SM/08/265
Correction 1

September 23, 2008

To: Members of the Executive Board

From: The Secretary

Subject: **Australia—Staff Report for the 2008 Article IV Consultation**

The attached corrections to SM/08/265 (8/11/08) have been provided by the staff.

A. Mischaracterizations of the Views of the Authorities

Page 17, para. 20, line 2: "and reprioritizing spending to build capacity." added

Page 22, Box 4, para. 1, lines 3–5: for "The aim is to improve the tax mix so as to minimize distortions, support fiscal responsibility, and maintain international competitiveness."
read "The aim is to improve the tax and transfer system so as to minimize distortions, enhance international competitiveness, and reduce complexity."

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

Page 3, para. 3, lines 2 and 3: for "The staff estimate that the real effective exchange rate (REER) is about 10 percent above"
read "As of June 2008, the staff estimated the real effective exchange rate (REER) to be about 10 percent above"

Page 6, para. 3, line 1: for "by 60–80 basis points"
read "by a weighted average of around 60 basis points"
Figure 3: Revised Credit Indicators chart
para. 4, last line: for "deficit of ½ percent" read "deficit of about ½ percent"

Page 8, Figure 5: Revised Net Capital Inflows chart.

Page 9, para. 6. first line: for "(around ¾ of a percent)" read "(around ½ of a percent)"

Page 10, Box 1, line 7: for "90 percent" read "75 percent"

Page 11, para. 9, line 6: for "80–120 percent" read "for 80–240 percent"

Page 15, para. 16, lines 8 and 9: for "currency is about 10 percent above its long-run equilibrium level"
read "currency was about 10 percent above its long-run equilibrium level as of June 2008"

Page 16, Box 3, para. 1: for "Australian dollar is overvalued by about 10 percent"
read "Australian dollar was overvalued by about 10 percent as of June 2008"
footnote 1: "The nominal TWI index was at 73.4 as of end-June." added

Page 17, para. 19, second bullet: for "keeping revenue as a share of GDP, on average, below 24.7 percent of GDP (the 2007/08 level)"
read "keeping tax as a share of GDP, on average, below the 2007/08 level (currently estimated at 24.7 percent)"
para. 20, line 3: for "targets" read "forecasts"

Page 20, para. 31, line 3: for "legislation recently introduced"
read "legislation to be introduced"

Page 30, Table 6, row 21: for "Interest rates (percent end-year)
read "Interest rates (percent, period average)"
rows 22, 23, and 24, columns 2004–2008: data revised

Page 31, Table 7, sub. "Failure Resolution and Crisis Management",
column 3: for "the Government proposed to Parliament in May 2008"
read "In June 2008, the Government announced its intention to introduce to Parliament"
sub. Insurance, column 3, line 1: for "APRA is harmonizing prudential requirement, including capital adequacy, between life insurance, general insurance, and banking sectors."
read "Stage II reforms for nonlife insurance were completed in 2006."
penultimate line: "APRA has a longer-term aim to harmonize prudential requirements between life insurance, general insurance, and banking sectors." added

C. Typographical Error

Page 19, para. 27: for "Australian Prudential and Regulatory Authority"
read "Australian Prudential Regulation Authority"

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

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Att: (14)

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Executive Summary

Sound macroeconomic policies and structural reforms have delivered a prolonged expansion, but the economy's productive capacity has become increasingly stretched. A commodity driven boom has pushed up against capacity constraints and inflation has increased especially over the past year as resource pressures mounted. The authorities and staff agreed that real GDP growth is likely to slow as required to ease inflation, and that the outlook is more uncertain than usual. In the staff's view, the balance of risk to growth lies on the upside, stemming from an extraordinary jump in commodity export prices. On inflation, the risks are clearly on the upside, reflecting capacity constraints, especially in the mining and housing sectors.

With underlying inflation the highest in more than a decade, containing inflation presents a significant challenge. A firm monetary policy stance is essential for keeping medium-term inflation expectations well anchored. Given that the risks to inflation are on the upside, the authorities and staff agreed that monetary policy should be tightened quickly if leading indicators suggest that domestic demand will not slow as expected or the outlook for inflation deteriorates.

Higher commodity export prices and capital inflows have contributed to the appreciation of the currency, which in turn has eased inflation pressures. As of June 2008, ~~T~~the staff estimated ~~that~~ the real effective exchange rate (REER) to be ~~is~~ about 10 percent above its long-run equilibrium level. The authorities and staff agreed that the overvaluation is temporary and that the currency is likely to fall back toward equilibrium over time as the Reserve Bank of Australia reduces the cash rate once it is clear that inflation will moderate. However, with a portion of the improvement in the terms of trade likely to be permanent, the currency is expected to remain above its average for the last 10 years.

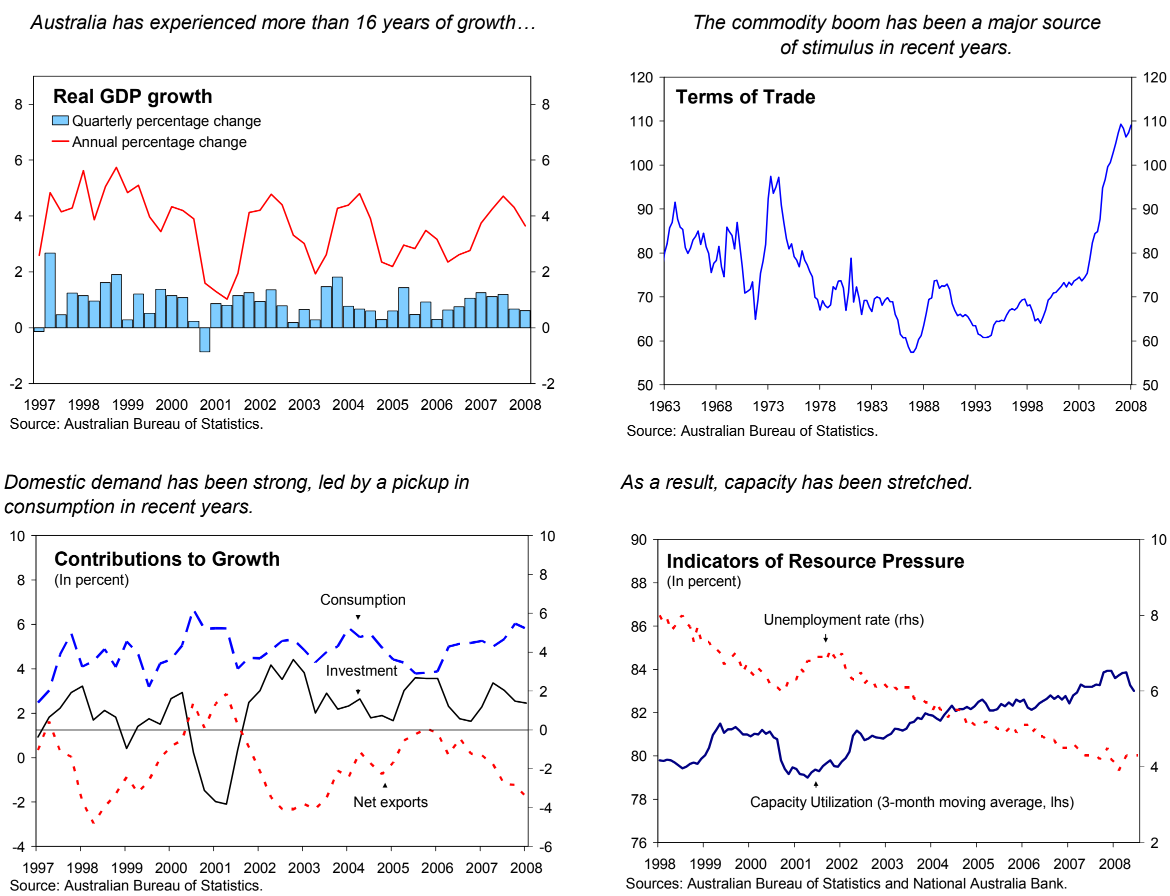
The new Labor Government stressed that the priority for this year's budget is to help fight inflation by constraining spending and increasing the surplus. Saving some of the revenue from the commodity price boom in three new funds will take pressure off monetary policy in the near term and enable increased infrastructure investment over the medium term. The authorities agreed with the staff that if inflation persists at an elevated level, further fiscal restraint may be needed.

Australia's banks have demonstrated their soundness during the recent global financial turmoil, **but some vulnerabilities remain.** The main impact of the crisis was a sharp increase in funding costs, as banks had a small exposure to sub-prime assets. Although the major banks were able to maintain access to funding from offshore markets, the turmoil highlighted their vulnerability to rollover risks arising from short-term wholesale funding. In response, banks are increasing their liquidity as well as lengthening the maturity of their funding and diversifying the sources. The authorities are also taking measures to address rollover risk by introducing new liquidity guidelines.

