August 2008
IMF Country Report No. 08/280

Singapore: 2008 Article IV Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Singapore

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2008 Article IV consultation with Singapore, the following documents have been released and are included in this package:

- The staff report for the 2008 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on May 12, 2008, with the officials of Singapore on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 30, 2008. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.

- A Public Information Notice (PIN) summarizing the views of the Executive Board as expressed during its July 16, 2008, discussion of the staff report that concluded the Article IV consultation.

- A statement by the Executive Director for Singapore.

The document listed below will be separately released.

Selected Issues Paper

The policy of publication of staff reports and other documents allows for the deletion of market-sensitive information.

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INTERNATIONAL MONETARY FUND

SINGAPORE

Staff Report for the 2008 Article IV Consultation

Prepared by the Staff Representatives for the 2008 Consultation with Singapore

Approved by Daniel Citrin and Adnan Mazarei

June 30, 2008

- **Discussions**: Held in Singapore during May 5–12, 2008 with Minister for Finance Tharman Shanmugaratnam, the Monetary Authority of Singapore Managing Director Heng Swee Keat, other senior officials, and representatives of the private sector.

- **Team**: Messrs. Zanello (head), Eskesen, Guimarães-Filho, Salgado (Resident Representative), Ms. Baker (all APD), and Ms. Loukoianova (MCM). Ms. Sucharitakul and Ms. Tok (OED) also participated.

- **Mission Focus**: Spillovers through trade and financial linkages, and the policy requirements for domestic and external stability.

- **Policy Dialog**: Past Fund advice has found particular traction on financial sector issues and social safety net reforms. There has been, however, less consensus on monetary and exchange rate policies—particularly as regards calls for a faster appreciation of the Singapore dollar.

- **Exchange Arrangement**: Singapore has accepted obligations under Article VIII, Sections 2, 3, and 4. The exchange system is free of restrictions on payments and transfers for current international transactions. The exchange rate regime is a managed float and it remains appropriate.

- **Data**: Generally adequate for surveillance. However, reporting on the international investment position is inaccurate as it does not include the net foreign assets of the Government of Singapore Investment Corporation. This issue remains to be addressed in the context of the IMF-facilitated work on sovereign wealth funds and the implementation of the recent Board decision on members' provision of data for surveillance purposes.

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EXECUTIVE SUMMARY

Background: The economic cycle appears to be turning and near-term risks to growth are tilted to the downside. GDP growth is projected to decline to 4½ percent in 2008–2009 with softening external demand. Inflation would near 7 percent in 2008—a 27-year high—but taper off next year. The uncertain external environment may weigh on growth, and inflation could become entrenched.

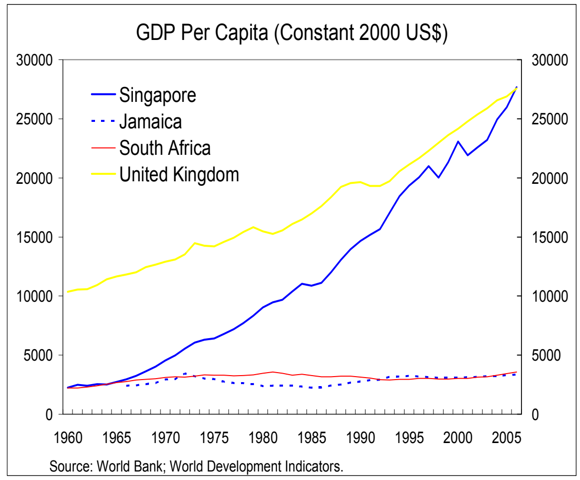
Policy issues: Turbulence in the world economy provides an opportunity to look at how Singapore is affected by international spillovers. The 2008 Article IV discussions thus focused on policies to safeguard domestic, external, and financial stability.

Staff's views: A further rebalancing of the macroeconomic policy mix toward a tighter monetary stance and a looser fiscal policy would be desirable from both a domestic and an international perspective. The external value of the Singapore dollar appears to be weaker than the level implied by its longer-term fundamentals. Greater upward exchange rate flexibility would help fend off risks to inflation and facilitate balance of payments adjustment. However, this adjustment should be managed carefully to avoid undermining domestic stability. Financial spillovers from the global turmoil have so far been contained, but the turning cycle—and still wobbly financial markets—call for continued supervisory vigilance.

Authorities' views: Although policies may need to adapt quickly to a shifting environment, there is no pressing need for rebalancing the policy mix. Monetary withdrawal in the pipeline should anchor inflation expectations and home-grown price pressures have in part been addressed through administrative steps to ease supply bottlenecks. Budgeted measures should suffice in cushioning disposable incomes against rising prices. More broadly, a further appreciation of the exchange rate when the visibility about the general direction of the economy is poor could amplify downside risks and attract speculative capital inflows. The Singaporean authorities disagree with staff's exchange rate assessment and regard the Singapore dollar as fairly valued. There was broad agreement on the need for close surveillance of financial system developments.

