Chapter 2: Overview of supervisory activities

2.1 Introduction

As part of its risk-based supervisory approach, BSD monitors banks' compliance with the regulatory framework and specifically with prudential requirements. Understanding banks' risk profiles, their business models and the environment in which they operate is paramount to BSD's effective risk-based supervision. To this end, the department follows a structured, forward-looking supervisory review and evaluation process (SREP) that incorporates on- and off-site supervision as well as quantitative and qualitative supervisory tools.

The SREP is designed to:

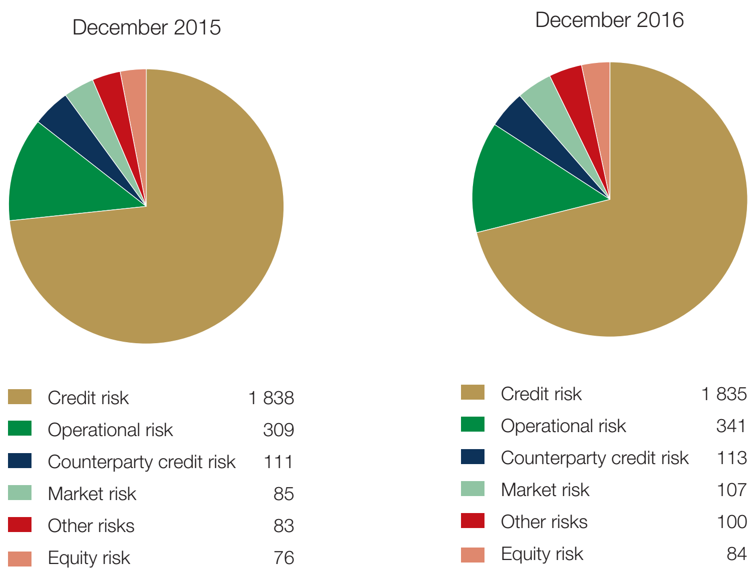
- identify the key risk factors and the build-up of risks which could impact on individual banks and the banking sector as a whole;
- assess the risk management policies, processes, practices and structures that are used to mitigate risks; and
- deploy resources accordingly to address the most critical risk areas and intervene early where required.

This chapter provides an overview of BSD's operations during the period under review at an industry level and according to aspects of bank supervision that are common across banks. These operations include work undertaken with respect to themes, risk-based reviews, consolidated supervision, and disclosure assessments.

Figure 2.1 gives an indication of the aggregated risk profile of the banking sector as at 31 December 2015 and 31 December 2016, reflecting Pillar 1 risks that are quantifiable in terms of the Regulations relating to Banks (Regulations) and for which the sector is required to hold regulatory capital. The banking sector is also exposed to other risks that are not quantified in terms of regulatory capital requirements, such as liquidity risk and interest rate risk in the banking book that are monitored specifically through the application of the SREP and assessed under Pillar 2 supervisory activities.

Figure 2.1 Composition of risk-weighted exposure

(R billions)



2.2 Thematic topics for 2016

2.2.1 Introduction

15. Available at http://www.resbank.co.za/Publications/Pages/BanksActGuidance.aspx

As part of its ongoing supervisory interventions, BSD identifies certain themes, or flavour-of-the-year topics, for an annual discussion with banks' boards of directors (boards). Guidance Note 2 of 2016[15] identified the following two topics for 2016:

- IFRS 9
- cybersecurity

Banks' boards were requested to make presentations and engage with BSD on each topic. A review of the department's interactions related to these topics is detailed in sections 2.2.2 and 2.2.3.

2.2.2 IFRS 9, *Financial Instruments*

IFRS 9, *Financial Instruments*, becomes effective for the financial periods beginning on or after 1 January 2018. This international standard will significantly affect the way in which banks determine impairments for problem loans and will therefore affect banks' profits and available capital. While the aim of IFRS 9 is to ensure that impairments are raised earlier than before, i.e. as soon as a significant increase in credit risk has been identified (and taking into account forward-looking macroeconomic information), the changes required to data, processes and systems are onerous and will call for much greater coordination of efforts between various functions in banks, e.g. risk and finance.

With the effective date for IFRS 9 fast approaching, and due to the potential impact on the banking sector, IFRS 9 was selected as a flavour-of-the-year topic for both the 2015 and the 2016 calendar years. The focus during 2016 was on understanding the progress that banks had made in preparing for the implementation of the standard, the challenges faced, the milestones reached, and the anticipated impact on impairments and capital. To ensure continued focus beyond implementation, BSD and industry also sought to understand the post-implementation procedures that banks would adopt to ensure that the impairment models remained appropriate and that governance processes were robust.

Most banks have made significant progress with the implementation of IFRS 9 since the initial discussions held in 2015, and all banks are expected to be ready for ECL provisioning by the effective date. Banks on the IRB approach for credit risk will be leveraging their regulatory models for IFRS 9 impairment purposes. Some banks have employed the assistance of external consulting firms for certain aspects of their projects. Smaller banks are also developing internal models, some also with the aid of consultants, although less sophisticated than those of the larger banks. The branches of foreign institutions will be relying to a large extent on the models developed by their parent entities.

An industry-wide shortage of the necessary skills and resources, particularly suitable quantitative modelling resources, has resulted in some banks finding it difficult to meet internal project milestones and targets. As a result, some banks have had to reduce the length of planned parallel runs prior to implementation date. However, most banks still expect to conduct a minimum of six months of parallel runs of the old and new systems. Banks with operations across the African continent are also experiencing challenges with regard to data availability for modelling purposes.

