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AN INVESTIGATION INTO THE EFFECTS OF LIQUIDITY DRAW DOWNS BY ASSET BACKED COMMERCIAL PAPER CONDUITS ON SOUTH AFRICAN BANKS

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South African banks emerged relatively unscathed from the recent economic crisis when compared to developed country banks. A possible reason is that the South African banks had less exposure to securitised assets and liquidity draw downs by securitisation conduits. This study investigates the circumstances under which liquidity draw downs are possible in South Africa and whether the liquidity draw downs by conduits will have a material financial and liquidity impact on the banks providing such facilities. Using data on the conduits and the banks, the impact was calculated and found to have minimal effect on the banks, concluding that the banks will be able to service liquidity draw down requests in a possible market disruption event.

Keywords: ABCP, conduits, commercial paper, South African money market, securitisation

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We declare that the manuscript or a similar one has not been published and is not, nor will be, under consideration for publication elsewhere while being reviewed for the SAAA conference.

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South African banks emerged relatively unscathed from the recent economic crisis when compared to developed country banks. A possible reason is that the South African banks had less exposure to securitised assets and liquidity draw downs by securitisation conduits. This study investigates the circumstances under which liquidity draw downs are possible in South Africa and whether the liquidity draw downs by conduits will have a material financial and liquidity impact on the banks providing such facilities. Using data on the conduits and the banks, the impact was calculated and found to have minimal effect on the banks, concluding that the banks will be able to service liquidity draw down requests in a possible market disruption event.

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1. INTRODUCTION

It is widely believed that the current economic crisis started in July 2007 (Ryan, 2008:1606) when investors lost confidence in the value of securitised mortgages in the United States of America (US). Demand for securitised mortgages of low quality (subprime) dried up completely and demand for higher quality mortgages decreased substantially. Over time, the initial subprime crisis engendered and expanded beyond the original subprime positions and became known as the credit crisis or credit crunch.

Bank failures have become a feature of the economic crisis. Northern Rock, a British bank, experienced a bank run in September 2007 and in February 2008 it was nationalised. In the US, Bear Sterns was acquired by JP Morgan Chase. Lehman Brothers was allowed to fail. On 11 July 2008 Indy Mac Bank collapsed and on 7 September 2008 mortgage lenders Fannie Mae and Freddie Mac were taken into federal conservatorship.

Both Bear Sterns and Northern Rock were unable to 'roll over' maturing asset backed commercial paper (ABCP) and suffered serious liquidity consequences. ABCP is short-term in nature and is secured by mostly long-term assets. Because of this timing mismatch, the cash flow from the assets securing the ABCP does not match the cash flow required to repay maturing ABCP. As a consequence, maturing ABCP is usually repaid by issuing new ABCP – the 'rolling over' of the debt.

In Canada, most non-bank ABCP trusts were unable to access bank lines of credit when some of their ABCP became due during the beginning of 2007 and they lacked sufficient funds to repay investors. On 12 August 2007, 22 Canadian non-bank conduits revealed they were no longer able to refinance obligations due to the drying up of liquidity in the ABCP market – a result of rising investor anxiety following rising defaults in the US subprime mortgage space (Davies, 2008).

This paper will investigate the reasons for the failure of the Canadian ABCP conduits to draw down on their liquidity facilities and will then further determine the possible effect of a liquidity draw down by ACBP conduits on South African banks. The results of this study can possibly shed light on why none of the South African banks experienced obvious distress during the current economic crisis.

One of the first studies that investigated the impact of a draw down event on liquidity facility providers was done by the credit rating agency Fitch in September 2007 (Linnel, Moss, Ramadurai & Rawcliffe, 2007). The authors found that smaller regional banks will have greater difficulty in funding liquidity facilities and that the longer it takes a conduit to re-enter the ABCP market, the greater the risk to earnings for the liquidity providing bank.

Further research published by Standard & Poors (Best & Brennen, 2007) and Citigroup researcher Horowitz (2007) investigated the German and US banking sectors' exposure to liquidity facilities respectively. Their findings were that most of the German banks were sufficiently strong to absorb the draws on liquidity and that some of the US banks would have a reduction in their capital to asset ratios, but would still be able to meet their requirements for draw down.

These studies led to investigations by Gresty and Kryzylchylkiewicz (2007) and Rushton and Gable (2008) into the South African ABCP markets. These were the only studies to date and the aim of this paper is also to expand on their findings and research and to apply the methodology used in the international studies to the South African market.

It is important to note another, more subtle contribution of this paper. Moyo & Firer (2008) investigated securitisation in South Africa. They limited their study into securitisation to the transformation of loans and other interest bearing instruments into longer-term listed instruments such as bonds. When defined this way it is difficult to fully understand the

maturity transformation achieved through a securitisation process. This paper contributes to the body of knowledge regarding South African securitisations, by investigating the portion of the South African securitisation market wherein longer-term assets are transformed into short-term commercial paper (CP).

Due to the technical nature of the topic the paper starts with an extensive literature review. In the literature review the process of securitisation of assets by banks and the use of ABCP conduits in this process will be introduced. The growth in the usage of ABCP will be demonstrated and explained. Next the concept of a liquidity facility ('overdraft') granted by a bank to the ABCP conduit will be described and explained. This will lead to a review of the refusal by Canadian banks to honour their liquidity facilities granted to non-bank ABCP conduits during the economic crisis. The previous securitisation and ABCP market discussion leads into a review of studies which investigated the impact of liquidity draw down events in different countries, with the focus on studies post the 2007 events in Canada. Here international and South African studies will be reviewed. The data and methodology sections of the paper follow. Finally, the results are presented and conclusions drawn.

In summary, this paper investigates the potential impact of liquidity draw downs by South African ABCP conduits on the South African banking sector. Can South African banks refuse to honour draw down requests like what happened in Canada in 2007? Can South African banks absorb these draw down requests?

2. LITERATURE REVIEW

2.1 Asset Securitisation, ABCP Conduits and Liquidity Facilities

Securitising assets requires a lending institution to set aside a group of income-earning assets, such as home mortgages or credit card loans, and to sell securities against those assets in the open market (Rose & Hudgins, 2008:282). They partly explain the motivation for securitising assets as the creation, through the securitisation process, of liquid assets out

of what are often, illiquid, expensive-to-sell assets and the transformation of these assets into new sources of funds for lenders and attractive investments for investors in the money and capital markets.

If the securitisation entity issues bonds, the security will be traded in the capital market and the bank would not have fully succeeded in turning a long-term asset into a short-term asset. ABCP conduits fill that gap. It is the non-ABCP part of the process that was investigated by Moyo & Firer (2008) in the South African context. The ABCP part is needed to complete the transformation process.

2.1.1 Asset Back Commercial Paper (ABCP) Conduits

An ABCP conduit is a special purpose vehicle established to fund a portfolio of assets through the issuance of CP (Bate, Bushweller & Rutan, 2003), a short-term security traded in the money market.

Some South African ABCP conduits invest directly in the underlying loans to customers (such as home mortgages or credit card loans), but most invest indirectly in the loans to customers as a large proportion of South African assets held in ABCP conduits are securitisation paper (53% of total conduit assets as at 30 September 2008 was invested in securitisation paper).

2.1.2 How Important Is the Asset Back Commercial Paper (ABCP) Market?

It is important to discuss the ABCP market prior to 2007 to get a view on the growth and cycles that it has gone through up to 2007. Before 2007 the ABCP market went through growth and stagnation phases as well as defaults.

According to Berthault, Hamilton & Carty (2000) from credit rating agency Moody's, the ABCP market started in the late 1980's and in 1995 the ABCP outstanding grew to US$75 billion. It then grew to US$504 billion by the first quarter of 2000.

Berthault, Hamilton & Carty (2000) indicated that due to the lack of cash flow matching, third party liquidity lines are a key determinant of ABCP credit quality and the credit ratings of liquidity providers are a key input into the ratings of ABCP programmes. Moody's further reports that all of the 16 ABCP downgrades in 1998 and 1999 were as a result of credit deterioration in the liquidity providers. Bravo Trust is cited as an example in the Moody's paper. Bravo Trust, initially rated P-1, was downgraded and ultimately withdrew from the market as a result of the rating downgrade of Integrity Life, a liquidity provider. More explanation of this liquidity provider role will be given in the next section.

In 2002 the US ABCP market failed to show growth in either outstanding or new programmes for the first time since the inception of the market. Outstandings were slightly down from year-end 2001; US$270 billion versus US$745 billion. Programme terminations exceeded new conduit formations and economic weakness limited the need for funding. Regulatory changes, especially potential accounting changes, discouraged new deal flow. The European ABCP market continued to grow rapidly in the same period to US$178 billion from US$135 billion as it was not subject to the same proposed accounting regulations.

According to Polansky, Berthelon, Bonilla & Hutchinson (2006) from credit rating agency Moody's, ABCP outstanding reached US$920 billion at 30 June 2006, an 8.5% increase from December 2005. The growth was across all types of traditional ABCP programmes and new programmes.

In the same report, Polansky, Berthelon, Bonilla & Hutchinson refer to the April 2006 event when the Federal Reserve Board modified the manner in which CP outstanding were

calculated and it resulted in US$100 billion being transferred from ABCP to unsecured CP. ABCP resultantly declined from 57% of the total market to 52%. Through the end of the second quarter of 2006 they reported that newly formed conduits (13) outpaced the number of terminations (11).

This information leads to the conclusion that the ABCP market worldwide was growing at a steady pace in 2006. In 2007 the economic crisis started and ABCP conduits found themselves in the midst of the crisis, especially in Canada where Canadian banks refused to provide liquidity support to the conduits.

2.1.3 Liquidity Facilities Granted to ABCP Conduits

The purpose of this section is to clarify the difference between corporate CP and ABCP and to define the use of liquidity facilities by ABCP.

CP is a senior level, unsecured short-term note and is a flexible source of short-term funding for the largest corporations worldwide, providing them with a low-cost alternative to bank loans (Berthault, Hamilton & Carty, 2000). Unlike corporate CP that is used to finance inventories and manage cash flows, ABCP are bankruptcy-remote conduits that issue short-term CP on a revolving basis. A conduit is a structured investment vehicle used to fund the purchase of assets through the issuance of CP.

ABCP is not backed by a single corporate issuer, but by a pool of assets consisting of, for example, trade and credit card receivables, auto loans, corporate loans and bonds, housing loans, structured finance assets and equipment leases. These assets are held in the conduit and the cash flow goes directly for the repayment of the CP. Since the CP is considered low risk (because it is highly rated) and short duration (less than 1 year) the two main buyers are money market funds and pension funds (Fitch Ratings, 2007).

Banks and other financial institutions are involved in ABCP by providing liquidity facilities. Horowitz (2007) concluded from his research on ABCP and the impact on banks that ABCP has very thin spreads due to the liquidity provided by highly rated banks plus credit enhancement. Horowitz further states, in the event of a market disruption where ABCP paper cannot be rolled over, that all investors take comfort from the back-up liquidity provided. The banks are paid a fee for the facility and these obligations are generally unfunded. However, should the liquidity facility be drawn upon, the assets and liabilities of the special purpose vehicle or conduit as it has been called in this paper, is put on the bank's balance sheet and the commitment becomes funded.

According to Berthault, Hamilton & Carty (2000) CP are generally not matched to the cash flows of the underlying assets and therefore rely on the roll over of notes or on third party liquidity lines to repay maturing notes. Liquidity risk arises from the imperfect matching of cash flows and the uncertainty of new issuance.