I. Introduction

1. **Singapore is an economic success story**. Policies to fully exploit the opportunities afforded by the world economy have laid the groundwork. Pragmatic macroeconomic management has underpinned resilience to external shocks; proactive structural reforms have allowed the economy to cope with rising regional competition and the challenges of globalization; and a business-friendly environment has been a pull-factor for foreign investment. As a result, Singapore's real GDP per capita has increased five-fold in a generation—from developing to advanced country level.



2. **The 2008 Article IV discussions focused on spillovers from the global economy and attendant policies**. Singapore's outward orientation has served it well but poses challenges when, as now, the world economy sputters. The exchange of views centered on policies to safeguard domestic, external, and financial stability. Sovereign wealth fund issues (which are being addressed through an IMF-facilitated multilateral initiative) and structural issues (which were covered in depth in last year's consultation) featured less prominently in the discussions.

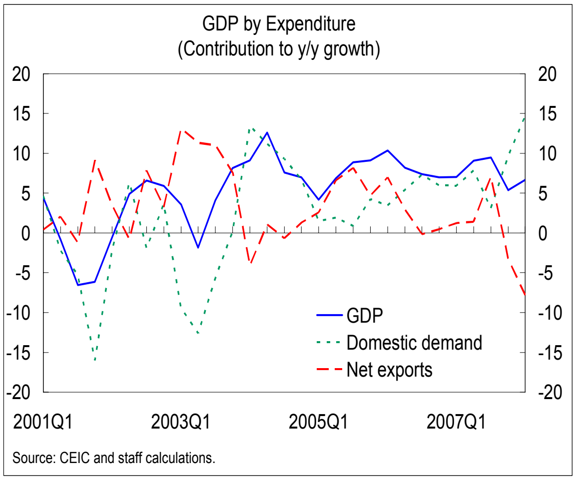
II. Recent Economic Developments

3. **Global spillovers have been propagated mostly through trade channels; the transmission of shocks through international financial linkages has so far been limited**.

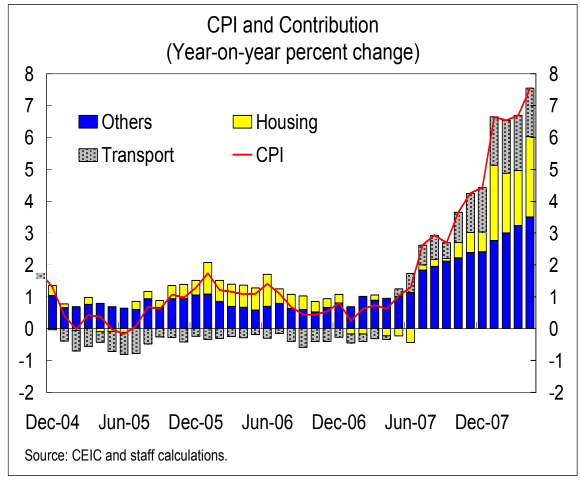
- *Growth*: GDP grew by about 7¾ percent last year, but flagging exports, particularly to the United States and Europe, have weighed on the pace of activity since late 2007.

- *Inflation*: Increases in food and energy prices have added to inflation pressures from a hike in indirect taxes, a housing boom, and tighter labor markets. Inflation reached close to 7 percent (year-on-year) during January–April this year and average monthly earnings grew by around 11 percent (year-on-year) during the first quarter.[1]

[1] About 2 percentage points of headline inflation can be accounted for by transitory factors, including the impact of last year's hike in the goods and services tax and the effect of the January 2008 upward re-assessment of property values. Such re-assessments are infrequent.

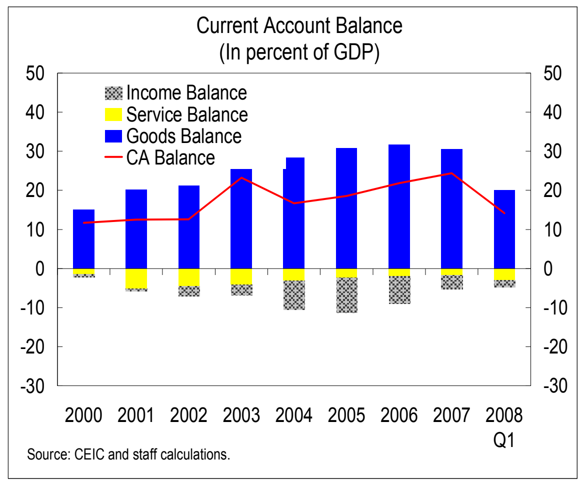


GDP by Expenditure
(Contribution to y/y growth)
Source: CEIC and staff calculations.



CPI and Contribution
(Year-on-year percent change)
Source: CEIC and staff calculations.

