SM/08/271
Correction 1

September 23, 2008

To: Members of the Executive Board

From: The Secretary

Subject: **Australia—Selected Issues**

The attached corrections to SM/08/271 (8/19/08) have been provided by the staff.

Factual Errors Not Affecting the Presentation of Staff's Analysis or Views

Page 20, para. 5, line 3: "significantly" removed
line 6: for "0.7 percent for small banks, more than double that of"
read "½ percent for small banks, double that of"
para. 6, lines 2 and 3: for "This mainly reflects the renewed concerns about the quality of the banks' CDO portfolios."
read "This partly reflects the renewed concerns about the banks' exposures to companies that have been impacted by the credit crisis, and about the banks' CDO portfolios."

Page 23, para. 12, line 2: "(although the foreign exchange and interest rate risks have mostly been hedged)." added

Questions may be referred to Mr. Brooks (ext. 34454) and Mr. Rozhkov (ext. 39745) in APD.

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Att: (2)

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been limited.[3] Banks had minimal exposure to U.S. subprime related assets, and the securitization of mortgages in Australia was not widespread before the crisis, with only about 18 percent of housing loans securitized. These mitigating factors implied that Australian banks suffered only limited direct losses, compared to their counterparts in North America and Europe, and their credit ratings remained high throughout the period.

4. **The aggregate financial soundness indicators for the banking system remained strong through early 2008.** The turmoil did not affect banks' strong capitalization and profitability, and impaired assets remain very low by international standards, at 0.3 percent of total assets (Table II.1). The published interim financial reports confirm that none of the four large banks suffered any noticeable deterioration in soundness indicators compared to the precrisis period (Table II.2).

Table II.1. Australia: Selected Financial Soundness Indicators of the Banking Sector
(In percent)

	2004 Dec.	2005 Dec.	2006 Dec.	2007 Dec.	2008 Mar.
Profitability					
Return on assets (after tax)	1.1	1.1	1.0	1.0	...
Return on equity (after tax)	16.0	15.9	16.8	18.1	...
Capital adequacy					
Regulatory capital to risk-weighted assets	10.5	10.4	10.4	10.2	10.5
Tier I capital to risk-weighted assets 1/	7.6	7.6	7.4	7.2	7.3
Asset quality					
Gross impaired assets to total assets	0.3	0.2	0.2	0.2	0.3
Net impaired assets to equity	2.1	1.8	1.9	1.9	...
Specific provisions to impaired assets	41.4	37.0	39.5	39.5	36.8
Risk weighted assets to total assets	58.0	59.3	57.1	54.5	...

Sources: Reserve Bank of Australia; Australian Prudential Regulation Authority.

1/ Tier I capital includes issued and fully paid common equity and perpetual noncumulative preference shares, and disclosed reserves.

[3] Banks account for slightly over one-half of total assets of the Australian financial system. The four large banks account for about two-thirds of the total banking system assets.

Table II.2. Australia: Four Large Banks: Selected Financial Soundness Indicators

	NAB		ANZ		CBA		Westpac	
	Mar-08	Sep-07	Mar-08	Sep-07	Dec-07	Jun-07	Mar-08	Sep-07
Profitability								
ROA (cash basis)	0.9	1.0	0.8	1.1	1.2	1.2	1.1	1.2
ROE (cash basis)	16.8	17.7	15.1	19.6	20.8	21.0	22.7	24.2
Net interest margin	2.2	2.3	2.0	2.2	2.2	2.2	2.1	2.1
Capital adequacy								
Tier 1 capital ratio	6.5	6.7	6.8	6.7	7.3	7.1	7.4	8.0
Total capital ratio	9.7	10.0	10.1	10.1	9.7	9.8	10.1	11.3
Assets quality and provisioning								
Gross impaired to total assets	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.1
Net impaired assets to equity	3.1	2.6	3.6	2.2	1.1	0.9	3.3	2.2
Specific provision to gross impaired assets	35.8	28.1	38.8	38.1	47.7	47.3	33.2	27.4
Total provision to gross impaired assets	203.9	211.1	210.4	294.2	245.6	298.3	173.6	253.5
Risk weighted to total assets	63.6	62.9	61.0	70.0	60.0	57.7	46.5	44.9
Liquidity								
Cash to total assets	2.0	2.3	4.1	4.3	1.5	2.4	1.0	0.6
Cash and due from banks to total assets	8.5	6.7	6.8	6.4	3.2	3.7	8.5	8.2

Source: Banks' interim financial reports.