I. The Economic Expansion and Commodity Price Boom

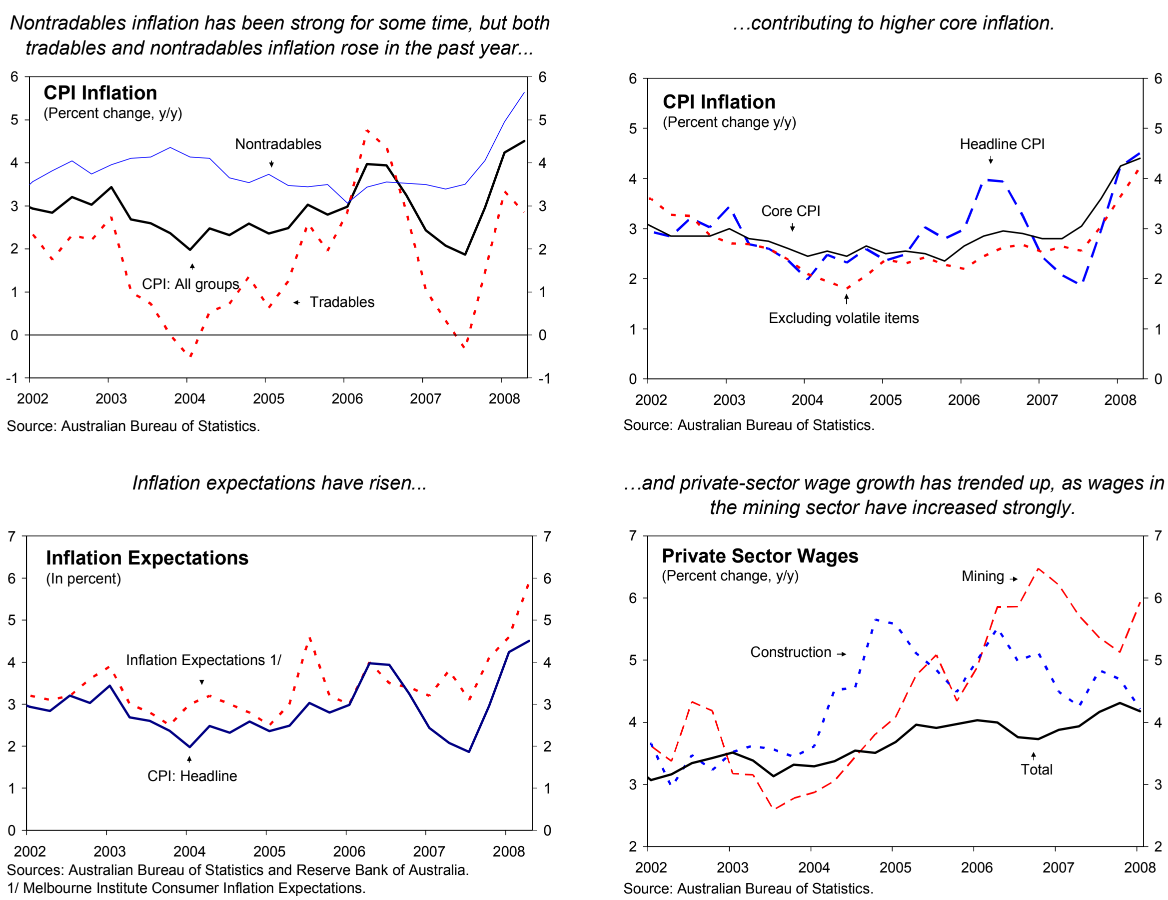
1. **Sound macroeconomic policies and structural reforms in Australia have delivered more than 16 years of economic expansion, but the economy's productive capacity has become increasingly stretched.** The pace of real GDP growth picked up in 2007 to more than 4 percent, driven by a commodity price boom in response to robust global demand for iron ore and coal, especially from China. The commodity price boom has elevated the terms of trade to its highest level since the Korean War and has boosted profits, employment, and wages, which has helped cushion the impact of a severe drought and the global financial market turmoil. However, the boom has pushed up against capacity constraints, with unemployment falling to the lowest rate since the mid-1970s and capacity utilization rising to historic highs in early 2008 (Table 1, Figure 1).

Figure 1. Australia: Prolonged Expansion and Commodity Boom Leads to Overheating



2. **Inflation increased over the past year as resource pressures mounted.** The Reserve Bank of Australia's (RBA) measures of underlying inflation had been running close to the top of its target of "2–3 percent, on average, over the economic cycle" for some years, but rose to almost 4½ percent year on year in June 2008, the highest level in 16 years (Figure 2). The inflation pressures are broad-based, reflecting an increase in tradables inflation and wage growth.

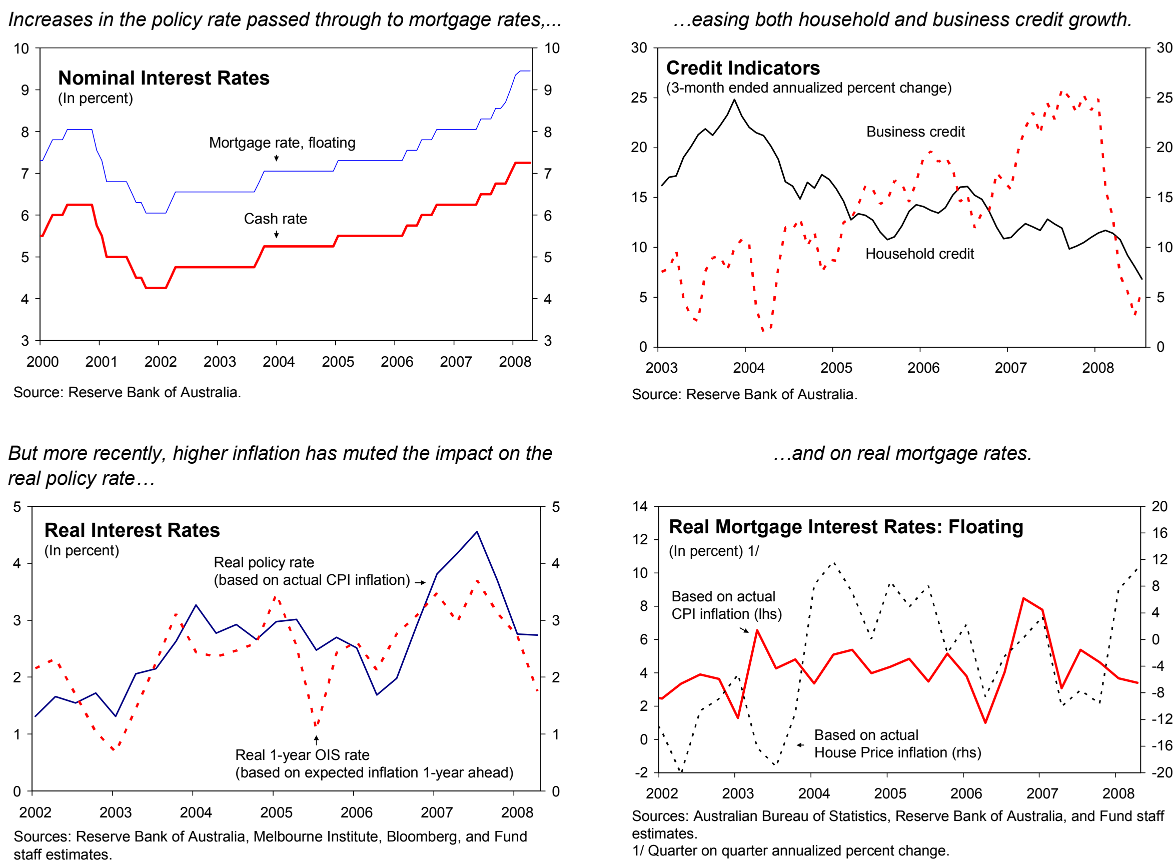
Figure 2. Australia: Inflationary Pressures are Widespread



3. **The RBA responded to the rising inflation by tightening monetary policy.** Since 2002, the gradual increase in the policy rate has been passed through into retail rates, but the strength in the economy continued to surprise on the upside through end 2007 (Figure 3). Despite the onset of financial market turbulence last year, which prompted policy easing in many industrial countries, the underlying strength in the economy necessitated a renewed RBA tightening cycle. Between August 2007 and March 2008, the policy rate was increased by 100 basis points to 7¼ percent. In addition, higher funding costs from the global financial

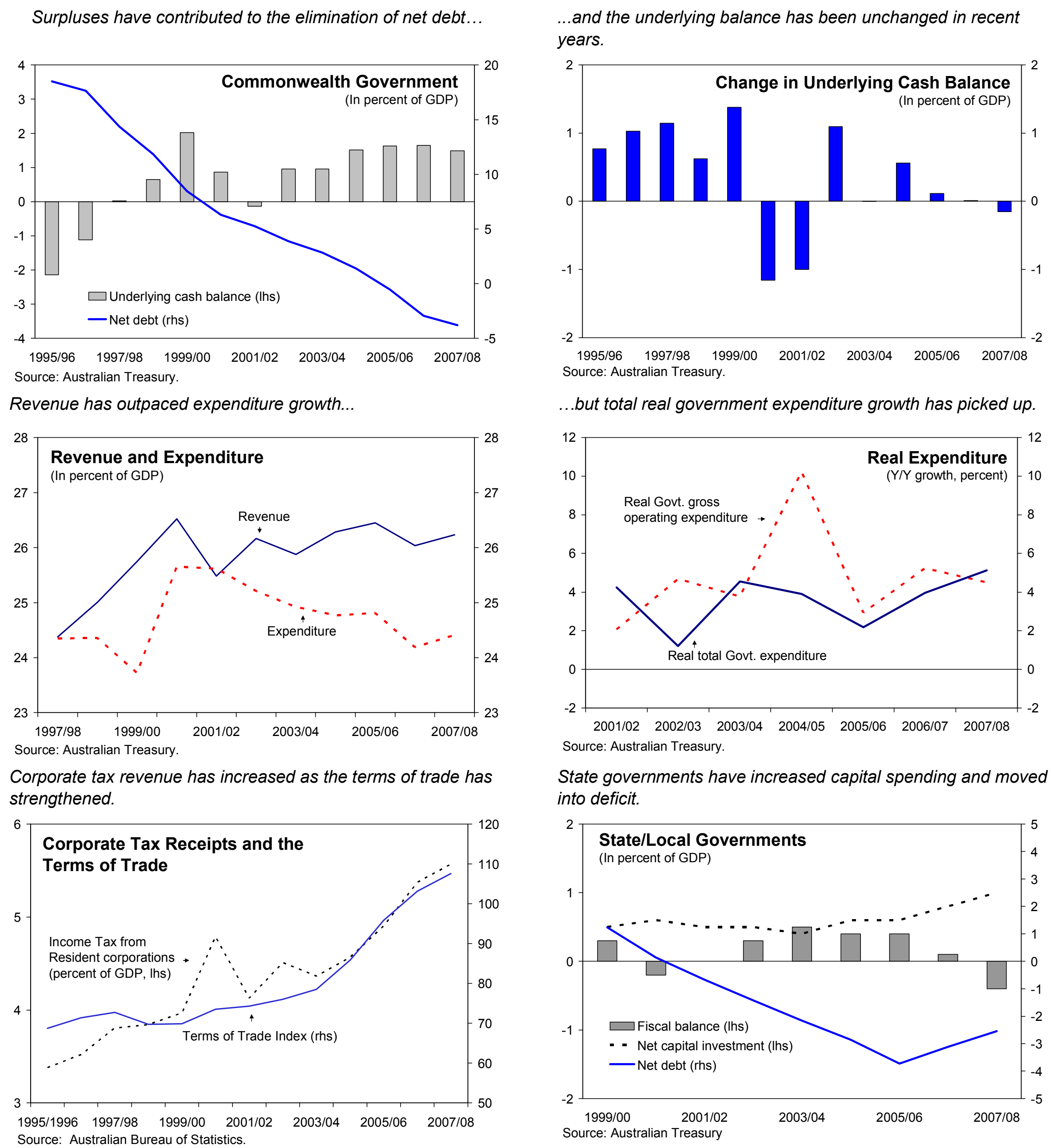
turmoil have pushed up lending rates by a weighted average of around 60 ~~–80~~ basis points more than the rise in the policy rate over the period August 2007–July 2008. Inflation expectations have risen with the jump in food and energy prices, which has muted the impact of the recent increase in the policy rate, with real interest rates now around the average for the past five years. Nonetheless, credit growth has slowed sharply in recent months as tighter credit standards have been applied by financial institutions.