- *Balance of payments*: After reaching about 24 percent of GDP in 2007, the current account surplus dropped to around 14 percent of seasonally adjusted GDP in the first quarter of this year as the trade balance shrunk.[2] With lingering concerns about asset quality in major advanced economies, Singapore has continued to experience a surge in capital inflows and official reserves have kept on rising (¶13).



Current Account Balance
(In percent of GDP)
Source: CEIC and staff calculations.

- *Financial system*: The global market turmoil has had only minor reverberations. While profitability of Singapore's local banks dipped in the first quarter of 2008 (as trading-related activities slowed), earnings still beat market expectations. Liquidity management at banks and other financial institutions was not seriously challenged when strains appeared in mature markets.

- *Capital and money markets*: As elsewhere in the region, stock prices have been sliding and volatility has risen, although conditions have improved in recent months. Credit spreads for financial institutions and corporates have narrowed, but remain wide by historical standards. Despite some tightening in lending conditions, credit growth is buoyant and there are no signs of a credit squeeze.

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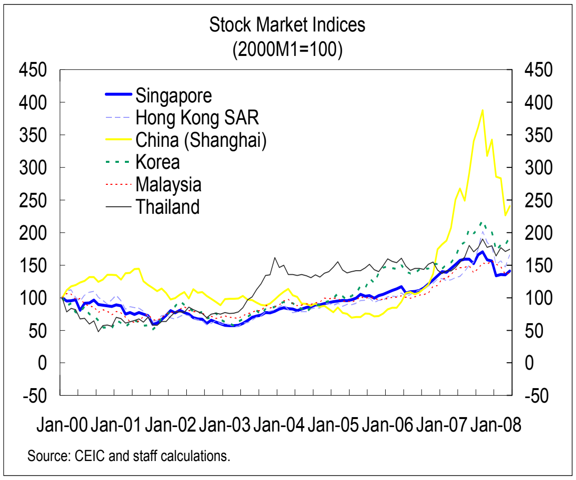
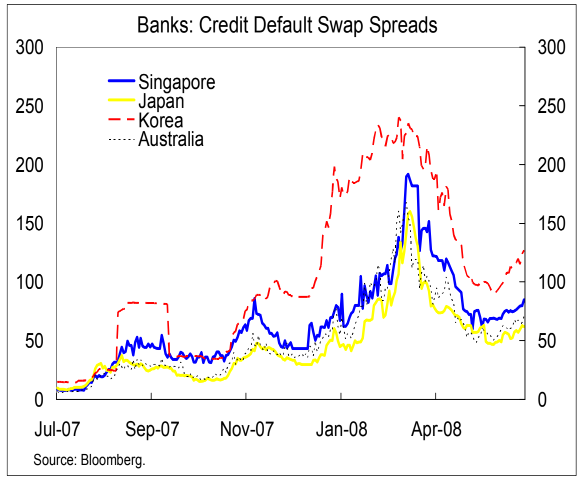
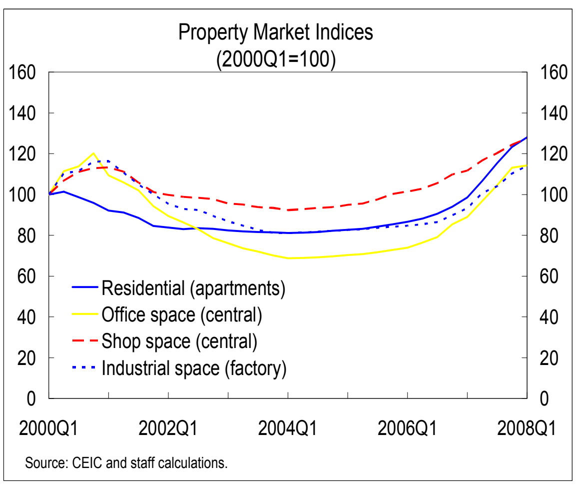
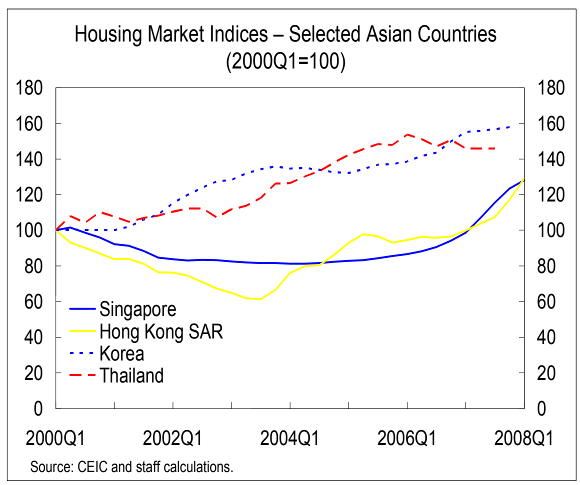
[2] Current account data were revised in early 2008, leading to a downward revision of around 6 percentage points of GDP in the 2007 current account balance. The adjustment mostly reflected revisions to the income balance, which, despite Singapore's large net foreign asset position, is negative—because (according to Singapore's Department of Statistics) interest, dividends and FDI retained earnings from foreign investment in Singapore are higher than income from residents' investment abroad.