5. **The asset quality of small banks is not as strong as that of the four large banks, but they are still financially sound as a group.**[4] Capitalization and profitability of the small banks are in line with the four large banks, but their impaired assets are ~~significantly~~ higher. This reflects the fact that most of the low-doc and nonconforming lending in recent years was concentrated in the smaller banks and the nonbank sector. As a result, the aggregate ratio of impaired to total assets is about ½ ~~0.7~~ percent for small banks, ~~more than~~ double that of the banking system as a whole. However, this ratio is still very low by international standards. Although impaired assets are likely to increase further in the future, and some of the smaller banks may turn out to be more vulnerable than the aggregate numbers suggest, this is unlikely to cause systemic problems, given the overall low incidence of subprime mortgages in Australia.[5]

6. **Despite the high asset quality, several large banks have recently increased their provisioning for bad debts.** This ~~mainly~~ partly reflects the renewed concerns about ~~the quality of~~ the banks' exposures to companies that have been impacted by the credit crisis, and about the banks' CDO portfolios. However, these portfolios are reported to be relatively small in size (less than ½ percent of assets for large banks), and are now substantially covered by provisions (after the increase, specific provisions are reported to cover nearly 90 percent of total CDO exposure for some of the large banks). While concerns about a possible

[4] In this chapter, "small banks" refers to all banks apart from the large four. There are 57 such small banks in Australia, and the largest of them accounts for about 5 percent of total banking system assets.

[5] Low-doc mortgages comprise 7 percent of total mortgages, and nonconforming loans (the closest equivalent of subprime that exists in Australia) an additional 1 percent.

structure is predicated on banks maintaining high credit ratings and carries foreign exchange, interest rate, and liquidity risk (although the foreign exchange and interest rate risks have mostly been hedged).

Table II.3. Australia: Australian Banks' Liabilities
(Percent of total)

	Dec 04	Dec 05	Dec 06	Jun 07	Dec 07	May 08
Deposits (ex CDs)	44.1	44.2	42.4	42.6	40.0	40.6
Of which: Household	20.4	20.0	18.5	17.2	16.3	16.6
Business	13.9	13.8	13.8	14.0	13.3	12.6
Intra-group	3.4	3.7	3.0	3.1	4.1	4.8
Domestic wholesale	28.7	28.7	29.8	30.7	34.6	34.0
Offshore	27.2	27.1	27.8	26.7	25.4	25.4
Total liabilities	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Australian Prudential Regulation Authority; Reserve Bank of Australia.

13. **Furthermore, a significant share of wholesale funds are short-term.** About 30 percent of total offshore funds of Australian banks have residual maturity of less than one year (Table II.4). This ratio is close to 45 percent for small banks. Domestic wholesale funding is predominantly short-term, with about 75 percent of funds having residual maturity of less than one year. This funding structure makes the banks dependent on a stable international and domestic funding environment, and leaves them vulnerable to increases in the cost of funds and to the protracted loss of access to international short-term debt markets.

Table II.4. Australia: Maturity Structure of Banks' Liabilities, End-May 2008
(In percent)

	Major Banks	Other Banks	All Banks
Domestic wholesale			
Short term (< 1 year)	79.0	63.1	74.4
Long term (> 1 year)	21.0	36.9	25.6
Securitization			
Short term (< 1 year)	25.0	3.8	12.5
Long term (> 1 year)	75.0	96.2	87.5
Offshore			
Short term (< 1 year)	25.5	43.5	28.8
Long term (> 1 year)	74.5	56.5	71.2

Source: Australian Prudential Regulation Authority.

14. **The analysis of rollover risks related to banks' reliance on short-term wholesale funding is complicated by the lack of sufficiently detailed data on the maturity structure of liabilities.** Available data provide the breakdown of offshore funding by short-term and long-term (defined as funds with residual maturity of less and more than one year, respectively), but do not allow for the identification of funds with residual maturity of less than 90 days, which are most likely to be affected in a liquidity crisis. In the analysis that follows, a conservative assumption was made that most short-term wholesale funds are due in less than 90 days.[12]

15. **The stress test scenario assumes that access to funding from offshore markets is lost completely for 90 days.** This scenario is more severe than anything that Australian banks have had to face to date. As a result of the loss of access to offshore markets, banks have to refinance their offshore liabilities due in less than 90 days domestically. This leads to an increase in interest rates and, consequently, all wholesale domestic liabilities with less than 90 days maturity have to be refinanced at a higher interest rate as well. A conservative assumption is made that the interest rates on banks' assets do not increase, so that the banks suffer a pure interest rate shock on their liabilities. It is also assumed that banks can use part of their liquid assets to cover the shortfall in financing, but they have to maintain the minimum ratio of 1 percent for cash to liquid assets. This scenario is applied to the four largest banks individually, and to the banking system as a whole.

16. **The Australian banks pass this stress test reasonably well.** In the most severe case where all wholesale funds (domestic and offshore) due in less than 90 days have to be refinanced at an interest rate that is 500 basis points higher than before the shock, the aggregate capital ratio for the system only falls to 8½ percent (Table II.5). The worst affected among the four large banks has the capital ratio drop to 7½ percent. Banks' profitability suffers a more serious hit, which is not surprising, given their heavy reliance on short-term wholesale funding. Nevertheless, it takes a 500 basis points increase in interest rates on liabilities to generate losses for banks.

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[12] Available data on Australian external debt indicates that debt with residual maturity of less than 90 days accounts for about 36 percent of total debt, and 73 percent of debt with residual maturity of less than one year. Since financial corporations account for about 75 percent of total external debt, the stress test scenario assumed a similar structure for external debt of the banking system.