also be treated as securitisation exposures (paragraph 541). Given the complexity of many securitisation transactions, banks are encouraged to consult with their national supervisors when there is uncertainty about whether a particular structured credit position should be considered a re-securitisation exposure. When making such determinations, supervisors will look to the exposure's economic substance. In the Brazilian regulations, examples of exposures that can be included as securitisation and re-securitisation exposures are not defined. In addition, in the Brazilian regulations, the references to the process of consultation by banks when there is uncertainty about whether a particular structured credit position should be considered a re-securitisation exposure and the importance of assessment of the exposure's economic substance are not mentioned.
Materiality	This item does not affect the compliance assessment as the Basel framework allows flexibility.
Basel paragraph no	Basel II, paragraph 565 (as amended by Basel III)
Reference in the domestic regulation	No reference in domestic regulations
Findings	The Basel framework provides six operational criteria concerning the use of external credit assessments to apply in the standardised and IRB approaches of the securitisation framework. In the Brazilian regulations, there is no reliance on external ratings from ECAIs (for both Standardised and IRB approaches); therefore, the six operational criteria are not applied.
Materiality	Given that the Brazilian regulations do not refer to credit ratings, the Basel requirements are considered to be not applicable.
Basel paragraph no	Basel II, paragraphs 577–582 (as amended by Basel 2.5)
Reference in the domestic regulation	Circular 3644/2013 – Art.11
Findings	In the Basel framework, in the case of credit conversion factors for off-balance sheet exposures, banks must determine whether (according to the criteria outlined for eligible liquidity facilities, paragraph 578) an off-balance sheet securitisation exposure qualifies as an "eligible liquidity facility" or an "eligible servicer cash advance facility". All other off-balance sheet securitisation exposures will receive a 100% CCF. In the Brazilian regulations, the different criteria to qualify off-balance sheet securitisation exposures are not covered, namely the following: (i) eligible liquidity facilities; (ii) eligible liquidity facilities available only in the event of market disruption; (iii) treatment of overlapping exposures; and (iv) eligible servicer cash advance facilities.
Materiality	Given that no banks currently use these types of facilities, materiality could not be assessed quantitatively. The team experts judged the finding as unlikely to be material.
Basel paragraph no	Basel II, paragraph 586
Reference in the domestic regulation	Circular 3644/2013 – Art.25 and Art.36 to 39
Findings	In the Basel framework, credit protection provided by the entities listed in paragraph 195 may be recognised. However, SPEs cannot be recognised as eligible guarantors. In the Brazilian regulations, it is not clear that SPEs cannot be recognised as eligible guarantors. Credit protection may be provided by any guarantor. The only exception is where the guarantor presents a lower risk weight than the counterparty. However, the Brazilian regulations mention that, if not specified, the 100% risk weight applies. Thus, indirectly, SPEs are not recognised.

Materiality	Given the size and complexity both of the current securitisation market in Brazil and the likely evolution over the next three years, the team experts judged the finding unlikely to be material but may allow more complex structuring of securitisation arrangements.
Basel paragraph no	Basel II, paragraphs 590–605
Reference in the domestic regulation	No reference in domestic regulations
Findings	In the Basel framework, in the standardised approach and more specifically regarding capital requirement for early amortisation provisions, an originating bank is required to hold capital against all or a portion of the investors' interest (ie against both the drawn and undrawn balances related to the securitised exposures) for some specific situations. There are also some details about the determination of CCFs for both controlled and non-controlled early amortisation features. In the Brazilian regulations, the standardised approach is not clear that the following issues are covered, namely: capital requirement for early amortisation provisions as well as the determination of CCFs for both controlled and non-controlled early amortisation features.
Materiality	Given the reduced size and complexity both of the current and future securitisation market in Brazil, and the likely evolution over the next three years (which is expected to be low due to structural reasons), the team experts judged the finding as not material.
Basel paragraph no	Basel II, paragraphs 611–618 (as amended by Basel 2.5 and Basel III)
Reference in the domestic regulation	Circular 3648/13 – Art.128 and 129
Findings	In the Basel framework, under the Ratings-Based Approach (RBA), the risk-weighted assets are determined by multiplying the amount of the exposure by the appropriate risk weights. The risk weights depend on (i) the external rating grade or an available inferred rating; (ii) whether the credit rating (external or inferred) represents a long-term or a short-term credit rating; (iii) the granularity of the underlying pool; and (iv) the seniority of the position. In the Brazilian regulations, there is no reference that the risk weights depend on (i) the external rating grade or an available inferred rating; and (ii) whether the credit rating (external or inferred) represents a long-term or a short-term credit rating. The RBA is based on internal classification (Art.6: "abordagem baseada em classificação interna" (RBA)).
Materiality	Not applicable because the Brazilian regulation does not rely on external rating grades.
Basel paragraph no	Basel II, paragraphs 619–622
Reference in the domestic regulation	No reference in domestic regulations
Findings	In the Basel framework, under the Internal Assessment Approach (IAA), a bank may use its internal assessments (ie internal ratings) of the credit quality of the securitisation exposures the bank extends to ABCP programmes (eg liquidity facilities and credit enhancements) if the bank's internal assessment process meets certain operational requirements (paragraph 620). Internal assessments of exposures provided to ABCP programmes must be mapped to equivalent external ratings. Those rating equivalents are used to determine the appropriate risk weights under the RBA. In the Brazilian regulations, there is no reliance on external credit ratings and no reference to the IAA. However, in the future, if ABCP were to develop in Brazil, then the finding is potentially material.
Materiality	IAA is not currently offered in Brazil and is therefore assessed as not applicable.

	There are no securitisation exposures extended to ABCP programmes and therefore the finding is assessed as currently not material but considered to be potentially material.

2.3.5 Counterparty credit risk standards

Section grade	Compliant
Summary	Brazil has implemented the current exposure method (CEM) for the treatment of counterparty credit risk. Currently, there is no use of complex derivatives in the Brazilian market, most of the instruments being plain vanilla. Brazil also has a high proportion of central clearing, and for clearing of derivatives, each client must have a segregated account. For clearing member exposures to clients, Brazil has chosen to be more conservative and does not allow the Exposure at Default (EAD) to be multiplied by a scalar of 0.71. This would be a more favourable treatment of cleared trades where a shorter close-out period is allowed by the Basel framework. In order to obtain capital relief, the applicable credit risk standardised approach is applied. In that regard, the BCB regulations allow netting agreements as collateral. This is currently not material, but assessed as potentially material. The Brazilian regulations do not require the valuation of collateral as frequently as the Basel framework. Some minor findings relate to the different definition of qualified central counterparty (QCCP) and to a methodology but no framework for non-qualifying central counterparties (NQCCP). Brazil has no regulations or procedure to ensure that the add-ons are based on effective rather than apparent notional amounts. No regulations on bilateral netting have been introduced since those agreements account for only 0.17 % of the exposures of the whole financial system.
Basel paragraph no	Basel II – Annex 4, paragraph 92(ii)
Reference in the domestic regulation	No reference in domestic regulations
Findings	According to the Basel text, supervisors should ensure that the add-ons (for the CEM) are based on effective rather than apparent notional amounts. Brazil has no regulation or procedure regarding effective notional amounts.
Materiality	Not material
Basel paragraph no	Basel II – Annex 4, paragraph 93 (Basel II 145–146, 182–187), and Annex 11 II: Credit risk mitigation
Reference in the domestic regulation	Arts.36–39 of Circular 3644 Resolution 2682
Findings	Basel paragraph 145 provides the details of collateral instruments that are eligible for recognition in the simple approach. The simple approach is followed under the Brazilian regulations. As per the Brazilian regulations, agreements for the clearing and settlement of obligations in the scope of the National Financial system are included under eligible financial collaterals, although they do not fall under any of the six categories defined in the Basel standards. The data provided show that netting agreements in Brazil are immaterial, covering only 0.17% of the entire financial system exposures. This is currently not material, although assessed as potentially material. Basel Paragraph 182 read with Annex 11 requires that collateral must be marked to market or revalued with a minimum frequency of six months. There are no corresponding Brazilian regulations on this issue.
Materiality	Not material
Basel paragraph no	Basel II – Annex 4, paragraphs 96(i)–96 (vi)
Reference in the domestic	No reference in domestic regulations

regulation	
Findings	For bilateral OTC derivative contracts, the Basel framework allows banks to net transactions subject to novation, calculate the credit equivalents and weight them to the category of counterparty. The BCB has explained that these requirements of the Basel framework have not been implemented because netting agreements in Brazil are immaterial and cover only 0.17% of the exposures of the whole financial system.
Materiality	This should not have a material impact on Brazil because of the limited size of the market. Brazil has a high proportion of central clearing, so the use of and need for bilateral netting is not likely to increase.
Basel paragraph no	Capital requirements for bank exposures to central counterparties – definition of a qualifying central counterparty (QCCP)
Reference in the domestic regulation	Art.20 of Circular 3644
Findings	According to the Basel framework, a QCCP is based and prudentially supervised in a jurisdiction where the regulator has established and publicly indicated that it applies to the CCP, on an ongoing basis, domestic regulations that are consistent with the CPSS-IOSCO principles for financial market infrastructures. Art.20 of Circular 3644 states that a QCCP is authorised by BCB or subject to regulation in accordance with the aforementioned principles. The BCB has explained that the objective of Art.20 is to explicitly state that the Brazilian CCP is a QCCP since it has already been assessed to be one that complies with the QCCP definition in the Basel framework. The regulation in Art.20 is designed to allow for foreign CCPs to be treated as QCCPs, should they meet the criteria.
Materiality	Not material since Brazil has judged that their CCP meets the criteria of a QCCP.
Basel paragraph no	Capital requirements for bank exposures to central counterparties, paragraphs 126–127
Reference in the domestic regulation	Art.3 (VI and VII) 8, 12–15, 25 and 29 (III) of Circular 3644
Findings	The BCB has a methodology to calculate exposures to NQCCPs. However, the methodology is not reflected in the circular, eg there is no explicit framework for NQCCPs. The methodology used by Brazil is, however, more conservative than the Basel requirements, since it applies a 100% risk weight.
Materiality	Not material, since Brazil has no NQCCPs.

