FOR AGENDA

SM/08/112
Correction 1

May 8, 2008

To: Members of the Executive Board

From: The Secretary

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

The attached corrections to SM/08/112 (4/17/08) have been provided by the staff:

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

Page 14, para. 14, line 1: remove "in coming months"

Page 15, Figure 9, Sources: for "New Zealand Treasury;"
read "New Zealand: *Half Year Economic & Fiscal Update 2007*, December;"

Page 16, para. 21, line 3: for "They are attempting to lengthen the maturity of their funding and diversify the sources."
read "They are lengthening the maturity of their funding and diversifying the sources."

Page 16, footnote 8: for "credit default swap rate averaged 126 basis points in March 2008 compared with 76 basis points for the 1-year credit default swap rate."
read "credit default swap rate (CDS) averaged 126 basis points in March 2008 compared with 76 basis points for the 1-year credit default swap rate. The CDS rates, however, are not an accurate measure of the actual cost of funding."

Page 18, para. 25, line 4: for "The Securities and Exchange Commission (SEC) will appoint trustees to supervise these institutions. The SEC is also" read "The Securities Commission will approve and monitor the trustees which supervise these institutions. The Securities Commission is also"

B. Typographical Error

Page 11, para. 10, line 7: remove “increases”

Questions may be referred to Mr. Brooks, APD (ext. 34454).

This document will shortly be posted on the extranet, a secure website for Executive Directors and member country authorities.

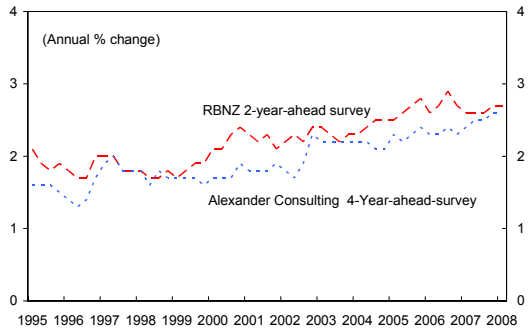
Att: (5)

Other Distribution:
Department Heads

B. Monetary Policy

10. **The persistence of inflation pressures argues for maintaining a firm monetary policy stance.** The tight labor market, strong income growth (especially for dairy farmers), and the prospect of fiscal stimulus are keeping inflation high even with a cooling in the housing market.[2] In addition, the authorities noted that rising energy and food prices, together with the introduction of an emissions trading scheme, is increasing inflation expectations and making it more difficult to reduce inflation. The authorities agreed on the need to respond if the slowing in trading partner growth or the fallout from financial market turmoil is worse than expected. However, given the uncertainties at present, the authorities and the staff agreed that monetary policy should remain on hold pending clearer indications of the future path of the economy.

Figure 7. New Zealand: Inflation Expectations



Source: Statistics New Zealand; RBNZ; Alexander Consulting.

11. **A sharp slowdown in the housing market is underway** (Figure 8). This is key to containing inflation as it will slow construction activity and dampen consumption through wealth effects and reduced availability of home equity financing. Earlier concerns about the lack of effectiveness of monetary policy in containing the housing boom in the face of the carry trade have lessened. The effective mortgage rate has risen by 160 basis points since the tightening cycle began in 2004, with the increased cost of funding arising from the global turmoil a contributing factor. At least another 50-basis points increase in the effective mortgage rate is in prospect through late 2009 due to interest rate resets for fixed mortgages (if new mortgage rates stay around current levels).[3]

12. **A parliamentary inquiry into the monetary policy framework is nearing completion.** The inflation-targeting framework has evolved over time, and has been based since 2002 on a more flexible target of "1–3 percent on average over the medium term." Despite the increased flexibility, concerns about an overvalued exchange rate sparked the inquiry, which provided a useful forum for discussing the benefits and costs associated with the inflation-targeting framework. The framework has delivered a prolonged period of relatively low inflation accompanied by economic growth, therefore the staff advised against any significant changes in the framework.