Figure 3. Australia: Monetary Tightening



4. **The Commonwealth's fiscal position has strengthened, but the states have begun to run deficits.** The Commonwealth government has run surpluses of around 1½ percent of GDP in recent years, which has eliminated its net debt (Figure 4, Table 2). Revenue outcomes have consistently surprised on the upside, driven by the stronger-than-expected economy and buoyancy in corporate tax revenue related to the commodity boom. However, increased spending and tax cuts over the last three years have offset some of the restraint from the automatic stabilizers. In addition, the states have increased capital spending and their budget balance has shifted to a deficit of about ½ percent of GDP in 2007/08.

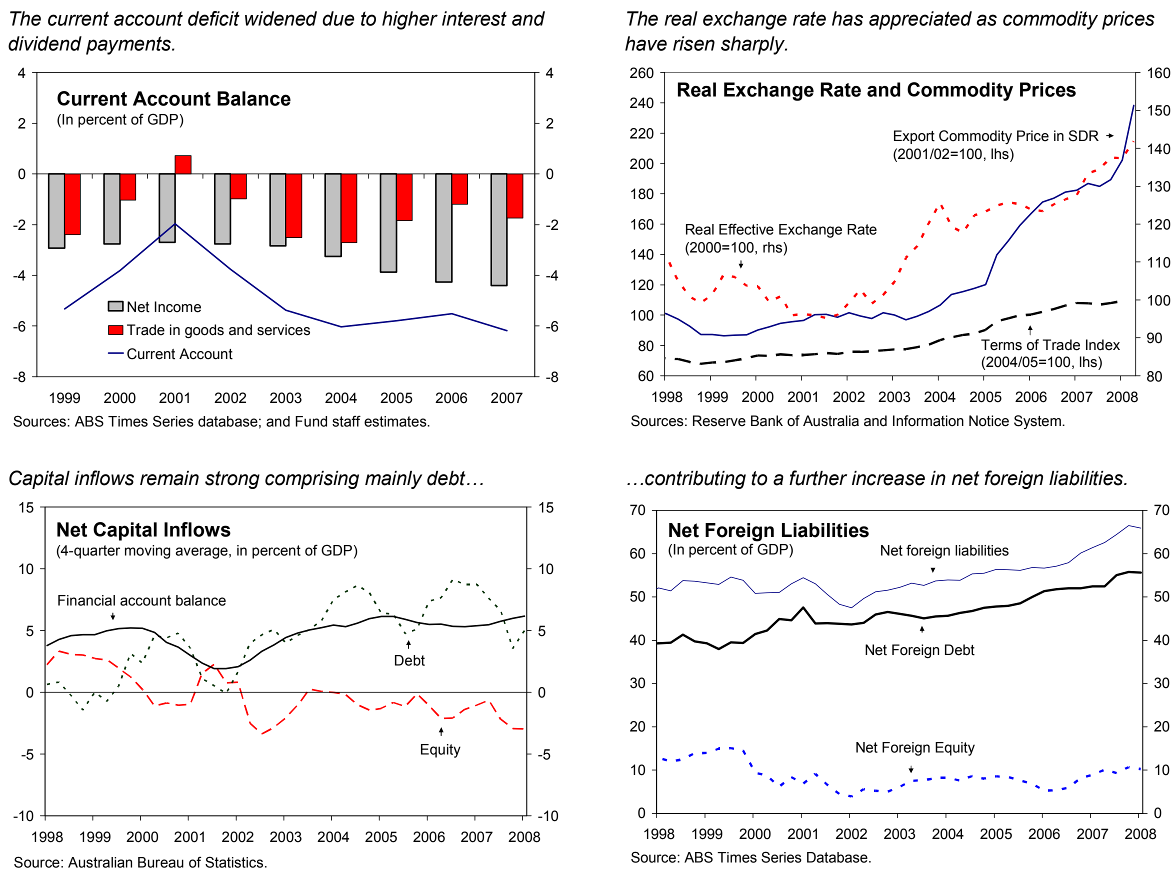
Figure 4. Australia: Fiscal Strength and the Commodity Boom



5. **The current account deficit widened in 2007 to more than 6 percent of GDP, despite the commodity boom** (Figure 5, Tables 3 and 4). The trade deficit deteriorated, as export volume growth was constrained by drought disrupting rural exports and bottlenecks in the export supply chain. Imports also grew strongly owing to buoyant domestic demand and an appreciation of the real effective exchange rate (REER). In addition, the investment

income deficit increased, reflecting higher interest payments on foreign debt and large dividend payments, particularly from the resource sector. Net foreign liabilities rose to 67 percent of GDP at end-March 2008, mainly owing to an increase in foreign debt, channeled primarily through financial institutions.

Figure 5. Australia: Current Account, Commodity Boom, and the Exchange Rate

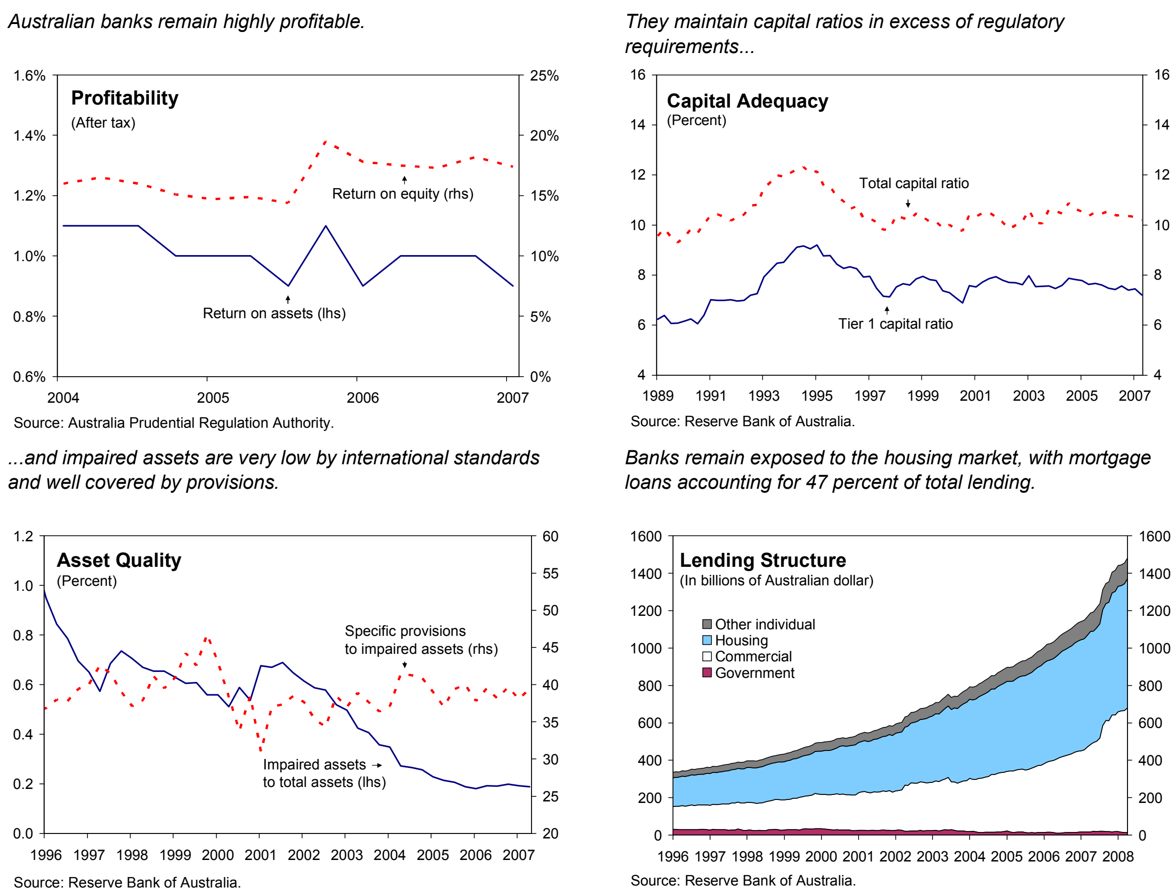


6. **Australian banks have weathered the global financial turmoil reasonably well.** The four large banks that account for two-thirds of bank assets continued to report strong profits through early 2008, together with adequate capital. While impaired assets are very low (0.2 percent of assets), several large banks have increased their provisioning for bad debts to reflect the potential impact of a downturn and rising interest rates (Figure 6). The large banks have limited low-doc and nonconforming lending, with most of this activity concentrated in the smaller banks and the nonbank sector.[1] The smaller banks have a higher

[1] Low-doc mortgages comprise 7 percent of total mortgages, and nonconforming (the equivalent of sub-prime) an additional 1 percent.

impaired assets ratio (around ½~~¾~~ of a percent) than the four large banks, but this ratio is low by international standards. Moreover, the smaller banks remain well capitalized, with the aggregate capital ratio in excess of 10 percent.