2.3.6 Market risk: The Standardised Measurement Method

Section grade	Compliant
Summary	The BCB has developed a standardised approach that is different from the Basel standardised approach. Following the BCB's approach, for exposures in fixed interest rates denominated in local currency, the capital requirements are equal to the sum of a parametric VaR and a parametric SVaR, where coefficients such as volatility, correlation parameters and multiplicative factor are estimated by the BCB. This is done on a daily basis for the VaR, and when necessary for the SVaR. Although the objectives of the Brazilian and the Basel approach are broadly the same, ie to capture market risk correctly, the methodology developed by BCB is significantly different. The BCB developed its approach to be more conservative than the Basel standardised approach, and to make it more relevant for Brazil given the less volatile financial markets. The BCB has then chosen to design a new methodology that is more conservative and more risk-sensitive. It has been modified to incorporate a "stressed VaR" component, which can be considered as a floor so that, even if the volatility of the Brazilian capital markets declines, the capital requirements cannot fall below this floor. The conservativeness of the BCB approach has also been confirmed by numerical computations for several banks and on different periods provided by the

	BCB. The BCB approach to measuring market risk under the standardised approach can then be considered as a conservative adaptation of Basel standards to the specificities of its local market: it should be considered as Compliant with the Basel standards.
Basel paragraph no	Basel II, paragraphs 709(i)–718 (as amended by Basel 2.5)
Reference in the domestic regulation	Circular 3644/2013
Findings	The Brazilian regulation does not use the same Basel terms regarding specific risk. Specific risk is captured through Circular 3.644/2013, which applies to both the trading and banking books of the banks. Please refer to Section 3.3 for an analysis of the Brazilian methodology. Quantitative analysis provided by the BCB (quantification of the impact for six large banks at a given date) shows that this different approach on specific risk does not lead to a material gap.
Materiality	Not material
Basel paragraph no	Basel II, paragraphs 718(i)–718(viii)
Reference in the domestic regulation	Resolution 3464/2007; Circular 3634/2013; Circular 3635/2013; Circular 3636/2013; Circular 3637/2013; Circular 3645/2013; Circular 3498/2010; Circular 3568; Circular 3499/2011
Findings	Basel has developed two possible standardised methods for capturing market risk: the "maturity" approach and the "duration" approach. In the first approach, depending on their maturity, positions are projected into buckets associated with different risk weights. The capital requirements are then deduced from the sum of these risk weights, but taking into account partial offsetting to capture hedging and diversification effects. Under the second approach, the initial bucketing is made using sensitivities, and a different aggregation framework is used. For exposures in fixed interest rates denominated in the local currency, the BCB has developed a different standardised approach where the capital requirements are equal to the sum of a parametric VaR and a parametric SVaR, where coefficients such as volatility, correlation parameters and multiplicative factor are estimated by the BCB. This is done on a daily basis for the VaR, and when necessary for the SVaR. Although the objective of the Brazilian and the Basel approaches might be the same, ie to capture market risk correctly, the methodology developed by the BCB is significantly different. The main reason given by the BCB for developing their own approach is conservatism: the Basel standardised approach was considered by the BCB to be relevant for countries with less volatile financial markets than Brazil. The BCB has then chosen to design a new methodology that is more conservative and more risk-sensitive. It has been modified to incorporate a "stressed VaR" component, which can be considered as a floor: even if the volatility of the Brazilian capital markets decline, the capital requirements cannot fall below this quantity. Simulations provided by BCB on six banks and on different dates confirmed that the Brazilian approach is prudent.
Materiality	The Brazilian approach to capturing interest rate risk should be considered as a conservative and risk-sensitive adaptation of Basel standards to the volatility of the local capital markets.
Basel paragraph no	Basel II, paragraphs 718(xl)–718(xlii)
Reference in the domestic regulation	Resolution 4193/2013; Circular 3641/2013
Findings	Under the Basel framework, an aggregation formula is used to measure an overall net open position; the capital charge will then be equal to 8% of this amount. BCB introduced a different methodology for measuring the foreign exchange risk in portfolios of foreign currency positions or gold. This methodology in particular

	differentiates exposures in Brazil and exposures abroad in the same currency. The Brazilian approach leads to more conservative figures.
Materiality	The Brazilian approach to capturing interest rate risk should be considered as a conservative and risk-sensitive adaptation of Basel standards to the volatility of the local capital markets.

2.3.7 Market risk: Internal Models Approach

Section grade	Compliant[14]
Summary	Brazilian banks opting for the Internal Models Approach are required under the Brazilian regulations to develop a VaR but not an Incremental Risk Charge (IRC) model. So for Brazilian banks using models, they will develop a VaR model but use the standardised approach to capture the specific risk of their trading book. This approach, which is different from the Basel approach, leads to more conservative capital requirements than the Basel approach consisting of computing VaR and SVaR excluding specific risk, and applying the standardised approach for specific risk. But, due to the size of sovereign bond positions in the trading books of Brazilian banks, it could lead to lower capital requirements than having an IRC. The Assessment Team understood that a large part of the sovereign bonds booked in the trading book may not reflect a strict trading intent, but rather they may be held as a more medium- or long-term investment or for liquidity management purposes. Excluding these positions from the trading book would reduce the size of an additional capital requirement resulting from an IRC computation, but also their capital requirements. Brazil has not implemented regulations for modelling the risk of correlation trading – comprehensive risk measure (CRM). The Assessment Team considered the internal models approach to be Compliant.
Basel paragraph no	Basel II, paragraphs 718(lxxxvii)–718(xciii) (as amended by Basel 2.5)
Reference in the domestic regulation	Circular 3646/2013
Findings	The Basel Committee introduced in 2009 an “incremental risk charge” (IRC) for banks using the internal model approach to capture specific risk. Three possibilities are then given for banks to capitalise market risk : 1. Apply the standardised framework. 2. Use a VaR, a SVaR, both including specific risk, and develop an IRC. 3. Use a VaR, a SVaR, both excluding specific risk, and use the standardised approach to capitalise specific risk. No ”incremental risk charge” has been introduced in the Brazilian regulation: banks using a VaR (which is supposed, under the Brazilian regulation, to capture specific risk) will systematically apply the same standardised approach to capturing the specific risk of the banking book to the trading book and will not develop an IRC framework; Such an approach could be considered as different to the Basel text, and could lead to an underestimation of the capital requirements: • For long credit positions, the BCB standardised approach does not capture all default and migration risks that should be captured in an IRC framework (for eg

[14] The Assessment Team recommends follow-up work on this item as set out in Annex 7.

	Brazilian sovereigns have a 0% weight). • For short credit (or long protection) positions, the BCB approach is less conservative as it only captures the default risk and does not capture the risk of a rating upgrade. The figures are more conservative than the capital requirements that would result from excluding specific risk from the VaR and capitalising it using the standardised approach.
Materiality	The Brazilian framework should lead to more conservative figures than the third Basel-compliant approach quoted above, but to less conservative figures than the second one. In at least two cases, it leads to lower capital requirements than developing an IRC: • For short credit (or long protection) positions, the BCB approach only captures the default risk and does not capture the risk of a rating upgrade. • For long credit positions, the BCB standardised approach does not capture all default and migration risks that should be captured in an IRC framework (for, eg, Brazilian sovereigns that have a 0% weight). Due to the limited size of the credit derivatives and corporate repo markets, short credit positions should not be material. But due to large Brazilian sovereign positions in the trading books of Brazilian large banks, IRC capital requirements would be significantly higher than the current ones. After discussions with the BCB, the Assessment Team understood that a large part of the sovereign bonds booked in the trading book did not relate to a strict trading intent, but more to a medium- or long-term investment or to liquidity management. By keeping these positions in the trading book instead of moving them into the banking book, the BCB increased the corresponding capital requirements: if they were moved to the banking book, no VaR and SVaR capital requirements would be needed. But excluding these positions from the trading book should reduce the size of an additional capital requirements resulting from an IRC computation. Considering all these elements, the Assessment Team considers that the capital requirements resulting from the Brazilian framework are Compliant with the Basel standards. However, the team observed that the application of the regulations defining the boundary between the trading book and banking book could be strengthened. If the BCB then considers that the capital requirements resulting from this strict application could be underestimated due to the specificities of the Brazilian market, the BCB should define new additional capital requirements.
Basel paragraph no	Basel II, paragraphs 718(xcv)–718(xcviii) (as amended by Basel 2.5)
Reference in the domestic regulation	No reference in domestic regulations
Findings	BCBS introduced in 2009 a “Comprehensive Risk Measure” (CRM) capital charge that applies to credit correlation trading portfolios under the internal model approach. CRM has not been introduced in the Brazilian regulation: no particular capital requirements have been defined for credit correlation trading portfolios under the internal model approach. Regarding this point, the Brazilian regulations could be considered as not consistent with the Basel standards.
Materiality	Due to the fact that, as explained by the BCB, the Brazilian banks do not have any correlation trading portfolios, and that several constraints in the Brazilian regulations limit the trading of credit derivatives, this finding should be considered as not material.