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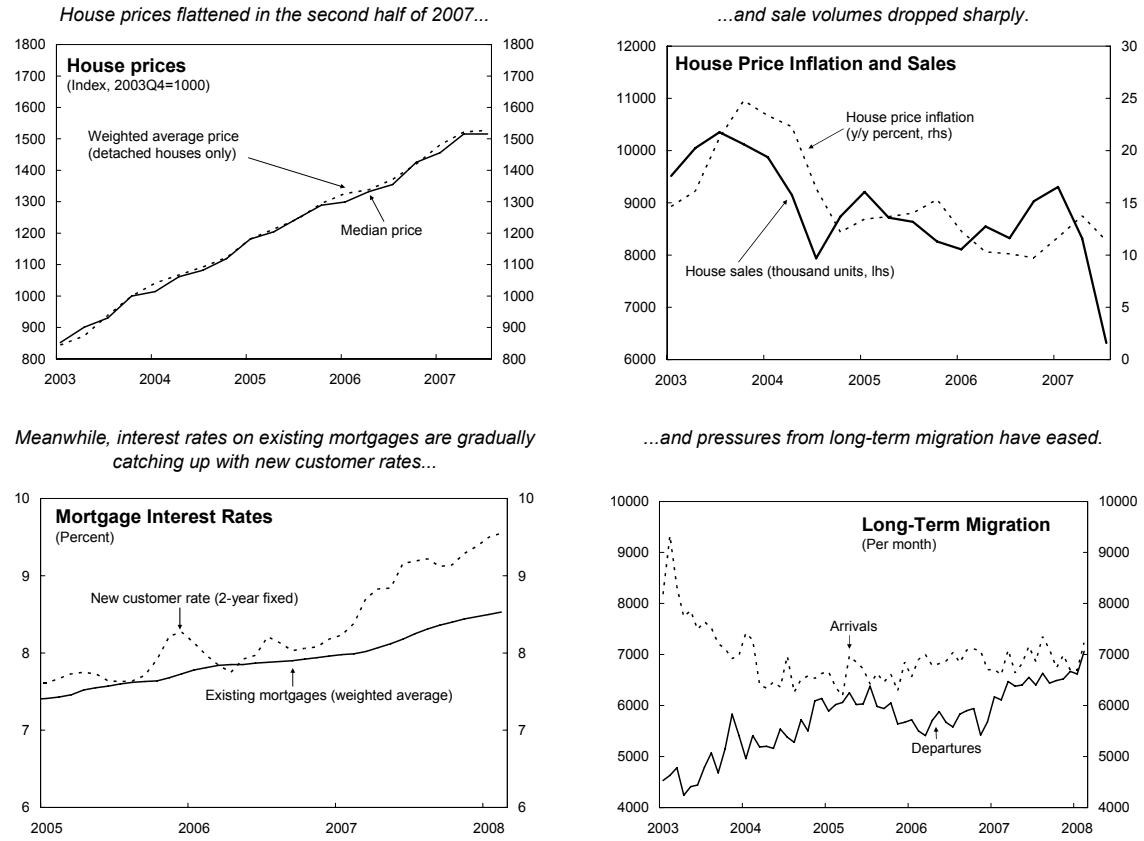
[2] Higher world dairy prices should boost dairy farmer incomes by 1½–2 percent of GDP in 2007/08.

[3] Half of fixed mortgages will reset within the next 20 months, with fixed mortgages comprising four-fifths of mortgages.

Figure 8. New Zealand: Housing Sector



Sources: CEIC; RBNZ and REINZ.

C. Competitiveness and External Stability

13. **The staff and authorities consider that the overvaluation of the New Zealand dollar primarily reflects temporary factors.** The authorities' assess that the currency overvaluation is at the upper end of the staff's estimate of 5–15 percent (Box 2). Much of the overvaluation arises from a wide interest rate differential that resulted in large capital inflows. The authorities noted that over the past year the response to the differential had been muted. The staff and the authorities expected that the overvaluation would unwind over time as inflation abated and the policy interest rate could be reduced. However, the equilibrium level of the currency is likely to remain above its historical average because a portion of the rise in commodities prices will likely be permanent.[4]

[4] A selected issues paper analyzes the impact of higher commodity prices on the exchange rate.