Sehnert & Moskowitz (2007), from credit rating agency Standard & Poors, defines a liquidity facility as a committed facility from one or more highly rated financial institutions which can be used as a source of funds to repay maturing CP. According to them the only conditions for the use of the facilities are that there are sufficient performing assets to support the payment and that the conduit has not entered into insolvency proceedings. This shows the provider's intent that the facility purely functions to cover the timing difference between the asset cash flow and the maturing CP, rather that cover the asset's credit risk.

According to the regulations governing securitisations in South Africa (South African Government, 2008), a liquidity facility is provided in order to cover deficiencies in cash flows resulting from:

- timing differences between payment of interest and the receipt of interest and principle on the underlying assets; and/or

- a market disruption event.

Even though the South African securitisation regulations caters for market disruption events, Standard & Poors does not provide short-term ratings on any ABCP supported by a liquidity facility that requires a general disruption in the CP market before it can be drawn down. In their view the liquidity facility should be available if the CP cannot be rolled over for any reason. They see the liquidity facility as an additional funding mechanism as well, for example, if the spreads on ABCP notes widen to uneconomic levels, the administrator may elect to draw on liquidity facility instead of issuing new notes. None of the South African ABCP conduits are rated by Standard & Poors.

This section shows that the liquidity support usually given to an ABCP conduit provides investors in the ABCP's paper the comfort that the ABCP is unlikely to ever find itself in a position where it cannot fund maturing CP. Unfortunately, in 2007, events showed that investors were not as protected as they thought.

2.1.4 Liquidity Draw Downs in 2007 (Crisis)

This paper is centred on the events of 2007 that caused ABCP conduits to request draw downs from liquidity providers. The following section will discuss these events.

Canada - Andrew Willis of The Globe and Mail reported on their Streetwise blog (2007) that, in the midst of the subprime mortgage crisis in the Unites States of America, Canadian ABCP conduits were forced by circumstances to exercise options to extend maturing notes and attempt to access liquidity facilities from banks to meet CP obligations. Banks were refusing to supply emergency financing for 17 Canadian asset-backed CP issuers managing funds of C$27 billion (C$25.3 billion), including funds run by Coventree Inc., after the funds failed to sell short-term debt.

Willis reported that the ABCP market in Canada as at August 2007 was C$116 billion of wich 70% was sponsored by banks and the rest by non-banks. Coventree Capital is the largest non-bank sponsor in Canada. He also stated that, as in the US, Canadian ABCP conduits have liquidity facilities from big banks; the important difference is that in the US the banks are required to fund in the event that CP cannot be rolled over and in Canada, banks are only required to fund in the event of a general market wide disruption (Horowitz, 2007).

Pittman (2007) reported on Bloomberg on 14 August 2007 that Coventree Capital, with C$16 billion of funds under management, reported that a number of banks refused to meet their request for C$700 million in liquidity. Pittman (2007) further reported in the same article that Canada's big six banks were the largest players in the asset-backed securities market, as both issuers and providers of liquidity on CP programs. He estimated the total exposure of each bank and wrote that the Bank of Montreal had agreed to supply C$42.7 billion of backstop liquidity, Royal Bank of Canada had agreed to fund C$35.1 billion, CIBC had agreed to C$16.7 billion, Toronto-Dominion Bank was a provider of C$15 billion in liquidity, Bank of Nova Scotia had agreed to provide C$10.1 billion and National Bank had just C$1.4 billion of exposure.

Coventree asked for the loans after it was unable to find new investors for its CP programs. The banks argued that there was not a general market wide disruption as some of the other issuers could roll over their paper. On 16 August 2007, a consortium of ABN Amro, Deutsche Bank and eight other investors agreed to buy ABCP in Canada to ease the local credit crunch.

These events served as a reminder that the terms and conditions of credit facility agreements can be critical in times of distress and deserve close attention. The back-up liquidity agreements in question here appeared to have been contingent on a "market disruption." Toronto-based Genuity Capital Markets analyst Mario Mendonca opined

(Pittman, 2007) that it is conceivable that the banks could argue that the circumstances were more than a market disruption and elected not to provide the liquidity. He said the banks might claim that a decline in the value of the underlying assets was causing the problem, rather than a “disruption". Standard & Poors had refused to grant investment-grade ratings to Canadian ABCP issuers because of the clause in the liquidity agreements that allow banks to decline funding.

Failure to receive funding in a timely manner may result in an event of default. The banks can sidestep the obligations to provide loans if there is any diminution of the creditworthiness of the trust or any deterioration in the performance of the assets of the trust. If Coventree was to support its conduits in such circumstances, the cost of such support could require the expenditure of significant amounts of capital and significantly reduce Coventree’s profitability.

Similarly, Quanto Financial unit Metcalfe & Mansfield Capital Corporation said its Apsley Trust, Whitehall Trust and Devonshire Trust haven't been able to roll over maturing short-term debt. Metcalfe commented in Pittman’s article on Bloomberg on 14 August 2007 that Deutsche Bank failed to put up cash for Apsley and Whitehall, while Barclays failed to pay for Devonshire Trust.

Erman, McNish, Perkins and Scoffield (2007) published a research paper on the events in Canada that led to the liquidity crisis. In conclusion, they highlighted as the key lessons that investors in ABCP need to play the role of credit officers and examine what is behind the paper. They can no longer rely on banks, which are offloading their risk, to be as picky as usual about the lending they do.

Mainland Europe - German lender IKB became the first casualty in early August 2007 when it was bailed out by banks owned by Germany's state and federal governments also known

as Landesbanken (Kjetland, 2007). IKB's problems came from its inability to provide liquidity to Rhineland Funding, a programme it sponsored.

Before August 2007 the European Central Bank injected €94,800 million into the markets in order to compensate for the lack of liquidity. One of the main reasons for this move was the announcement by BNP Paribas to temporarily freeze the liquidation value of three of its funds. The French bank followed the steps taken by other organisations such as Axa or the German bank WestLB.

United Kingdom - Duncan (2007) reported in the Evening Standard on 21 August 2007 that The Bank of England had provided $314m of emergency funding to bail out an unnamed British bank affected by liquidity draw down requests. Other central banks, including the US Federal Reserve and the European Central Bank, had injected billions of Dollars and Euros into their credit markets to restore liquidity.

Armitage (2007) published an article on 22 August 2007 in the Evening Standard based on HBOS's announcement the previous evening that it will fund Grampian. HBOS was forced to provide millions of pounds in emergency financing. They reported that many banks have built up conduits but HBOS's Grampian was the largest in the world. Grampian had $35.4 billion in debt outstanding as of the end of May 2007, according to Moody's Investors Service, making it the largest issuer of ABCP in Europe.

United States of America - Sonders (2007), Senior Vice President and Chief Investment Strategist of Charles Schwab & Co. Inc. published an article on 30 November 2007 wherein she commented that ABCP outstanding had declined for the 16th straight week, the week before her report. She published the following graph as evidence:

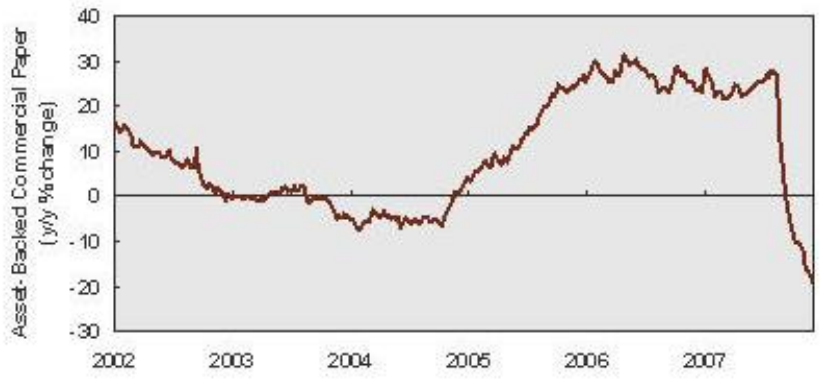

Figure 1: Change in US ABCP Market (source is Sonders (2007))

Sonders (2007) stated that ABCP are issued by several entities, notably Structured Investment Vehicles (SIVs). SIVs have come under scrutiny as some of the largest players in the ABCP market, and have found themselves unable to place CP in recent months. The SIVs' sponsoring banks are being forced to provide liquidity lines or buy CP themselves in order to prevent asset sales. In some cases, banks have also bought assets from the SIVs at par value, allowing the SIVs to deleverage without suffering major losses.

Fender and Hordahl (2007) issued a paper in September 2007 in the BIS quarterly review discussing the liquidity squeeze at that time. According to them the total amount of outstanding ABCP topped $1.5 trillion at the end of March 2007. US ABCP programmes accounted for some 75% of this amount and the $260 million European market made up for the rest. The US ABCP market was 55% of the US CP market.

It is also important to discuss M-LEC at this stage as it had an impact on the US conduit market. M-LEC was an initiative by a group of commercial banks in America which pooled their capital and created a support facility of $100 billion for structured investment vehicles. This master liquidity enhancement conduit was investigated by Mitchell (2008) and she published her findings in the Asset Securitisation Report on 14 January 2008.

Mitchell (2008) reported that two events led to the failure of M-LEC, being the announcement by Citigroup that it would consolidate the SIV's assets and liabilities onto its balance sheet and secondly, eight days later, Bank of America, JP Morgan Chase and Citigroup decided to pull the plug on M-LEC. According to Mitchell, the M-LEC failure would make some bank regulators wonder whether banks should be allowed to continue treating SIVs as off-balance sheet instruments.

2.2 The Impact of Liquidity Draw Downs by ABCP Conduits

The ABCP market discussed above sets the background for studies that ensued post the liquidity draw down events in Canada. A few research pieces were found post the 2007 events in Canada which investigated the impact of liquidity draw down events in different countries. These will be discussed below and will be used to determine the methodology to be applied to determine South African banks' exposure in similar circumstances.

2.2.1 Australia

The Australian ABCP market had grown to A$72 billion at July 2007 according to the Australian Reserve Bank Bulletin of January 2008. 45% of the assets of the conduits were residential mortgages and a further 17% were residential mortgage backed securities (RMBS). A$24 billion or 37% of liquidity facilities were provided by the largest 4 banks in Australia with the remainder provided by branches of foreign banks. The liquidity facilities were however only 2.3% of the risk-weighted assets of A$1 100 billion of the Australian banks. Glen Stevens, Governor of the Reserve Bank of Australia, stated in his address to Australian businesses in London on 18 January 2008 that the key banking institutions in Australia are strongly capitalised, have adequate liquidity and relatively little exposure to the problems in the American housing market.

Analyst Peter Russel of Intersuisse published research on the Australian ABCP market on 29 January 2008 (Russel, 2008). He stated that ABCP issued by Australian entities had declined by 14% from the end of July 2007 to approximately A$62 billion at the end of October 2007. Some of the conduits also drew on their liquidity facilities. Spreads reached new highs in December 2007 and shorter maturity paper was issued.