2.3.8 Operational risk: Basic Indicator Approach and the Standardised Approach

Section grade	Compliant
Summary	Brazil uses the Basic Indicator Approach (BIA), the Alternative Standardised Approach (ASA) and the Advanced Measurement Approaches for calculating capital requirements for operational risk. The BCB does not offer banks the option of the standardised approach (TSA). The BCB explained that the main reason for making only the ASA available to Brazilian banks relates to anomalous Brazilian interest rate spreads that make the ASA's asset-based indicator a much better proxy for operational risk in the Brazilian environment than the gross income under the TSA. All Brazilian banks in the RCAP sample apply the ASA. Data provided by the BCB indicate that, if these banks were to apply the simpler operational risk approach available in Brazil (ie the BIA), their capital requirements will, on aggregate, double. So, considering the relevance of the ASA for the largest Brazilian banks, the team paid particular attention to assessing the consistency of the Basel and Brazilian ASA frameworks.
Basel paragraph no	Basel II, paragraph 645
Reference in the domestic regulation	Circular 3640/2013 – Art.1 (as amended by Circular 3675) Circular 3647/2013 – Arts.1 to 3 (as amended by Circular 3676) Resolution 3380/2006
Findings	Basel II paragraph 645 outlines three methods for calculating the operational risk capital charges as follows: (i) the Basic Indicator Approach (BIA); (ii) the Standardised Approach (TSA); and (iii) the Advanced Measurement Approaches (AMA). Basel footnote 104 says that, based on national supervisory discretion, a supervisor can choose to allow a bank to use the Alternative Standardised Approach (ASA) provided the bank is able to satisfy its supervisor that this alternative approach provides an improved basis by, for example, avoiding double-counting of risks. In Brazil, the available operational risk methodologies for calculating capital requirements for operational risk are the BIA, the ASA and the AMA. The BCB explained that the main reason for allowing banks to use the ASA as a mainstream approach is because the ASA's asset-based proxy indicator with a fixed m-factor (3.5%) normalises anomalous Brazilian interest rate spreads charged in the retail and commercial business lines with those applicable in the rest of the world. This normalisation allows the ASA's asset-based indicator to be a much better proxy for operational risk exposures in the Brazilian environment than the TSA's gross income.
Materiality	The Assessment Team recommends that the BCBS continues to monitor the implementation of the ASA in all BCBS member countries to identify any potential level playing field issues arising from different level of capital requirements resulting from different ASA requirements.
Basel paragraph no	Basel II, paragraphs 646–647
Reference in the domestic regulation	Circular 3640/2013 – Art.1 Circular 3647/2013 – Arts.1 to 3 Resolution 3380/2006
Findings	Basel paragraph 646 says that banks are encouraged to move along the spectrum of available approaches as they develop more sophisticated operational risk measurement systems and practices. The Brazilian regulations do not provide explicit encouragement in their domestic regulations for banks to move along the spectrum of approaches. There is no equivalent reference in the Brazilian regulations to Basel paragraph 647 (internationally active banks and banks with significant operational risk exposures are expected to use an approach that is more sophisticated than the BIA appropriate for the risk profile of the institution). Also, no equivalent reference in the Brazilian regulations was found regarding the Basel requirement that supervisors will review the capital requirement produced by

	the operational risk approach used by a bank, especially in relation to a firm's peers (Basel footnote 98). The BCB explained that this was done as part of its normal supervisory practice but it seems that this practice has not been formalised in any supervisory manual.
Materiality	Not material

2.3.9 Operational risk: Advanced Measurement Approaches

Section grade	Compliant
Summary	The AMA was made available to Brazilian banks as of 1 October 2013. Currently, no Brazilian bank has adopted or intends to adopt this framework. During its assessment, the team found the local AMA to be Compliant with the Basel standards.
Basel paragraph no	Basel II, paragraph 666
Reference in the domestic regulation	Circular 3647/13, Arts. 42 to 47, 66 to 71 and 88
Findings	Paragraph 666(f) of the Basel II framework requires that validation of the operational risk measurement system in addition to the internal audit must be carried out by external auditors and/or supervisors. In this context, banks must ensure that data flows and processes are transparent and accessible and that auditors and supervisors have easy access to the system's specifications and parameters. For the purposes of the validation of the AMA, the BCB largely relies on banks' internal audit functions and does not involve external auditors. In addition, requirements related to access to people, documents and systems of the bank by external parties including supervisors only refer to the analysis process of the AMA application process but do not have to be met on an ongoing basis by banks.
Materiality	Not material
Basel paragraph no	Basel II, paragraphs 677-679
Reference in the domestic regulation	Circular 3647/13, Arts. 61 to 63
Findings	According to Basel II, an AMA bank is allowed to recognise the risk-mitigating impact of insurance in the measures of operational risk used for regulatory minimum capital requirements. The recognition of insurance mitigation is limited to 20% of the total operational risk capital charge. Under the Basel framework, a bank's ability to take advantage of such risk mitigation will depend on compliance with specific criteria which includes the requirement that the insurance provider has a minimum claims-paying ability rating of A (or equivalent). Considering that the BCB does not rely on external ratings in its regulation, its regulations state that the above-mentioned insurance provider must be financially sound, solvent and have a high credit quality.
Materiality	Potentially material

2.3.10 Capital buffers (conservation and countercyclical)

Section grade	Largely Compliant
Summary	Brazil has incorporated both the capital conservation and countercyclical capital buffers in its prudential framework. The levels of additional bank capital required by these buffers are aligned with the Basel standards. When assessing the local implementation of the capital conservation buffer, the

	team found deviations with respect to the Basel requirements for banks to avoid operating within the buffer range for competitive reasons and to apply the restrictions on discretionary bonus payments to their staff (and not only to their board and management as is the case in Brazil) when banks operate within the conservation buffer range. With respect to the latter, the BCB explained that any restrictions on banks' staff compensation would need to be aligned with the broader requirements of domestic labour laws and the public sector framework. The capital conservation buffer framework imposes distribution constraints on banks when their capital levels fall within the capital conservation buffer range. These constraints relate to distributions of earnings. Although the Brazilian corporate law definition of earnings is broad enough to encompass the Basel concept, the local regulations lack the prudential calculation details specified in the Basel framework Regarding (i) the sequencing for calculating earnings (Basel defines earnings as distributable profits calculated prior to the deduction of elements subject to the restriction on distributions); and (ii) the treatment of tax (Basel states that earnings are calculated after the tax which would have been reported had none of the distributable items been paid. As such, any tax impact of making such distributions is reversed out). Regarding the countercyclical capital buffer, there are key elements associated with the functioning of this buffer that are currently not included in the local regulations (eg the activation of the countercyclical buffer; reduction of the buffer; and the treatment of cross-jurisdictional exposures). The BCB explained that it is in the process of developing a technical note on the functioning of the countercyclical capital buffer in Brazil and that the missing requirements will be included in that technical note. The grading of this section reflects the domestic treatment of the capital conservation buffer and the fact that the local countercyclical capital buffer regulations are currently incomplete. The assessment of the latter area has taken into account the commitment of the BCB to issue a complementary technical note before the countercyclical capital buffer enters into force in 2016 as per the Basel III timeline (there is no Basel deadline on the timing to issue these regulations beforehand). Nonetheless, the team considers that a follow-up assessment on the countercyclical capital buffer should take place in due course.
Basel paragraph no	Basel III, paragraphs 130–131
Reference in the domestic regulation	Law 4,595 (Brazilian Banking Law), Art.10, X, f) Law 6,404 (Brazilian Corporate Law), Arts.5 and 6 Res. 4193/13 Arts.8 and 9
Findings	Resolution 4193/13 does not specify the treatment that applies to the repurchase of own shares and to the reduction of equity when a bank enters the capital conservation buffer. The BCB explained that this was not specified considering that banks are not allowed to repurchase their own shares or reduce their equity when their capital levels fall into the conservation capital range.
Materiality	N/A
Basel paragraph no	Basel III, paragraphs 132(a) and 132(b)
Reference in the domestic regulation	Law 6,404 (Brazilian Corporate Law), Art.189 Res. 4193/13 Art.9
Findings	The capital conservation buffer framework imposes distribution constraints on banks when their capital levels fall within the conservation's buffer range. The constraints relate to distributions of earnings. Basel III defines earnings as distributable profits calculated *prior* to the deduction of elements subject to the restriction on distributions. Moreover, the Basel text explains that earnings should be calculated after the tax which would have been reported had none of the distributable items been paid. As such, any tax impact of making such distributions should be reversed out. Although the Brazilian corporate law definition of earnings is broad enough to encompass the Basel concept, the BCB regulations lack the above details specified in the Basel framework. Another finding relates to the Basel requirement to restrict discretionary bonus