The IFRS 9 Implementation Working Group, established in 2015, continued to meet every month during the year under review. Its Policy, Modelling and Disclosure subgroups debated issues such as the application of a significant increase in credit risk, macroeconomic forward-looking information and pre-adoption disclosures. These subgroups include representatives from BSD, banks, auditors, SAICA and IRBA; they have been a useful industry initiative.

Banks have shared with BSD their initial estimated impact, which indicates an increase in the level of impairments and a consequential reduction in CARs. It should be noted that these are preliminary estimates. As banks are still in the process of finalising impairment models, especially with regard to the forward-looking component, the estimates may change significantly. The BCBS is also still finalising the treatment of ECLs for regulatory purposes and as such may influence the final impact on regulatory capital as it is proposed that any IFRS 9 impact on regulatory capital be phased in over a transition period.

The BCBS issued a guidance document titled *credit risk and accounting for expected losses* in December 2015. This document highlights the expectations of banking regulators with regard to ECL provisioning. In March 2016, BSD issued Guidance Note 3 of 2016, requesting banks to assess their current policies, process and practices against the principles contained in the BCBS document, taking into account the nature, size, complexity and risk profile of their activities. Compliance with the BCBS requirements will be a focus area for BSD going forward.

BSD would also like to draw attention to the Staff Audit Practice alert issued by IRBA in September 2016, titled *Audit implications of the expected credit loss model for the auditors of banks*, which provides guidance to the South African audit profession on the audit of ECL provisions. The guidance was issued in response to a concern raised by BSD that there was insufficient guidance in ISA 540 on the audit of forward-looking information and revisions to this standard would not be completed in time for the first audits of ECL provisions.

2.2.3 Cybersecurity

BSD had previously included, and will continue to include, information security, including cybersecurity, in its supervisory programme. This includes discussing banks' information security governance and measures during on-site visits as well as questionnaires covering information security. Concerns relating to cyber-threats had placed cybersecurity on the risk radar of regulatory agencies and banks globally. As such, cybersecurity was included as a theme for discussion with banks' boards during 2016.

BSD views cybercrime as referring to any criminal activity carried out by means of computers or the Internet. Focus areas that banks' boards were asked to present on in 2016 included:

- the awareness, knowledge and understanding of the board in order to provide oversight of cybersecurity;
- banks' approach to managing cybersecurity and how it is integrated into their respective enterprise risk management frameworks;
- an overview of banks' primary cybersecurity governance structures;
- addressing the shortage of cybersecurity skills;
- creating awareness with customers and employees;
- ensuring the availability of an adequate budget;
- banks' approach to sharing threat intelligence within the banking industry; and
- the boards' views on the interaction with the proposed government cyber-structures, such as the Cyber Hub.

Boards also presented on the frequency of cybersecurity discussions at board and/or board subcommittee level, meetings, recent initiatives to bolster cyber-defences along with future plans, the legal implications of cyber-risks, cyber-insurance, and cyber-risks introduced through outsourcing and third-party service provider arrangements.

Banks have made concerted efforts to improve their cybersecurity governance frameworks and strengthen their cyber-defences, with efforts increasing due to the high-profile cyber-incident which occurred within the industry during the year under review. Much work is, however, still in progress, and banks have to ensure that they do not delay in implementing initiatives that will strengthen their defences. Continued vigilance and improvement are required in cyberspace. Banks should also ensure that they have adequate cybersecurity skills and knowledge – starting at board level.

BSD will continue to focus on information, including on cybersecurity-related information, and will look to issue guidance on cyber-resilience in 2017. The department will also consider possible initiatives in terms of industry collaboration, such as sector computer security incident response teams as well as its role in information security testing. The importance that the SARB places on information security in the financial services industry as a whole was evidenced through it hosting its first cybersecurity conference in August 2016.

2.3 Credit risk

2.3.1 Introduction

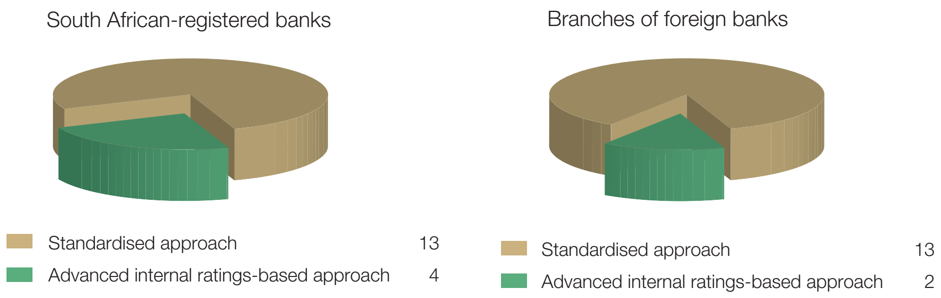
Household debt continued to rise, with increases in the prime rate in the first half of 2016 notably pushing the household debt service cost ratio to its highest level since the first quarter of 2010. During 2016, the banking sector experienced a declining trend in the growth of credit extension, with an annual growth rate of -1% at the end of the year (December 2015: 15%). BSD continued to monitor the impact of market conditions on South African banks' credit risk profiles and portfolios through a number of initiatives.

Under the regulatory framework currently employed in South Africa, banks can choose from the following three methodologies to calculate their minimum required regulatory capital relating to credit risk:

1. the standardised approach (STA), including the simplified STA;
2. the foundation internal ratings-based (FIRB) approach; and
3. the advanced internal ratings-based (AIRB) approach.

The number of banks registered in South Africa using each of the aforementioned approaches is depicted in Figure 2.2.