Box 2. New Zealand's Equilibrium Real Exchange Rate

Staff estimates suggest that the New Zealand dollar is overvalued by 5-15 percent.[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 baseline MB estimates suggest an overvaluation of 6–10 percent.[2] But the estimates are subject to uncertainty, as shown by varying the projection for the underlying current account deficit and changing the assumption for the elasticity of the current account balance with respect to the exchange rate. This sensitivity analysis suggests that the overvaluation is in the range of 5–24 percent.

The baseline ERER estimates suggest an overvaluation of 12–15 percent. The models attempt to explain the exchange rate based on the terms of trade, relative productivity, and relative government consumption. An important determinant is the terms of trade, with the 14 percent improvement in the terms of trade over the past five years contributing to an increase in the equilibrium REER of about 5 percent.

The ES approach implies an overvaluation of 11 percent, if we assume that net foreign liabilities stabilize at their average level for the past 10 years of 82 percent of GDP. A smaller overvaluation would result if we assume net foreign liabilities stabilize at the end 2007 level of 87 percent of GDP.

Exchange Rate Assessment: Baseline Results 1/

	CA/GDP		REER
	Norm	Projection 5/	Overvaluation
MB Approach: 2/			
CGER Methodology	–5.3	–6.8	6.5
Desk	–4.4	–6.8	10.5
ERER Approach: 3/			
CGER Methodology	…	…	14.5
Desk	…	…	12.2
ES Approach: 4/			
Desk	–4.2	–6.8	11.3

Source: Fund staff estimates.

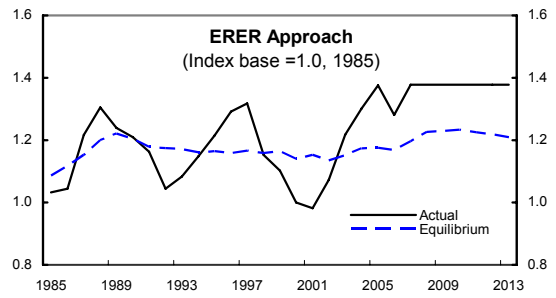
1/ All numbers are expressed in percent.
2/ Based on a semi-elasticity of the CA/GDP with respect to the REER of –0.23.
3/ Overvaluation is assessed relative to December 2007.
4/ Based on a nominal GDP growth rate of 5.4 percent for the projection period.
5/ WEO projection of the underlying CA/GDP in 2013.

MB Approach: Sensitivity Analysis 1/

	CA/GDP Projection 2/		
Elasticity	–6.0	–6.8	–8.0
–0.15	10.7	16.0	24.0
–0.23	7.0	10.5	15.7
–0.30	5.3	8.0	12.0

Source: Fund staff estimates.

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



Source: Fund Staff estimates.

[1] The corresponding range for the equilibrium value of the RBNZ's real trade weighted index (TWI) is 63 to 70, assessed relative to the December 2007 level of 74.3.

[2] For both the MB and ERER approaches, the CGER methodology applies the OLS estimation technique over the period 1970–2004. The desk methodology is outlined in Appendix I.

14. **The exchange rate could fall sharply if there were a disruption in capital inflows arising from the global financial market turmoil.** The RBNZ was concerned that a sharp depreciation would boost inflation. While acknowledging that a depreciation would affect tradable goods inflation, the staff noted that a disruption to capital inflows would most likely slow domestic demand because of tighter credit conditions. In turn, this would reduce underlying inflationary pressures and might leave scope for the RBNZ to ease monetary policy. In these circumstances, fiscal policy could provide support through the operation of automatic stabilizers.

15. **A number of exporters were concerned that the currency overvaluation is damaging the tradable goods sector.** Although the magnitude of the exchange rate appreciation has been large, staff analysis suggests that it has not hurt tradable goods manufacturing significantly.[5] The authorities noted that this could reflect the stability of the cross rate with Australia, its most important trading partner for manufactures.