- *Property market*: Following a protracted stagnation, property prices soared last year, but the market has started to cool. This partly reflects greater caution among foreign investors as well as measures taken by the authorities (e.g., larger land sales, delayed construction projects, and efforts to limit speculative buying). Although indices of prices and rents are below earlier peaks, there may be some froth in the high-end market.





III. Outlook and Risks

Staff's Assessment

4. **The global economic slowdown is expected to take its toll on Singapore, and near-term risks may still be tilted to the downside** (Box 1).

Box 1. How Exposed is Singapore to a U.S. Slowdown?

Singapore's economy is very open and vulnerable to a global slowdown. Export and GDP growth are highly correlated (with a correlation coefficient of around 0.8). In fact, past slowdowns have been preceded, or accompanied, by weaker external demand.

Singapore's trade and financial linkages to the United States are significant. While direct exposure to the United States has declined, total exposure, accounting for trade via third countries, has remained stable at about 30 percent of GDP during the last decade. Moreover, U.S. holdings of Singaporean securities have risen to about 35 percent of GDP—suggesting a channel for adverse balance sheet and wealth effects in the case of portfolio rebalancing.

Empirical analysis confirms the sizeable linkages to the United States. A 1 percentage point decline in U.S. growth could lower growth in Singapore by about 0.9 percentage point (directly and through other trading partners), about twice the impact of ten years ago.

More broadly, the extent of spillovers from advanced economies appears to have increased over time—in part the result of Singapore's successful climb up the value chain in production, which has made it more dependent on advanced economies as final export destinations.

Impact of 1 Percentage Point Decline in U.S. Growth 1/

Singapore	**0.9**
NIEs	0.6
Korea	0.1
Hong Kong, SAR	0.8
Taiwan, POC	0.9
ASEAN 4	0.5
Indonesia	0.4
Malaysia	0.7
Philippines	0.4
Thailand	0.5

Source: Asia and Pacific Regional Economic Outlook, April 2008.
1/ In percentage points. Results based on a vector autoregression model, accounting for global financial linkages.

- *Baseline*: Softer external demand is projected to reduce GDP growth by around 3 percentage points to 4½ percent in 2008 and 2009 and significantly lower the current account surplus. Inflation is expected to approach 7 percent in 2008, before declining to around 3½ percent next year. Barring a sharp deterioration of the conjuncture, the financial sector is expected to weather the slowdown without difficulties.

- *Risks to the baseline*: Trading partners' demand may slow more than anticipated, and global financial disruptions could flair up again. Singapore's banks are sound, but a severe international slowdown could put pressure on earnings and asset quality. Moreover, inflation could remain elevated on the back of both external (food and oil) and domestic (housing and wages) price pressures. In fact, upside risks to inflation are arguably the main policy challenge at present. Although concerns have receded, it is too early to tell whether "tail risks" (low-probability but high-cost events related to heightened financial distress or a global recession) are out of the picture.

5. **Beyond the near term, the outlook remains favorable**. GDP growth is anticipated to strengthen on the back of recovering external and domestic demand, and inflation is projected to decline, in part thanks to plateauing commodity prices (Table 1). The current account balance as a share of GDP is projected to fall by about 7 percentage points over the medium term as growth of net exports moderates after recovering slightly in 2010. From a savings-investment perspective, population aging and the unwinding of strong cyclical

corporate profits would depress savings.[3,4] Moreover, the (secular) recovery of the property market and large capital investment projects underway would boost the investment share. The main medium- and longer-term challenges relate to rising regional competition, a rapidly graying society, and the risk of a disorderly adjustment of global imbalances.

Table 1. Singapore: Summary of Medium-Term Macroeconomic Framework, 2005–13

				Proj.					
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Real sector (percent change)									
Real GDP growth	7.3	8.2	7.7	4.5	4.5	5.7	5.7	5.5	5.5
Inflation (period average)	0.5	1.0	2.1	6.7	3.5	1.9	1.9	1.7	1.7
Saving and investment (in percent of GDP)									
Gross national savings	38.5	41.8	46.8	43.8	43.8	44.0	44.1	44.2	44.1
Gross capital formation	19.9	20.0	22.6	25.6	26.2	26.2	26.2	26.5	26.8
Current account (in percent of GDP)	18.6	21.8	24.3	18.2	17.6	17.9	17.9	17.7	17.3

The Authorities' Views

6. **The authorities broadly concurred with the staff's assessment**.

- *Growth*: They expected growth in 2008 to be slightly stronger (in the middle of a 4 to 6 percent projection range) thanks to a more upbeat assessment of the outlook for the world economy, resilience in the region, and the strength of domestic demand. From the supply side, the authorities identify a core grouping of sectors whose momentum renders them less sensitive to short-term external developments.[5] However, in their view, the outlook for 2009 is more uncertain.