	payments to staff when a bank falls within the conservation buffer range. The BCB regulations contemplate restrictions on discretionary payments to bank management and board members. These restrictions are not extended to other staff. The BCB indicated that other bank staff members are not subject to the restrictions on discretionary bonus payments contemplated in the Basel standards due to local labour laws which exclude this possibility.
Materiality	The lack of detail on the prudential calculation of earnings could be meaningful considering that this is the basis under which all Basel capital buffers operate. The finding on the application of the discretionary bonus payments to staff (other than board members and management) is relevant from a level-playing field perspective and could potentially be material in stress situations when banks may operate within the buffer.
Basel paragraph no	Basel III, paragraph 132(d)
Reference in the domestic regulation	Res. 4019/2011 – Art.2 and Art.3
Findings	The Brazilian regulations do not include the Basel requirement for banks in normal times to not operate within the buffer range for competitive reasons.
Materiality	Not material
Basel paragraph no	Basel III, paragraphs 139–140
Reference in the domestic regulation	Res. 4193/13 Art.8
Findings	Domestic regulations do not contain a provision equivalent to paragraph 139 that requires the relevant national authority to consider putting in place a countercyclical buffer when it judges a period of excess credit growth to be leading to the build-up of system-wide risk.
Materiality	N/A
Basel paragraph no	Basel III, paragraph 141
Reference in the domestic regulation	Res. 4193/13 Art.8
Findings	The Basel reference that allows the national authority to reduce the buffer immediately was missing in the domestic regulations.
Materiality	N/A
Basel paragraph no	Basel III, paragraphs 142–145
Reference in the domestic regulation	Res. 4193/2013 - Art.8 Res. 4019/2011 - Art.2 and Art.3
Findings	The Brazilian regulations do not indicate how to deal with cross-jurisdictional exposures.
Materiality	N/A

2.4 Pillar 2: Supervisory review process

Section grade	Largely Compliant
Summary	The Pillar 2 regulations have been in place in Brazil from June 2011. The Pillar 2 regulations are applied in a proportionate way. Banks are required to develop an Internal Capital Adequacy Assessment Process (ICAAP) if they satisfy any of the three conditions: • Banks with total assets of over BRL 100 billion. • Banks that are part of a financial conglomerate with total assets of more than BRL 100 billion and comprising at least one multiple, commercial, investment, development, exchange or savings bank.

	• Banks authorised to use internal models for Pillar 1 purposes. The above conditions mean that 10 banks in Brazil are required to develop and submit an ICAAP document to the BCB for review. The BCB's first review is currently under way of ICAAPs for the 10 banks based on June 2013 data. A follow-up exercise will begin in April 2014, based on December 2013 data. The Basel II framework on the second pillar details the requirements relating to non-contractual (implicit) support provided to securitisation transactions and requires that supervisors should take appropriate supervisory action that may include, but not be limited to, prohibiting the bank from any capital relief on securitised assets. The Brazilian regulations are silent on the issue of implicit support to securitisation transactions, except under the IRB framework, which is only relevant for IRB banks. However, no banks are approved to use the IRB. The securitisation market in Brazil is still at a nascent stage and thus the deviation is not currently material. The Assessment Team, however, considers that this issue could become potentially material as the securitisation market develops in Brazil. On compensation practices, the Basel II enhancements stipulate certain specific requirements, namely that firms must disclose clear, comprehensive and timely information about their compensation practices to facilitate constructive engagement by all stakeholders, including, in particular, shareholders. In addition, the board of directors must monitor and review the compensation system to ensure that the system includes adequate controls and operates as intended. One of the key board responsibilities is to ensure that the mix of cash, equity and other forms of compensation is aligned to the bank's interests and varies according to the employee's position and role. Owing to security concerns, however, Brazilian regulations require no public disclosure on compensation, nor do they specify that the compensation mix must be consistent with risk alignment. On the issue of monitoring and reviewing the compensation system, the relevant tasks are carried out by a compensation committee in the case of large banks' boards of directors and council; however, there is no similar mechanism for bank staff. Smaller banks are exempt from this requirement and thus there is no system for monitoring and reviewing the compensation system for staff as well as that for the board of directors and council to ensure that the system includes adequate controls and operates as intended. The Assessment Team considers these deviations as potentially material and assessed the grade of this component as Largely Compliant.
Basel paragraph no	Basel II, paragraphs 790–794
Reference in the domestic regulation	The BCB Resolution 3533/08 Art.5, Resolution 4019/11 Art.2 to Art.4 and Circular 3648/13 Art.120
Findings	The Basel paragraphs 790–794 detail the requirements relating to non-contractual (implicit) support provided to securitisation transactions and require that supervisors should take appropriate supervisory action that may include, but not be limited to, prohibiting the bank from any capital relief on securitised assets. The Basel II (enhancements) guidelines paragraphs 47–57 re-emphasise the concerns on the risk arising from the potential provision of implicit support and prescribes that, as it is not captured ex ante under Pillar 1, it must be considered as part of the Pillar 2 process. The Brazilian regulations are silent on the issue of implicit support to securitisation transactions, except under the IRB framework, which is only relevant for IRB banks. No banks are approved to use IRB.
Materiality	The securitisation market in Brazil is still at a nascent stage and thus the deviation is not currently material. The Assessment Team, however, considers this could become potentially material as the securitisation market develops.
Basel paragraph no	Enhancements to the Basel II framework, paragraphs 84–85, and paragraph 94
Reference in the domestic regulation	No reference in domestic regulations
Findings	The Basel II (enhancements) guidelines paragraphs require that, for a broad and deep risk management culture to develop and be maintained over time, firms must disclose clear, comprehensive and timely information about their compensation practices to

	facilitate constructive engagement by all stakeholders, including, in particular, shareholders. The BCB explained that, owing to security concerns, the Brazilian guidelines do not require any public disclosure.
Materiality	The Assessment Team considers this deviation as potentially material from a level playing field perspective.
Basel paragraph no	Enhancements to the Basel II framework, paragraph 87
Reference in the domestic regulation	Resolution 3921/10 Art.14
Findings	As per the Basel II (enhancements) guidelines, the board of directors must monitor and review the compensation system to ensure that the system includes adequate controls and operates as intended. The practical operation of the system should be regularly reviewed to ensure compliance with policies and procedures. Compensation outcomes, risk measurements, and risk outcomes should be regularly reviewed for consistency with intentions. As per the Brazilian regulations, the relevant tasks are carried out by a compensation committee in the case of large banks for the board of directors and council; however, there is no similar mechanism for staff. Smaller banks are exempted from the requirement and thus there is no system to monitor and review the compensation system for staff as well as board of directors and council, to ensure that the system includes adequate controls and operates as intended.
Materiality	The Assessment Team considers this deviation as potentially material from a level playing field perspective.
Basel paragraph no	Enhancements to the Basel II framework, paragraphs 89–93
Reference in the domestic regulation	Resolution 3921/2010 Art.6 and 7
Findings	In terms of the Basel Standards, the mix of cash, equity and other forms of compensation must be consistent with risk alignment. The mix will vary depending on the employee's position and role. The firm should be able to explain the rationale for its mix. The Brazilian regulations require that at least 50% of the variable compensation must be paid in shares or share-based instruments, compatible with the long-term value creation and the risk time horizon; while at least 40% of the variable compensation must be deferred for future payment, rising according to the level of responsibility of the manager. However, there was no requirement on compensation mix to be consistent with risk alignment.
Materiality	Not material

2.5 Pillar 3: Market discipline

Section grade	Compliant
Summary	In general, the requirements in Pillar 3 have been implemented with a couple of exceptions. Regarding the securitisation part (Table 9), the Brazilian regulations are less prescriptive than the Basel requirements. The BCB explained that this was due to the fact that the Brazilian securitisation market is currently not significant, and hence the Assessment Team considered the finding to be not material. Circular 3477 will be revoked on 1 July 2014 and replaced by Circular 3678, which was issued on 31 October 2013. Thus, the Assessment Team has decided to only take the new circular into consideration. The new circular contains the same regulations as Circular 3477 and some additions. The remuneration policy has not been implemented in Brazil according to the BCB, due to security concerns. The disclosure requirements for the definition of capital under Basel III will enter into force in Brazil on 30 June 2014, thus becoming effective in financial statements as of the same date.

