

IMPLEMENTATION DOCUMENT



South African Reserve Bank

**MONEY MARKET LIAISON
GROUP
(MMLG)**

Overnight funding rates published by the South African Reserve Bank

- South African Benchmark Overnight Rate on deposits (Sabor)
- Implied rate on one-day rand funding in the foreign exchange swap market (Overnight FX rate)

March 2007

1. **Background: Process leading to the review of previous rates published by the South African Reserve Bank (SARB)**

In 2001, the SARB started to calculate and publish a number of overnight rates, of which the key one was the South African Overnight Interbank Average (Saonia) rate. The objectives of the introduction of these rates were to provide the market and SARB with benchmarks for rates paid on overnight interbank funding, to enhance the transparency and price discovery in the overnight portion of the money market, and to have a reliable indicator of liquidity conditions in the overnight market¹.

A survey and information-gathering initiative conducted during 2005 and 2006 revealed a number of deficiencies of this first set of rates. Subsequently, a project was launched, under the auspices of the Money Market Liaison Group (MMLG)², to address these deficiencies and develop more reliable and representative benchmark overnight rates. A Working Group, comprising members of the SARB and the commercial banks, was established to determine whether there was a need for benchmark overnight rates and to redefine the rates published by the SARB in order to better address this need.

The working group concluded that there was indeed a need for a benchmark rate for a number of reasons, such as to:

- facilitate the development of derivative products;
- facilitate the rebalancing of Alco books to overnight to reduce volatility experienced as a result of AC133;
- link with longer-term money-market rates and bond yields;
- serve as an indicator of liquidity conditions in the overnight money market; and
- provide a transparent and consistent benchmark to which other lending and funding rates could be linked.

¹ For more background on the previous rate, please refer to the document entitled *Calculation of the South African Overnight Interbank Average (SAONIA) rate*, published on 1 April 2002 on the SARB website, under Financial Markets/Market Research.

² The MMLG is a committee comprising members from the SARB and money-market participants from the commercial banks, which meets three times per year to discuss issues of mutual interest.

2. Defining improved overnight benchmark rates

The Working Group embarked on an information-gathering exercise to obtain input on how the shortcomings of the existing overnight rates published by the SARB could be overcome. This information was gathered by means of questionnaires as well as discussions with banks, asset managers, the Bond Exchange of South Africa (BESA), the Yield-X Division of the JSE and other stakeholders. Views were obtained on issues such as preferences with regard to the definition, the publishing time of the rate, additional information to be submitted and how to improve the credibility of the rate. Subsequently, a workshop attended by all the major stakeholders was held, at which the proposed new definitions and processes were refined and submitted to the MMLG. On 16 October 2006, a discussion paper was published, to provide information and solicit comments on an improved benchmark call rate. Following a testing period of six months, the new rates will be implemented on 28 March 2007, and the previous set of rates published by the SARB will be discontinued.

At its meeting in November 2006, the MMLG approved the calculation and publication of two benchmark rates:

- Sabor: A volume-weighted rate comprising the total interbank funding at rates other than repo, the Top 20 rates paid to clients (by rate and then volume) and 5 per cent of rand funding in the foreign exchange swap market. The base of this new rate was broadened to include not only interbank funding, but also a portion of non-bank wholesale funding and rand funding obtained in the foreign exchange swap market.
- The implied rate on short-term funding in the foreign exchange swap market (Overnight FX rate), including both overnight and tom next FX swaps, irrespective of the type of counterparty (intragroup transactions are not included if both parties are banks).

Due to the inclusion of the Top 20 rates in the definition, the benchmark rate captures the high end of rates paid in the money market. It is recognised that rates paid to smaller clients would normally be below this rate.