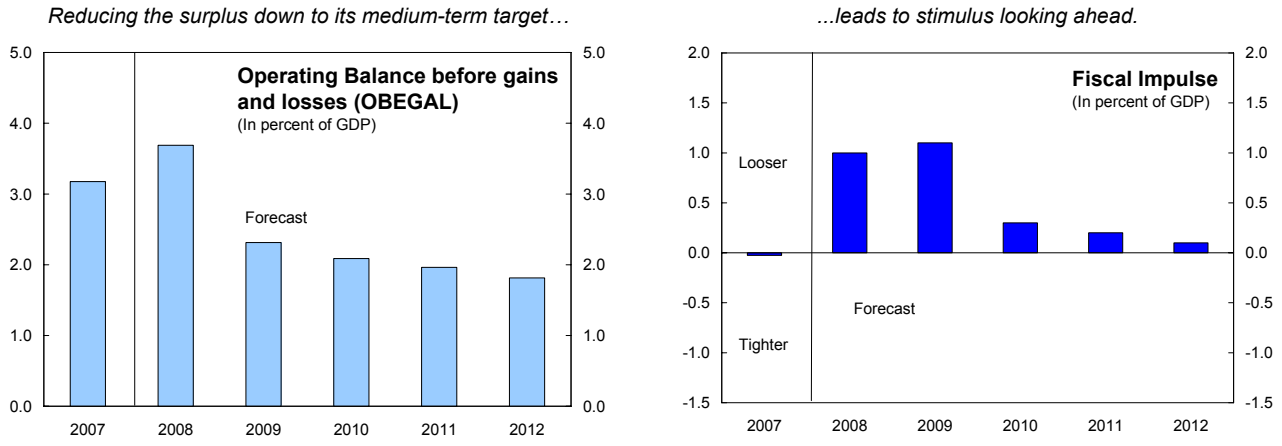
16. **The RBNZ considered that their foreign exchange market intervention in mid-2007 achieved its intended objective.** They believed that their selling of New Zealand dollars introduced some two-sided risk that helped relieve some temporary and unwarranted upward pressure on the exchange rate.

D. Fiscal Policy

17. **The authorities' strategy is to transition to lower budget surpluses over time, conditional on the state of the economy.** The government plans to reduce the surplus from 3½ percent of GDP in 2007/08 to less than 2 percent of GDP over the medium-term (Figure 9). As a result, the fiscal impulse is expected to be expansionary in 2008/09 with the stimulus abating thereafter. This plan includes a conditional allowance of 0.8 percent of GDP for personal income tax cuts together with increased spending. The Minister of Finance has stated publicly that the scope and shape of personal tax cuts would be such that they do not exacerbate inflationary pressures, increase public borrowing, or require a cut in public services. In line with previous Fund advice, the stimulus emphasizes tax cuts rather than spending increases, to limit pressure on resources. In addition, spending plans focus on improving productive capacity by addressing infrastructure bottlenecks. However, in recent years, the stimulus projected in the budget has not materialized because of stronger-than-expected revenue growth.

[5] A selected issues paper uses the IMF's Global Economy Model to analyze this issue.

Figure 9. New Zealand: The Fiscal Plan 1/



Sources: New Zealand: *Half Year Economic & Fiscal Update 2007*, December; Fund staff estimates.

1/ Fiscal year ending June, with 2008 and beyond being a forecast.

18. **The staff endorsed the authorities' fiscal strategy, including the transition to a lower surplus, but stressed the need for caution in the near term.** Staff pointed to uncertainty regarding the durability of higher corporate tax revenues, and noted it would be prudent to delay spending the revenue surprises which have added to surpluses in recent years until it was clear that they were structural. Therefore, the staff encouraged the authorities to maintain flexibility in the magnitude and the timing of the easing so that the fiscal stimulus will not occur until inflation pressures are expected to have abated and it is clear that fiscal resources exist to deliver the tax and spending measures.

19. **The authorities recognized the need for fiscal policy to support monetary policy, but considered that the supply side benefits of lower income taxes and improved infrastructure were also important.** Nonetheless, they acknowledged the downside risks to revenue if the economy slows more than expected. Therefore, delaying the tax cuts somewhat and perhaps scaling them down remain under consideration. They added that further tax cuts may be phased in over the medium-term once it was clear that revenue gains in recent years are permanent.