Basel paragraph no	Basel II, paragraph 812
Reference in the domestic regulation	Circular 3648 Art.163
Findings	According to the Basel framework, where disclosure, ie transparency, is a qualifying criterion under Pillar 1 to obtain lower risk weightings and/or to apply specific methodologies, there would be a direct sanction in the sense that a bank would not be allowed to apply the lower weighting or the specific methodology. Disclosure is a qualifying criterion for using AMA and internal models for market risk. For using IRB, the Brazilian regulations regarding transparency refer to transparency towards the BCB and not the public as the Basel framework requires.
Materiality	Not material. In practice, the BCB requires transparency towards the public.
Basel paragraph no	Basel II, Table 4
Reference in the domestic regulation	No reference in domestic regulations
Findings	BCB has no regulations on quantitative requirements regarding exposure amounts for each portfolio subject to the standardised, foundation IRB and advanced IRB approaches.
Materiality	Not material
Basel paragraph no	Basel II, Table 8
Reference in the domestic regulation	Circular 3678 Art.10
Findings	The BCB has no general regulations on discussion of the methodology for assigning credit capital. They require banks to calculate their economic capital under the ICAAP procedure.
Materiality	Not material
Basel paragraph no	Basel II, Table 9
Reference in the domestic regulation	Circular 3678 Art.12
Findings	Because of the small size of the Brazilian securitisation market (see findings on securitisation) the requirements on securitisation disclosures are less prescriptive than the Basel framework.
Materiality	Not material
Basel paragraph no	Pillar 3 disclosure requirements for remuneration
Reference in the domestic regulation	No reference in domestic regulations
Findings	The Basel standards on remuneration have not been implemented in Brazil due to security concerns.
Materiality	Not material. The lack of information might have an impact on transparency but not on financial stability.
Basel paragraph no	Composition of capital disclosure requirements, paragraph 5
Reference in the domestic regulation	Circular 3678 Art.3
Findings	In paragraph 5, the Basel capital disclosure standards require banks to disclose the reconsolidation between their financial statements and their regulatory capital with the same frequency as the publication of the financial statements, whether these are audited or not. However, in paragraph 91, the Basel III text itself only requires the disclosure of this reconciliation to audited financial statements. In the case of Brazil, the BCB explained that audited financial statements of banks are published on a semi-annual basis, while two banks also publish unaudited financial statements on a quarterly basis. Based on paragraph 91 of the Basel III standards, the

	BCB only requires the disclosure of the reconciliation to audited financial statements on a semi-annual basis. Given that the inconsistency regarding the frequency of disclosure rests in the Basel standards themselves, the Assessment Team regards the frequency of the disclosure to be in line with the Basel provisions. Paragraph 5 of the disclosure regulations also requires banks to disclose their capital position based on these regulations with respect to any balance sheet on or after 30 June 2013. The Basel III regulations in Brazil only apply from 1 October 2013 onwards. The disclosure requirements in Brazil will enter into force on 30 June 2014, thus becoming effective in financial statements as of the same date.
Materiality	Although the first application of the disclosure requirements for definition of capital is delayed by one year compared to the international schedule, the team considers this finding as not material, as by its nature it is a transitional issue and Brazilian banks will only miss one disclosure date on which the new requirements will not apply.

Annexes

Annex 1: RCAP Assessment Team and Review Team

Team Leader:

Mr Tokio Morita	Japanese Financial Services Agency

Team Members:

Mr Ajay Kumar Choudhary	Reserve Bank of India
Mr Juan Carlos Crisanto	Financial Stability Institute
Mr Samuel Da Rocha Lopes	European Banking Authority
Mr Philippe Durand	Bank of France (ACPR)
Ms Loredana Sinko	Sveriges Riksbank
Mr Edgar Weirauch	Deutsche Bundesbank

Supporting Members:

Ms Ruth Doubleday	Basel Committee Secretariat
Mr Manabu Kishimoto	Japanese Financial Services Agency

Review Team Members: [15]

Mr William Coen	Deputy Secretary General, Basel Committee Secretariat
Mr Sungwoo Kim	SIG member, Korea (FSS)
Mr Paul-Marie Majerus	SIG member, Luxembourg (CSSF)
Mr Alexander Zhdanov	SIG member, Central Bank of the Russian Federation

[15] The Review Team is separate from the RCAP Assessment Team, and provides an additional level of quality assurance for the report's findings and conclusions.

Annex 2: Implementation of the capital standards under the Basel framework as of end-October 2013

Overview of adoption of capital standards — Table 4

Basel III Regulation	Date of issuance by BCBS	Transposed into Brazilian regulations	Date of issuance in Brazil	Status
Basel II				
Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework – Comprehensive Version	June 2006	Standardised approaches in 2007. IRB regulations published on 8 March 2012. Market risk valuation framework published on 31 October 2013.	Standardised approaches from 2007. IRB from December 2012. Market risk valuation framework from 1 July 2014.	4
Basel 2.5				
Enhancements to the Basel Framework	July 2009		1 January 2012	4
Guidelines for computing capital for incremental risk in the trading book	July 2009			1
Revisions to the Basel II market risk framework	July 2009	Stressed VaR implemented. Market risk valuation regulations published on 31 October 2013.	1 January 2012 Market risk valuation framework applies from 1 July 2014.	4
Basel III				
Basel III: A global regulatory framework for more resilient banks and banking systems –revised version	June 2011 (Consolidated version)	Final regulations published on 1 & 4 March 2013 and came into force on 1 October 2013. Additional regulations issued on 31 October and came into force from 1 November and from January 2014.	1 October 2013	4
Pillar 3 disclosure requirements for remuneration	July 2011			1
Treatment of trade finance under the Basel capital framework	October 2011	Final regulations published on 1 & 4 March 2013 and came into force on 1 October 2013.	1 October 2013	4
Composition of capital disclosure requirements	June 2012	Final regulations published on 31 October 2013 and come into force on 30 June 2014	30 June 2014	3

Capital requirements for bank exposures to central counterparties	July 2012	Final regulations published on 1 & 4 March 2013 and came into force on 1 October 2013.	1 October 2013	4
Regulatory treatment of valuation adjustments to derivative liabilities	July 2012	Regulations published on 31 October and come into force on 1 July 2014.	1 July 2014	3

Number and colour code: 1 = draft regulation not published; 2 = draft regulation published; 3 = final rule published; 4 = final rule in force. For rules which are due for implementation as on 30 June 2012, the following colour code is used: Green = implementation completed; Yellow = implementation in process; Red = no implementation.

Annex 3: List of capital standards under the Basel framework used for the assessment

(i) International Convergence of Capital Measurement and Capital Standards: A Revised Framework (Basel II), June 2006

(ii) Enhancements to the Basel II framework, July 2009

(iii) Guidelines for computing capital for incremental risk in the trading book, July 2009

(iv) "Basel Committee issues final elements of the reforms to raise the quality of regulatory capital" Basel Committee press release, 13 January 2011

(v) Revisions to the Basel II market risk framework: Updated as of 31 December 2010, February 2011

(vi) Basel III: A global regulatory framework for more resilient banks and banking systems, December 2010 (revised June 2011)

(vii) Pillar 3 disclosure requirements for remuneration, July 2011

(viii) Treatment of trade finance under the Basel capital framework, October 2011

(ix) Interpretive issues with respect to the revisions to the market risk framework, November 2011

(x) Basel III definition of capital – Frequently asked questions, December 2011

(xi) Composition of capital disclosure requirements: Rules text, June 2012

(xii) Capital requirements for bank exposures to central counterparties, July 2012

(xiii) Regulatory treatment of valuation adjustments to derivative liabilities: final rule issued by the Basel Committee, July 2012

(xiv) Basel III counterparty credit risk – Frequently asked questions, November 2011, July 2012, November 2012

Annex 4: Local regulations issued by the BCB implementing Basel capital standards

Overview of issuance dates of capital regulations in Brazil

Table 5

Type and descriptions	Time of issuance
Resolution 3380, which regulates the establishment of the operational risk management framework	20 March 2008
Resolution 3464, which regulates the establishment of the market risk management framework	26 June 2009
Resolution 3721, which regulates the establishment of the credit risk management framework	30 April 2009
Resolution 3921, which regulates compensation practices for the boards of financial institutions	25 November 2010
Resolution 3988, which regulates the establishment of the capital management framework	30 June 2011
Resolution 4019, which establishes prudential preventive measures aiming at ensuring the soundness, stability and regular functioning of the National Financial System	29 September 2011
Resolution 4090, which regulates the establishment of the liquidity risk management framework	24 May 2012
Resolution 4192, which establishes the definition of Regulatory Capital	1 March 2013
Resolution 4193, which establishes minimum requirements of Regulatory Capital (PR), of Tier I and of CET 1 and establishes the CET1 Additional	1 March 2013
Resolution 4279, which defines procedures and criteria for conversion of capital instruments into common equity or their write-off	31 October 2013
Resolution 4280, which provides the establishment and remittance of Analytical Balance Sheet – Prudential Conglomerate	31 October 2013
Resolution 4281, which amends Resolution 4193	31 October 2013
Resolution 4278, which amends Resolution 4192	31 October 2013
Resolution 4277, which sets minimum standards and prudential adjustments for the valuation framework applicable to financial instruments accounted for at market value	31 October 2013
Circular 3354, which established minimum criteria for the classification of transactions in the trading book	27 June 2007
Circular 3365, which regulates the measurement and assessment of interest rate risk in the banking book	14 September 2007
Circular 3547, which establishes procedures and parameters related to the Internal Capital Adequacy Assessment Process (ICAAP)	7 July 2011
Circular 3634, which regulates the calculation of the RWA component for market risk relative to exposures in fixed interest rates denominated in the local currency (RWA_{JUR1}), using the standardised approach	4 March 2013
Circular 3635, which regulates the calculation of the RWA component for market risk relative to exposures in foreign currency coupon rates (RWA_{JUR2}), using the standardised approach	4 March 2013
Circular 3636, which regulates the calculation of the RWA component for market risk relative to exposures in price index coupon rates (RWA_{JUR3}), using the standardised approach	4 March 2013
Circular 3637, which regulates the calculation of the RWA component for market risk relative to exposures in interest rates coupon rates (RWA_{JUR4}), using the standardised approach	4 March 2013
Circular 3638, which regulates the calculation of the RWA component for market risk relative to equity exposures in the trading book (RWA_{ACS}), using the standardised approach.	4 March 2013