The credibility of the new rate has been improved by incorporating a process of assessing the reasonableness of the underlying information submitted by banks,

instead of accepting the overall weighted average rate on face value. The ideal way to ensure credibility is to obtain the required information automatically from banks' systems, without any manual intervention by the SARB or the banks. However, recognising that this is a medium-term objective, an interim measure was agreed upon, in terms of which banks are submitting underlying information to allow the SARB to assess the reasonableness, accuracy and completeness of the weighted average rate, with due consideration being given to issues of client confidentiality.

The MMLG debated the merits of publishing a "provisional" benchmark rate on a same-day basis, versus publishing a fully representative and more credible rate in the morning, for value the previous day. Both options had its own advantages and disadvantages. However, because credibility was seen as a key requirement, the committee opted for the latter option.

Annexure A to this document contains the definitions of the new rates. The table in Annexure B summarises the problems experienced with the discontinued rates, the new rates that replaced them and how these rates have been improved. Annexure C contains time series of the new rates, since the introduction of the testing period on 7 August 2006.

Providing an improved and credible benchmark for funding available on demand, is seen as a step forward in improving the efficiency of and transparency in the very short end of the money market. The SARB and the MMLG are committed to continuing improving the functioning of the domestic money market.



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Executive General Manager: Markets

South African Reserve Bank

Chairman of the MMLG

Annexure A: Definitions of benchmark overnight rates published by the South African Reserve Bank

March 2007

1. South African Benchmark Overnight Rate on deposits (Sabor)

The Sabor is calculated with a 95 per cent weight to interbank funding at a rate other than the current repo rate and the Top 20 call rate (defined in paragraph 2 below) and a 5 per cent weight to the implied rate on short-term funding through FX swaps (defined in paragraph 3 below).

Sabor = 0,95 (Interbank funding at a rate other than the current repo rate and Top 20 rate) + 0,05 (implied rand rate on FX swaps)

2. Top 20 call rate

- The weighted average of the twenty highest rates paid by banks on demand deposits from non-bank clients, excluding rates with a fixed link to the prime rate, the SARB's repo rate, or any other term rate.
- The rate is determined by using the interest rate paid on deposits as the first criterion and the size of the deposits as the second criterion. The second criterion is only used to determine the cut-off point of the deposits to be included in the calculation (i.e. if there are a number of clients receiving the same rate as client number 20).
- Clients are firstly ranked according to the rates that they receive on their deposits (high to low), and secondly according to the size of their deposits (large to small).
- In cases where clients have various accounts, the weighted average rate per client should be used (i.e. not the rate on an individual deposit).

3. Implied rate on one-day rand funding in the foreign exchange swap market (Overnight FX rate)

The weighted average rate of rand deposits raised by a bank on an overnight and tom next basis in the forward foreign exchange swap market. All transactions are included, including transactions with banks (intragroup transactions are not included if both parties are banks), non-banks and non-residents. Transactions are reported on the settlement date and not on the transaction date.

Annexure B: Summary of discontinued rates and new rates implemented from 28 March 2007

Old rates (discontinued on 28 March 2007)			New rates (implemented from 28 March 2007)		
Rate	Definition	Deficiencies	Rate	Definitions	Improvements to previous rates
Saonia	Weighted average rate paid on uncollateralised, overnight interbank funding, excluding funding at the prevailing repo rate of the SARB	<ul style="list-style-type: none"> • Small amounts relative to size of the money market • Very volatile, excessively influenced by credit rating of bank obtaining funding • Lack of verification of underlying information undermined credibility 	Sabor	Volume-weighted average of interbank funding at a rate other than the current repo rate and the twenty highest rates paid by banks on their overnight and call deposits, plus a 5% weight for funding through FX swaps	<ul style="list-style-type: none"> • Inclusion of non-bank funding significantly increased the base • More representative • More stable and difficult for one institution to influence • Underlying information checked by the SARB to improve credibility • Inclusion of funding in FX swaps improved response of Sabor to changing liquidity conditions in the market
Saonia plus	Weighted average rate paid on uncollateralised, overnight interbank funding, including funding at the prevailing repo rate of the SARB	<ul style="list-style-type: none"> • Small amounts relative to size of the money market • Very volatile, excessively influenced by credit rating of bank obtaining funding • Funding at the repo rate not market-related 			
Overnight funding through FX swaps	Weighted average of bank <u>funding</u> obtained through overnight foreign exchange swaps	<ul style="list-style-type: none"> • Very small volumes relative to size of FX swap market • Volatile • Unrepresentative • Banks did not report swaps that were not classified as “for funding purposes” 	One-day rand funding through FX swaps	Weighted average implied rate of rand obtained through overnight and tom next foreign exchange swaps	<ul style="list-style-type: none"> • Inclusion of non-bank counterparties and tom next swaps significantly increased the amounts involved, making the rate more representative. • Reduced volatility due to larger base. • All transactions are reported, included trading activities
Overnight carry rate	Weighted average rate of all overnight rand deposits raised by a bank on an overnight basis in the carry market	<ul style="list-style-type: none"> • No value was added to information already available in the market. 			