20. **The authorities saw some merit in staff's advice to save revenue surprises until they can reasonably be determined to be structural.** Staff noted that pre-announcing the intention to save surprises could help deflect political pressures for additional spending or tax cuts in the near-term that work against the operation of the automatic stabilizers.

E. Financial Sector

21. **The large external refinancing needs of banks are a source of vulnerability. O**ne-third of banks' funding comes from nonresidents, of which two-thirds matures in one year or less. While banks' external debt is hedged against currency movements, the tightening in

international credit markets has increased funding costs and highlighted rollover risk.[6] Banks have contingency plans to deal with potential liquidity difficulties, but several banks acknowledged that they had under-priced rollover risk.[7] They are lengthening the maturity of their funding and diversifying the sources. In addition, the RBNZ is looking at instituting new liquidity guidelines for banks in late 2008 but no decision on the nature of the guidelines has been taken as yet, given the ongoing consultations with interested parties. The higher cost of medium-term funding compared with short-term funding is an obstacle to lengthening the maturity of funding.[8] However, banks have been able to pass on some of the higher costs to borrowers, which limits the impact on bank profits.

22. **The RBNZ's action in late 2007 to provide additional domestic liquidity helped ease pressures in money markets.** Owing to continued unsettled conditions in global markets, the staff suggested that the RBNZ prepare a contingency plan to provide additional domestic liquidity in case of further disruption of New Zealand banks' access to liquidity.

23. **Banks are exposed to mortgages, but the RBNZ considered that they could withstand sizable adverse shocks.** Most conventional metrics indicate a modest degree of house price overvaluation (Box 3). However, the authorities pointed to factors that suggested banks' asset quality would not deteriorate seriously in the event of a correction in house prices. First, sub-prime mortgage lending, securitization, and off-balance sheet credit provision are very limited. Second, average loan-to-value ratios remain low at around 60 percent at end-2007. Third, a large portion of the debt is held by high-income groups.[9] The authorities noted that for mortgage asset quality to deteriorate significantly, house prices would need to decline sharply, combined with sizable adverse shocks to unemployment and debt servicing costs.

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[6] A selected issues paper examines the impact of a disruption in capital inflows.

[7] The four major banks accredited to use internal models under Basel II assess the impact of changes in funding costs as part of their stress tests. However, the banks are not required to hold regulatory capital against these risks. The RBNZ intends to review banks' experience with modeling this risk by early 2009.

[8] For the four large Australasian banks, the 5-year credit default swap rate (CDS) averaged 126 basis points in March 2008 compared with 76 basis points for the 1-year credit default swap rate. The CDS rates, however, are not an accurate measure of the actual cost of funding.

[9] Households in the top two income quintiles held 72 percent of the debt identified in a 2004 household survey, while households in the bottom two income quintiles held just 8 percent of the debt, and had the lowest debt-to-asset ratios (less than 25 percent). Results from the 2007 survey are not yet available.

Box 3. How Overvalued are New Zealand House Prices?

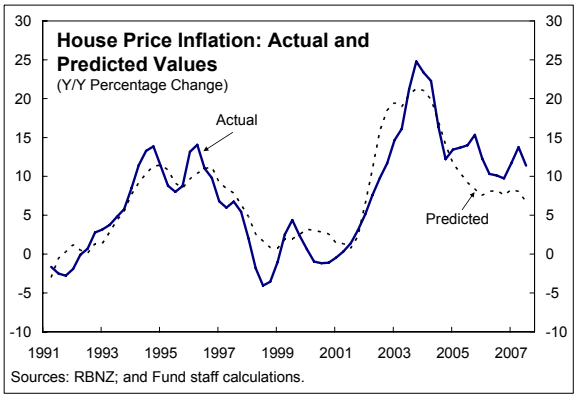
House prices in New Zealand increased on average by 15 percent per annum during 2003–07. As a result, the ratio of house prices to average household incomes and the ratio of house prices to rents have increased substantially, and it would take a 40 percent fall in house prices to bring them back to historical averages. In addition, a Fitch Ratings study notes that New Zealand house prices are now the fourth most overvalued in a sample of 16 advanced countries, with France, the United Kingdom, and Denmark registering greater overvaluation.