Figure 6. Australia: The Continued Strength of the Banking Sector



7. **The turmoil, however, highlighted the vulnerability of Australia's financial institutions to rollover risk.** Sizable short-term funding from the wholesale market, including from offshore, has resulted in an increase in funding costs (Box 1). Some of the smaller financial institutions that relied more heavily on capital markets, particularly securitization, for funding were more affected by the higher cost of funding than institutions that had sizable deposit bases. As a consequence, the availability of home mortgages from these institutions has fallen, especially for low-doc and sub-prime borrowers, and large banks have increased their market share for prime mortgage lending. Corporates have issued fewer bonds because of the turmoil, and instead have approached the banks for funding. This

Box 1. Australian Banks and the Global Financial Turmoil: The Rollover Risk

Australian banks are financially sound, but the global turmoil has highlighted their vulnerability to rollover risk associated with short-term wholesale funding. Wholesale funds account for about 60 percent of total funding of the banking system, and more than 40 percent of wholesale funds come from offshore. Furthermore, about 30 percent of offshore funds and 75~~90~~ percent of domestic wholesale funds of Australian banks have 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.

Australian Banks' Liabilities
(Percent of total)

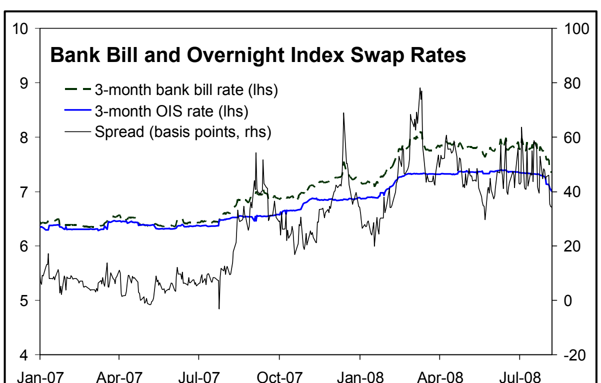
	Jun 07	Dec 07	May 08
Deposits (ex CDs)	42.6	40.0	40.6
Of which: Household	17.2	16.3	16.6
Business	14.0	13.3	12.6
Intra-group	3.1	4.1	4.8
Domestic wholesale	30.7	34.6	34.0
Offshore	26.7	25.4	25.4
Total liabilities	100.0	100.0	100.0

Sources: APRA; RBA

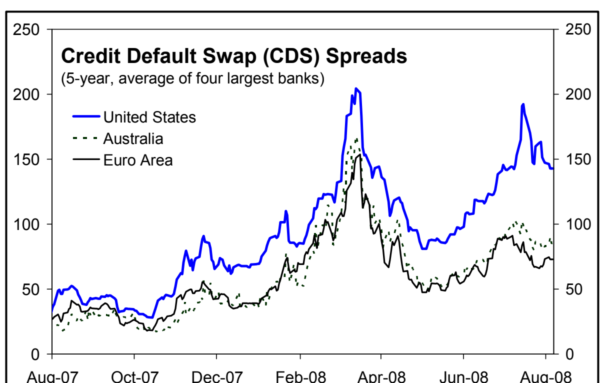
The global turmoil resulted in a sharp increase in funding costs in both domestic and offshore debt markets. The spread between the 3-month bank bill rate and the overnight index swap (OIS) rate averaged around 50 basis points in March–July 2008, compared to the average of 10 basis points in recent years. Furthermore, credit default swap spreads for the major Australian banks widened sharply during the same period, also indicating a higher cost of funding.

Despite the turmoil, the large Australian banks have maintained access to wholesale markets to refinance themselves and to finance growth in their assets, albeit at significantly higher spreads. In addition, they have been attempting to improve their liquidity, by attracting more deposits and issuing short-term securities to one another (increasing the supply of eligible securities that can be used for repos with the RBA).

Banks are also attempting to change their funding structure, by issuing longer-term securities domestically and offshore, in particular through private placements of one-year extendible bonds in the United States and through issuance of yen-denominated "samurai" bonds for the first time. However, changing the maturity profile has been costly, as investors globally are demanding high premia for term funding. As a result, the share of offshore wholesale funding has fallen by only 1¼ percentage point over the period June 2007–May 2008, to 25½ percent of total liabilities, and the debt structure of Australian banks remains predominantly short term.



Source: Bloomberg.



Source: Bloomberg.

contributed to an increase in financial institutions' business credit growth in early 2008, but business credit growth has declined in recent months with the increase in interest rates and some tightening of credit standards.

II. How to Reduce Inflation and Sustain Economic Performance?

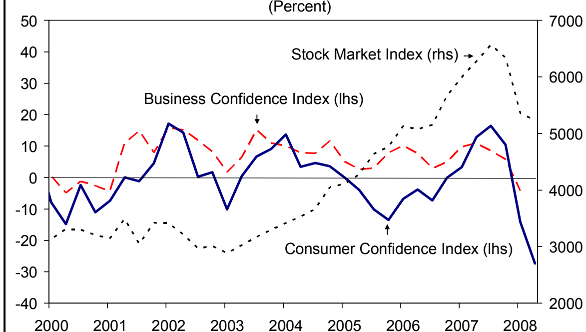
8. Discussion focused on the policies needed to reduce inflation associated with the commodity boom and to maintain financial stability in the face of the global financial market turmoil.

A. Where is the Economy Heading?

9. ***Baseline.* The staff and authorities agreed that activity is slowing, and that the outlook is more uncertain than usual because of large countervailing forces.** Growth in real domestic demand has begun to ease with the tightening of financial conditions, higher energy and food prices, and a sharp decline in confidence (Figure 7). However, the dampening effect of tighter credit conditions and slower trading partner growth is being cushioned by an 80–24~~12~~0 percent jump in annual contract prices for the key exports of iron ore and coal, that will increase the terms of trade by 20 percent in 2008/09, and cuts in personal income taxes.[2] Staff's baseline forecast is that real GDP will grow below trend for the next two years, easing domestic capacity constraints and returning CPI inflation back within the target band over the period (Table 5). The current account deficit should narrow to 4¼ percent of GDP in 2009 due to slower domestic demand growth, the jump in export prices, a rebound in rural exports, and mining sector capacity coming on line.

Figure 7. Australia: Stock Market and Confidence Indices

(Percent)



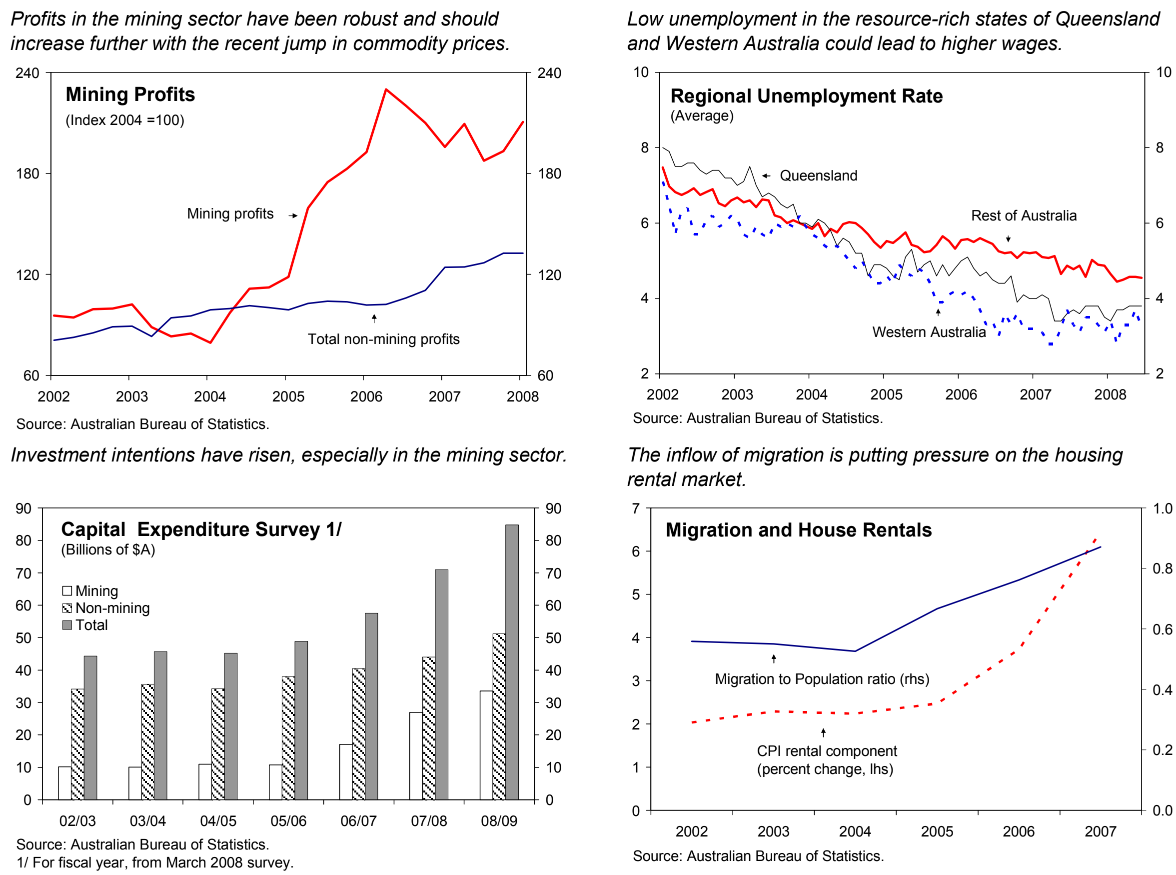
Sources: Reserve Bank of Australia and National Australian Bank.