- *Inflation*: Notwithstanding upside risks, inflation is projected to remain within 5 to 6 percent in 2008, partly supported by the monetary tightening in the pipeline. Initiatives afoot to diversify import sources promise to limit the impact of global food shortages.

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[3] Corporate profits in Singapore, as in some other countries, are currently above historical levels. Cross-country econometric analysis indicates that profits are on average positively correlated with the REER and are mean-reverting. Taken as a whole, the evidence is consistent with the view that the exchange rate has not been the main driver of corporate profitability in Singapore and profits would be expected to fall over the medium term.

[4] The old-age dependency ratio is expected to increase by 6 percentage points by 2015, faster than in Singapore's main trading partners.

[5] Only one-third of the economy—comprising the electronics sector and selected financial services—is seen as vulnerable to a global downturn in the near term.

IV. Report on Discussions

The staff's policy recommendations aim at safeguarding domestic, external, and financial stability in the presence of slowing growth and rising price pressures. A further rebalancing of macroeconomic policies would be desirable from both a domestic and international perspective: it would fend off potential risks to inflation, facilitate external adjustment, and strengthen medium-term growth prospects. Regarding financial policies, a proactive supervisory stance remains key to preserving soundness and Singapore's role as a regional finance center.

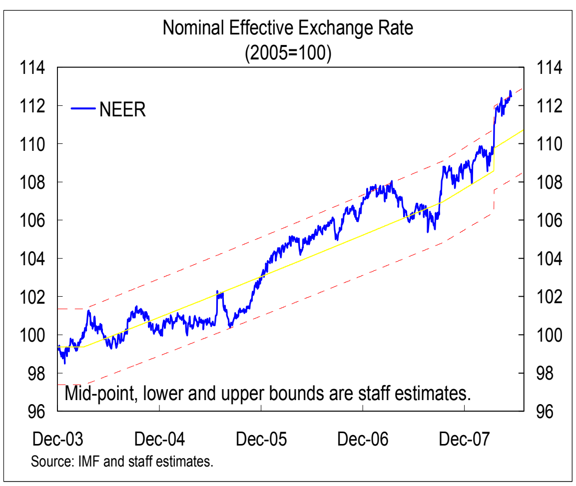
A. Safeguarding Domestic Stability

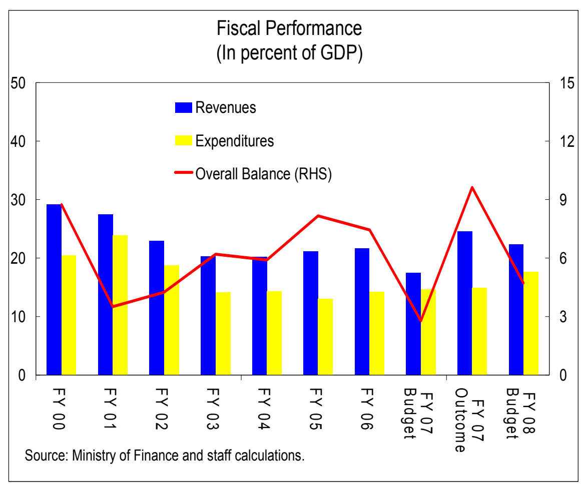
Background

7. **Aptly, the policy mix has shifted toward tighter monetary conditions and a looser fiscal stance**.

- *Monetary policy*: Following a slight increase in the slope of its policy band for the nominal effective exchange rate (NEER) last October, in April 2008 the Monetary Authority of Singapore (MAS) shifted the band up by an estimated 2 percentage points in response to inflation concerns and pressures on the exchange rate (which had hovered in the upper half of the target zone).[6]

- *Fiscal policy*: After a sizeable revenue overperformance last fiscal year (ending in March), the FY 2008–09 budget is slightly expansionary.[7] It focuses on improving





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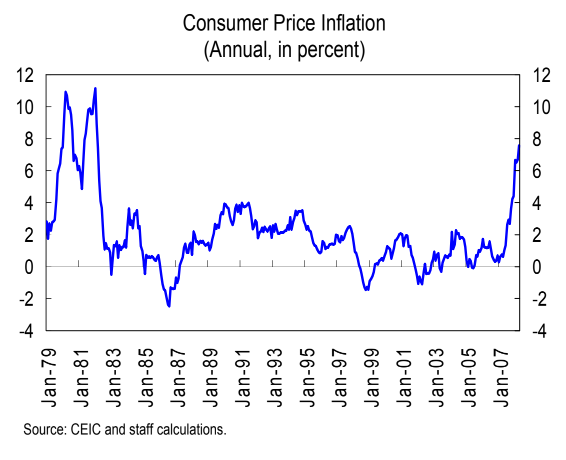
[6] The MAS' monetary policy can empirically be characterized as a Taylor-like rule with the NEER rate of change as the operating target (see Parrado, WP/04/10). The NEER is targeted within an undisclosed band.