Circular 3677, which amends Circular 3638	31 October 2013
Circular 3639, which regulates the calculation of the RWA component for market risk relative to exposures in commodities (RWA_{COM}), using the standardised approach	4 March 2013
Circular 3640, which regulates the calculation of the RWA component for operational risk (RWA_{OPAD}), using the standardised approaches	4 March 2013
Circular 3675, which amends Circular 3640	31 October 2013
Circular 3641, which regulates the calculation of the RWA component for market risk relative to exposures in gold and foreign exchange (RWA_{CAM}), using the standardised approach	4 March 2013
Circular 3644, which regulates the calculation of the RWA component for credit risk (RWA_{CPAD}), using the standardised approach	4 March 2013
Circular 3679, which amends Circular 3644	31 October 2013
Circular 3645, which provides for the values of the parameters to be used when calculating the RWA components for interest rate risk in the trading book (RWA_{JUR1}, RWA_{JUR2}, RWA_{JUR3} and RWA_{JUR4})	4 March 2013
Circular 3646, which regulates the calculation of the RWA component for market risk using internal models (RWA_{MINT})	4 March 2013
Circular 3674, which amends Circular 3646	31 October 2013
Circular 3647, which regulates the calculation of the RWA component for operational risk using the advanced approach – AMA (RWA_{OAMA})	4 March 2013
Circular 3676, which amends Circular 3647	31 October 2013
Circular 3648, which regulates the calculation of the RWA component for credit risk using the advanced approaches – IRB (RWA_{CIRB})	4 March 2013
Circular 3673, which amends Circular 3648	31 October 2013
Carta-Circular 3316, which details the composition of the Operational Risk Exposure Indicator (IE)	30 April 2008
Carta-Circular 3565, which publishes the report template of the Internal Capital Adequacy Assessment Process (ICAAP) established by Circular 3547	6 September 2012
Circular 3678, which establishes the disclosure of information on risk management, capital requirements and composition of regulatory capital (PR) [Pillar 3]	31 October 2013

Hierarchy of laws and regulatory instruments in Brazil

Table 6

Level of regulations (in legal terms)	Type
Brazilian Banking Act (Law 4,595)	In force since 31 December 1964
Resolutions	Issued by the National Monetary Council (Conselho Monetário Nacional – CMN)
Circulars	Issued by the BCB Board of Directors
Circular letters (Carta-Circulares)	Issued by BCB Heads of Department

Annex 5: Details of the RCAP assessment process

A. Off-site evaluation

(i) Completion of a self-assessment questionnaire by the BCB

(ii) Evaluation of the self-assessment by the RCAP Assessment Team

(iii) Independent comparison and evaluation of the domestic regulations issued by the BCB with corresponding Basel III standards issued by the BCBS

(iv) Identification of observations

(v) Refinement of the list of observations based on clarifications provided by the BCB

(vi) Assessment of materiality of deviations for all quantifiable deviations based on data and non-quantifiable deviations based on expert judgement

(vii) Forwarding of the list of observations to the BCB

B. On-site assessment

(viii) Discussion of individual observations with the BCB

(ix) Meeting with selected Brazilian banks, a rating agency and an accounting/auditing firm

(x) Discussion with the BCB and revision of findings to reflect additional information received

(xi) Assignment of component grades and overall grade

(xii) Submission of the detailed findings to the BCB with grades

(xiii) Receipt of comments on the detailed findings from the BCB

C. Review and finalisation of the RCAP report

(xiv) Review of comments by the RCAP Assessment Team, finalisation of the draft report and forwarding to the BCB for comments

(xv) Review of the BCB's comments by the RCAP Assessment Team

(xvi) Review of the draft report by the RCAP Review Team

(xvii) Review of the draft report by the Peer Review Board

(xviii) Reporting of findings to SIG by the team leader

(xix) Submission of the draft report to the Basel Committee

Annex 6: List of deviations rectified by amendments to Brazilian regulations during the RCAP assessment

Table 7

Basel paragraph	Reference to BCB document and paragraph	Brief description of initial assessment finding	Reference to the amendments made by the BCB to the pertinent rule(s) through supplementary regulatory notices
Basel III: § 53 – Criterion 4 and Criterion 11	Resolution 4192 – Arts.4 and 16	The bank does not create an expectation at issuance that the instrument will be bought back, redeemed or cancelled nor do the statutory or contractual terms provide any feature which might give rise to such an expectation. CET1 – Is issued directly and paid-in and the bank cannot directly or indirectly have funded the purchase of the instrument. Contribution of capital instruments in the form of government bonds in the case of financial institutions controlled by the government.	Resolution 4278, of 31 October 2013
Basel III: § 55 – Criterion 9, Criterion 13 and Criterion 14 § 58 – Criterion 7 and Criterion 9	Resolution 4192 – Art.17 XII, XIII, Art.20 VIII and Art.24 I	AT1 and T2 – The instrument cannot have a credit-sensitive dividend feature. AT1 – The instrument cannot have any features that hinder recapitalisation. AT1 and T2 – Issued by an SPV.	Resolution 4278, of 31 October 2013
Basel III: §§ 62 to 65	Resolution 4192 – Art 5 VI	Minority interest in subsidiaries other than banks.	Resolution 4278, of 31 October 2013
Basel III: § 67	Resolution 4192 – Art.5 I - § 1º and § 3º I	Non-deduction of goodwill constituted before 1 October 2013.	Resolution 4278, of 31 October 2013
Basel III: § 69	Resolution 4192 – Arts.5 §§ 3º to 5º	Netting cross-border between DTAs and DTLs.	Resolution 4278, of 31 October 2013
Basel III: § 78	Resolution 4192 – Art.4 II b, Art.6 II b and Art.7 II b	Investments in own common shares, AT1 and T2 held directly or indirectly. Look-through holdings of index and synthetic holdings.	Resolution 4278, of 31 October 2013
Basel III: §§ 80 to 86	Resolution 4192 – Art.8, Art.18 § 2º, Art.21 § 2º	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (include direct, indirect and synthetic holdings).	Resolution 4278, of 31 October 2013

Basel III §§ 80 to 86 and FAQ 14 related §§ 78-89	Resolution 4192 – Art.5, IV, V and XIII	Consolidation of insurance entities leading to higher capital ratios as compared to a deduction approach.	Resolution 4278, of 31 October 2013
Basel III: § 94-g	Resolution 4192 – Art.28	Extended grandfathering period of hybrid capital instruments with incentives to redeem recognised as Tier I capital.	Resolution 4278, of 31 October 2013
Basel III: § 132 (d)	Resolution 4193 – Art.9	Provision for supervisors to impose discretionary time limits on the operation within the buffer range.	Resolution 4281, of 31 October 2013
Basel III: § 89	Circ. 3644 – Art.30	Phasing-in of the 250% risk weight for items below the threshold deduction treatment.	Circular 3679, of 31 October 2013
Basel II: § 70	Circular 3644, Art.24	Definition of retail exposures – remove securities from definition.	Circular 3679, of 31 October 2013
Basel II: §§ 66 - 68	Circular 3644 – Art.24 I	Claims on exposures to large corporates. The preferential risk weight of 75% was increased to 85%.	Circular 3679, of 31 October 2013
Basel II: § 145	Circular 3644 – Art.36 § 3º IV; Art.37 I	Bound asset transactions – remove from exposures (do not recognise as collateral).	Circular 3679, of 31 October 2013
Basel II: §§ 182-185	Circular 3644 – Art.36 § 1º	Collateral – introduce floor, maturity and currency mismatch.	Circular 3679, of 31 October 2013
Basel II: Annex 4 § 92 (i)	Circular 3644 – Art.13 § 1º, Art.15 § 1º	CEM –the exchange rate for derivatives' notional is based on the calculation date.	Circular 3679, of 31 October 2013
Basel II: §§ 45-49 and Basel Committee press release of 13 July 2009 "Basel II capital framework enhancements"	Circular 3646 – Art.6 § 1º Circular 3647 – Art.74 Circular 3648 – Art.167 § 2º	Establishment of a permanent RWA floor corresponding to 80% of the RWAs obtained under the standardised approaches.	Circular 3674, of 31 October 2013 Circular 3676, of 31 October 2013 Circular 3673, of 31 October 2013
Basel II: § 44	Circular 3648	Inclusion of the scaling factor of 1.06.	Circular 3673, of 31 October 2013
Basel II: § 151	Circular 3648 – Art.89	Adjustment of the standard supervisory haircuts.	Circular 3673, of 31 October 2013
Basel II: § 234	Circular 3648 – Art.8 II	Amendment of the definition of Qualifying Revolving Retail Exposures (QRRE).	Circular 3673, of 31 October 2013
Basel II: §§ 235 to	Circular 3648 –	Amendment of the definition of equity exposures.	Circular 3673, of 31 October 2013