10. **The staff viewed the balance of risk to growth is tilted toward the upside and that the risks on inflation were clearly on the upside.**

- ***Upside Risks.*** Growth could exceed expectations, owing to the recent jump in commodity prices, sizable immigration flows, and the increase in state infrastructure spending (Figure 8). These factors could offset the impact of weaker consumer and business confidence and support domestic demand. On inflation, the risks are clearly on the upside. Capacity constraints, especially in the mining and housing sectors, could push wage and CPI inflation higher than envisaged.

[2] Cuts in personal income taxes that were introduced on July 1, 2008 will reduce revenue by about 2 percent of GDP over the next four years. Further cuts in personal income taxes to be phased in from 2009/10 to 2011/12 will reduce revenue by about 1 percent of GDP over that period.

Figure 8. Australia: Upside Risks From Mining and Migration



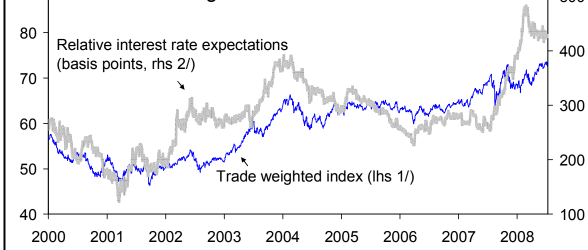
- ***Downside risks.*** On the domestic front, activity could slow significantly if the tightening in credit conditions apparent in the sharp fall in credit growth in recent months has a greater-than-expected impact on domestic demand. In addition, farm output may not rebound from the drought as projected. On the external front, a global slump could weaken export demand and reduce commodity prices, although the one-year contracts for iron ore and coal would delay the impact on the economy. Further international financial turmoil could tighten credit conditions, leading to a sharper-than-expected slowing in global activity.

11. **The authorities viewed risks to the outlook for growth to be more balanced than the staff.** For growth, household spending may fall more than expected as consumer sentiment has declined sharply in face of higher fuel prices and mortgage rates. The authorities agreed that there is an upside risk to inflation, stemming from the extraordinary jump in the terms of trade.

Exchange Rate and External Stability

16. **The appreciation of the Australian dollar in recent years has been driven by the higher terms of trade and positive interest rate differentials.** The stronger exchange rate has eased inflation pressures directly through lower import prices, and indirectly by switching expenditure to imports as domestic capacity became stretched.[3] The staff estimate that the currency was~~is~~ about 10 percent above its long-run equilibrium level as of June 2008 (Box 3 and Figure 9). The staff and the authorities agreed that the overvaluation of the exchange rate is temporary, owing to cyclical reasons. Over time, the currency is expected to fall back toward equilibrium as the RBA reduces the cash rate once it is clear that inflation will moderate. However, with a portion of the improvement in the terms of trade likely to be permanent, the currency is expected to remain above its average for the last 10 years.

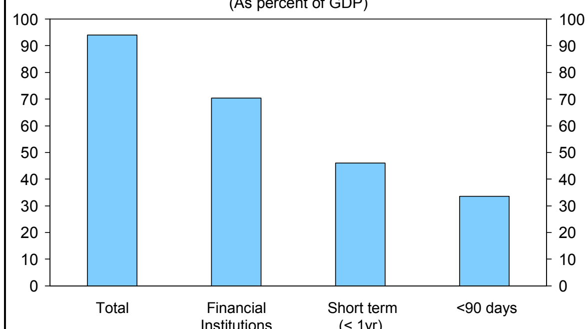
Figure 9. Australia: Expected Interest Differential and the Exchange Rate



Sources: Reserve Bank of Australia; Bloomberg; and Fund staff estimates.
1/ Nominal exchange rate.
2/ Spread between bank bill 90-day futures rates in Australia and trade-weighted average of 90-day future rates in the United States, New Zealand, Euro Area, Japan, and United Kingdom.

17. **The widening of the current account deficit in recent years and the buildup in foreign debt has increased external vulnerability.** The recent global financial turmoil highlighted the rollover risks associated with the sizable short-term foreign debt (Figure 10). Looking ahead, the current account deficit is projected to narrow in 2009 to about the estimated norm of 4–4½ percent of GDP and then widen somewhat over the medium-term as commodity prices ease from the peak in 2008/09. These projections are based on the assumption of a constant REER at June 2008 levels, and a depreciation of the REER to equilibrium would narrow the current account further. In turn, this would slow the accumulation of external liabilities and help to contain vulnerability.

Figure 10. Australia: Foreign Debt, March 2008
(As percent of GDP)



Source: Australian Bureau of Statistics.

[3] The exchange rate is market-determined. In the past year, the RBA intervened to counter disorderly movements in the exchange rate and to maintain sufficient net official reserves. Net official reserves increased by $A 4 billion in the year to June 2008 and remained at about 1¾ months of imports. Gross official reserves fell by almost $A 40 billion over the year to June 2008 as forward contracts expired. These contracts were used for liquidity management.

Box 3. Australia's Equilibrium Real Effective Exchange Rate

Staff estimates suggest that the Australian dollar was~~is~~ overvalued by about 10 percent as of June 2008.[1] These estimates are based on the macroeconomic balance (MB) approach, the equilibrium real exchange rate (ERER) approach, and the external sustainability (ES) approach. The desk methodology is outlined in Appendix I.

Exchange Rate Assessment: Baseline Results [1]

	CA/GDP Norm	CA/GDP Projection [2]	REER Overvaluation
MB Approach: [3]			
Desk	–4.3	–5.6	8.6
CGER	–4.5	–5.6	6.9
ERER Approach: [4]			
Desk	…	…	6.9
CGER	…	…	11.9
ES Approach: [5]			
Desk	–4.0	–5.6	10.7

Source: Fund staff estimates.

1/ All results are expressed in percent and CGER estimates based on April 2008.
2/ Staff projection of the underlying CA/GDP in 2013.
3/ Based on a semi-elasticity of the CA/GDP with respect to the REER of –0.16.
4/ Overvaluation is assessed relative to June 2008.
5/ Based nominal GDP growth rate of 6.4 percent.

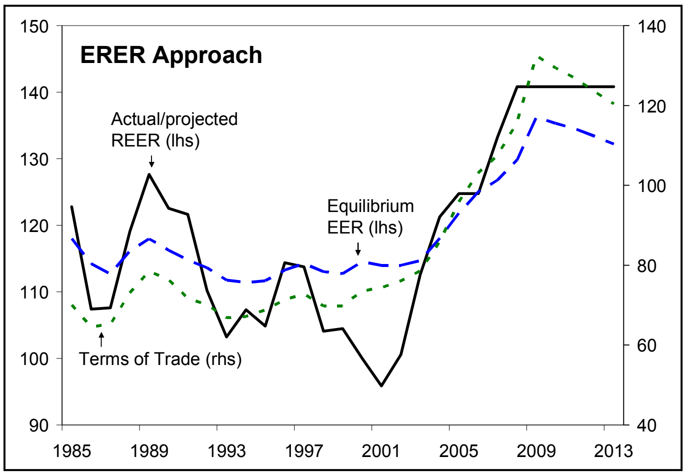
The baseline MB estimates suggest an overvaluation of 7–9 percent over the medium term, while the overvaluation in 2008 is about 6½ percent. The estimates are subject to significant uncertainty, as shown by varying the projected underlying current account deficit and changing the elasticity of the current account balance with respect to the REER. Plausible sensitivity analysis suggests that the overvaluation is about 2–22 percent.

MB Approach: Sensitivity Analysis [1]

Elasticity	CA/GDP Projection [2]: –4.6	–5.6	–6.6
–0.11	3.2	12.8	22.3
–0.16	2.2	8.6	15.1
–0.21	1.7	6.5	11.4

Source: Fund staff estimates.

1/ REER overvaluation is expressed in percent.
2/ Staff projection of the underlying CA/GDP in 2013.



The baseline ERER estimates suggest an overvaluation of 7–12 percent. The models attempt to explain the REER on the basis of the terms of trade, relative productivity, and relative government consumption. An important determinant is the terms of trade, with the 42 percent improvement over the past five years contributing to an increase in the equilibrium REER of about 15 percent. The overvaluation in 2008 is estimated at 10 percent, which narrows slightly to 7 percent by 2013 as the terms of trade is expected to rise.

The ES approach implies an overvaluation of 11 percent, if we assume that net foreign liabilities stabilize at their March 2008 level of 67 percent of GDP. A larger overvaluation would result if we assume that net foreign liabilities stabilize at their average level for the past 10 years of 55 percent of GDP.

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[1] The corresponding equilibrium value of the RBA's real trade weighted index (TWI) is 128–135, assessed relative to an estimate for June 2008 of 145. This estimate is based on real TWI data for March 2008 updated with TWI data through June 2008. The nominal TWI index was at 73.4 as of end-June.