Figure 2.2 Credit risk methodologies applied by banks as at 31 December 2016



2.3.2 Regulatory developments

In December 2015 and March 2016 respectively, the BCBS released a second consultative document on the revisions to the STA for credit risk[16] and a consultative document setting out a proposed set of changes to the Basel framework's FIRB and AIRB approaches.[17] Progress has been made towards completing the BCBS's post-crisis regulatory reforms, however, the Group of Central Bank Governors and Heads of Supervision (GHOS) announced in a press release dated 3 January 2017 that more time was needed to finalise some of the work, including ensuring the framework's final calibration, before the GHOS could review the package of proposals. BSD continued to closely follow the regulatory developments and monitored the potential impact on the South African banking sector.

16. Available at http://www.bis.org/press/

17. Available at http://www.bis.org/press/

Locally, it came to BSD's attention that certain features of the current Securitisation Notice (Government Notice No. 2, published in *Government Gazette No. 30628*, dated 1 January 2008) needed to be re-examined. The securitisation market in South Africa is relatively small and has reduced even further since the global financial crisis. In order to place the securitisation market back on a firm and sustainable footing, and to allow for future growth in the market, BSD, together with National Treasury and members of the banking industry, started a process to determine which changes could be made to the Securitisation Notice to build a healthy and adequately regulated securitisation market. This would not only support the banking sector in diversifying its funding sources, but also fulfil a role in the broader economy by assisting non-bank issuers in raising more cost-effective funding.

2.3.3 Thematic on-site reviews

BSD's review team conducted several on-site reviews during the 2016 year, which focused primarily on the process applied by banks regarding the adequacy of specific credit impairments within the various loan portfolios.

The review team also conducted on-site reviews at local branches and subsidiaries of some foreign banks. The reviews encompassed the assessment of the following:

- the methodology applied by the bank in the process of determining the specific credit impairments on non-performing exposures;
- the consistency of the bank's methodology with the requirements of International Accounting Standard (IAS) 39;
- the methodology applied by the bank in the valuation of collateral and the bank's consistency in its application;
- the accuracy of the classification of exposures in the performing portfolio;
- the adequacy of the bank's governance processes relating to exposures in the non-performing portfolio; and
- the bank's policy pertaining to business rescue as well as restructured and rescheduled exposures.

In the last quarter of 2016, the review team conducted an on-site review at a financial institution which had also recently amended an aspect of its impairment methodology. The review team was requested to obtain an understanding of its overall impairments methodology and to ascertain the validity of the rationale underpinning the change in the impairments methodology.

An evaluation in the above reviews encompassed, in addition to those mentioned above, an assessment of the accuracy and completeness of pertinent credit risk information reported in the BA returns.

The most pertinent findings which arose from the aforementioned reviews follow:

- Shortcomings were identified in the policies that outline the impairment and provisioning methodologies as well as in the write-off processes. It was further noted that banks had not always complied with some of the requirements of these policies. In certain instances, the requirements of the new impairment methodology were not complied with.

- The requirements of Directive 7 of 2015, which deals with the restructuring of credit exposures, had not been outlined sufficiently in the relevant policies. Consequently, banks had not complied with the directive in terms of treating and classifying the restructured and rescheduled exposures and those under debt review and business rescue, also not reporting them in the relevant BA return.

- The rationale behind the timeframe for the realisation of collateral could not be provided and banks could not explain how the periods had been benchmarked against the average time taken during the legal process and/or the timeframe to liquidate collateral for accounts which were in default. Furthermore, the rationale underlying the determination of the write-off periods adopted could also not be provided. Instead, BSD was informed that the write-off periods had been historically determined.

- There was insufficient guidance on the application of IAS 39, the determination of loss given defaults (LGDs) as well as the term or tenure or discount rate used in the determination of specific impairments.
- There were relatively infrequent instances of loans which had been incorrectly classified in terms of regulation 24(5)(c) of the Regulations.
- There were instances of inappropriate accounting treatment of interest in suspense.
- Several system shortcomings and manual interventions were identified, which may have had an impact on the accuracy of information reported to BSD.

In general, the banks reviewed in 2016 committed to remediate the deficiencies identified during the on-site reviews.

2.3.4 Model changes

In the year under review, BSD received 15 notifications of non-material model changes and 43 submissions of material model changes to banks' IRB systems. The reasons for these rating system changes included the removal of implicit support and alignment of the 'default' definition to Directive 7 of 2015.[18] BSD continued to follow a robust review and approval process, as highlighted in its 2013 annual report.

18. Available at http://www.resbank.co.za/Publications/Pages/Bank-Actdirectives.aspx

2.3.5 Restructured credit exposures

As reported in the 2015 annual report,[19] Directive 7 of 2015 had been issued to provide clarity on how banks should identify restructured credit exposures and how they should treat them for the purpose of the definition of 'default', as defined in regulation 67 of the Regulations. Furthermore, the directive also addressed the reporting of restructured credit exposures and the rehabilitation of non-performing loans using restructuring. The aim of the directive was to promote the consistent prudential treatment of restructured credit exposures within the banking sector and to create a more level playing field for banks in this area.

19. Refer to section 2.3.7 in the 2015 annual report

BSD conducted a follow-up survey to assess the level of compliance with the directive and to identify common areas of difficulty with implementation. The majority of banks indicated that they were fully compliant with Directive 7 of 2015. Outstanding model and system changes were provided as reasons for partial compliance in some of the banks' retail portfolios.

BSD will continue to assess the implementation and impact of Directive 7 of 2015 on regulatory capital models, impaired advances, specific impairments and reporting until it is evident that all banks are complying with its requirements. Revisions to the directive may become necessary in future to bring it in line with the latest regulatory developments (e.g. the proposed definition of non-performing exposures and forbearance[20]) and accounting developments (e.g. IFRS 9).