238	Art.7 IV		
Basel II: §§ 256 to 259	Circular 3648 – Art.4 § 1º I and II	Exclusion of exposures risk weighted at 0% on the standardised approach and the DTAs from the list of exposures that could be permanently kept under the SA.	Circular 3673, of 31 October 2013
Basel II: §§ 264, 265, 463, 472 and 478	Circular 3648 – Art.161	Adjustment of the minimum data requirements for the transition period.	Circular 3673, of 31 October 2013
Basel II: § 266	Circular 3648	Inclusion of an LGD floor for residential mortgages (10%).	Circular 3673, of 31 October 2013
Basel II: §§ 273 to 274	Circular 3648 – Art.9 I and Art.39 § 2º	Amendment of the definition and firm-size adjustment for SMEs.	Circular 3673, of 31 October 2013
Basel II: §§ 287 to 288	Circular 3648 – Art.74	Inclusion of an LGD for subordinated unsecured claims under the foundation approach.	Circular 3673, of 31 October 2013
Basel II: §§ 438 to 445	Circular 3648 – Art.159	Amendment of the use-test requirement to three years after the transition period.	Circular 3673, of 31 October 2013
Basel II: §§ 523 and 524	Circular 3648	Inclusion of specific requirements for recognition of leasing.	Circular 3673, of 31 October 2013
Basel II: § 671	Circular 3647 – Art.13 § 2º	Makes more explicit the condition of override for internal loss data.	Circular 3676, of 31 October 2013
Basel II: §§ 677 to 679	Circular 3647 – Art.61	Possibility of capital deduction only by insurance, and detail the high credit quality of an insurance company (equitable to rating A).	Circular 3676, of 31 October 2013
Basel II: § 648	Circular 3640 – Art.6 and 7	Preview authorisation to use ASA and ASA-2 (more advanced approaches than the BIA). Without supervisory approval, a bank will not be allowed to choose to revert to a simpler approach (BIA) once it has been approved for a more advanced approach (ASA and ASA-2).	Circular 3675, of 31 October 2013
Basel II: §§ 660 and 663	Circular 3640 – Art.6 and 7	Preview qualifying criteria to use ASA and ASA-2.	Circular 3675, of 31 October 2013
Basel II: § 662	Circular 3640 – Art.6	The criteria for mapping must be reviewed and adjusted for new or changing business activities as appropriate.	Circular 3675, of 31 October 2013
Basel II: §§ 718 (xxv) to 718 (xxviii)	Circular 3638 – Art.1 III	Additional 2% requirement to future and arbitrage operations for index positions.	Circular 3677, of 31 October 2013
Basel II.5: §§ 718 (lxxv) and 718 (lxxvi)	Circular 3646 – Art.2	Specification of the risk factors of the internal model for market risk. Include explicit requirement to capture correlation, specific, vega and spread risks.	Circular 3674, of 31 October 2013

Basel II.5: § 718 (lxxvi)	Circular 3646 – Art.9	Adjust the use of decay factors and weighting scheme.	Circular 3674, of 31 October 2013
Basel II.5: §§ 718 (c) to 718 (cxii)	No regulation	The valuation framework is less explicit than the Basel framework. The Basel provisions require the review of independent valuation, and valuation adjustments should be made beyond the accounting valuation to reflect adjustments such as the future operational costs and endogenous liquidity.	Resolution 4277, of 31 October 2013
Basel II: § 812	Circular 3646 – Art.31 Circular 3647 – Art.87 Circular 3648 Art.163	Include disclosure as a qualifying criterion under Pillar 1 to apply specific methodologies (internal models).	Circular 3674, of 31 October 2013 Circular 3676, of 31 October 2013 Circular 3673, of 31 October 2013
Table 1	Public Hearing n. 42	Qualitative disclosure requirements regarding entities that are neither consolidated nor deducted. Include requirement on restrictions and other major impediments on transfer of funds or regulatory capital within the group.	Circular 3678, of 31 October 2013, Art.1 § 3º and Art.3 V
Basel II: § 824	Public Hearing n. 42	Reference to the organisation of the relevant risk management function.	Circular 3678, of 31 October 2013, Art.2 I
Table 3	Public Hearing n. 42	Reference to a discussion of the approach to assess the sufficiency and adequacy of the capital to support current and future activities.	Circular 3678, of 31 October 2013, Art.6 § 2º
Table 13	Public Hearing n. 42	Disclosure of capital requirements broken down by appropriate equity groupings.	Circular 3678, of 31 October 2013, Art.14 V

Annex 7: List of issues for follow-up RCAP assessments

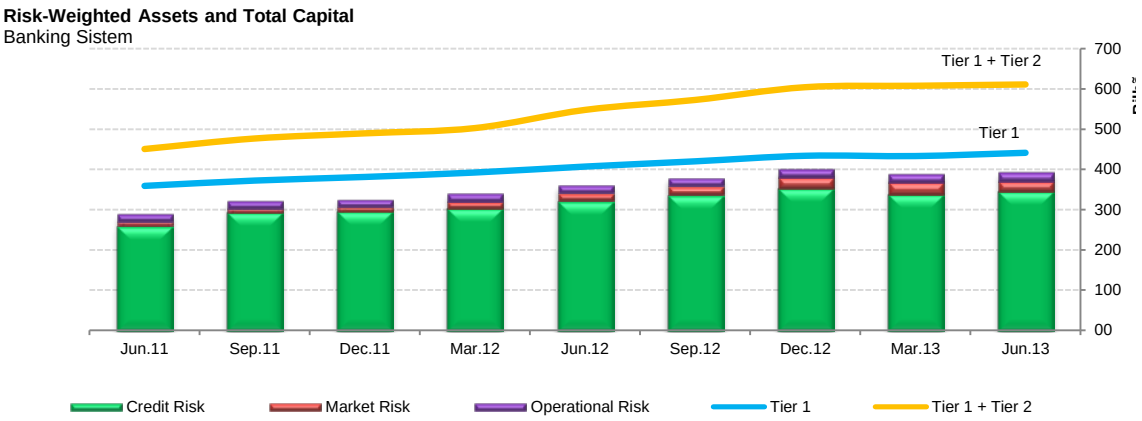
Given the number of findings [and rectifications] that have come to light during the RCAP, the Assessment Team suggests that Brazil should consider a follow-up assessment to evaluate progress. In particular the team would like to suggest the following areas for a follow-up review:

- Definition of capital: Any follow-up assessment should consider the evolution of goodwill in the six RCAP banks and its elimination over the phase-in period
- Credit risk IRB: Any follow-up assessment should consider the adoption of IRB by banks
- Market risk: Any follow-up assessment should consider the implementation of the trading book/banking book boundary and the implementation of the new Resolution on Market Risk Valuation Framework (effective from 1 July 2014).
- Operational risk: Any follow-up assessment should monitor the impact of the large Brazilian banks applying the Alternative Standardised Approach (ASA) relative to the Standardised Approach (TSA).
- Countercyclical buffer: The RCAP found that the operation of the countercyclical buffer in Brazil will be defined in a Technical Note. Any follow-up assessment should include this Note within its scope.

Annex 8: Key financial indicators of the banking system in Brazil

Overview of Brazilian banking sector	Table 8
Size of banking sector (BRL billions)	
Total assets all banks operating in the jurisdiction (including off-balance sheet assets)	BRL 5,870.4
Total assets of all locally incorporated internationally active banks	BRL 3,659.3
Total assets of locally incorporated banks to which capital standards under Basel framework are applied	BRL 5,870.4
Number of banks	
Number of banks operating in Brazil	131
Number of internationally active banks	6
Number of banks required to implement Basel standards (according to domestic regulations)	131
Number of Global Systemically Important Banks (G-SIBs)	0
Capital standards under the Basel framework	
Number of banks required to implement Basel equivalent standards	131
Use of advanced approaches by banks	1
Capital adequacy banking sector (BRL billions; per cent)	
Total capital	BRL 605.4
Total Tier 1 capital	BRL 442.1
Total CET1 capital	BRL 442.1
Total risk-weighted assets	BRL 3,570.0
RWAs for credit risk (per cent of total RWAs)	BRL 3,150.7
RWAs for market risk (per cent of total RWAs)	BRL 228.9
RWAs for operational risk (per cent of total RWAs)	BRL 190.2
Total off-balance sheet bank assets	BRL 456.6
Capital Adequacy Ratio (weighted average)	17.0 %
Tier 1 Ratio (weighted average)	12.4%
CET1 Ratio (weighted average)	12.4%

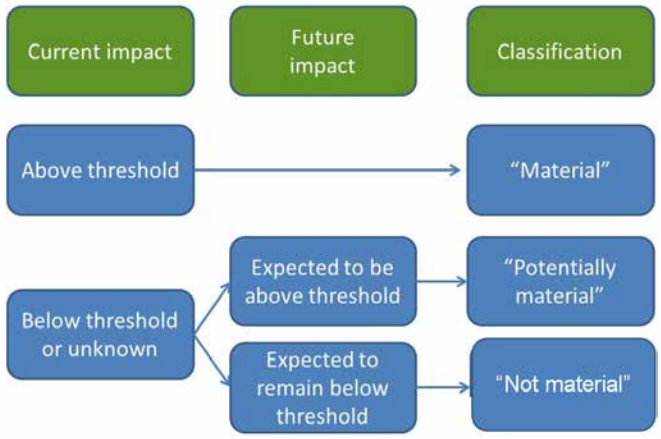
Source: BCB, data as of 30 June 2013



Annex 9: Materiality assessment

The assessment of materiality distinguished between quantifiable and non-quantifiable gaps. For the Brazil RCAP, an attempt was made to quantify the impact of all quantifiable gaps for each bank in the sample affected by the gap. Where no data was available to quantify gaps, the review team relied on expert judgement. Following this approach, an attempt was made to determine whether gaps are "not material", "material" or "potentially material".