2.2.2 United States of America and Europe

According to Linnell, Moss, Ramadurai and Rawcliffe (2007) from Fitch, the US and European ABCP market and banks' exposure thereto as at the end of March 2007 were:

- The ABCP market in these regions consisted of US$1.15 trillion of US ABCP and US$300 billion of European ABCP;
- Small regional banks will have greater difficulty in funding liquidity facilities they have granted than large well diversified international banks. The longer it takes a conduit to regain access to the ABCP market, the greater the downside risks to earnings for the bank that granted the liquidity facility;
- In the European ABCP market the German banks IKB and Landesbank were the most exposed to liquidity risks, at 28.8% and 31.6% respectively of their asset values. Their capital ratios would also drop sharply if all liquidity lines were brought on to the balance sheet and were risk-weighted at 100%. Under Basel II, the risk weights will be determined by the external ratings of the assets held, to the extent the assets are bought by the bank, or by the rating on the drawn liquidity line, and will in the majority of cases be less than 100%; and
- In the US, the two banks most exposed to liquidity risks were State Street Bank and Trust Company and Zions First National Bank. They have liquidity facilities to conduits that represent 24% and 39% of their assets, respectively.

Fitch defined funding as deposits and senior and subordinated debt and used the committed facility as the conservative measure for the liquidity facility. On the US banks they did two additional ratios being liquidity facilities as a percentage of non-pledged investments and liquidity facilities as a percentage of free liquid assets. The impact of Basel II was taken into account by them by calculating the change in the Tier 1 capital ratio. Tier 1 capital consists primarily of equity capital and reserves, but may also include perpetual preference shares and retained earnings.

Best & Brennan (2007) from Standard & Poors analysed the German banking sector's exposure to US subprime mortgages and the exposure of the German banks to liquidity facilities granted to structured vehicles. They found that liquidity facilities granted by rated German banks were smaller than the IKB and Landesbank exposures and that German banks rely very little on securitisations as a funding tool. They concluded that German banks' balance sheets are sufficiently strong to absorb the draws on liquidity facilities.

Horowitz (2007) reviewed the US banks for their conduit exposure based on their disclosure in their regulatory returns. He looked at the change in capital ratios if the conduit came on balance sheet for the bank providing its liquidity facility. Horowitz's results indicated that State Street Bank and IKB would have a reduction of 17% and 15% respectively in their capital to total asset ratio if the liquidity facilities they provided were drawn. Horowitz concluded that US banks will have sufficient balance sheet capacity to put these facilities on.

Samuels & Harrison (2008) published a report on Pan-European banks and focused on asset growth due to funding of conduit liquidity facilities. They estimated that €450 billion of assets were added to European banks' balance sheets due to ABCP conduits coming on balance sheet. They further concede that this is only 5% of the assets of the European banking sector but that it represents a big increase in the growth in Risk Weighted Assets (RWA). The growth was expected to be €800 billion in 2007, but it is now expected to be

over €1 300 billion. Samuels & Harrison (2008) also believe that these assets have prevented other viable lending options and in their opinion represent a true credit crunch.

2.2.3 Emerging Markets

In February 2008, Moody's published its 2007 Review and 2008 Outlook for European, Middle East and Africa (EMEA) ABCP and provided statistics that showed a 29% decline in issuance levels from US$524.5 billion at July 2007 to US$347.6 billion at the end of 2007. Conduits had experienced a loss in investor confidence that reflected in a significant increase in funding costs and shorter ABCP tenor. Investors were reluctant to buy CP which they were possibly unable to roll and this lead to banks taking the assets of the conduits back on their balance sheets and providing regulatory capital against these assets. This resulted in a steady decline in ABCP issuance levels from August 2007 to year-end 2007, wiping out almost two years of growth.

Moody's (Zakaim & Deméocq, 2008) concluded that there were two very distinct trends that resulted in not all programmes being equally affected by the market disruption. The first was the fact that investors were distinguishing between conduits and not basing their investments solely on the credit ratings of the conduits. Conduits with exposure to US sub-prime residential mortgage backed securities were worse off with issuance levels dropping by 36% for the last six months of 2007 whilst being on par with other conduits in the prior year at single digit growth. The second factor was the strength of the sponsoring bank. The conduits which recorded the most significant declines were sponsored by lower-rated and/or smaller institutions including the German Landesbank.

Zakaim and Deméocq (2008) stated that as far as Moody's was aware, within the EMEA ABCP conduit market, all liquidity providers honoured their liquidity commitments in full when drawn. It is not clear if the liquidity facilities were drawn due to the inability to issue paper into the market or whether it was not economically viable to issue new paper. The size of

some sponsor's off-balance sheet conduits in relation to the size of their balance sheets also led some investors to question the sponsor's capacity to provide support. This was exacerbated by the freeze in the inter-bank lending market. Zakaim and Deméocq (2008) also mentioned that in addition to the factors mentioned above, the investors in the ABCP are usually money market funds which can easily withdraw their funds. From their findings it is important to note the key factors to consider for the South African markets; the capital position and liquidity of the banks relative to the liquid facilities they have provided.

2.2.4 South Africa

Very little research was found on the South African ABCP market. However, special mention must be made of the research done by Gresty and Krzylchylkiewicz (2007) on the exposure of South African banks to ABCP liquidity facilities.

Their findings were that there is no reason to expect contagion from the liquidity problems experienced offshore and that any effect was likely to be immaterial for the large South African banks. Their reasons include 1) the conduits have little or no US sub-prime exposure, 2) the conduits are all funded locally, 3) the conduits are small in relation to the banks' balance sheets and 4) the local conduits are better structured than the overseas conduits.

Gresty and Krzylchylkiewicz (2007) focussed on the size of South African ABCP conduits relative to the size of the total South African bank funding base. They calculated the size of the various conduits relative to the funding bases of the banks that administer them. They have included in the funding bases only the Rand denominated deposits and Tier 2 bonds. They concluded that in total, the size of conduits at June 2007 represented 4% of the funding bases of the banks that provided liquidity facilities (7% if all conduits were at their maximum permitted size).

They also conclude that FirstRand is the most exposed to liquidity facilities with the current size (at the time of their report) of liquidity facilities being over 6% of the funding base and the approved liquidity facilities being over 12%.

Gresty and Krzylchylkiewicz (2007) note in their research that South African conduits are unable to invest in non-South African assets due to exchange control regulations implemented by the South African Reserve Bank (SARB); therefore they had no exposure to US subprime assets. The spreads on the underlying assets had widened due to contagion, but there had been no downgrades across bank, securitisation and parastatal assets in the six months ended 31 January 2008.

This paper expands upon their research in the following ways:

- All South African conduits are included in the study, not just the big five conduits;
- The size of the liquidity facilities granted are to be compared to the bank capital available ; and
- The need to investigate the differences between the definitions of liquidity facilities (not assuming all definitions are similar).

These points lead to the next section where the impact that liquidity draw downs would have on regulatory capital and liquidity are considered.

3. DATA AND METHODOLOGY

3.1 Data

3.1.1 History of South African ABCP Conduits

Data on conduit activity was manually compiled from data downloaded from the bond exchange of South Africa as well as individual conduit investor reports. To ensure accuracy it was ensured that the resultant numbers aligned with what was reported by the South

African Securitisation Forum and the study by Gresty and Krzylchylkiewicz (2007). This complied data underlies the following comments on the growth in ABCP issue and Figure 2.

The first conduit issuance in South Africa was in July 2002 by Standard Bank via Blue Titanium and was followed by ABSA's Asset Backed Arbitraged Securities (ABACAS) in December 2002. At the end of 2002, there was R1 billion of ABCP in issue in South Africa.

CP issuance grew to R10 billion outstanding at the end of 2003 with the introduction of iNdwa by Rand Merchant Bank in July 2003. July 2004 saw the introduction of Synthesis by Nedbank and by December 2004, market issuance was up by 81% from the previous year to R18 billion. There was repeat issuance by ABACAS in 2004 and it continued in 2005. 2005 also saw the launch of Investec's Grayston conduit and issuance at year-end was 66% up from 2004 at R30 billion.

There were no new conduits in 2006 and repeat issuance by existing conduits increased the ABCP market to R41 billion at December 2006. iVuzi, a restructuring of RMB's iNdwa, was launched in June 2007. Blue Titanium is not listed, but including Blue Titanium, the conduit market grew to R51 billion by 31 December 2007 then decreased by 10% from the latter date to 30 September 2008. It is illustrated in Figure 2 below:

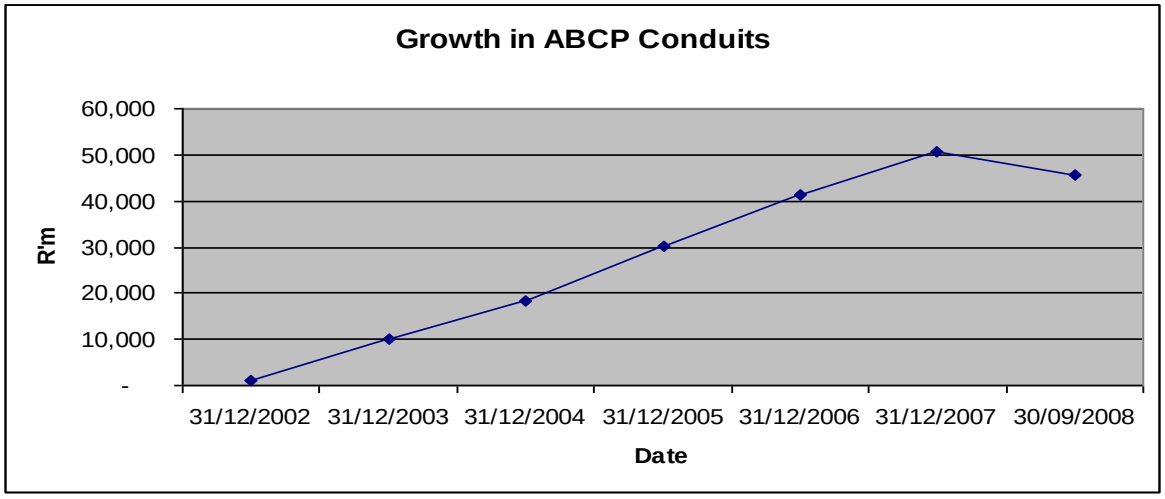

Figure 2: Growth in the South African ABCP market (source is the Bondexchange of South Africa)

As at 30 September 2008, there were 9 ABCP conduits in South Africa, of which four are single-seller conduits (Sanlam Personal Loans 102, Thekwini Warehousing Conduit and Grayston Series 4 and Series 5). Two are multi-seller and the rest are hybrid conduits. Sanlam Personal Loans 102 and Grayston 4 and 5 are excluded from the research as it is mostly internally funded and very little information on it is publicly available.

The following table was compiled from the individual conduits' investor reports as at 30 September 2008:

Table 1: South African ABCP Conduit Size as at 30 September 2008

	31-Mar-08	**30-Sept-08**	**% change**
ABACAS 1	3,794	3,500	-8%
ABACAS 2	3,911	3,316	-15%
ABACAS 3	1,585	-	-100%
ABACAS 4	2,615	-	-100%
BTITAN	11,025	7,996	-27%
GRAY1	1,645	1,535	-7%
GRAY2	1,493	1,563	5%
INDWA	10,416	10,134	-3%
IVUZI	5,259	5,126	-3%
THEKWINI WH	8,400	4,388	-48%
SYNTESIS	9,125	8,031	-12%
	59,268	**45,589**	-23%

3.1.2 Conditions for Draw Downs on Liquidity Facilities by South African ABCP Conduits

The literature review section showed that in 2007 Canadian banks refused to allow draw downs on the liquidity facilities of some Canadian ABCP conduits. Can South African banks also refuse to allow draw downs? This section will determine the terms and conditions that relate to South African ABCP conduits and when and how liquidity facilities can be called upon. For this purpose the South African conduits' programme memoranda were scrutinised.

Some terms that were focussed on were:

- what is the amount of the liquidity facility;
- what are the conditions for draw down;
- under what conditions is draw down not allowed; and
- when can the facility be cancelled.