[7] The fiscal impulse is estimated at around 2 percent of GDP but, given the temporary nature of the measures, the impact on the economy is likely to be much smaller. Simulations using the Oxford Economic Forecasting model suggest that the fiscal package would add around ¼ percentage point to 2008 GDP growth.

competitiveness and supporting household disposable income through tax measures (including a one-off personal income tax rebate) and targeted cash transfers.

Policy Issues and Staff's Views

8. **The key policy challenge for the near term is to ensure that inflation expectations remain well anchored**. The MAS' recent steps to tighten monetary policy go a long way in this direction. But, more could be done to forestall second-round effects, given that headline inflation is at a 26-year high, core inflation is rising rapidly, and slack in labor markets has largely been taken up (the unemployment rate is currently around 2 percent).



9. **Policy recommendations revolve around a somewhat faster pace of appreciation of the exchange rate complemented by further fiscal loosening**. A stronger Singapore dollar over the near term would support disinflation and anchor inflation expectations at a lower level. It would also make room for more fiscal loosening, including additional targeted measures to cushion the impact of the rising cost of living. Once inflation pressures abate, the rebalancing of the policy mix could be pursued further by expanding public expenditure on physical and social infrastructures, a medium-term policy priority for the authorities. Higher spending can be afforded by ample fiscal reserves which, under current policies, would continue to rise.[8]

10. **In the event of a severe global slowdown accompanied by a deep financial shock—a "tail-risk" event—bolder policy adjustments would be required**. As the balance of downside risks shifts toward growth, more aggressive fiscal easing would be warranted and looser monetary conditions may be needed.[9] The shift in the policy mix may delay external adjustment but domestic stability would come first. Financial sector policies should aim at maintaining liquidity, rebuilding counterparty confidence, and reinforcing the soundness of domestic financial institutions.

[8] There are no official data on Singapore's fiscal reserves at market prices, but a conservative estimate would put them at around 150 percent of GDP. Based on current policies and the macroeconomic assumptions embedded in our baseline scenario, these reserves could increase to around 200 percent of GDP over the next ten years.

[9] *Selected Issues* papers prepared as background to this consultation analyze monetary and fiscal multipliers for Singapore using structural vector autoregressions.

The Authorities' Views

11. **Officials shared the staff's view that policies should be geared to limiting inflation risks, but did not see a need for rebalancing the policy mix at present**. In their judgment:

- Singapore's macroeconomic policies are framed by a medium-term orientation, which should remain paramount in the pursuit of sustained growth and price stability. Furthermore, the current policy mix strikes the appropriate balance between risks to inflation and growth, if the lagged impact of the recent monetary tightening is taken into account.

- A faster pace of appreciation of the Singapore dollar could amplify downside risks in the context of weakening external demand—and could trigger speculative capital inflows.

- Inflation dynamics at present—driven by a variety of demand and supply factors—require a multi-pronged approach, not just a monetary policy response. From this angle, administrative steps and microeconomic interventions to ease supply-side bottlenecks have been brought to bear to facilitate an orderly adjustment in relative prices.

- Finally, as regards fiscal policy, the measures implemented with the latest budget appropriately support the purchasing power of low-income families eroded by rising prices.

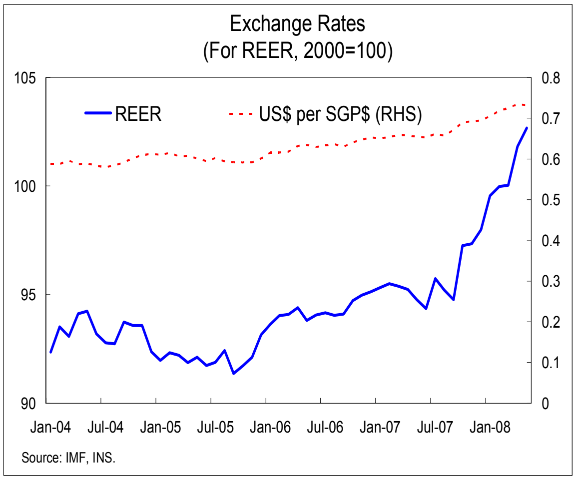
12. **There was agreement that macroeconomic policies should remain flexible and pragmatic**. In particular, ample fiscal reserves would permit further targeted assistance to prop up disposable incomes in the short term, if needed, and a structural increase in public spending ahead of demographic shifts over the medium term. Regarding the flexibility of monetary conduct, the authorities commented that markets had at times been surprised by the MAS' decisiveness in adjusting the monetary settings.