18. **The staff and authorities agreed that there are a number of factors mitigating the external vulnerability.** These include the limited currency risk associated with the foreign debt, the sound banking system, and the strong economic policy and financial supervision frameworks. About 40 percent of gross foreign debt is in Australian dollars, with half of the remainder in U.S. dollars. Survey data suggests the bulk of the foreign-currency-denominated debt is hedged against currency risk. Moreover, less than 10 percent of the gross debt is with the public sector, leaving most of the debt with financial institutions (Table 6). Australia's current account deficits largely reflect high investment rather than low saving, and should be sustainable as long as investment leads to growth in export capacity.[4]

Fiscal Policy

19. **Fiscal policy, focused on medium-term sustainability, delivered a sequence of surpluses that eliminated Commonwealth net debt.** This leaves Australia with an enviable fiscal position by international standards. The new Labor government aims to maintain a conservative fiscal strategy by focusing on three objectives:

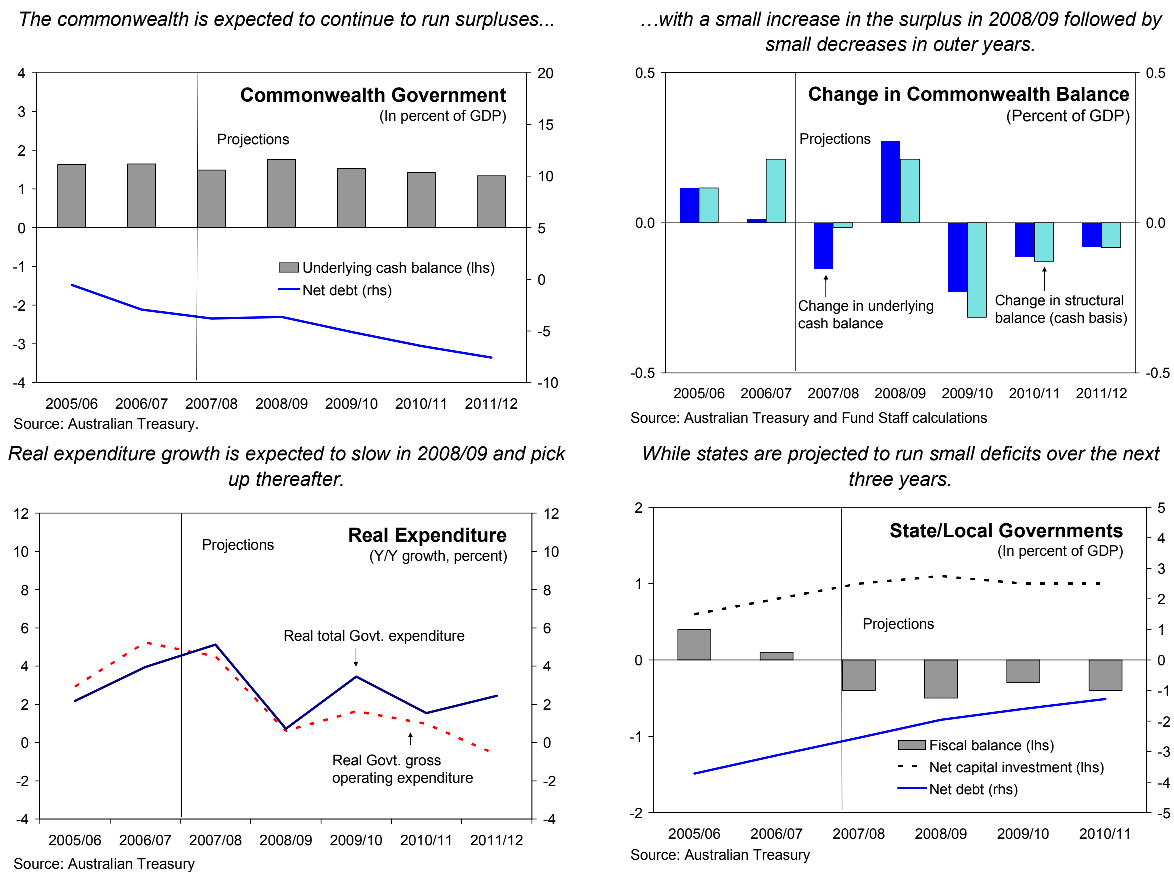
- achieving budget surpluses, on average, over the medium term;
- keeping tax~~revenue~~ as a share of GDP, on average, below ~~24.7 percent of GDP (~~the 2007/08 level (currently estimated at 24.7 percent)~~)~~; and
- improving the government's net financial worth over the medium term.

20. **In the near term, the authorities stressed that the latest budget places priority on helping to fight inflation and reprioritizing spending to build capacity.** The 2008/09 budget slows the pace of growth of Commonwealth government expenditure and forecasts ~~targets~~ an increase in the underlying cash surplus to 1.8 percent of GDP. This stance is slightly contractionary, with the staff's estimate of the structural balance increasing by ¼ percent of GDP, broadly in line with the change in the underlying cash surplus (Figure 11). The budget saves about half of the revenue surprise from the jump in the terms of trade and higher nominal GDP.[5] The remainder of the revenue surprise helps fund personal income tax cuts targeted at lower income earners. Some other tax increases and expenditure cuts finance new initiatives for health, education, climate change, and housing. Beyond 2008/09, spending is projected to pick up and the underlying cash surplus is expected to fall slightly over the next four years.

[4] "Australia's Large and Sustained Current Account Deficits: Should Consenting Adults be Trusted?" IMF Country Report No: 06/373 (10/23/06).

[5] For outer years, about 1/3 of the revenue surprise is saved. The revenue surprise is calculated using the May 2007 budget projections as the baseline.

Figure 11. Australia: Fiscal Forecast



21. **The surpluses for 2007/08 and 2008/09 will be saved in three new funds for infrastructure, health, and education to finance capital spending.** About 3 percent of GDP will be contributed to the funds, depending on the final budget outcomes. Spending from the funds is included in the budget and is expected to be less than 1 percent of total spending by 2010/11. The funds are a means to constrain spending revenue from the commodity boom in the near term, by saving for infrastructure spending over the medium to long term.

22. **The staff advised that further fiscal restraint may be needed.** The staff encouraged the authorities to identify areas where additional spending cuts can be implemented and to save any positive revenue surprises to assist monetary policy, until it is clear that inflation will decline. Given the uncertainty about how much of the increase in commodity prices will be permanent, saving the additional revenue in the near term may avoid sharp changes in taxes and spending in the future. Moreover, state governments are expected to run deficits and increase infrastructure spending, offsetting restraint at the Commonwealth level.

23. **The authorities stated that if inflation pressures persist they would take the necessary action to support monetary policy.** They noted that the next budget would offer another chance to constrain spending and direct it toward areas that are more productive, such as education, health, and infrastructure. They also emphasized that they are committed to saving any further positive revenue surprises in 2008/09. If there is a positive revenue surprise in the 2009/2010 Budget and inflation remains high, the authorities indicated that they would maintain tight controls on spending.

24. **To the extent that the improvement in the budget balance is structural, associated with permanently higher commodity prices, there should be scope to reduce taxes or increase spending over the medium term.** Staff analysis suggests that a combination of lower labor and capital income taxes, along with increased public investment, will generate the largest economic gains.[6] The gains from other options such as lower consumption taxes or higher public consumption are not as large. Despite the expected structural improvement in the medium term, significant long-term fiscal challenges remain, particularly in the area of healthcare spending, and early adjustments will be key to preserving fiscal sustainability.[7]

25. **The authorities noted that there would be scope to reform taxation and increase spending in priority areas, if the recent gains in commodity export prices prove to be permanent.** The budget projections assume some easing in commodity prices over the medium term from the record levels forecast for 2008/09. Nevertheless, in recent years the authorities have been surprised by revenue on the upside, and commodity prices may not ease as expected. The authorities made it clear that any changes in taxes and spending would be consistent with the new government's medium-term fiscal objectives, thereby further strengthening the fiscal position.

C. Dealing with the Global Financial Market Turmoil

26. **The RBA responded promptly and fittingly to the domestic impact of the global financial market turmoil.** The RBA provided the necessary liquidity support to banks through exchange settlement accounts and increased the range of securities accepted for repo lending in late 2007, including residential-mortgage-backed securities. Since then, many banks have securitized mortgages and are holding them on their books as a contingency measure in case they need to obtain liquidity from the RBA.

27. **The Australian Prudential ~~and~~ Regulation~~ory~~ Authority (APRA) also reacted in a timely and appropriate manner.** APRA intensified its monitoring of asset quality, capital

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[6] Using the IMF's GIMF model, the accompanying Selected Issues paper examines the macroeconomic consequences of alternative strategies for dealing with increased revenue from the commodity boom.

[7] The 2007 Intergenerational Report (Australian Treasury) lays out the long-term fiscal projections.

adequacy, and the liability structure of banks. In the context of Basel II, APRA is working with large banks on stress tests, which include extreme scenarios such as the loss of access to offshore credit markets for an extended period.

28. **In addition, banks are adjusting the structure of their funding in response to the turmoil.** They are increasing liquidity as well as lengthening the maturity of their funding and diversifying the sources. However, the banks have found it costly to extend the maturity because of higher interest rates for term funding and have made limited progress in reducing the rollover risk associated with their short-term wholesale funding. Staff analysis using extreme stress test scenarios applied to the large banks suggests that they could suffer a significant fall in profits from an increase in funding costs associated with loss of access to offshore markets for 90 days, but that their capital would remain adequate.[8]

29. **The introduction of new liquidity guidelines should further encourage banks to reduce their rollover risk**. APRA plans to introduce liquidity guidelines with a focus on improved disclosure and stress testing. The aim should be to encourage banks to reduce the risk of disruptions from restricted access to wholesale markets by diversifying their funding sources, lengthening the maturity of their funding, and holding sufficient liquidity. The staff advised that requiring banks to publish more detail on the maturity structure of their funding, especially from offshore markets, would impose additional discipline.