20. Available at http://www.bis.org/bcbs/publ/d367.htm

2.4 Market risk

2.4.1 Introduction

South Africa managed to avoid a sovereign credit rating downgrade in the period under review, which proved to be a major theme throughout the year. Rating agency Standard & Poor's kept the country's credit rating unchanged at BBB- (which is one level above junk status) but downgraded South Africa's local debt by one notch to BBB, causing negativity which could result in the country's removal from global bond indices as well as a loss of appetite for the country's debt. These topical issues were factored into discussions with banks at their scheduled supervisory meetings.

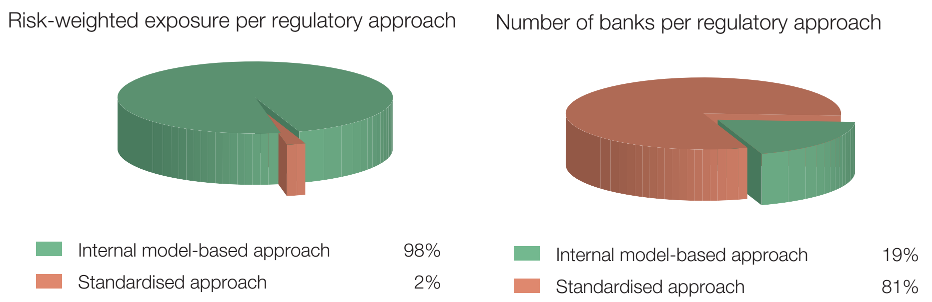
2.4.2 Methodologies to calculate the minimum required regulatory capital relating to market risk

Under the current regulatory framework employed in South Africa, banks can choose from the following two methodologies to calculate their minimum required regulatory capital relating to market risk:

1. the standardised approach (STA); and
2. the internal models-based approach (IMA).

The risk-weighted exposure for these two approaches, in addition to the proportion of banks per approach, is depicted in Figure 2.3

Figure 2.3 Market risk methodologies applied by banks as at 31 December 2016



2.4.3 Market risk reviews

BSD performed both compliance-based and risk-focused supervision of market risk during the period under review. The market risk reviews conducted in 2016 focused on banks using the IMA for regulatory purposes.

2.4.4 Key findings

Market liquidity remained at low levels during the period under review and the lack of liquidity is envisaged to continue going forward. This has resulted in banks cutting back on certain positions and applying a conservative approach to the amount of risk being brought onto book. The supply shortages of the US dollar in African jurisdictions have posed challenges for liquidity as banks began to experience increased difficulties in settling transactions swiftly.

Low and even negative interest rates in developed nations was another key topic during the year under review. Interest rates were positive in emerging markets as the global search for yield was a predominant driver for these markets. Emerging market economies had their biggest inflow into bonds since 2004 due to the negative interest rates in developed nations.

Commodity prices increased in 2016 after a long stretch of declines in 2015, with the oil price recovering from its five-year low.

The fundamental review of the trading book and the rewrite of market risk requirements was a big focal point throughout 2016, with banks gearing up for the new regulations. Banks focused mainly on system requirements throughout the year, but also on impact studies to assess the operational and capital needs of the upcoming regulations.

2.4.5 Counterparty credit risk thematic reviews

In terms of Core Principle 17 of the Core Principles published by the BCBS, supervisors must be satisfied that banks have a counterparty credit risk management process in place that takes into account their risk appetite, risk profile as well as market and macroeconomic conditions.

This includes appropriate policies and processes to identify, measure, evaluate, monitor, report and control or mitigate this risk on a timely basis.

BSD conducted a thematic review of banks where counterparty credit risk occurred, derived from the requirements of the Core Principle 17 encompassing its complete scope as well as additional aspects related to the Basel III framework and pending regulatory reforms. A questionnaire was used to establish the fundamental drivers, controls and governance frameworks of counterparty credit risk management and to assess banks' incorporation of the Basel III rules into their business practices and risk management procedures. On-site discussions with bank representatives were extremely useful in ascertaining the level of implementation of their respective counterparty credit risk management frameworks. The main issues highlighted included the impact of the forthcoming regulatory reforms and the correct reporting of valuation adjustments.

2.4.6 Equity risk in the banking book

Exposures arising from equity risk in the banking book (ERIBB) are generally held for long-term investment purposes and receive a capital treatment that is independent of the market risk capital charge. For supervisory purposes, ERIBB is regulated with market risk. Thematic reviews are aimed at gaining in-depth insight into the business objectives of those areas in banks where this risk arises as well as the management of the risk over the life cycle of investments. It is increasingly evident that this risk type continues to diminish as banks strategically reduce their investment activity.

BSD conducted three ERIBB thematic reviews in 2016, which resulted in a number of banks being urged to strengthen their risk management practices in certain areas. Furthermore, banks' readiness for the implementation of the forthcoming regulatory rules titled *Capital requirements for banks' equity investments in funds*[21] was also assessed.

21. Available at http://www.bis.org/publ/bcbs266.htm

2.4.7 Securities thematic reviews

In 2016 BSD conducted two focused reviews on bank-associated entities that conducted stockbroking and other securities activities. The main objective of the reviews was to assess how the risks emanating from such entities may affect the risk profile of the associate bank. The reviews placed emphasis on the trading businesses, the systems utilised, the risk management processes as well as the regulatory issues with respect to market risk. Further assessments for selected banking groups will continue in 2017.