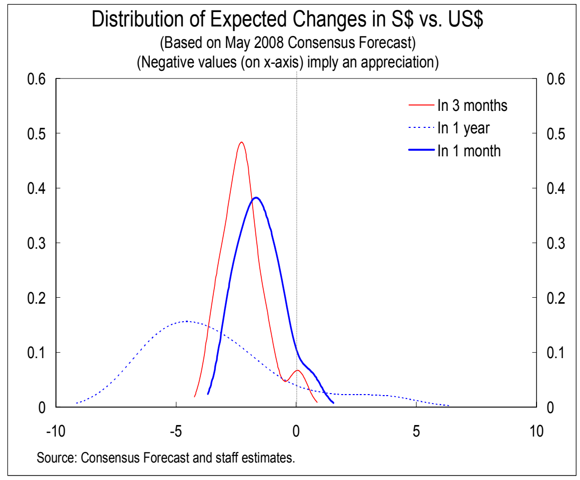
B. Safeguarding External Stability

Background

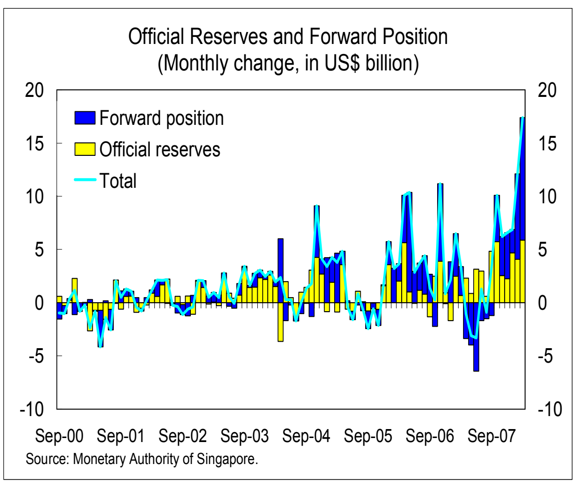
13. **The exchange rate has appreciated in recent years—and official reserves have grown**.

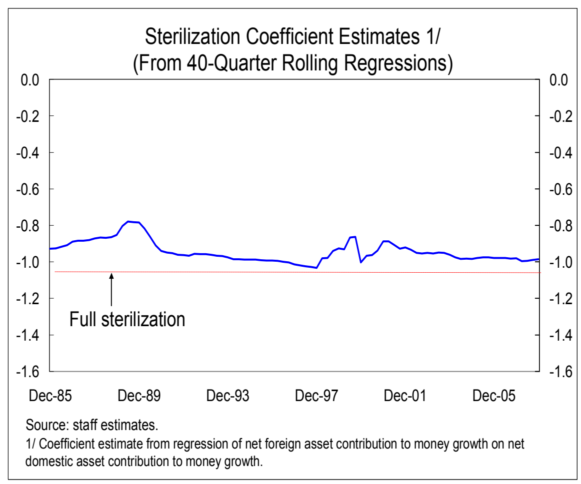
- In real effective terms, the Singapore dollar appreciated by about 3 percent in 2007 and an additional 2 percent through May 2008. Since the beginning of the monetary tightening cycle in April 2004, the Singapore dollar has appreciated by more than 20 percent vis-à-vis the U.S. dollar and by 11 percent in real effective terms. Market participants expect a further appreciation of the exchange rate as judged from risk reversals and the distribution of consensus forecasts.[10]





- Since end-2006, official reserves and the forward book have increased by a combined US$73 billion to US$268 billion (or about 140 percent of GDP). The MAS has continued to rely on sterilized intervention to safeguard domestic stability. From a domestic perspective, this policy has worked well since sterilization has not entailed noxious side effects (so far).[11]





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[10] Quotes for risk reversals (the difference between a call and a put out-of-the-money option premia) as of early June 2008 suggest market expectations are skewed towards a further appreciation of the exchange rate over the next 1–2 years.

[11] For example, higher returns on the MAS' foreign assets than its domestic liabilities have led to quasi-fiscal gains; use of market-based instruments has not stifled the development of domestic capital markets; and limited reliance on central bank paper to mop up liquidity has avoided segmentation of the public debt market. Details on the recourse to sterilization in the MAS operating framework are available at http://www.sgs.gov.sg/resource/pub_guide/guides/SGPMonetaryPolicyOperations.pdf.

Policy Issues and Staff's Views

14. **The Singapore dollar remains weaker than the level implied by longer-term fundamentals**. This judgment rests on several observations:

- Singapore's current account surpluses and reserve accumulation have been significant and protracted;[12]

- Current account balances projected at a constant real effective exchange rate imply a large additional build-up of net foreign assets; and

- Quantitative analysis suggests the Singapore dollar in real effective terms is between 5 percent and 15 percent below its medium-term (estimated) equilibrium level (Box 2)—most likely, in the upper half of this range.

Emerging upward pressures on prices of nontradables could also suggest that the exchange rate is weaker than the level implied by medium-term fundamentals.