The offering circular of iNdwa was used to obtain the definitions of the terms mentioned above. By review of the other conduits' programme memoranda, it was found that the terms are standard across all conduits in South Africa. The terms are as follows:

- The main liquidity provider, usually the bank sponsoring the conduit has to arrange liquidity facilities for the conduit with various individual liquidity facility providers so as to ensure that the amount of liquidity funding committed to the conduit is always equal to or greater than the *minimum liquidity commitment*;
- The *minimum liquidity commitment* is the minimum aggregate commitment under all individual liquidity facility agreements required by the conduit at any point in time. This is the final settlement amount of all notes in issue (and not yet redeemed) as at such point in time, plus the aggregate value of all senior fees and expenses due and payable by the conduit as at such point in time, less the amount available to be drawn under all liquidity facilities available at such point in time;

- The conduit, however, can only draw a maximum amount of liquidity funding known as the *liquidity available amount*;
- The *liquidity available amount* is:
    - the minimum liquidity commitment (as defined above); less
    - all amounts already drawn down but not yet repaid under all individual liquidity facility agreements available as at such point in time; less
    - the book value of all *defaulted assets* as at such point in time.
- *Defaulted assets* include**:**
    - an asset of which the obligor is bankrupt;
    - assets that have been written off;
    - assets that have been downgraded to below CCC by Fitch or CAA by Moody's or below (these are classified as assets that are highly vulnerable); and
    - there has occurred and is continuing a default with respect to payment of principal on final maturity of the asset.
- No notes can be issued if the liquidity facilities are not in force and effect at the date of such issuance. This or these facilities must have a maturity of longer than the maturity of the proposed notes to be issued and the aggregate commitment must be at greater than or equal to the final settlement amount of the notes contemplated in the proposed issuance; and
- If the *liquidity facility is cancelled* and a new provider cannot be obtained, it is an event of default for the conduit. The facility can be cancelled if the conduit becomes bankrupt or it becomes illegal under law for the liquidity facility provider to advance amounts under the facility.

3.1.3 Key Features of South African Conduits

The following section summarises data that was collected from the investor reports for the period ended 30 September 2008 and programme memoranda of the individual conduits. It

provides a summary of the key features of each programme focusing on the terms of the liquidity facilities. More detail per conduit can be obtained in Appendix A.

Summarised results from the review of the programme memoranda are:

- Not all programme memoranda specifies cancellation events for the liquidity facilities, however, it is stated in all programme memoranda inspected that the liquidity facilities can only be drawn down if the transactions documents are signed and is legally binding, that the issuer is solvent and that the credit enhancement has not been depleted;
- The minimum commitment amount includes senior expenses in most cases;
- The amount to be drawn down under a liquidity draw down event is limited to the size of performing assets in the conduit; and
- Draw down events are standard and are defined as a market disruption event and/or a payment mismatch. Market disruption is defined broadly and includes any event in which the CP cannot be rolled over.

These results indicate that South African banks do not have a right to decline a draw down request, unless the size of the request is in excess of the size of the performing assets in the conduit.

3.2 Quantitative Methodology

The literature review on the impact of liquidity draw downs by ABCP conduits discussed above generally focussed on the liquidity facilities provided by a bank as a percentage of the bank's assets:

- Linnell, Moss, Ramadurai & Rawcliffe (2007) calculated the liquidity facilities provided by US and European banks as a percentage of their funding available. As an example, they calculated the liquidity facilities provided to ACBP conduits as a

percentage of total funding for German banks IKB and Landesbank, who were most exposed to liquidity risks, at 28.8% and 31.6% respectively;

- Linnell, Moss, Ramadurai and Rawcliffe's (2007) also calculated liquidity facilities as a percentage of non-pledged investments and liquidity facilities as a percentage of free liquid assets. The allowed for the impact of Basel II by calculating the change in the Tier 1 capital ratios. Landesbank was found to be the most exposed with a 50% increase in Tier 1 capital required if the liquidity facilities it provides are called upon;
- Horowitz (2007) reviewed the US banks for their conduit exposure and he calculated the change in capital ratios if the conduit came on balance sheet for the banks providing its liquidity facility; and
- Gresty and Krzylchylkiewicz (2007) focussed on the size of South African conduits relative to the size of the total South African bank funding base.

The literature reviewed did not provide detailed definitions of the denominators (risk-weighted assets, asset values, funding base) and in this paper the size of the liquidity facility granted to each South African ABCP conduit will be compared to the Tier 1 Capital position of each bank in accordance with Basel II methodology and to the cash available to the bank according to its latest cash flow statement.

The following assumptions were made:

- For Basel II purposes, it will be assumed that the liquidity facilities will be risk weighted based on the Standardised Approach risk weighting for an on balance sheet CP investment per rating category; and
- The size of the liquidity facility will be set at the maximum programme size for the conduit and not the current value of notes in issue. This is more conservative.

3.3 Quantitative Results

The following quantitative results will define the size and quality of the South African conduits and secondly, the impact on the banks providing the liquidity support. The conduits included in the research are the conduits still actively issuing and rolling over paper as of 30 September 2008. The ABACAS 3 and 4, and Sanlam Home Loans 102 were discontinued in August 2008.

Table 2: South African Conduit Market as at 30 September 2008

Conduit	**Liquidity Provider**	**Maximum Conduit Size Rand billion**
ABACAS – Series 1 and 2 (in total)	ABSA	15
Blue Titanium	Standard Bank	20
Grayston – Series 1 and 2 (in total)	Investec	15
iNdwa	FirstRand	15
iVuzi	FirstRand	15
Thekwini Warehouse	Standard Bank	15
Synthesis	Nedbank	15
Total		**110**

The first empirical test performed will be to compare the conduits' liquid facility with the Tier 1 capital of each banks using Basel II methodology.

Table 3 below can be applied based on the credit quality of the underlying assets in the conduits.

Table 3: Risk Weights of Assets Depending on Their Quality

	Long-term rating category				
External credit assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ and below
Risk weight	20%	50%	100%	350%	Deduction

Source: South African Reserve Bank

The Risk Weighted Assets (RWA) are calculated by applying a weighting as per the above table. F1+ is considered to be of similar credit quality as AAA. The results per bank for ABCP paper outstanding as at 30 September 2008 are as follows (All amounts in Rand million and 100% risk weighting assumed for assets with undisclosed ratings):

Table 4: ABSA Basel II Weighted Facility Size Based on Underlying Quality

ABSA					
	ABACAS 1	**ABACAS 2**	**Total**	**Weighting**	**RWA**
AAA	2,959	-	2,959	20%	592
AA+ to AA-	541	1,147	1,688	20%	338
F1+	-	2,169	2,169	20%	434
	3,500	**3,316**	**6,816**		**1,364**

Table 5: Standard Bank Basel II Weighted Facility Size Based on Underlying Quality

Standard Bank					
	BTITAN	**Thekwini**	**Total**	**Weighting**	**RWA**
AAA	5,837		5,837	20%	1,167
AA+ to AA-	2,159		2,159	20%	432
Undisclosed		4,388	4,388	100%	4,388
	7,996	**4,388**	**12,384**		**5,987**

Table 6: Investec Basel II Weighted Facility Size Based on Underlying Quality

Investec					
	GRAYSTON 1	**GRAYSTON 2**	**Total**	**Weighting**	**RWA**
AAA	997		997	20%	199
AA+ to AA-	538	160	698	20%	140
A+ to A-		620	620	50%	310
Undisclosed		783	783	100%	783
	1,535	**1,563**	**3,098**		**1,432**

Table 7: Firstrand Basel II Weighted Facility Size Based on Underlying Quality

FirstRand					
	iNdwa	**iVuzi**	**Total**	**Weighting**	**RWA**
AAA	912	1,128	2,040	20%	408
AA+ to AA-	7,702	1,076	8,778	20%	1,756
A+ to A-		2,922	2,922	50%	584
F1+	1,520		1,520	20%	304
	10,134	**5,126**	**15,260**		**3,052**

Table 8: Nedbank Basel II Weighted Facility Size Based on Underlying Quality

Nedbank					
	Synthesis			**Weighting**	**RWA**
AAA	5,396			20%	1,079
AA+ to AA-	1,111			20%	222
Undisclosed	1,524			100%	1,524
	8,031				**2,825**

If the above calculated RWA is added to the current RWA per the financial report of each bank closest to 30 September 2008, the results are as follows:

Table 10: New Tier 1 Capital Percentages if ABCP Conduits Were Absorbed by SA Banks on 30 September 2007

Liquidity Provider	Annual Report Date	Tier 1 Capital as reported %	Reported RWA (Rand billion)	Additional RWA above (Rand billion)	Reported Tier 1 Capital (Rand billion)	New Tier 1 Capital % (tier 1 cap/new total RWA)
ABSA	31/12/2007	10.1%	360	1	36	10%
Standard Bank	31/12/2007	10.4%	524	6	55	10.4%
Investec	31/3/2008	10.3%	119	1	12	10%
FirstRand	30/6/2007	10.3%	305	3	28	9.1%
Nedbank	31/12/2007	8.3%	352	3	28	7.9%

The results indicate that the size of South African ABCP conduits are negligible compared to the size of the banks that provide them with liquidity facilities; even if the ABCP assets were to be put back on the balance sheets of the relevant banks the Tier 1 Capital ratios of the banks would not change by much.

The only question that remains to be answered is whether or not the ABCP facilities granted are material when compared to the liquidity position of each bank.

Table 11: ABCP Conduits Liquidity Facilities as a Percentage of the Cash and Cash Equivalents of the Facility Granting Banks

Liquidity Provider	Annual Report Date	ABCP facility (Rand billion)	Cash and cash equivalents – cash flow statement (Rand billion)	Facility as percentage of cash
ABSA	31/12/2007	15	7	214%
Standard Bank	31/12/2007	35	14	250%
Investec	31/3/2008	15	11	136%
FirstRand	30/6/2007	30	29	103%
Nedbank	31/12/2007	15	19	79%

When the South African ABCP conduit liquidity facilities are compared to the liquidity available as per each banks' cash flow statements a different picture emerges – the facilities are certainly not immaterial in size. This result must be tempered by two observations: the disclosure of banks regarding their liquidity positions is not very standardised and banks would rather have a credit facility available for liquidity than cash as cash earns no interest and a credit facility costs very little to maintain (Rose & Hudgins, 2008). As an example of the non-standard nature of banks' liquidity positions, Absa's 2007 cash flow statement shows cash and cash equivalents of R 6,596 million versus R 20,629 million indicated on their balance sheet as cash, cash equivalents and balances with the central bank.

The conclusion is that South African banks will be able to fully service liquidity draw downs by ABCP conduits.

4. CONCLUSION AND OPPORTUNITIES FOR FURTHER RESEARCH

Studies into securitisations often ignore the arguably crucial second stage of the process whereby longer-term securities are transformed into short-term CP. This study focused on this part of the securitisation process in the South African context.

The effect on banks of the draw down of liquidity facilities by conduits has been extensively investigated and reported on in the credit crisis that started in 2007 and which was still ongoing at the time of finalisation of this paper. As an example, banks in Canada refused to meet liquidity demands due to the wording of the facilities giving them an opportunity to refuse liquidity demands in adverse market circumstances.

The study examines the conduits in South Africa and the impact that their potential liquidity demands would have on the banks providing the liquidity facilities. It examines 9 conduits in the market at 30 September 2008 and 5 South African banks.