2.5 Operational risk

2.5.1 Introduction

Operational risk and IT risk have remained a key focus on the global stage. Market manipulation, misconduct, fraud as well as system and execution failures were plentiful in 2016. Cyber-risk claimed the touted title of being the top risk at many organisations, and various cyber-threats and attacks, the illegal distribution of data and other information as well as the denial of service disruptions occurred. The vastness and disparate nature of operational risk translates into the varied problematic aspects of this risk type. Inadequate and/or failed systems, people, processes and external events resulted, once again, in the recording of enormous losses internationally during the year under review. Domestically, the frequency and severity of loss events increased significantly, although the severity component was primarily driven by a handful of extraordinarily large events.

The macroeconomic outlook remained subdued; this is normally associated with an increase in operational risk losses, which is accompanied by the necessity to reduce all types of costs (including regulatory and compliance costs) and create economies of scale and value for money, which makes it vital for banks to consider new and/or alternate technologies.

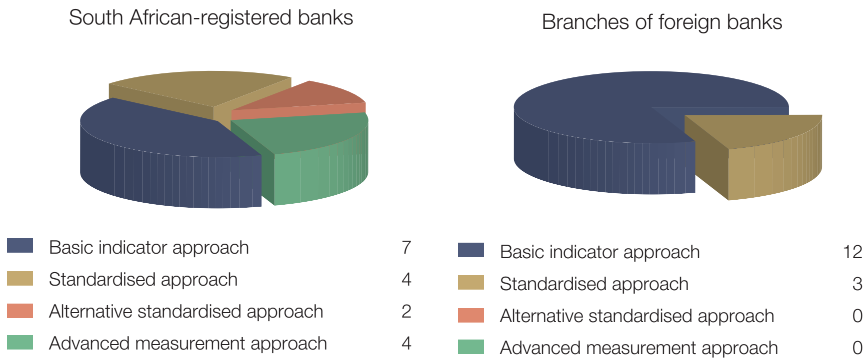
2.5.2 Methodologies to calculate the minimum required regulatory capital relating to operational risk

The current regulatory framework in South Africa allows banks to select from the following four methodologies to calculate their minimum required regulatory capital relating to operational risk:

1. the basic indicator approach (BIA);
2. the standardised approach (TSA);
3. the alternative standardised approach (ASA); and
4. the advanced measurement approach (AMA).

The number of banks using each of the aforementioned approaches is depicted in Figure 2.4.

Figure 2.4 Operational risk methodologies applied by banks as at 31 December 2016



2.5.3 Operational risk reviews

During the year under review, BSD sustained its focused operational risk reviews at selected banks. These reviews focused on a general operational risk update, operational risk appetite, the Rest of Africa footprint and control, outsourcing, top operational risks, and BCBS amendments. BCBS amendment discussions included the focus shift from measurement to management of operational risk and also aimed to gain an understanding from the first line and second line of defence on the impact of the changes, both strategically and operationally. The key findings were:

- Operational risk governance structures, human resources, frameworks and policies: Banks continued to maintain sound governance structures, with emphasis placed on the three lines of defence and the management aspect of operations. Banks experienced difficulty in attracting suitable candidates due to the scarcity of resources skilled in operational risk. This industry-wide challenge has fuelled banks to establish hubs or programmes that look into upskilling resources.

- The African footprint: Local banks were still experiencing challenges with control weaknesses in their Rest of Africa subsidiaries. They had, however, established interventions to mitigate concerns with the overall control environment. BSD will continue to monitor progress with regard to the Rest of Africa entities.

- BCBS amendments: BSD engaged with banks on the proposed changes to the operational risk approaches and their possible impact. Most banks indicated that they would continue utilising internal modelling for economic capital purposes subsequent to its removal from the Basel framework, regardless of the timing.

- Operational risk losses: The country experienced a difficult monetary policy environment in 2016, characterised by high inflation and weak growth. The unfavourable economic conditions materially influenced losses in the banking industry, and a significant increase in the frequency and severity of losses was observed year on year. The losses originated, in the main, from execution delivery and process management as well as external fraud event types.

- Audit reports related to operational risk management: Although noticeable improvements in the operational risk control environment were observed across the industry compared to previous years, there were still a number of factors affecting the risk landscape. Banks' internal auditors indicated that they would be focusing on areas of concern to ensure that business addressed the control breakdowns. BSD will maintain the monitoring thereof.

2.5.4 Outsourcing

An overview of the observations of the 2016 outsourcing submissions was presented to the industry. As a result thereof, a directive was published requiring banks to split their IT vendors and other vendors to ensure that no material vendor was excluded due to size. BSD continued to receive requests from banks with regard to outsourcing arrangements. Most of the applications were from branches of foreign banks in line with their goals of achieving economies of scales and/or wanting to create centralised centres of excellence where standardisation and optimisation was pursued.

2.5.5 Information technology risk

Towards the end of 2015, BSD had issued a self-assessment questionnaire to the industry looking at information security and IT infrastructure management. The feedback was received in early 2016; the outcome of its analysis was used to inform supervisory processes.

BSD continued to critically analyse submissions in terms of Directive 8 of 2015 on the reporting of material outsourced service providers and critical third-party service providers. The supervisory plan included continued on-site visits at banks where disaster recovery as well as information security and projects were some of the topics that continued to receive attention.

BSD was granted observer status on the ITSG, a global group where IT supervisory practices and experiences are shared in order to align global practices. The department was also represented on the BCBS's TFFT. These initiatives enabled BSD to learn from other regulators and implement those lessons locally as well as to share, on a global stage, what was working nationally. Moreover, the department continued to be involved in the SARB working group on virtual currencies and distributed ledger technology. In addition, it was involved in establishing a FinTech working group within the SARB and participated in intergovernmental FinTech initiatives. BSD was furthermore involved in the planning of the SARB cybersecurity conference.