Annexure C: Sabor and FX Overnight Rates: 7 August 2006 until 6 March 2007

Date	Sabor		FX	
	Rate (%)	Total (Rbil)	Rate (%)	Total (Rbil)
2006-08-07	7.519	R 68,918	7.884	R 3,327
2006-08-08	7.485	R 67,361	7.959	R 1,893
2006-08-09	7.485	R 67,363	7.959	R 1,893
2006-08-10	7.538	R 65,633	7.879	R 4,851
2006-08-11	7.526	R 62,843	7.635	R 7,234
2006-08-14	7.550	R 55,839	7.730	R 4,935
2006-08-15	7.554	R 62,075	7.626	R 2,322
2006-08-16	7.557	R 57,615	7.686	R 2,679
2006-08-17	7.556	R 56,846	7.675	R 4,687
2006-08-18	7.555	R 57,694	7.647	R 8,936
2006-08-21	7.544	R 53,035	7.620	R 11,063
2006-08-22	7.564	R 56,402	7.639	R 11,461
2006-08-23	7.592	R 62,210	7.635	R 7,533
2006-08-24	7.574	R 62,477	7.642	R 6,712
2006-08-25	7.580	R 55,235	7.771	R 11,123
2006-08-28	7.588	R 59,921	8.119	R 13,040
2006-08-29	7.586	R 59,798	7.893	R 12,365
2006-08-30	7.580	R 60,720	7.773	R 15,568
2006-08-31	7.586	R 57,937	7.896	R 17,234
2006-09-01	7.574	R 65,229	7.834	R 10,284
2006-09-04	7.566	R 65,586	7.481	R 774
2006-09-05	7.584	R 67,938	7.659	R 26,832
2006-09-06	7.580	R 65,383	7.589	R 19,839
2006-09-07	7.572	R 67,678	7.612	R 23,706
2006-09-08	7.584	R 65,447	7.661	R 16,194
2006-09-11	7.585	R 64,843	7.686	R 19,429
2006-09-12	7.591	R 62,368	7.797	R 18,840
2006-09-13	7.601	R 64,211	7.815	R 20,349
2006-09-14	7.594	R 63,026	7.855	R 23,746
2006-09-15	7.604	R 65,024	7.875	R 26,105
2006-09-18	7.596	R 68,792	7.891	R 31,723
2006-09-19	7.592	R 68,334	7.822	R 30,015
2006-09-20	7.589	R 67,150	7.751	R 21,812
2006-09-21	7.589	R 65,405	7.768	R 23,040
2006-09-22	7.588	R 66,901	7.746	R 24,163
2006-09-25	7.588	R 66,901	7.746	R 24,163
2006-09-26	7.606	R 62,572	7.919	R 25,372
2006-09-27	7.601	R 66,420	8.009	R 17,114
2006-09-28	7.616	R 67,218	8.116	R 17,292
2006-09-29	7.638	R 68,039	8.546	R 32,953
2006-10-02	7.601	R 67,622	7.995	R 35,400
2006-10-03	7.599	R 68,633	7.969	R 29,575
2006-10-04	7.598	R 70,983	7.941	R 25,816
2006-10-05	7.599	R 72,640	7.968	R 46,213
2006-10-06	7.607	R 65,255	7.931	R 20,442
2006-10-09	7.607	R 73,531	8.112	R 622
2006-10-10	7.606	R 71,870	7.915	R 29,413