Firstly, from an examination of the conduits' programme memoranda, it was determined that in South Africa, conduits can request liquidity support in any event when they cannot roll-over their CP. It therefore means that, unlike Canadian banks, South African banks will not have an option to refuse liquidity requests in adverse economic circumstances.

Secondly the current conduit sizes as well as the maximum potential conduit programme sizes were determined from investor reports and programme memoranda and used to calculate the additional tier 1 capital that would be required by each bank should a liquidity draw down be requested based on the conduit size on 30 September 2008.. The tier 1 capital ratio was calculated based on the Basel II requirements. The results concur with the view of Cresty & Krzychylkiewicz (2007) that South African banks will be able to meet liquidity demands by the conduits they support. The effect of a conduit draw down on the liquidity position of the banks were also considered and found to be material in impact with several factors noted that would mitigate this potential impact.

The purpose of this study were to determine if a liquidity draw down event would have a material impact on any of the banks in South Africa providing such support and what the

impact on these banks' assets and regulatory capital would be. The study has answered these questions and the conclusion is that the draw down of liquidity facilities would be manageable given that the size relating to the banks capital and assets are immaterial.

The study contributes to the literature available in South Africa regarding the impact of liquidity draw downs on South African banks and provides an estimate of the possible impact of such events.

REFERENCES

Armitage, J. (2007): "High Street Banks Face Huge Bailout Bill", *Evening Standard*, 22 August 2007. Available at: http://www.thisismoney.co.uk/markets/article.html?in_article_id=423600&in_page_id=3.

Bate, S., Bushweller, S. and Rutan, E. (2003): "The Fundamentals of Asset-Backed Commercial Paper", Special Report by Moody's Investor Services. Available at: http://pages.stern.nyu.edu/~igiddy/ABS/Moody'sabcp.pdf.

Berthault, A., Hamilton, D.T. and Carty, L.V. (2000): "Commercial Paper Defaults and Rating Transitions, 1972 – 2000", Special Comment by Moody's Investor Services. Available at: http://www.Moody'skmv.com/research/whitepaper/60917.pdf.

Best, S. and Brennan, M. (2007): "German Banks' Subprime Mortgage and Structured Vehicle Exposure Concerns are Overstated", Research Paper by Standard & Poors.

Davies, R. (2008): "Power to the People", *Risk Magazine,* May 2008.

Duncan, H. (2007): "Shares U-turn as UK Bank Gets Crisis Loan", *Evening Standard*. Available at: http://www.thisismoney.co.uk/markets/article.html?in_article_id=423565&in_page_id=3.

Erman, B., MvNish, J., Perkins, T. and Scoffield, H. (2007): "The ABCP Black Box Explodes", *Globe and Mail*. Available at: http://www.theglobeandmail.com/report-on-business/abcp-anatomy-of-a-panic/article133372/.

Fender, I. and Hordahl, P. (2007): "Overview: Credit Retrenchments Triggers Liquidity Squeeze", *BIS Quarterly Review*, September 2007.

Fitch Ratings (2007): "The Importance of Liquidity Support in ABCP Conduits", Special Report by Fitch Ratings. Available at: http://www.alacrastore.com/alacra/help/sample_fitch.pdf.

Gresty, M. and Krychylkiewicz, V. (2007): "Conduits: Should We be Concerned?", Research Paper by Global Markets at Deutsche Securities.

Horowitz, K. (2007): "Banking Industry – Drilling Down on ABCP; Unlikely to be an Issue for Banks", Citigroup Research Paper.

Kjetland, R. (2007): "Germany's State-owned Regional Banks Helping IKB in Subprime Exposure", *The Associated Press*, 2 August 2007.

Linnell, I., Moss, J., Ramadurai K. and Rawcliffe, R. (2007): "Asset-backed Commercial Paper & Global Banks Exposure – 10 Key Questions", Special Report by Fitch Ratings. Available at: www.fitchratings.com/dtp/pdf3-07/babp1209.pdf.

Mitchell, D. (2008): "Boomerang Effect – Is Citi's Latest SIV Strategy", Asset Securitization Report. Available at: http://www.encyclopedia.com/doc/1G1-173372555.html.

Moyo, Z. and Firer, C. (2008): "Securitisation in South Africa: 2000 – 2007", *South African Journal of Business Management*, 39(1), pp. 27-34.

Pittman, M. (2007): "Banks Refuse Funding for Canadian Commercial Paper", Bloomberg.com. Available at: http://www.bloomberg.com/apps/news?pid=20601082&sid=aCV3MZgPxdmw.

Polansky, J. Berthelon, S., Bonilla, A. and Hutchinson, M. (2006): "ABCP Market Overview: Mid-year 2006 Review", Special Report by Moody's Investor Services. Available at: http://www.Moody's.com/cust/content/Content.ashx?source=StaticContent/Free+Pages/ABS_East_Event/ABCPMarketOverviewMidyear2006Review.pdf.

Rose, P.S. and Hudgins, S.C. (2008): *Bank Management & Financial Services*. 7th edition. New York: McGraw-Hill Irwin.

Rushton, K. and Gable, J. (2008): "South Africa's Asset Backed Commercial Paper Market – the Whole Nine Yards", Report by Absa Capital.

Russell, P. (2008): "Stress Test for Debt", Working Paper, Intersuisse Investment Research.

Ryan, S.G. (2008): "Accounting in and for the Subprime Crisis", *The Accounting Review,* 83(6), 1605-1638.

Samuels, S. and Harrison, M. (2008): "Creaking - declining marginal returns, declining free cash flow and "involuntary" asset growth", Citigroup Global Markets - Equity Research.

Sehnert, M.S. and Moskowitz, D. (2007): “Liquidity: Why do Asset Backed Commercial Paper Conduits Need It and Where Do They Get It?”, Research Paper by Standard & Poors. Available at: http://www2.standardandpoors.com/spf/pdf/events/abcpart9.pdf.

Sonder, L.A. (2007): “The ABCs of CDOs, ABCP, MBSs, SIVs and NAVs”. [Homepage of Charles Scwab & Co. Inc.].

South African Government. (2008): “Designation of an Activity Not Falling Within the Meaning of "the Business of a Bank" (Securitisation Schemes)”, Volume 511 of the Government Gazette No. 30628. 1 January 2008.

Willis, A. (2007): “Foreign Banks Refuse to Backstop Canadian Commercial Paper Programs”, *Globe and Mail*, Streetwise Blog. Available at: http://www.theglobeandmail.com/blogs/streetwise/foreign-banks-refuse-to-backstop-canadian-commercial-paper-programs/article775073/.

Zakaim, E. and Demeocq, A. (2008): “2007 Review & 2008 Outlook - EMEA Asset-Backed Commercial Paper; Steady Performance in H1 2007 Overshadowed by Turbulence in H2; Medium Term Recovery Anticipated in more Streamlined Market”, Moodys Investor Service. Available at: http://www.kisrating.com/report/moodys_report/%ED%8F%89%EA%B0%80%EB%B3%B4%EA%B3%A0%EC%84%9C/2007reviewand2008%2020080201.pdf.

APPENDIX A: SA ABCP CONDUIT SUMMARIES

Some key terms that are used in this section, is defined below:

- *Fully supported versus Partially supported* – The distinction has to do with the primary source of risk borne by the ABCP investors. In fully supported programs, investors are primarily exposed to the risk of a third party that guarantees repayment of the assets and not the risk of the assets themselves. In a partially supported programme investors are primarily exposed to the risk of the assets themselves though they may benefit in part from a variety of forms of third-party support;
- *Multi-seller* – These conduits provides financing to a wide variety of industries, companies and asset types offering ABCP investors a well diversified pool of supporting assets. Each transaction funded by the conduit usually has some form of first loss protection and benefits from a separate liquidity facility. Some multi-seller conduits employ a programme-wide liquidity facility provided by the sponsoring bank;
- *Single-seller* – These conduits provide financing for assets originated by only one company or related to one company's business operations. The company whose assets will be financed usually sponsors single-seller conduits;
- *Securities-backed* – These are conduits that are established to invest in various fixed income securities such as government securities, asset backed securities, mortgage backed securities, corporate bonds and bank loans;
- *Hybrid ABCP conduits* – These conduits are those that feature characteristics of more than one type of ABCP programme. It is typically a combination of partially-supported, multi-seller and securities-backed ABCP conduits;
- *Sponsor* – It is the entity that has set-up the ABCP programme. The sponsor approves the sellers and receivable pools to be included in the programme. The sponsor often serves as administrator; and
- *Administrative Agent* – This entity has the overall responsibility for the management and operation of the conduit.

ABACAS 1			
CP RATING	F1+	**MAX PROGRAMME SIZE**	R15 billion
RATING AGENT	Fitch	**SPONSOR**	ABSA Corporate and Merchant Bank ("ACMB")
LAUNCH	December 2002	**ADMINISTRATIVE AGENT**	ACMB
NOTES IN ISSUE	R3 500m	**PROGRAMME TYPE**	Partially supported, segregated.

DESCRIPTION	ABACAS Premier Series ("Series 1") may issue F1+ commercial paper ("CP") with a maximum tenor of 186 days.	
CREDIT & INVESTMENT POLICY	It may only purchase Rand-denominated debt securities rated at least AA-. For this reason no programme-wide credit enhancement is available as the inherent credit enhancement of the underlying assets are considered adequate by the rating agency.	
CREDIT CONCENTRATION	NA	
OBLIGOR CONCENTRATION	NA	
MASTER LIQUIDITY PROVIDER	ABSA	
MINIMUM LIQUIDITY COMMITMENT	The amount required to cover the shortfall between the value of maturing notes and the value of notes that the issuer is able to issue on that date.	
LIQUIDITY AVAILABLE AMOUNT	See above.	
CONDITIONS FOR DRAW DOWN	"Market Disruption Event means any event or circumstance, including, without limitation, any suspension of or material limitation in trading in the market of instruments substantially similar to the Notes which form the subject matter of the Liquidity Shortfall which in the reasonable opinion of the Manager (acting as an expert and not as an arbitrator and whose decision in the absence of manifest error shall be final and binding on the parties) results or would result in the Issuer being unable to issue further Notes of ABACAS Premier Series (Series 1) at an aggregate net Face Value equal to the aggregate Principal Amount of the maturing Notes in the relevant Maturity Date provided that the Issuer shall have received notice from the Dealer(s) appointed by it to sell, place or otherwise distribute Notes to refinance maturing Notes that such Dealer(s) are unable to arrange the sale, placement or distribution of all those Notes. For the purposes of this definition: a) a limitation on the hours and days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of the Market; and b) any material limitation of trading resulting from a fluctuation in prices constitutes a Market Disruption Event. Payment Mismatch means a failure by any obligor in respect of an Asset of the Series to make a timeous payment there under but only: a) to the extent that and for so long as such obligor has not committed an event of default in accordance with the terms and conditions of such Asset; and b) where the Manager (acting as an expert and not as an arbitrator and whose decision in the absence of manifest error shall be final and binding on the Parties) has certified that such failure by the relevant Obligor to make timeous payment is not due to lack of funds or an invalid refusal on the part of such Obligor to make that payment.	
LIQUIDITY CANCELLATION EVENTS	NA	
CREDIT ENHANCEMENT	To protect CP noteholders against potential losses, ABACAS – Series 1 benefits from transaction specific credit enhancement.	
TRANSACTION SPECIFIC	The first layer of loss protection is provided in varying forms. For rated securities, enhancement is inherent within, and sized to, that particular security's credit rating, whereas for financial assets, enhancement is provided in a form relevant to the specific asset class and structured to a level commensurate with a F1+ rating.	
PROGRAMME-WIDE	None – however, should any underlying asset be downgraded below AA-, the F1+ rating on the CP would no longer be supported. In such an event, the rating of the CP would be downgraded unless the asset were removed or replaced with another of an appropriate rating.	
ASSET COMPOSITION	**ASSET CLASS**	**% OF POOL**
	RMBS	64.95%
	CMBS	13.94%
	ABS: Credit Card Receivables	3.02%
	ABS: Provident Backed Home Loans	18.09%
CREDIT QUALITY	**RATING**	**% OF POOL**
	AAA	85.77%
	AA+ to AA-	14.23%

ABACAS 2

CP RATING	F1+	**MAX PROGRAMME SIZE**	R15 billion
RATING AGENT	Fitch	**SPONSOR**	ABSA Corporate and Merchant Bank ("ACMB")
LAUNCH	December 2002	**ADMINISTRATIVE AGENT**	ACMB
NOTES IN ISSUE	R3 316m	**PROGRAMME TYPE**	Partially supported, segregated.