Staff estimated a model of house price inflation for New Zealand, based on the extended version of Terrones (2004).[1] The model uses an updated data set, and substitutes more appropriate New Zealand-specific variables for those used in earlier cross-country studies (in particular, migration is used instead of population growth, and a mortgage rate is used instead of a short-term interest rate). Estimation results show that 60 percent of variation in house price inflation in New Zealand can be explained by changes in interest rates and migration. Other variables that are typically important in other countries (such as affordability of houses, growth of real incomes, real credit growth, and stock prices) are not statistically significant in New Zealand. In 2003–07, house prices grew by a cumulative 90 percent, exceeding the model's prediction of 70 percent growth. This implies that house prices were overvalued by about 12 percent in the third quarter of 2007.

Estimation Results
Dependent variable: Quarterly house price inflation
Time Period: 1990:Q1 to 2007:Q3

Explanatory variable	Regression coefficient 1/	*(Std. errors in parentheses)*
Constant	0.041***	*(0.013)*
House price inflation (t-1)	0.287***	*(0.103)*
Affordability ratio (t-1)	0.005	*(0.009)*
Mortgage interest rate	-0.003***	*(0.001)*
Net long-term migration to working age population (t-2)	6.332***	*(1.273)*
Number of observations	69	
Adjusted R-squared	0.61	

Sources: RBNZ; and Fund staff calculations.
1/ ** denotes significance at 5 percent level, *** at 1 percent level.



Sources: RBNZ; and Fund staff calculations.

[1] See October 2007 *World Economic Outlook*.

24. **Good progress has been made on implementing Basel II.** The four large banks have been accredited to use internal models to assess credit risk and the RBNZ is working closely with these banks to improve their models, particularly those related to housing and agriculture loans. In the meantime, banks must maintain capital at no less than 90 percent of what would be required under Basel I.

25. **The authorities outlined a range of measures to strengthen oversight of nonbank financial institutions.** The RBNZ will take over regulation of nonbank deposit takers in 2009, setting requirements for such things as governance, risk management, and licensing. The Securities Commission will approve and monitor the trustees which supervise these institutions. The Securities Commission is also tightening oversight of financial advisors and investment funds and insurance companies will come under the regulation and supervision of the RBNZ in 2010.

III. Staff Appraisal

26. **Sound macroeconomic policies and structural reforms have resulted in 10 years of robust economic expansion.** However, capacity constraints have emerged in recent years and inflation pressures have increased, especially with the rise in world commodity prices. Current policy settings and external prospects appear poised to deliver the required easing of constraints.

27. **The current stance of monetary policy is appropriate.** During 2007, retail mortgage rates became more responsive to the official cash rate, and this is having the desired effect of moderating house price inflation and slowing overall activity. More recently, tightening international credit conditions have also contributed to mortgage rate increases that should help ease capacity pressures. With significant risks present, monetary policy should remain on hold pending clearer indications of the future path of the economy.

28. **Although inflows of foreign capital, attracted by wide interest rate differentials, have contributed to the appreciation of the currency, the strength in commodity prices has also been an important factor.** As inflation pressures moderate and the policy rate normalizes, capital inflows are expected to ease and the exchange rate depreciate. However, the equilibrium level of the REER is likely to remain above its historical average because a portion of the rise in commodities prices will likely be permanent.

29. **A reduction in budget surpluses over time is consistent with prudent fiscal policy, but caution is needed in the near term to avoid potentially adding to inflationary pressures.** The focus of fiscal policy on sound medium-term objectives has delivered low public debt and a positive net financial asset position. With surpluses still in excess of the level required within the medium-term framework, the authorities' broad strategy for a gradual transition to a lower surplus, conditional on the state of the economy, is appropriate. Flexibility should be maintained in the magnitude and the timing of the easing so that the