The short- and medium-term IT supervisory programmes will include a focus on information security, FinTech, outsourcing and continuity. BSD will look to issue guidance on cyber-resilience and is considering providing guidance on incident reporting. In addition, the department will remain involved in both local and international initiatives to supervise and provide guidance on IT risk in the industry.

2.5.6 Information technology risk reviews

Various focused IT risk on-site meetings were conducted in the year under review. The topics covered included IT governance, IT risk management, key projects, business continuity and disaster recovery, and information security and cybercrime. The key findings from these reviews were as follows:

- The maturity of IT governance was a concern at some banks.
- The maturity at some operations outside South Africa required improvement.
- Banks have to ensure that they do not increase risk due to a lack of IT and/or information security skills.

- Ensuring service uptime and minimising the impact of IT glitches on customers required attention, including the management and testing of IT infrastructure, with business continuity and disaster recovery management being a concern in some of the operations outside South Africa.
- Strained project governance and ensuring that benefit delivery remained a priority continued to be focal points.
- Information security and cybersecurity had been increasing in importance. Banks have to ensure that the governance frameworks and management of these areas are at the desired maturity level. User and logical access management in particular continued to be a concern across the industry.

BSD will continue to monitor the control environment within banks to ensure that appropriate and sufficient action is taken to minimise control failures. The managing of third-party relationships – particularly from a strategic, operational and security perspective – is imperative; BSD will therefore continue to focus on outsourcing.

2.5.7 Risk data aggregation and risk reporting

Due to the onerous nature of the internationally agreed requirements related to risk data aggregation and risk reporting, none of the D-SIBs in South Africa were able to fully comply with the Principles by the directed date of 1 January 2017. Principle 2, relating to data architecture and IT infrastructure, seemed to pose the biggest challenge to banks, specifically in terms of execution and management. This was followed by Principle 7, relating to accuracy in terms of gaps identified.

Banks had made a concerted effort to implement the Principles, but it was evident that some might have initially underestimated the complexity and interconnectedness of the Principles. It did appear, however, as if the boards and senior management were adequately involved, recognising the importance of the Principles and viewing their implementation not only as a compliance exercise but rather as a necessity for their respective organisations and the banking sector as a whole.

BSD had quarterly interactions with most of the larger banks during the year under review and will continue these discussions in 2017, albeit less frequently. In addition, the department will engage with non-D-SIBs on a bilateral basis to monitor their progress in complying with the Principles.

BSD issued Directive 5 of 2016[22] directing banks' internal auditors or a combination of their internal and external auditors to periodically conduct granular verification and validation of the evidence related to compliance with the Principles.

22. Available at http://www.resbank.co.za/Publications/Pages/Bank-Actdirectives.aspx

Finally, in order to assist BSD in discharging its supervisory responsibilities, risk data aggregation and risk reporting was selected as one of the flavour-of-the-year topics for 2017 to be discussed with banks' boards.

2.5.8 Directives related to operational risk

The following directives were issued during the period under review:

- Directive 5 of 2016:[23] The purpose of this directive was to direct banks' internal auditors or a combination of their internal and external auditors to periodically conduct granular verification and validation of the evidence related to compliance with the Principles.

- Directive 8 of 2016:[24] The purpose of this directive was to direct all banks to submit specified information in respect of their outsourcing arrangements within indicated timelines.

23. Available at http://www.resbank.co.za/Publications/Pages/Bank-Act-directives.aspx

24. Available at http://www.resbank.co.za/Publications/Pages/Bank-Act-directives.aspx

2.6 Asset and liability management risk

2.6.1 Regulatory developments

BSD assessed the NSFR holistically to determine the feasibility of adopting the minimum standard in South Africa. The focus was on the suitability of the calibration of the NSFR for South Africa and the options available to incorporate the principles of the NSFR without causing undue harm to the banking sector or the economy.

The available and required stable funding factors specified in the standard are calibrated to reflect the presumed degree of stability of liabilities and the liquidity of assets. However, the NSFR framework has been calibrated on a global scale without due consideration for jurisdiction-specific circumstances and as such has proved to be inappropriate for South Africa in specific areas.

Consequently, the calibration of 0% for wholesale deposits with a residual maturity of less than six months per the Basel document *Basel III: the net stable funding ratio* issued in October 2014 was recalibrated to 35% to reflect that wholesale funding in South Africa was generally more stable than in some other parts of the world; this was proved by analyses of the behaviour of wholesale funding. This will substantially reduce the banking sector's shortfall in complying with the NSFR and increase the NSFR ratio. However, banks are still required to adjust their funding profiles to reach the NSFR compliance level of 100% and build up a buffer which BSD estimates may be anything between 5% and 10%. This will promote the ethos of the NSFR without causing undue harm to the economy.

The effective date for the NSFR is 1 January 2018, with the monitoring period underway.

Through its membership on the TFIR, BSD continued to participate in the development of international standards to measure IRRBB, with a final Basel document *Standards*: *interest rate risk in the banking book* released in April 2016. The department has been scheduled to adopt these standards for IRRBB in 2017.

Throughout 2016, BSD continued to engage with the South African banking sector through BASA to monitor and discuss international regulatory developments and their impact on liquidity risk and IRRBB.

2.6.2 Focused reviews

According to the Core Principles, a supervisor is required to determine whether banks have in place certain minimum standards in respect of liquidity risk and IRRBB. During the year under review, BSD conducted several reviews to evaluate banks' current practices. The department sent out a questionnaire covering banks' policies, procedures and internal controls relating to liquidity risk and IRRBB.