DESCRIPTION	ABACAS Global Corporate Series ("Series 2") may issue F1+ commercial paper ("CP") with a maximum tenor of 186days.		
CREDIT & INVESTMENT POLICY	ABACAS Series 2 may purchase both Rand-denominated debt securities and credit linked notes rated at least AA-.		
CREDIT CONCENTRATION	NA		
OBLIGOR CONCENTRATION	NA		
MASTER LIQUIDITY PROVIDER	ABSA		
MINIMUM LIQUIDITY COMMITMENT	The amount required to cover the shortfall between the value of maturing notes and the value of notes that the issuer is able to issue on that date.		
LIQUIDITY AVAILABLE AMOUNT	See above.		
CONDITIONS FOR DRAW DOWN	"Market Disruption Event means any event or circumstance, including, without limitation, any suspension of or material limitation in trading in the market of instruments substantially similar to the Notes which form the subject matter of the Liquidity Shortfall which in the reasonable opinion of the Manager (acting as an expert and not as an arbitrator and whose decision in the absence of manifest error shall be final and binding on the parties) results or would result in the Issuer being unable to issue further Notes of ABACAS Premier Series (Series 1) at an aggregate net Face Value equal to the aggregate Principal Amount of the maturing Notes in the relevant Maturity Date provided that the Issuer shall have received notice from the Dealer(s) appointed by it to sell, place or otherwise distribute Notes to refinance maturing Notes that such Dealer(s) are unable to arrange the sale, placement or distribution of all those Notes. For the purposes of this definition: a) a limitation on the hours and days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of the Market; and b) any material limitation of trading resulting from a fluctuation in prices constitutes a Market Disruption Event. Payment Mismatch means a failure by any obligor in respect of an Asset of the Series to make a timeous payment there under but only: a) to the extent that and for so long as such obligor has not committed an event of default in accordance with the terms and conditions of such Asset; and b) where the Manager (acting as an expert and not as an arbitrator and whose decision in the absence of manifest error shall be final and binding on the Parties) has certified that such failure by the relevant Obligor to make timeous payment is not due to lack of funds or an invalid refusal on the part of such Obligor to make that payment.		
LIQUIDITY CANCELLATION EVENTS	NA		
CREDIT ENHANCEMENT	To protect CP noteholders against potential losses, ABACAS Series 2 benefits from dynamic credit enhancement.		
PROGRAMME-WIDE	The dynamic programme wide credit enhancement is specific to rated securities only and will change according to the credit quality of the underlying portfolio as follows:		
	Rating of the lowest rated security	**Security coverage**	**Floor % applied to the portfolio**
	AA-	0	0%
	A+	Cover the CP funded amount of the largest A+ security	1%
	A to BBB	Cover the CP funded amount of the 3 largest A+ or lower rated security	3%
	BBB to BBB-	Cover the CP funded amount of the 4 largest A+ or lower rated security	4%
	Where assets are rated below BBB-, programme wide credit enhancement to cover 100% of their CP funded amount.		
ASSET COMPOSITION	**ASSET CLASS**	**% OF POOL**	

	RMBS	12.02%
	Corporate bonds/loans	71.43%
	Cash	1.28%
	Bank bonds	15.27%
CREDIT QUALITY	**RATING**	**% OF POOL**
	F1+	70.03%
	AA+ to AA-	29.97%

BLUE TITANIUM

CP RATING	F1+	**MAX PROGRAMME SIZE**	R20 billion
RATING AGENT	Fitch	**SPONSOR**	The Standard Bank of SA ("SBSA")
LAUNCH	July 2002	**ADMINISTRATIVE AGENT**	SBSA
NOTES IN ISSUE	R7 996m	**PROGRAMME TYPE**	Partially supported, multi-seller and securities-backed

DESCRIPTION	Blue Titanium Conduit Limited ("Blue Titanium") is a special purpose, bankruptcy-remote, limited liability company, established to issue commercial paper ("CP") the proceeds of which are used to purchase financial assets and rated securities rated BBB- or above. Blue Titanium may issue CP with a maximum tenor of 364days.
CREDIT & INVESTMENT POLICY	All assets and securities purchased must concur with Blue Titanium credit and investment policy, which specify certain concentration limits as below:
CREDIT CONCENTRATION	Minimum requirement of: 90% assets rated A+ or above, 98% A- to AA+ or above and 100% BBB- or above.
OBLIGOR CONCENTRATION	Maximum permitted exposure to single obligor: 100% AAA rated entities, 25% AA- to AA+, 5% A+, 3% A, 2% A- and 1% BBB- to BBB+.
MASTER LIQUIDITY PROVIDER	Standard Bank
MINIMUM LIQUIDITY COMMITMENT	The total liquidity support provided by Standard Bank is equal to the face value of all CP in issue at any point in time.
LIQUIDITY AVAILABLE AMOUNT	The minimum liquidity amount less defaulted assets.
CONDITIONS FOR DRAW DOWN	This liquidity support is provided in the following manner: a) the aggregate commitment under the liquidity facility will be capped at R5 billion; b) any liquidity requirements in excess of the R5 billion limit under the liquidity facility will be provided by Standard Bank by means of a performing asset purchase agreement. In terms of this agreement, Standard Bank will be obliged to provide the required amount of liquidity to Blue Titanium through he purchase of performing assets at face value plus accrued interest; c) the conditions fro the provision of liquidity pursuant to the performing asset purchase agreement are the same as the draw down conditions under the liquidity facility, namely that Standard Bank will not be obliged to provide liquidity through the purchase of performing assets if: • any of the transaction documents have become void or unenforceable; or • the purchase price of such assets will result in the aggregate commitment under the performing asset purchase agreement being exceeded; or • an insolvency event has occurred in respect of Blue Titanium. The only condition for draw down specified is to fund the mismatch between the payment of interest and principal received (or to be received) by Blue Titanium on the assets which are not defaulted assets and the Blue Titanium's payment obligations under the notes.
LIQUIDITY CANCELLATION EVENTS	The liquidity facility provider will not be obliged to advance any funds under a liquidity facility if – a) the agreement has become void or unenforceable; or b) such advance would result in the commitment of the liquidity facility being exceeded; or c) Blue Titanium is insolvent.
CREDIT ENHANCEMENT	To protect CP noteholders against potential losses, Blue Titanium benefits from transaction specific and programme wide credit enhancement.
TRANSACTION SPECIFIC	The first layer of loss protection is provided in varying forms. For rated securities, enhancement is inherent within, and sized to, that particular security's credit rating, whereas for financial assets, enhancement is provided in a form relevant to the specific asset class and structured to a level commensurate with a F1+ rating.

PROGRAMME-WIDE	The second layer of loss protection available to Blue Titanium is a fungible programme wide credit enhancement facility in the form of a subordinated loan facility provided by SBSA. The facility is sized at 10% of the aggregate face value of CP issued to finance financial assets, plus a dynamic amount, which fluctuates based on the credit quality of the underlying portfolio of rated securities. The dynamic programme wide credit enhancement is specific to rated securities only and will change according to the credit quality of the underlying portfolio as follows:		
	Rating of the lowest rated security	**Rating of the lowest rated security**	**Rating of the lowest rated security**
	AA-	AA-	AA-
	A+	A+	A+
	A to BBB	A to BBB	A to BBB
	BBB to BBB-	BBB to BBB-	BBB to BBB-
	Where assets are rated below BBB-, programme wide credit enhancement to cover 100% of their CP funded amount.		
ASSET COMPOSITION	**ASSET CLASS**	**% OF POOL**	
	RMBS	65%	
	CMBS	11%	
	ABS: Equipment Leases	5%	
	ABS: Auto loan receivables	21%	
CREDIT QUALITY	**RATING**	**% OF POOL**	
	AAA	60%	
	AA	40%	

GRAYSTON ONE

CP RATING	Prime-1	**MAX PROGRAMME SIZE**	R10 billion (all series) Series 1 – R3 billion;
RATING AGENT	Moody's	**SPONSOR**	Investec Bank Limited ("Investec")
LAUNCH	July 2004	**ADMINISTRATIVE AGENT**	Investec
NOTES IN ISSUE	R1 535m	**PROGRAMME TYPE**	Serialised multi-seller and securities-backed

DESCRIPTION	Grayston Conduit 1 (Pty) Limited – Series 1& 2 ("Grayston 1&2") may issue CP with a maximum tenor of 364days. The proceeds of which are used to purchase financial assets and rated securities.	
CREDIT & INVESTMENT POLICY	A portfolio of debt securities which are eligible assets having a minimum independent credit rating when purchased of at least Aa3.	
CREDIT CONCENTRATION	Aaa – unlimited; Aa1 – 80%; Aa2 – 40%; Aa3 – 8%.	
OBLIGOR CONCENTRATION	NA	
MASTER LIQUIDITY PROVIDER	Investec	
MINIMUM LIQUIDITY COMMITMENT	100% of outstanding CP	
LIQUIDITY AVAILABLE AMOUNT	Minimum liquidity commitment up to an amount of non-defaulted assets.	
CONDITIONS FOR DRAW DOWN	Payment mismatch or market disruption event.	
LIQUIDITY CANCELLATION EVENTS	(i) bankruptcy of the Issuer; (ii) if it would be unlawful for Liquidity Provider to maintain or give effect to its obligations under the Liquidity Facility	
CREDIT ENHANCEMENT	No credit enhancement if comply with credit concentration guidelines. Required credit enhancement based on number of investments below Aa3. eg between 1 and 8 assets rated Aa3 or lower, provide for the largest thereof.	
ASSET COMPOSITION	**ASSET CLASS**	**% OF POOL**
	RMBS	26%
	CMBS	27%
	ABS: Store Card Receivables	19%
	ABS: Provident Backed Home Loans	9%
	ABS: Auto loan receivables	18%

CREDIT QUALITY	RATING	% OF POOL
	Aaa	71%
	Aa2	23%
	Aa3	5%

GRAYSTON TWO

CP RATING	Prime-1	MAX PROGRAMME SIZE	R10 billion (all series) Series 2 – R2 billion.
RATING AGENT	Moody's	SPONSOR	Investec Bank Limited ("Investec")
LAUNCH	July 2004	ADMINISTRATIVE AGENT	Investec
NOTES IN ISSUE	R1 563m	PROGRAMME TYPE	Serialised multi-seller and securities-backed