30. **Banks are exposed to households, but appear resilient to an increase in default rates on mortgages.** Households have become increasingly indebted, with debt reaching almost 160 percent of disposable income and debt-servicing costs at about 14 percent of disposable income. As more than half of banks' loans are mortgages, banks' asset quality would likely deteriorate with a large increase in interest rates, rise in unemployment, or fall in house prices. Staff analysis show that a very large increase in default rates (to 10 percent of all housing loans) would be required to reduce capital ratios of the four major banks below 8 percent.[9] Moreover, staff estimates suggest that house prices are only moderately overvalued (5-15 percent) and that continued strong immigration and household income growth could increase equilibrium house prices.

31. **The failure resolution and crisis management framework is being strengthened, as recommended in the 2006 Financial Sector Assessment Program (FSAP).** The proposed Financial Claims Scheme is a key element of legislation to be~~recently~~ introduced to parliament, and it would provide depositors of a failed authorized deposit taking institution

[8] A selected issues paper examines the major banks' rollover risks. It also analyzes house prices and the risks associated with banks' exposure to housing.

[9] A 10 percent default rate on all mortgage loans would require a default on about half of mortgages with loan to value ratios of over 80 percent.

32. with early access to their funds.[10] In addition, the interdependence of the Australian and New Zealand banking systems underscores the importance of the planned work on the practical aspects of coordination of crisis management. Good progress has also been made on a number of other FSAP recommendations (Table 7).

33. **The authorities are also addressing other supervisory and regulatory issues identified as a result of the turmoil.** The government intends to ensure a comprehensive national approach to regulating a number of credit-related financial services.[11] These include mortgage brokers, trustee corporations, and property investment advisors. In addition, the authorities are following up on the recommendations of the Financial Stability Forum Report on enhancing the resilience of financial markets and financial institutions.[12] In particular, APRA will strengthen the capital treatment of structured credit and securitization activities, and is working on updating the risk parameters and other provisions of the Basel II framework. The authorities are also encouraging banks to strengthen their risk disclosure to the market.

D. Implementing Further Structural Reform

34. **The Commonwealth and state governments have set an ambitious reform agenda.** Areas of reform include taxation, emissions trading, healthcare, education, infrastructure, business regulation, and labor relations (Box 4). The Commonwealth government is working with the states on these reforms through an invigorated Council of Australian Governments that meets quarterly. Reform at the state level is important as they provide most of the health, education, and infrastructure services and administer some taxes and business regulations. Differences exist among the states in these areas, which presents a barrier to the movement of labor and capital across state boundaries in some industries and hinders national competition. The aim of the reforms is to raise productivity and labor force participation, including by reducing barriers to competition and the movement of resources.

35. **The staff agreed with the need for broad-based reform and noted that governments should follow through on their commitments**. Recent work by the staff shows that the Australia's productivity performance has been boosted by earlier structural

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[10] The proposed scheme would provide depositors of failed authorized deposit-taking institutions with timely access to the first $A20,000 of their funds, and policyholders of a failed general insurer with a right to have claims met.

[11] The details can be found in the Green Paper on Financial Services and Credit Reform (June 2008), http://www.treasury.gov.au/contentitem.asp?NavId=037&ContentID=1381.

[12] For more details see: http://www.treasurer.gov.au/DisplayDocs.aspx?doc=pressreleases/2008/063.htm&pageID=003&min=wms&Year=&DocType=0.

Box 4. Structural Reform Agenda

The Commonwealth and state governments have a wide-ranging structural reform agenda, which is summarized below:

Tax Reform. A broad-ranging review of the tax system is underway that covers all taxes, social security and transfer payments by the Commonwealth and the states, excluding the goods and service tax (GST). The aim is to improve the tax and transfer system~~mix~~ so as to minimize distortions, enhance~~support fiscal responsibility, and maintain~~ international competitiveness, and reduce complexity.

Commonwealth-State Financial Relations. A new model for Commonwealth-state financial relations is being developed, with priority given to streamlining payments by the Commonwealth for specific purposes and creating new incentive payments to states to energize reforms. These reforms are aimed at clarifying roles and responsibility, reducing duplication and waste, and enhancing accountability.

Emissions Trading. The new government has ratified the Kyoto Protocol and plans to put in place a 'cap and trade' emissions trading scheme. It will set an overall environmental cap by issuing a set number of permits, and then allow entities to trade permits, thereby putting a price on carbon.

Healthcare. The government is developing a new national healthcare agreement, which encompasses preventative health, primary care, aged care, and hospitals. The agreement will clarify the roles and responsibilities of all levels of government in the provision of healthcare. The government will establish a *Health and Hospital Fund* ($A10 billion) for investment in health facilities.

Education. Substantial reform of Australia's education and training system is being planned to raise educational standards. The government intends to establish an *Education Investment Fund* ($A11 billion) to help build education facilities.

Infrastructure. A federal advisory council has been established to develop a blueprint for unlocking infrastructure bottlenecks in transport, water, energy, and communications. In addition, the government intends to establish a *Building Australia Fund* ($A20 billion) to help finance key projects.

Business regulation and competition. Priority areas include national harmonization of occupational health and safety law; national systems for trade and professional qualifications and licensing; and reforms to pricing of energy, transport, and water.

Water management. The government has introduced a new ten-year $A12.9 billion national water policy framework to address urban and rural water challenges. Reforms in the Murray-Darling river basin include implementation of a new governance arrangement and the intention to purchase water entitlements from willing sellers.

Labor relations. The government plans to modernize and simplify the system of awards (i.e., agreements on conditions of work). The emphasis will remain on collective bargaining at the enterprise level, with Australian Workplace Agreements (individual contracts that cover less than 3 percent of the private sector workforce) being phased out. Individuals will still be able to negotiate individual contracts.

Table 5. Australia: Medium-Term Scenario, 2007–13

	Average 1997–2006	2007	Projections 2008	2009	2010	2011	2012	2013
Real economic indicators (percent change)								
GDP	3.6	4.3	2.7	2.8	3.2	3.3	3.4	3.3
Total domestic demand	4.5	5.9	4.1	3.1	3.5	3.4	3.3	3.3
Private consumption	3.9	4.6	3.9	2.9	2.9	2.9	2.8	2.7
Total investment	6.6	8.5	6.2	4.9	5.0	4.8	4.8	4.7
Business	8.5	12.0	7.5	7.0	6.6	6.2	6.1	6.0
Dwelling	5.2	3.1	0.2	0.7	1.8	2.3	2.4	2.4
Net exports 1/	-0.6	-1.7	-1.6	-0.2	-0.5	-0.3	-0.1	-0.2
CPI inflation	2.6	2.3	4.4	3.5	3.0	2.8	2.8	2.8
Unemployment rate (percent)	6.4	4.4	4.2	4.7	4.6	4.5	4.5	4.4
Saving and investment (percent of GDP)								
Gross national saving	20.3	22.2	21.5	22.5	22.7	22.5	22.2	21.9
General government saving	3.8	4.1	4.6	4.4	4.3	4.1	4.0	3.9
Private saving 2/	16.5	18.1	16.9	18.1	18.4	18.4	18.3	17.9
Of which: Household	5.9	6.6	6.3	7.8	7.7	7.8	7.9	7.9
Gross capital formation	24.7	27.9	27.7	26.7	26.9	27.1	27.3	27.5
Of which: Private fixed investment	20.8	23.1	22.9	22.4	22.7	22.9	23.1	23.3
Commonwealth budget (percent of GDP) 3/								
Receipts (cash basis)	25.6	26.0	26.2	25.4	25.7	25.7	25.5	25.5
Payments (cash basis)	24.9	24.2	24.4	23.4	23.9	24.0	23.9	23.9
Underlying cash balance 4/	0.7	1.6	1.5	1.8	1.5	1.4	1.3	1.3
Fiscal balance (accrual basis)	0.6	1.6	1.8	1.9	1.7	1.7	1.6	1.6
Net debt	7.1	-2.9	-3.8	-3.7	-5.1	-6.5	-7.6	-8.8
Balance of payments (percent of GDP)								
Balance on goods and services	-1.3	-1.7	-1.5	1.5	0.8	0.4	0.0	-0.4
Balance on income and transfers	-3.2	-4.4	-4.7	-5.7	-5.1	-5.1	-5.1	-5.3
Current account balance	-4.5	-6.1	-6.1	-4.2	-4.3	-4.6	-5.1	-5.6
Trade in goods and services (percent change)								
Export volume	3.8	3.2	4.6	8.5	6.2	5.7	5.7	5.8
Import volume	8.2	10.6	10.5	7.6	6.9	5.6	5.1	5.3
Terms of trade	3.9	4.3	7.2	13.8	-2.4	-1.9	-2.3	-2.2
Export price	3.9	0.7	7.4	13.3	-1.8	-1.4	-1.9	-3.5
Import price	0.1	-3.5	0.2	-0.5	0.7	0.5	0.4	-1.4
External liabilities								
Net external liabilities (percent of GDP)	53.8	66.5	66.6	65.3	66.2	67.4	68.9	71.0
Net external interest (percent of exports)	9.3	11.5	13.9	16.2	13.7	13.3	13.7	14.8
Memorandum Item:								
Nominal GDP (in billions of Australian dollar)	754	1,088	1,173	1,279	1,347	1,422	1,500	1,582

Sources: Data provided by the Australian authorities; and staff estimates and projections.

1/ Contribution to growth.
2/ Includes public trading enterprises.
3/ Fiscal year basis ending June 30. Projections through 2012 are as presented in the *Budget Strategy and Outlook*, 2008–09. For 2013, staff projections are used.
4/ Underlying cash balance equals receipts less payments, and excludes Future Fund earnings.