Classification of quantifiable gaps



Number of gaps by component

Table 9

Component	Not material	Material	Potentially material
Scope of application	1		
Transitional arrangements			
Definition of capital	8	1[16]	1
CR: Standardised Approach	6		3
CR: IRB			1
Securitisation	3		1
Counterparty credit risk	5		
MR: Standardised Approach	1		
MR: IMA	1		
OR: SA/BIA	1		
OR: AMA	1		1
Capital buffers	1		1
Pillar 2	1		3
Pillar 3	6		

Note: materiality is defined based on quantitative benchmark thresholds (for the quantifiable gaps) and expert judgement (for the non-quantifiable gaps). See Section 2 with the detailed assessment findings for further information.

[16] The issue of goodwill is considered currently material. However, its relevance will decrease through the transitional period and will be fully eliminated by 1 January 2018.

Annex 10: Areas where the BCB's regulations are modified or stricter than the Basel standards

In several places, the BCB has adopted a stricter approach than the minimum standards prescribed by the Basel framework. The following list, which was drawn up with the help of the BCB, provides an overview of these areas. It should be noted that these areas have not been taken into account as mitigants for the overall assessment of compliance.

Scope of application

1. The scope of application of the Capital Regulations in Brazil is larger than required by the Basel standards. All financial institutions are subject to the same regulations, whether or not they are internationally active.

Transitional arrangements

2. According to Basel recommendations, banks are required to hold 3.5% Common Equity Tier 1, 4.5% Tier 1 capital and 8.0% total capital from 1 January 2013. However, Brazilian banks are required to hold 4.5% Common Equity Tier 1, 5.5% Tier 1 capital and 11.0% total capital/RWAs from 1 October 2013, more than specified by the Basel recommendations. However, the higher minimum requirements will be phased out during the transitional period up to 2019, thus aligning the Brazilian requirements with the minimum ratios required under the Basel III framework.

Definition of capital

3. On general provisions, the BCB does not consider as Tier 2 capital any type of excess provisions for Standardised Approach banks. This contrasts with Basel, in which general provisions can be included in Tier 2 capital subject to a limit of 1.25% of risk-weighted assets.
4. Brazilian regulations require the full deduction of investments in the capital of banking institutions without any threshold as allowed in Basel III.

Credit risk regulations

Standardised approach

5. Under the Standardised Approach for credit risk, claims secured by residential property are risk weighted at 50% rather than 35%, the minimum required by Basel on loans guaranteed by mortgage, if the financed amount represents less than 80% of the value of the asset (loan-to-value under 80%). If the financed amount represents more than 80% of the value of the asset, then the loan is risk weighted at 100%.
6. According to the Brazilian regulation, a securitisation instrument should attract a risk weight of 1.250% if it is impossible to identify the underlying assets in securitisation tranches. Also all

subordinated classes of securitisation instruments should receive a risk weight of 1.250% rather than, in both cases, the 35% minimum required by Basel.

7. The maximum aggregated retail exposure to a single counterparty in Brazil is BRL 600,000, approximately one quarter of the EUR 1 million stipulated in the Basel framework.

8. The risk weights for specific long-term revolving retail exposures are 150% and 300% instead of 75% in the Basel framework

Internal Ratings-based approach

9. With regard to the IRB approach, the BCB has opted for a more conservative approach in the treatment of probability of default (PD) in the calculation of risk-weighted assets for exposures subject to the double default framework.

10. The Basel IRB approach assigns a 45% loss-given-default (LGD) to senior claims on corporate, sovereigns and banks not secured by recognised collateral and a 75% LGD to subordinated claims on these counterparties. In Brazil, only claims on sovereigns are assigned a 45% LGD. Senior claims on corporate and banks are assigned higher LGD values. Basel provides a table of minimum LGD values for the secured portion of exposures (35% for receivables, 35% for CRE/RRE and 40% for other collateral). In Brazil, these minimum LGDs are higher (60% for receivables, 45% for CRE/RRE and 70% for other collateral).

11. Regarding the Internal Ratings-based approach for securitisation exposures in terms of liquidity facilities, these are always assigned a 100% CCF, without exceptions, in Brazil. This differs from the Basel approach, in which banks are permitted to treat off-balance sheet securitisation exposures as eligible liquidity facilities if certain minimum requirements are satisfied.

12. Haircuts are the most conservative ones used in the Basel framework, regardless of rating.

Operational risk

Standardised approach

13. Under the qualifying criteria for the Standardised Approach, internationally active banks and banks with significant operational risk exposures are expected to use an approach that is more sophisticated than the Basic Indicator Approach and one that is appropriate for the institution's risk profile. The Brazilian regulation establishes that all financial institutions must implement an operational risk management framework commensurate with the nature and complexity of their products, services, activities, processes and systems. This framework must embrace management oversight, minimum requirements concerning the risk management framework and the establishment of a risk management function.

Market risk

14. Regarding the measurement of general market risk arising from fixed interest rate instruments (RWAJUR1), the standardised methodology for measuring risk is based on a standardised VaR calculation, for which the BCB calculates and publishes the parameters on a daily basis. The methodology involves an SVaR calculation and is more conservative than the Basel recommendation. For floating interest rates (RWAJUR2, RWAJUR3 and RWAJUR4), the domestic regulations apply the maturity method for capital calculation and adopt more conservative risk weights as well as the inclusion of the multipliers.

15. On the portfolio of foreign currency positions and gold, a multiplying factor and an additional capital requirement need to be computed for calculating the exposure in foreign currencies. This leads to more conservative capital requirements than Basel provides for.

Pillar Two

16. In terms of liquidity risk, the Brazilian regulation is more prescriptive than Basel II. In addition to the Basel requirements, it demands documented policies and strategies, with different time horizons and a minimum frequency of evaluation. Contingency plans and stress tests are also required.

17. Brazilian regulations that provide for the measurement of interest rate risk in the banking book are based on the BCBS document *Principles for the management and supervision of interest rate risk* (July 2004), and are more prescriptive than Basel in that they call for quarterly stress tests and encompass operations not present on the banking book.

Pillar Three

18. Liquidity risk is considered a separate risk area in Brazilian regulations and banks must provide a description of a wide array of risk management objectives and policies relating to liquidity risk. These are not required in Basel.

19. Brazilian regulation establishes that the capital requirements for the risk factors must be segmented by short and long positions. These are additional to the Basel requirements, which do not require such segmentation. Brazilian regulation also establishes additional requirements concerning exposures to derivatives.

Basel III

20. In terms of general provisions/general loan loss reserves, the BCB does not consider as Tier 2 capital any type of provisions for Standardised Approach banks, in contrast to Basel, where provisions or loan loss reserves held against future, currently unidentified, losses qualify for inclusion within Tier 2.

Annex 11: List of approaches not allowed by the regulatory framework

The following list provides an overview of approaches that the BCB has not made available to its banks through its regulatory framework. Where the Basel standards explicitly request certain approaches to be implemented under specific circumstances, the missing approaches have been taken into account in the assessment. However, where the Basel standards do not require jurisdictions to implement these approaches, they have been implicitly treated as "not applicable" for the assessment.

Internal Ratings-based approach

1. Top-down approach for credit risk of purchased corporate receivables: double default framework
2. Recognition of possible constraining availability in EAD for unused committed credit lines under the foundation approach

Credit risk – securitisation

3. Internal Assessment Approach (IAA)

Counterparty credit risk

4. Standardised method
5. Internal Model Method
6. Advanced approach for CVA

Market risk

7. Intermediate approaches for option positions (delta-plus method or the scenario analysis)
8. Maturity ladder approach for commodity risk
9. Comprehensive Risk Measurement for correlation trading
10. Incremental Risk Charge

Operational risk

11. The Standardised Approach

Annex 12: Treatment of goodwill in Brazilian regulations

There are two elements to the elimination of goodwill from bank's regulatory CET1 capital in the Brazil. Firstly, accounting regulations require the amortisation of goodwill over a five year period. Secondly, Resolution 4192 (as amended by Resolution 4278) requires the remaining goodwill that is not amortised to be deducted in full from CET1 capital from 2018. The deviation from the Basel approach, is therefore, fully eliminated in 2018. To avoid cliff effects, the regulations include a phase-in of the deduction between 2014 and 2018 starting at 20% in 2014, and increasing in equal steps up to 100% in 2018 (40% in 2015, 60% in 2016, 80% in 2017 and 100% in 2018).

Table 10 below shows the aggregated impact of goodwill of the six banks in the scope of the RCAP. The outstanding goodwill was constituted between 2009 and 2013, but is shown in the example as all starting in 2011 as a simplification. The weighted average impact of the deviation on capital ratios is 59 basis points in 2013.

Goodwill – aggregated impact of six RCAP banks

Phase in of deductions and amortisation process (BRL Billions) Table 10

	2013	2014	2015	2016	2017	2018
RWAs	2,907.06	2,907.06	2,907.06	2,907.06	2,907.06	2,907.06
Gross goodwill[17]	32.85	32.85	32.85	32.85	32.85	0
Amortisation	12.80	19.30	25.83	32.35	32.79	
Phase-in of deduction of net goodwill	0	20%	40%	60%	80%	100%
Goodwill deduction	0	2.71	2.81	0.30	0.05	0
Sum of goodwill amortisation and deduction	12.80	22.01	28.64	32.65	32.85	0
BCB deduction for example bank as % of Basel required deduction	39%	67%	88%	100%	100%	100%
Overstatement of average capital ratios	0.59%	0.32%	0.12%	0.01%	0	0

[17] The aggregate gross goodwill for the six RCAP banks is BRL32.85bn and is assumed to be constituted in 2011. It is also assumes that the balance sheet is static and that no new goodwill is acquired during the period.