DESCRIPTION	Grayston Conduit 1 (Pty) Limited – Series 1& 2 ("Grayston 1&2") may issue CP with a maximum tenor of 364days. The proceeds of which are used to purchase financial assets and rated securities.	
CREDIT & INVESTMENT POLICY	A portfolio of debt securities which are eligible assets having a minimum independent credit rating when purchased of at least Aa3.	
CREDIT CONCENTRATION	Aaa – unlimited; Aa1 – 80%; Aa2 – 40%; Aa3 – 8%.	
OBLIGOR CONCENTRATION	NA	
MASTER LIQUIDITY PROVIDER	Investec	
MINIMUM LIQUIDITY COMMITMENT	100% of outstanding CP	
LIQUIDITY AVAILABLE AMOUNT	Minimum liquidity commitment up to an amount of non-defaulted assets.	
CONDITIONS FOR DRAW DOWN	Payment mismatch or market disruption event.	
LIQUIDITY CANCELLATION EVENTS	(i) bankruptcy of the Issuer; (ii) if it would be unlawful for Liquidity Provider to maintain or give effect to its obligations under the Liquidity Facility	
CREDIT ENHANCEMENT	No credit enhancement if comply with credit concentration guidelines. Required credit enhancement based on number of investments below Aa3. eg between 1 and 8 assets rated Aa3 or lower, provide for the largest thereof.	
TRANSACTION SPECIFIC	NA	
PROGRAMME-WIDE	NA	
ASSET COMPOSITION	ASSET CLASS	% OF POOL
	Corporate Loans	100%
CREDIT QUALITY	RATING	% OF POOL
	A2	46%
	AA+	34%
	Undisclosed	20%

INDWA

CP RATING	F1+	MAX PROGRAMME SIZE	R15 billion
RATING AGENT	Fitch	SPONSOR	FirstRand Bank Limited
LAUNCH	July 2003	ADMINISTRATIVE AGENT	Rand Merchant Bank, a division of FSR
NOTES IN ISSUE	R10 134m	PROGRAMME TYPE	Partially supported, multi-seller and securities-backed

DESCRIPTION	iNdwa Investments Limited ("iNdwa") is a hybrid asset-backed commercial paper ("CP") programme structured to issue Rand-denominated CP to fund the purchase of Rand-denominated financial assets and rated securities. iNdwa may issue CP with a maximum tenor of 364days.
CREDIT & INVESTMENT POLICY	All assets and securities purchased must concur with iNdwa credit and investment policy, which specify certain concentration limits as below:

<table>
<tr><td>CREDIT CONCENTRATION</td><td>Maximum permitted % of portfolio: 100% A+ to AAA, 90% A, 8% A-, 2% BBB- to BBB+.</td></tr>
<tr><td>OBLIGOR CONCENTRATION</td><td>Maximum permitted exposure to single obligor: 100% A+ to AAA rated entities, 3% A, 2% A- and 1% BBB- to BBB+.</td></tr>
<tr><td>MASTER LIQUIDITY PROVIDER</td><td>Rand Merchant Bank, a division of FirstRand Bank Limited</td></tr>
<tr><td>MINIMUM LIQUIDITY COMMITMENT</td><td>The minimum aggregate commitment under all individual liquidity facility agreements required by iNdwa at any point in time, is the amount equal to the aggregate outstanding principal amount of all series of notes in issue as at such point in time, plus the aggregate value of all senior fees and expenses as at such point in time, less the aggregate of:
(i) the aggregate nominal value assets which matures at least two days before the maturity of CP with the same value; and
(ii) the aggregate nominal value of the assets comprising the Sponsor's Loan Collateral held by the Issuer as at such point in time, provided that:
(a) the relevant assets mature at least two Business Days before an equal aggregate amount of notes;
(b) the relevant assets have not been liquidated; and
(iii) cash receipts into the collections account in terms of all assets that have not been applied in terms of the Priority of Payments;
The sponsor loan collateral is assets, acquired by the iNdwa with the proceeds derived from the advance of R1 billion from RMB, which assets shall be deposited or held in a reserve Account and may be liquidated by the iNdwa to meet either the liquidity needs and/or the credit enhancement needs of iNdwa from time to time.</td></tr>
<tr><td>LIQUIDITY AVAILABLE AMOUNT</td><td>Not specified.</td></tr>
<tr><td>CONDITIONS FOR DRAW DOWN</td><td>the liquidity is required either:
• to cover deficiencies in cash flows to the Issuer, resulting from, inter alia, timing differences between the payment of interest and principal received (or to be received) by the Issuer on the Participating Assets; and/or
• as a result of a Market Disruption</td></tr>
<tr><td>LIQUIDITY CANCELLATION EVENTS</td><td>the occurrence of either or both of the following events:
▪ the Bankruptcy of the Issuer; or
▪ it becoming illegal for the Individual LF Provider in accordance with applicable laws to make any advance under the relevant Individual LF Agreement concluded by it and/or to maintain its commitment under the aforesaid Individual LF Agreement.</td></tr>
<tr><td>CREDIT ENHANCEMENT</td><td>The first layer of loss protection is provided in varying forms. For rated securities, enhancement is inherent within, and sized to, that particular security's credit rating, whereas for financial assets, enhancement is provided in a form relevant to the specific asset class and structured to a level commensurate with a F1+ rating.</td></tr>
<tr><td>TRANSACTION SPECIFIC</td><td>The second layer of loss protection available to iNdwa is a fungible programme wide credit enhancement. iNdwa employs an early redemption feature whereby the conduit will pay noteholders the present value of CP less proportionate losses following an event of default. On this basis the conduits maximum exposure at any one time is the payment of the present value of the CP. Programme-wide credit enhancement is sized according to the present value of rated securities and financial assets. The facility is currently sized at 5% of the present value of assets plus a dynamic amount, which fluctuates based on the credit quality of the underlying portfolio of rated securities. The dynamic programme wide credit enhancement is specific to rated securities only and will change according to the credit quality of the underlying portfolio as follows:</td></tr>
<tr><td>PROGRAMME-WIDE</td><td>
<table>
<tr><th>Rating of the lowest rated security</th><th>Security coverage</th><th>Floor % applied to the portfolio</th></tr>
<tr><td>AA-</td><td>0</td><td>0%</td></tr>
<tr><td>A+</td><td>Cover the CP funded amount of the largest A+ security</td><td>1%</td></tr>
<tr><td>A to BBB</td><td>Cover the CP funded amount of the 3 largest A+ or lower rated security</td><td>3%</td></tr>
<tr><td>BBB to BBB-</td><td>Cover the CP funded amount of the 4 largest A+ or lower rated security</td><td>4%</td></tr>
<tr><td colspan="3">Where assets are rated below BBB-, programme wide credit enhancement to cover 100% of their CP funded amount.</td></tr>
</table>
</td></tr>
<tr><td>ASSET COMPOSITION</td><td>
<table>
<tr><th>ASSET CLASS</th><th>% OF POOL</th></tr>
<tr><td>Banking, Finance and Real Estate</td><td>8.13%</td></tr>
<tr><td>Trade Receivables</td><td>14.07%</td></tr>
<tr><td>Metals and Mining</td><td>6.58%</td></tr>
<tr><td>Industrial and Manufacturing</td><td>9.54%</td></tr>
<tr><td>Transportation</td><td>15.1%</td></tr>
</table>
</td></tr>
<tr><td>CREDIT QUALITY</td><td>
<table>
<tr><th>RATING</th><th>% OF POOL</th></tr>
</table>
</td></tr>
</table>

	F1+	16%
	AAA	16%
	AA+ to AA	15%
	AA-	53%

IVUZI

CP RATING	F1+/F1/F2/F3/BB+	MAX PROGRAMME SIZE	R15 billion
RATING AGENT	Fitch	SPONSOR	FirstRand Bank Limited
LAUNCH	June 2007	ADMINISTRATIVE AGENT	Rand Merchant Bank, a division of FSR
NOTES IN ISSUE	R5 126m	PROGRAMME TYPE	Partially supported, multi-seller and securities-backed

DESCRIPTION	iVuzi Investments Limited ("iVuzi") is a hybrid asset-backed commercial paper ("CP") programme structured to issue Rand-denominated CP to fund the purchase of Rand-denominated financial assets and rated securities. iVuzi may issue CP with a maximum tenor of 364days.
CREDIT & INVESTMENT POLICY	Purchase assets rated across the rating spectrum and provide investors access to lower rated CP notes.
CREDIT CONCENTRATION	Provided that the Participating Assets comply with the Eligibility Criteria and that no Pool Wind Down Event has occurred in relation to the particular Originator of such Participating Assets, there is no limitation on the number or identities of Originators that may be introduced into the Program.
OBLIGOR CONCENTRATION	As above.
MASTER LIQUIDITY PROVIDER	FirstRand Bank Limited
MINIMUM LIQUIDITY COMMITMENT	The minimum aggregate commitment under all Individual LF Agreements required by the Programme at any point in time, being an amount equal to the aggregate Outstanding Principal Amount of all Series of Notes in issue as at such point in time, plus the aggregate value of all Senior Fees and Expenses as at such point in time, less the aggregate of: (i) the aggregate nominal value of those Participating Assets that are Rated Participating Assets and such other Participating Assets in respect of which a Rating Agency Confirmation has been received, the Legal Final Maturity of which occurs at least two Business Days before an equal aggregate Outstanding Principal Amount of Notes having the Highest Note Rating as at such point in time; and (ii) the aggregate nominal value of the assets comprising the Sponsor's Loan Collateral held by the Issuer as at such point in time, provided that: (a) the relevant assets comprising the Sponsor's Loan Collateral mature at least two Business Days before an equal aggregate Outstanding Principal Amount of Notes having the Highest Note Rating as at such point in time; (b) the relevant assets comprising the Sponsor's Loan Collateral have not been liquidated or used by the Issuer to cover losses sustained by the Issuer in relation to the Participating Assets and, as at the date for determination of the Minimum Liquidity Commitment, such Sponsor's Loan Collateral has not yet been restored in accordance with the Priority of Payments; and (iii) the aggregate of the Pre-Paid Amounts, the Pre-Payment Make Whole Amount (to the extent paid into the Collections Account and not applied in terms of the Priority of Payments) and such other cash receipts into the Collections Account in terms of all Participating Assets (excluding Pre-Paid Participating Assets) that have not been applied in terms of the Priority of Payments.
LIQUIDITY AVAILABLE AMOUNT	Not specified.
CONDITIONS FOR DRAW DOWN	The Issuer will only be entitled to draw down or use monies available to it under any facility provided pursuant to an Individual LF Agreement: • if such drawn down or utilisation is required to cover deficiencies in cash flows to the Issuer resulting from, inter alia, timing differences between the payment of interest and principal received (or to be received) by the Issuer on the Participating Assets and/or in the case of a Market Disruption and in each case only to fund payments on the Series of Notes to which such Individual LF Agreement relates; and/or • (b) a Liquidity Cancellation Event has not occurred.
LIQUIDITY CANCELLATION EVENTS	the occurrence of either or both of the following events: • the Bankruptcy of the Issuer; or • the Accreted Value (Assets) **[?]** of all Participating Assets (excluding Defaulting Assets) held by the Issuer as at any point in time no longer being sufficient to repay the amounts owned by the Issuer under all Individual LF Agreements in force and effect as at the date thereof; • it becoming illegal for the Individual LF Provider in accordance with applicable laws to make any advance under the relevant Individual LF Agreement concluded by it and/or to maintain its commitment under the aforesaid Individual LF Agreement;
CREDIT ENHANCEMENT	To protect CP noteholders against potential losses, iVuzi benefits from transaction specific and programme wide credit enhancement.
TRANSACTION SPECIFIC	The first layer of loss protection is provided in varying forms. For rated securities, enhancement is inherent within, and sized to, that particular security's credit rating, whereas for financial assets, enhancement is provided in a form relevant to the specific asset class and structured to a level commensurate with a F1+ rating.