Table 6. Australia: Indicators of External and Financial Vulnerability, 2004–08
(In percent of GDP, unless otherwise indicated)

	2004	2005	2006	2007	2008 1/
External indicators					
Real exports of goods (percent change)	3.9	2.3	3.1	2.5	2.5
Real imports of goods (percent change)	14.4	9.9	8.3	10.5	10.6
Terms of trade (percent change)	9.3	11.7	7.6	4.3	2.7
Current account balance	-6.0	-5.8	-5.5	-6.1	-6.4
Capital and financial account balance	6.1	5.8	5.5	6.2	6.4
Of which:					
Net portfolio investment	2.6	5.3	6.9	0.5	1.3
Net direct investment	3.9	-0.2	0.4	-0.2	0.6
Total reserves (in billions of U.S. dollar)	36.9	43.3	55.1	26.9	33.4
In months of imports of goods and services	3.2	3.6	3.8	1.5	1.6
Total net reserves (in billions of U.S. dollar)	19.5	21.0	24.3	31.6	34.4
Net international investment position	-55.5	-56.8	-60.2	-66.5	-65.9
Of which:					
Net external public sector debt	1.6	1.0	0.2	3.6	2.8
Net external private sector debt	45.9	49.0	51.8	52.2	52.9
Net interest payments to exports (in percent)	9.1	8.8	10.3	11.5	11.3
Nominal effective exchange rate (percent change)	7.5	2.5	-1.2	6.8	7.1
Financial market indicators					
General government gross debt (percent of GDP)	11.3	10.4	9.3	8.2	8.0
Interest rates (percent, period average)					
3-month T-bill	5.5	5.6	6.0	6.7	7.3
3-month interest rate spread vis-à-vis US	4.1	2.4	1.1	2.2	5.2
10-year government bond	5.6	5.3	5.6	6.0	5.9
Stock market index (ASX, percent change, end-year)	22.6	16.2	19.9	13.8	-9.5
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 2/	7.6	7.6	7.4	7.2	7.3
Asset quality					
Impaired assets to total assets	0.3	0.2	0.2	0.2	0.3
Specific provisions to impaired assets	41.4	37.0	39.5	39.5	36.8
Loans composition (share of total)					
Public sector	2.2	1.5	1.4	1.3	1.0
Individuals	62.1	62.3	60.4	54.6	54.2
Housing loans	53.6	53.8	51.9	46.7	46.6
Investor housing	18.4	18.2	17.2	15.4	15.3
Commercial lending	35.7	36.3	38.2	44.1	44.7
Financial intermediaries	7.8	7.5	8.8	12.8	12.7
Nonfinancial sector	27.9	28.7	29.4	31.3	32.1

Sources: Data from authorities and Fund staff estimates.

1/ Data are for latest available month.

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

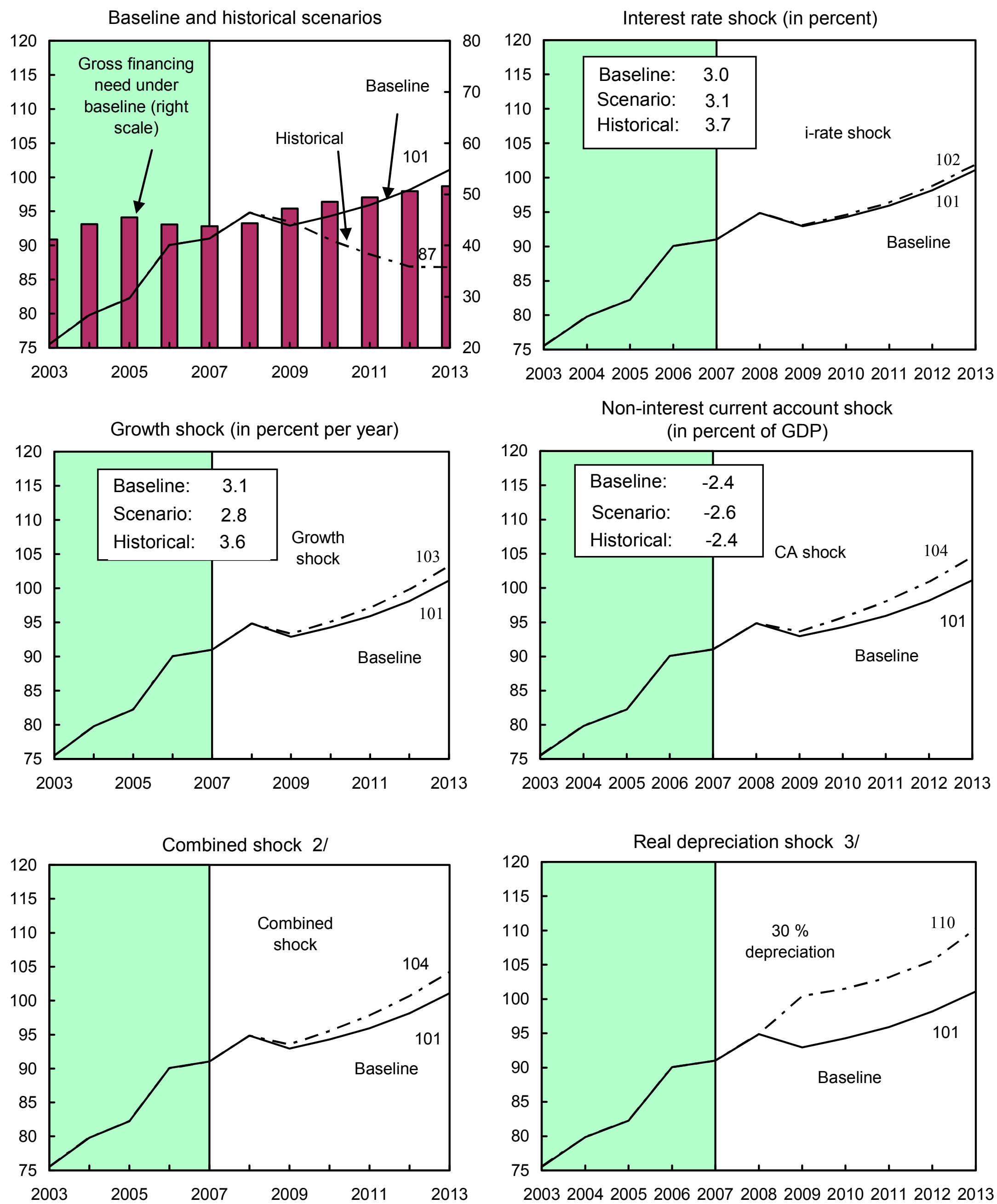
Table 7. Financial Sector Assessment Program:
Key Recommendations and Update on the Progress of Implementation[1]

Issue	Key Recommendations	Progress of Implementation
Banking	Continue to ensure strong risk management practices, including through regular stress testing.	The Basel II framework came into effect in January 2008, with regular stress testing forming an important element of the framework. Three of the four largest banks were approved to adopt the internal ratings based approach with respect to credit risk, and supervisors have appropriately put safeguards in place to ensure that the reduction in banks' capital is phased in. The fourth large bank is expected to adopt the internal ratings based approach with respect to credit risk by end-2008.
Failure Resolution and Crisis Management	Continue to develop a formal process to manage the failure of individual institutions and more widespread crises.	In June 2008, ~~T~~the Government announced its intention to introduce~~proposed~~ to Parliament ~~in May 2008~~ a Financial Claims Scheme (FCS) intended to provide depositors in a failed authorized deposit-taking institution (ADI) with timely access to the first A$20,000 of their funds, and policyholders of a failed general insurer with a right to have claims met. The proposed legislation also includes broader crisis management arrangements, enhancing regulators' ability to deal with a distressed ADI or general insurer.
Supervisory Capacity	Ensure that the supervisory agencies have adequate resources and flexibility.	In the 2007/08 Budget, APRA received additional funding over a four-year period to improve its staff capabilities. The government has also enhanced APRA' flexibility by removing the requirement to obtain ministerial consent before taking administrative actions. The Australian Securities and Investments Commission (ASIC) also received substantial funding increases over recent years, in particular to fund a better regulation initiative program, to streamline the corporate register, and for the development of the ASIC's information technology systems over the next four years.
Cooperation with New Zealand Regulators	Build on the progress made within the Trans-Tasman Council on Banking Supervision to improve coordination in crisis management.	Legislative changes formalizing a requirement on regulators in the two countries to be alert to each other's interests in times of stress came into force in both countries in December 2006. The work of the Trans-Tasman Council now focuses more on the practical aspects of coordination in crisis management.
Insurance	Push ahead with Stage II reforms (e.g., capital management, reinsurance documentation, corporate governance standards, disclosure requirements).	Stage II reforms for nonlife insurance were completed in 2006.~~APRA is harmonizing prudential requirements, including capital adequacy, between life insurance, general insurance, and banking sectors.~~ From July 1, 2008, all Direct Offshore Foreign Insurers operating in Australia must be authorized by APRA and subject to Australia's prudential regime. Discretionary Mutual Funds are now subject to rigorous and compulsory information collection. APRA has a longer-term aim to harmonize prudential requirements between life insurance, general insurance, and banking sectors.
AML/CFT	Give high priority to make the appropriate legislative and operational arrangements in the AML/CFT area.	The AML/CFT Act was adopted in December 2006. This first tranche of reforms covers the activities of financial service providers, gambling services and bullion dealers. Implementation is proceeding in line with the adopted 24-month schedule. Work is underway on developing legislation for the second tranche of legislative and regulatory reforms intended to capture designated nonfinancial businesses and professionals.

Source: IMF Staff.

[1] A detailed discussion and a full list of recommendations can be found in the Financial System Stability Assessment (*IMF Country Report No. 06/372*).

Figure 12. Australia: External Debt Sustainability: Bound Tests [1/]
(Gross external debt in percent of GDP)



Sources: International Monetary Fund, Country desk data, and staff estimates.

1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
2/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.
3/ One-time real depreciation of 30 percent occurs in 2009. This scenario assumes foreign exchange hedging covers 79 percent of foreign currency debt, consistent with the findings of a survey by the Australian Bureau of Statistics, as reported in "Australia's Foreign Currency Exposure and Hedging Practices," RBA Bulletin, December 2005.