Date	Sabor		FX	
	Rate (%)	Total (Rbil)	Rate (%)	Total (Rbil)
2006-10-11	7.605	R 75,451	7.885	R 16,766
2006-10-12	7.603	R 78,584	7.842	R 25,830
2006-10-13	8.013	R 73,744	8.068	R 25,869
2006-10-16	8.031	R 74,192	8.045	R 60,931
2006-10-17	8.015	R 69,434	8.107	R 21,101
2006-10-18	8.037	R 65,594	8.359	R 22,888
2006-10-19	8.034	R 64,458	8.296	R 22,197
2006-10-20	8.033	R 66,326	8.280	R 28,539
2006-10-23	8.039	R 66,889	8.219	R 33,787
2006-10-24	8.048	R 66,716	8.204	R 24,068
2006-10-25	8.039	R 61,305	8.216	R 24,898
2006-10-26	8.048	R 62,101	8.193	R 32,220
2006-10-27	8.041	R 59,077	8.242	R 23,771
2006-10-30	8.043	R 58,692	8.296	R 21,868
2006-10-31	8.050	R 54,302	8.426	R 29,103
2006-11-01	8.047	R 56,534	8.373	R 27,633
2006-11-02	8.014	R 58,917	8.272	R 32,297
2006-11-03	8.050	R 60,509	8.244	R 27,976
2006-11-06	8.040	R 58,168	8.231	R 23,617
2006-11-07	8.046	R 60,228	8.162	R 30,432
2006-11-08	8.045	R 66,675	8.146	R 27,643
2006-11-09	8.051	R 59,952	8.250	R 22,671
2006-11-10	8.042	R 57,333	8.279	R 21,776
2006-11-13	8.056	R 58,920	8.359	R 31,585
2006-11-14	8.046	R 55,270	8.348	R 25,221
2006-11-15	8.058	R 52,596	8.400	R 29,664
2006-11-16	8.055	R 54,360	8.347	R 31,069
2006-11-17	8.056	R 55,840	8.353	R 26,783
2006-11-20	8.090	R 57,461	8.288	R 32,899
2006-11-21	8.058	R 58,389	8.391	R 23,713
2006-11-22	8.058	R 57,572	8.405	R 21,879
2006-11-23	8.055	R 56,353	8.340	R 8,282
2006-11-24	8.060	R 58,151	8.434	R 24,214
2006-11-27	8.062	R 56,839	8.482	R 30,321
2006-11-28	8.061	R 56,652	8.457	R 26,403
2006-11-29	8.068	R 54,289	8.592	R 20,676
2006-11-30	8.076	R 55,440	8.579	R 28,841
2006-12-01	8.065	R 57,746	8.533	R 25,285
2006-12-04	8.071	R 63,874	8.468	R 24,381
2006-12-05	8.073	R 62,868	8.322	R 20,023
2006-12-06	8.073	R 62,738	8.317	R 20,605
2006-12-07	8.101	R 65,030	8.302	R 15,616
2006-12-08	8.515	R 63,396	8.422	R 16,216
2006-12-11	8.504	R 68,068	8.588	R 13,066
2006-12-12	8.525	R 66,878	8.616	R 17,207
2006-12-13	8.560	R 60,249	8.759	R 18,370
2006-12-14	8.551	R 60,234	8.767	R 15,573
2006-12-15	8.550	R 58,829	8.741	R 16,191
2006-12-18	8.553	R 58,120	8.805	R 14,706
2006-12-19	8.564	R 57,446	8.827	R 13,548