PROGRAMME-WIDE	• PWCE is sized on the present value of financial assets and rated securities, as the conduit's maximum exposure at any time is the present value of those assets. This reflects the feature providing for early redemption of the CP. PWCE in respect of rated securities will be tranched. PWCE will not be fungible between financial assets and rated securities. • PWCE is sized on the value of performing assets. Defaulted assets will be excluded from this calculation as the PWCE will already have been drawn on for that purpose. There are two components, as discussed below. **Financial Assets: PWCE Amount** • This will be calculated as an amount equal to 10% of the aggregate present value of the financial assets (excluding defaulted assets) financed or acquired by the issuer. This will not be fungible for rated securities. **Rated Securities: PWCE Amount** • This is based on the credit risk profile inherent in the rated securities financed or acquired by the issuer. The PWCE facility is dynamic and sized according to the credit quality of the underlying portfolio of rated securities and calculated per Fitch's model. The methodology relies on a number of inputs that describe each security in a portfolio, such as asset type, seniority, rating, country and industry classification. Based on these inputs, they can evaluate the correlation between the assets and the probability of default. The model output indicates the level of PWCE appropriate for each rating category. • PWCE for rated securities will not be fungible for financial assets. The PWCE for rated securities will be tranched. Each tranche will not be drawn upon until the tranche with a lower credit risk rating has been exhausted. PWCE will be provided by subordinated notes and where unfunded by a PWCE facility with RMB as master PWCE provider. • RMB will grant a sponsor's loan of R750mio to the issuer upon closing of the transaction. It can be used for liquidity or credit enhancement purposes. • The individual CEF may cancel its obligations on the bankruptcy of the issuer, or on it becoming illegal for the individual CEF provider to make any advance under the relevant individual CEF agreement owing to a change in law.

ASSET COMPOSITION	**ASSET CLASS**	**% OF POOL**
	Real Estate and RMBS	35%
	Computers & Electronics	11%
	Farming and Agriculture	10%
	Telecommunications	10%
	Other	34%
CREDIT QUALITY	**RATING**	**% OF POOL**
	AAA	31%
	AA+ to A+	49%
	A	20%

SYNTHESIS

CP RATING	F1+/Prime-1	**MAX PROGRAMME SIZE**	R15 billion
RATING AGENT	Fitch/Moody's	**SPONSOR**	Nedbank Limited ("Nedbank")
LAUNCH	July 2004	**ADMINISTRATIVE AGENT**	Nedbank
NOTES IN ISSUE	R8 031m	**PROGRAMME TYPE**	Partially supported, multi-seller and securities-backed

DESCRIPTION	Synthesis Funding Limited ("Synthesis") is a hybrid asset-backed commercial paper ("CP") programme structured to issue Rand-denominated CP to fund the purchase of Rand-denominated financial assets and rated securities. Synthesis may issue CP with a maximum tenor of 364days.
CREDIT & INVESTMENT POLICY	All assets and securities purchased must be either rated or credit assessed by Moody's and Fitch before included in the asset pool.
CREDIT CONCENTRATION	NA
OBLIGOR CONCENTRATION	NA
MASTER LIQUIDITY PROVIDER	Nedbank
MINIMUM LIQUIDITY COMMITMENT	The minimum aggregate commitment under all Individual Liquidity Facility Agreements required by the Programme at any point in time, being an amount equal to the aggregate Final Settlement Amount of all Notes in issue (and not yet redeemed) as at such point in time, plus the aggregate value of all Senior Fees and Expenses due and payable by the Issuer prior to the Maturity Date of the Series of Notes falling last in time, as at such point in time, less the amount available to be drawn by all Asset Purchasing SPVs under all Asset Purchasing SPV Liquidity Facilities in full force and effect at such point in time.

<table>
<tr><td>LIQUIDITY AVAILABLE AMOUNT</td><td colspan="3">as at any point in time when it is to be determined in terms of the Transaction Documents, an amount equal to –
▪ the Minimum Liquidity Commitment as at such point in time; less
▪ all amounts already drawn down but not yet repaid under all Individual Liquidity Facility Agreements in force and effect as at such point in time; less
▪ the Book Value of all Defaulted Assets as at such point in time.</td></tr>
<tr><td>CONDITIONS FOR DRAW DOWN</td><td colspan="3">Synthesis will only be entitled to draw down or use monies available to it under a facility –
a) if such draw down or utilisation is required to cover deficiencies in cash flows to the Issuer resulting from, inter alia, timing differences between the payment of interest and principal received (or to be received) by the Issuer on the Participating Assets which are not Defaulted Assets and the Issuer's payment obligations under the Notes; and/or
b) in the case of a Market Disruption, up to a maximum amount equal to the Liquidity Available Amount;
A market disruption is an event or circumstance which results (as determined by the Administrator) in either –
(i) an increase in the cost to the Issuer to such an extent that it is no longer economically viable for the Programme to be sustained; or
(ii) the Issuer being unable to issue any further Notes at any price in time to redeem any Notes maturing as at the date thereof.
Synthesis will not be entitled to draw down or use monies available to it under the facility if –
a) a Liquidity Cancellation Event has occurred;
b) such further draw down or utilisation will result in the commitment under the facility being exceeded; and/or
c) such further utilisation will result in the monies drawn down or used under such facility being applied towards funding losses incurred by the Issuer in respect of Defaulted Assets or towards repaying amounts previously drawn down under a liquidity facility.</td></tr>
<tr><td>LIQUIDITY CANCELLATION EVENTS</td><td colspan="3">in relation to any Individual Liquidity Facility Agreement, the occurrence of either or both of the following events –
▪ the Bankruptcy of the Issuer; or
▪ it becoming illegal for the Individual Liquidity Facility Provider, being a party to such Individual Liquidity Facility Agreement in accordance with applicable laws in relation to it and/or the Issuer, to make any advance under the relevant Individual Liquidity Facility Agreement and/or to maintain its commitment under the aforesaid Individual Liquidity Facility Agreement.</td></tr>
<tr><td>CREDIT ENHANCEMENT</td><td colspan="3">The first layer of loss protection is provided in varying forms. For rated securities, enhancement is inherent within, and sized to, that particular security's credit rating, whereas for financial assets, enhancement is provided in a form relevant to the specific asset class and structured to a level commensurate with a F1+ rating.</td></tr>
<tr><td>TRANSACTION SPECIFIC</td><td colspan="3">The second layer of loss protection available to Synthesis is a fungible programme wide credit enhancement. The facility is sized at 10% of the aggregate face value of CP issued to finance financial assets, plus a dynamic amount, which fluctuates based on the credit quality of the underlying portfolio of rated securities. The dynamic programme wide credit enhancement is specific to rated securities only and will change according to the credit quality of the underlying portfolio as follows:</td></tr>
<tr><td rowspan="6">PROGRAMME-WIDE</td><td>Rating of the lowest rated security</td><td>Security coverage</td><td>Floor % applied to the portfolio</td></tr>
<tr><td>AA-</td><td>0</td><td>0%</td></tr>
<tr><td>A+</td><td>Cover the CP funded amount of the largest A+ security</td><td>1%</td></tr>
<tr><td>A to BBB</td><td>Cover the CP funded amount of the 3 largest A+ or lower rated security</td><td>3%</td></tr>
<tr><td>BBB to BBB-</td><td>Cover the CP funded amount of the 4 largest A+ or lower rated security</td><td>4%</td></tr>
<tr><td colspan="3">Where assets are rated below BBB-, programme wide credit enhancement to cover 100% of their CP funded amount.</td></tr>
<tr><td rowspan="5">ASSET COMPOSITION</td><td colspan="2">ASSET CLASS</td><td>% OF POOL</td></tr>
<tr><td colspan="2">RMBS</td><td>35%</td></tr>
<tr><td colspan="2">Corporate Loans</td><td>21%</td></tr>
<tr><td colspan="2">ABS: Auto Loans</td><td>26%</td></tr>
<tr><td colspan="2">Other</td><td>18%</td></tr>
<tr><td rowspan="4">CREDIT QUALITY</td><td colspan="2">RATING</td><td>% OF POOL</td></tr>
<tr><td colspan="2">AAA</td><td>42%</td></tr>
<tr><td colspan="2">AA+ to A+</td><td>49%</td></tr>
<tr><td colspan="2">A</td><td>20%</td></tr>
</table>

THEKWINI WAREHOUSING CONDUIT

CP RATING	F1+	**MAX PROGRAMME SIZE**	R15 billion
RATING AGENT	Fitch	**SPONSOR**	Standard Bank
LAUNCH	June 2005	**ADMINISTRATIVE AGENT**	Standard Bank
NOTES IN ISSUE	R4 388m	**PROGRAMME TYPE**	Single-seller

DESCRIPTION	The Thekwini Warehousing Conduit (Proprietary) Limited ("Thekwini WC") is a South-African residential mortgage warehousing programme that may issue up to R15 billion rand-denominated securities. Thekwini WC is a multi-seller programme that will warehouse eligible pools of residential mortgage loans originated by South African Home Loans (Proprietary) limited, a lender specialising in home loans in South Africa. Asset purchases will be funded through the issuance of short- and long-term securities and a subordinated credit enhancement facility.	
CREDIT & INVESTMENT POLICY	SA Home Loans' credit criteria were applied to the origination and servicing of the home loans.	
CREDIT CONCENTRATION	NA	
OBLIGOR CONCENTRATION	NA	
MASTER LIQUIDITY PROVIDER	Standard Bank	
MINIMUM LIQUIDITY COMMITMENT	Liquidity facilities have been sized to cover the interest on the short-term notes, outstanding principal on the non-liquidity notes plus estimated costs and expenses.	
LIQUIDITY AVAILABLE AMOUNT	Four liquidity facility agreements have been set: ▪ The senior timing mismatch liquidity facility: supports cash shortfalls related to the senior notes up to an initial amount of R500 million; ▪ The senior general market disruption liquidity facility: supports cash shortfalls related to the senior notes up to an initial amount of ZAR2 billion. It can only be used following a general market disruption event –defined as the impossibility for the issuer to issue notes or an event or circumstance that results in a material increase in the cost of funding through the issuance of notes - and once the senior timing mismatch liquidity facility has been used in full. ▪ The mezzanine timing mismatch liquidity facility: supports cash shortfalls related to the mezzanine short-term notes. ▪ The junior timing mismatch liquidity facility: supports cash shortfalls related to the junior short-term notes. The maximum combined, committed amount of the mezzanine and the junior liquidity facilities equals an initial amount of ZAR500m.	
CONDITIONS FOR DRAW DOWN	The Issuer may draw down on the liquidity facilities when there is; ▪ timing mismatches between the date of payment of amounts due in respect of Performing Assets and date of payment to Noteholders and other creditors in terms of the Priority of Payments; and ▪ the inability to issue new Notes at the redemption date of existing Notes.	
LIQUIDITY CANCELLATION EVENTS	None specified.	
CREDIT ENHANCEMENT	Credit enhancement is provided in the form of excess spread, over collateralisation and a subordinated loan.	
TRANSACTION SPECIFIC	NA	
PROGRAMME-WIDE	NA	
ASSET COMPOSITION	**ASSET CLASS**	**% OF POOL**
	Home Loans	100%