Following an off-site review of the responses received, BSD conducted on-site meetings to discuss the responses and probe any relevant additional information to ascertain the level and intensity of supervision.

2.6.3 Sovereign credit rating downgrade scenario

Having due consideration for the ever-present risk of South Africa receiving a sub-investment grade on its sovereign credit rating and its subsequent impact on the banking sector, BSD requested all banks to participate in a stress scenario to assess the potential impact of such a downgrade and to ensure banks are able to react to and mitigate the impact of such a scenario. The results were evaluated and incorporated into a detailed analysis of the banking sector.

2.6.4 Circulars issued in 2016

Circular 5 of 2016, titled *Matters of interpretation relating to the liquidity coverage ratio*, was issued in May 2016. The circular was issued in response to the growing number of interpretation issues raised after the implementation of the LCR as a regulatory minimum requirement on 1 January 2015.

2.6.5 Directives issued in 2016

Directive 4 of 2016, titled *Matters related to the net stable funding ratio*, was issued in August 2016. It informed banks about the calibration of the NSFR and the national discretion exercised in respect of specified items related to the NSFR. In addition, banks were provided with the monitoring template to enable BSD to monitor their readiness to comply with the NSFR requirements from 1 January 2018.

2.7 Capital management

2.7.1 Overview of internal capital adequacy assessment process reviews and key findings

BSD continued to conduct focused reviews on ICAAPs in 2016, in particular to follow up on prior ICAAP recommendations, risk appetite, credit risk economic capital estimations, capital management, stress testing, the validation of economic capital and stress-testing models as well as the continued focus on the use test.

On-site reviews conducted in the year under review highlighted the following aspects:

- Banks' regulatory capital planning was robust and underwent regular challenge by management. The forecast regulatory capital and leverage ratios indicated that South African banks remained well capitalised. However, a number of banks should place more focus on economic capital planning and its stress testing.
- The phasing-in of regulatory capital buffers, such as the capital conservation buffer and the D-SIB buffers, commenced in 2016. Furthermore, the consequences of dipping into these buffers during periods of stress should be made clear by banks, together with the scenarios where this should be tolerated.
- Some banks still needed to fully embed Guidance Note 4 of 2015 into their respective ICAAPs.

2.7.2 Data collection

In addition to the revised BA 700 form that was implemented with effect from July 2016, the following data requests were made:

- BSD continued to monitor and collect forecast regulatory and economic capital data from D-SIBs on a biannual basis in order to supplement the ICAAPs, as prescribed in Guidance Note 4 of 2015.
- BSD issued Directive 2 of 2016 in April 2016 to collect credit-related statutory BA returns from D-SIBs on a group-consolidated, biannual basis. The data will assist the department in participating more effectively in international data collection exercises.
- BSD issued Directive 7 of 2016 in November 2016 to collect information from D-SIBs on instruments that were issued for capital and funding purposes on a biannual basis.

2.7.3 Domestic systemically important banks

BSD continued to apply its D-SIB methodology to assess which banks could be regarded as systemically important and the extent to which they were systemically important. Such monitoring and assessment of banks and bank-controlling companies was based on the latest available data.

The department has kept D-SIBs informed of all the changes to the size of the imposed individual D-SIB capital buffer requirements since 2013. This communication has afforded banks and bank-controlling companies sufficient time to adequately plan for and manage the aforementioned capital buffer requirements.

The phase-in of the D-SIB loss absorbency capital requirement commenced on 1 January 2016, with the capital buffers forming part of the capital conservation range (i.e. the capital conservation buffer and the countercyclical capital buffer). During times of stress, CARs may fall below the aforementioned buffer requirements, however, restrictions on the level of distributions have applied with effect from 1 January 2016.

2.8 Pillar 3: disclosure

2.8.1 Overview of key activities

During the year under review, BSD reviewed banks' compliance with the Pillar 3 disclosure requirements, with a focus on matters relating to the preparation for compliance with the revised disclosure requirements at the end of the 2016 financial year. Banks' areas of concern regarding the revised Pillar 3 requirements were addressed in conjunction with BASA.

In terms of Directive 11 of 2015, titled *Matters related to revised Pillar 3 disclosure requirements*, banks are required to publish their first Pillar 3 reports in accordance with the revised requirements concurrently with their financial reports that relate to the 2016 financial year-end. BSD recognises the efforts displayed by those banks which have timeously complied with the revised Pillar 3 requirements, but has also noted the banks that still have to fully comply with these requirements. The department will continue to monitor banks' compliance with the revised Pillar 3 disclosure requirements as well as the retained requirements in the 2017 review year.

2.8.2 Regulatory developments

The implementation of the amended Regulations in July 2016 resulted in most of the Pillar 3 disclosure requirements, which had first been issued as part of the Basel II framework and the Basel 2.5 revisions and enhancements, being substituted by the revised Pillar 3 standards, and these disclosure requirements are implemented by Directive 11 of 2015, as mentioned in section 2.8.1 above.

In March 2016, the BCBS issued a consultative document titled *Pillar 3 disclosure – consolidated and enhanced framework*[25] for comments, which will result in further revisions and additions to the revised Pillar 3 disclosure requirements.

25. Available at https://www.bis.org/bcbs/publ/d356.htm

2.9 Consolidated supervision

2.9.1 Adhoc supervisory colleges

BSD is committed to conducting effective consolidated supervision, as proposed by the BCBS. Supervisory colleges are an integral component of the department's consolidated supervision framework. In addition to the collaborative supervisory on-site reviews conducted with many host regulators, as described in section 1.10.2, BSD continued to have supervisory colleges.