Date	Sabor		FX	
	Rate (%)	Total (Rbil)	Rate (%)	Total (Rbil)
2006-12-20	8.567	R 58,600	8.890	R 15,949
2006-12-21	8.566	R 59,729	8.875	R 13,777
2006-12-22	8.582	R 62,206	8.991	R 7,312
2006-12-25	8.582	R 62,206	8.991	R 7,312
2006-12-26	8.582	R 62,206	8.991	R 7,312
2006-12-27	8.567	R 52,761	8.892	R 10,365
2006-12-28	8.600	R 61,534	9.169	R 7,846
2006-12-29	8.663	R 64,729	9.471	R 9,138
2007-01-01	8.672	R 64,729	9.471	R 9,138
2007-01-02	8.581	R 58,999	8.971	R 7,392
2007-01-03	8.598	R 60,843	9.138	R 7,054
2007-01-04	8.663	R 60,782	9.107	R 10,230
2007-01-05	8.671	R 58,975	9.061	R 13,730
2007-01-08	8.583	R 60,548	9.020	R 21,387
2007-01-09	8.595	R 60,090	9.076	R 22,616
2007-01-10	8.603	R 61,922	9.038	R 13,661
2007-01-11	8.584	R 58,829	9.047	R 9,792
2007-01-12	8.583	R 57,803	9.020	R 8,158
2007-01-15	8.553	R 58,934	8.600	R 99
2007-01-16	8.616	R 58,108	8.924	R 6,428
2007-01-17	8.597	R 57,793	8.910	R 14,397
2007-01-18	8.585	R 58,729	8.868	R 7,914
2007-01-19	8.590	R 58,356	8.962	R 7,206
2007-01-22	8.593	R 58,460	9.020	R 8,946
2007-01-23	8.594	R 57,837	9.041	R 13,941
2007-01-24	8.593	R 57,935	9.021	R 10,299
2007-01-25	8.581	R 54,024	8.984	R 9,487
2007-01-26	8.590	R 54,295	8.967	R 7,719
2007-01-29	8.592	R 53,983	9.017	R 9,600
2007-01-30	8.621	R 58,244	9.015	R 5,744
2007-01-31	8.662	R 57,437	9.265	R 7,460
2007-02-01	8.605	R 58,801	9.261	R 12,671
2007-02-02	8.591	R 53,778	9.170	R 12,135
2007-02-05	8.597	R 56,612	9.116	R 12,873
2007-02-06	8.591	R 57,872	8.990	R 7,679
2007-02-07	8.589	R 58,883	8.947	R 11,181
2007-02-08	8.593	R 58,611	9.031	R 8,840
2007-02-09	8.602	R 59,775	9.021	R 9,048
2007-02-12	8.589	R 60,887	8.942	R 14,158
2007-02-13	8.601	R 61,210	8.994	R 6,840
2007-02-14	8.593	R 55,262	9.036	R 8,782
2007-02-15	8.590	R 58,035	8.971	R 10,848
2007-02-16	8.579	R 57,871	8.945	R 6,774
2007-02-19	8.593	R 60,748	9.030	R 1,520
2007-02-20	8.588	R 62,304	8.933	R 16,341
2007-02-21	8.588	R 63,190	8.924	R 16,835
2007-02-22	8.578	R 61,360	8.927	R 17,091
2007-02-23	8.580	R 66,706	8.956	R 13,712
2007-02-26	8.591	R 66,343	8.982	R 9,865
2007-02-27	8.591	R 66,604	8.994	R 15,050

Date	Sabor		FX	
	Rate (%)	Total (Rbil)	Rate (%)	Total (Rbil)
2007-02-28	8.633	R 68,676	9.452	R 17,196
2007-03-01	8.597	R 66,496	8.735	R 10,261
2007-03-02	8.601	R 67,768	8.990	R 12,453
2007-03-05	8.601	R 69,157	8.806	R 9,179
2007-03-06	8.593	R 68,605	8.846	R 12,050