Supervisory colleges make it possible for supervisors to update one another on any material developments in risk profile, group structure, strategy and operations in home and host countries. They also enhance the development of a common understanding of risk in financial groups, promote a shared agenda for addressing risks and vulnerabilities, and provide a platform for communicating key supervisory messages among members.

2.9.2 Supervisory meetings with the Financial Services Board

BSD and FSB maintained regular interactions throughout the year. The financial conglomerates operating in the South African jurisdiction were discussed, ensuring that appropriate regulatory and supervisory processes were in place. These meetings served as a platform where valuable information was shared between the authorities, enhancing the effectiveness of conglomerate groups.

2.9.3 Supervisory colleges hosted by the Financial Services Board

BSD and FSB have always enjoyed a close working relationship by virtue of regular supervisory discussion meetings. This relationship was strengthened during the year under review through increased cooperation, information sharing and communication between the two supervisory bodies in anticipation of the imminent establishment of the PA.

In the 2016 financial year, FSB hosted supervisory colleges for all the South African insurance groups with a presence in Africa. Representatives from BSD were also invited due to the interconnectedness between banking groups and insurance groups.

The information obtained and interactions held at these supervisory college sessions proved extremely valuable in BSD's continued risk assessment and analysis of banking groups with insurance subsidiaries.

2.10 Anti-money laundering and combating the financing of terrorism

2.10.1 On-site inspections

BSD follows, on an annual basis, an AML/CFT risk-based approach to determine which banks to inspect during any particular year. In 2016, nine AML/CFT on-site inspections were conducted in terms of section 45B of the FIC Act. All the inspections undertaken in the year under review were conducted over a period of, on average, three weeks.

The most pertinent findings arising from the on-site inspections conducted during 2016 indicated that banks required an enhanced focus on and the strengthening of their controls in relation to compliance with the FIC Act in various areas, but in particular the following:

- the documentation and implementation of client identification and verification (CIV) and record-keeping procedures;
- the implementation of efficient working methods pertaining to the detection and investigation of suspicious and unusual transactions; and
- the implementation of effective controls relating to the identification and reporting of property associated with terrorist and related activities.

Besides testing banks' compliance with the FIC Act, BSD also assessed banks' adopted AML/CFT risk-based approaches, including their treatment of politically exposed persons in line with the FATF Recommendations.

In 2016, the department visited two cross-border banking subsidiaries of banks registered in South Africa in order to assess the operations' level of compliance with:

- the global AML/CFT standards of the FATF Recommendations;
- BCBS's guidance on the sound management of risks related to money-laundering and the financing of terrorism; and
- country-specific AML/CFT legislation.

Each visit was conducted in collaboration with the specific regulators of that country. The inspection findings revealed, among other things, that there continues to be a need for parent companies to enhance their efforts to assist, guide and perform adequate oversight of their cross-border operations' AML/CFT frameworks.

Table 2.1 reflects the details of the inspections conducted and also provides a comparison of the inspections conducted from 2012 to 2016.

Table 2.1 On-site inspections

Nature of inspection		2012*	2013	2014	2015	2016
Routine................	Large banks	2	3	0	1	0
	Small banks	6	2	8	6	8
	Cross-border (Africa)	0	0	1	2	2
Non-routine	Large banks	0	1	0	0	1
	Small banks	0	1	0	0	0
Total		8	7	9	9	11

* AML/CFT inspections commenced in April 2012.

2.10.2 Off-site supervision

Throughout 2016 BSD conducted various workshops and prudential meetings with select locally registered banks. Topics discussed at such meetings included:

- the treatment of business relationships and transactions that contravened targeted sanctions other than those listed on the United Nations Security Council Resolutions, e.g. sanctions of the Office of Foreign Assets Control (OFAC) and HM Treasury;
- banks' readiness to implement the FIC Act Amendment Bill with regard to policies, procedures, systems and controls;
- the management of records within a banking group when sharing client information with foreign branches and subsidiaries, local subsidiaries and financial intermediaries;
- observations related to the 'derisking' of correspondent banking relationships;
- distinctive and overlapping AML/CFT roles, responsibilities and oversight; and
- progress made by banks in remediating AML/CFT inspection findings.

2.11 Recovery planning

The Financial Stability Board issued a document titled *Key attributes of effective resolution regimes for financial institutions* in 2011. BSD requested all banks to commence with the development of recovery plans in 2012 and issued Directive 1 of 2015 on the minimum requirements for recovery plans as further guidance against which banks could benchmark their recovery plans.

Since 2013, representatives from BSD and the Resolution Planning Division (RPD) of SARB's Financial Stability Department have been jointly reviewing the recovery plans of the larger banking groups that have been identified as systemically significant to the South African banking sector (D-SIBs). These annual reviews take the form of workshops held with the D-SIBs.

The workshops focus on D-SIBs' compliance with the requirements of Directive 1 of 2015 and their progress in addressing the gaps identified by BSD and the RPD during the previous year's workshop. Overall, the recovery plans have improved over time and continuous refinement is expected to take place as the recovery planning process matures and is embedded in banks' risk management processes.

During 2016, the RPD initiated a project to compare the different D-SIBs' compliance with Directive 1 of 2015 to identify areas of focus for future workshops. This project's outcome will be incorporated in the annual recovery plan review process to ensure that there is consistency in the assessment of D-SIBs' recovery plans but also consistency between all banks in the development of the different elements of their recovery plans.

A process commenced in the year under review to start reviewing smaller banks' recovery plans as well. This will also be a joint project between BSD and the RPD.