15. **If sustained, current policies would support a balance of payments adjustment over the medium term**. To a first approximation, the current targeted rate of nominal effective appreciation could eliminate the bulk of the estimated real undervaluation. Nonetheless, front-loading the nominal appreciation (e.g., a steeper target band) would have the added benefit of curbing inflation risks in the near term.[13] Furthermore, a strong currency could, in time, discourage speculative capital inflows and lessen the need for intervention, which—although not costly so far—could pose challenges in the future. This said, in light of Singapore's exceptional trade and financial openness, any external adjustment should be carefully managed to avoid a disruptive impact on the economy.

The Authorities' View

16. **The authorities' disagree with the staff's exchange rate assessment**. They regard the Singapore dollar as fairly valued and have reservations about views to the contrary because:

[12] Structural factors account in part for the large current account surpluses. These include high fiscal savings and sectoral shifts away from capital-intensive industries. For further details, see the 2005 Article IV staff report and *Selected Issues*, and the 2007 Article IV staff report.

[13] An upward shift in the target band could also bring about a stronger exchange rate and facilitate disinflation. In the near term, the impact on inflation expectations and the export sector could be larger. On balance, this option should be used sparingly.

- The current account surplus reflects *inter alia* a strategy of building up fiscal reserves as insurance against adverse shocks and the prospective demands on the budget from an aging society;

Box 2. Exchange Rate Assessment

Three approaches have been applied to assess the level of the Singapore dollar relative to its medium-term equilibrium level.* According to these approaches—and subject to significant statistical uncertainty—the Singapore dollar is estimated to be about 5–15 percent below its equilibrium level.

According to the **macroeconomic balance approach**, the Singapore dollar is undervalued by about 10 percent relative to the level implied by medium-term fundamentals. This assessment hinges on an estimated current account norm of about 12 percent of GDP. The large norm reflects Singapore's significant fiscal surpluses and the rising share of the working-age population. Estimates of the norm are derived from a panel of 55 advanced and emerging economies over 1973–2006. Alternative specifications with fixed effects, or based on Singapore-specific time series regressions, yield higher estimates of the norm and, thus, a somewhat lower estimated undervaluation.

The **external sustainability approach** points to a larger undervaluation. Under the assumption that the net foreign asset position is stabilized at the 2006 officially reported level of about 100 percent of GDP, the estimated undervaluation is about 20 percent. This figure is likely to be an overestimation since officially reported data for the international investment position (IIP) are inaccurate. Specifically, they do not include the net foreign assets (NFA) of Singapore's largest sovereign wealth fund, the GIC (¶23), whose flow transactions are, however, reflected in the balance of payments. Estimating Singapore's NFA using cumulative current account balances (which includes GIC's dividend and interest income) gives an IIP of around 200 percent of GDP—and an undervaluation of the Singapore dollar of around 15 percent.

More broadly, these estimates hinge critically on the value and composition of Singapore's NFA. On the one hand, the capital gains on Singapore's large positive net portfolio equity position (including GIC assets) are not included in the current account balance (in line with current practices on balance of payments compilation), which therefore understates the net accumulation of foreign assets. Accounting for these capital gains would imply a larger gap between the underlying current account and the norm and the NFA-stabilizing current account, thus increasing the undervaluation according to the macroeconomic balance and external sustainability methodologies. On the other hand, including GIC assets increases the estimated NFA position substantially—thus raising the NFA-stabilizing current account and lowering the undervaluation according to the external sustainability approach. On balance, the estimated undervaluation would be larger under the macroeconomic balance approach, and lower under the external sustainability approach.**

The **equilibrium exchange rate approach** suggests a 5 percent undervaluation. Reduced form estimates of the (CPI-based) equilibrium real effective exchange rate point to net foreign assets and terms of trade as the main determinants of the equilibrium exchange rate. The smaller estimated undervaluation results primarily from a secular deterioration in the terms of trade, which offsets an increase in the net foreign asset position (estimated from the current account). Measures of the REER based on relative unit labor costs (ULCs) imply a larger undervaluation (about 10 percent), though. This estimate is probably biased upward since the ULC-based REER leaves out data on important trading partners like China and Malaysia.

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[*] For details on these methodologies, see IMF *Occasional Paper* 261 (2008).

[**] As an illustrative calculation, adding market estimates of the GIC's assets to the reported IIP would put Singapore's NFA at about 300 percent of GDP. Using the MSCI-World index as a proxy for GIC's equity portfolio, estimated annual capital gains would average about 4 percent of GDP during 2001–06. This gives an estimated undervaluation of about 18 percent under the macroeconomic balance approach. Higher NFA and GIC's estimated capital gains would put the undervaluation of the Singapore dollar at less than 10 percent under the external sustainability approach.

- A real undervaluation is unlikely to be sustained in a small open economy free of market distortions and fully integrated in global capital markets, such as Singapore; and,

- Model-based estimates are generally unreliable, in part owing to structural changes in the economy and the difficulty of pinning down the appropriate longer-term level of the fundamental determinants of the real exchange rate.

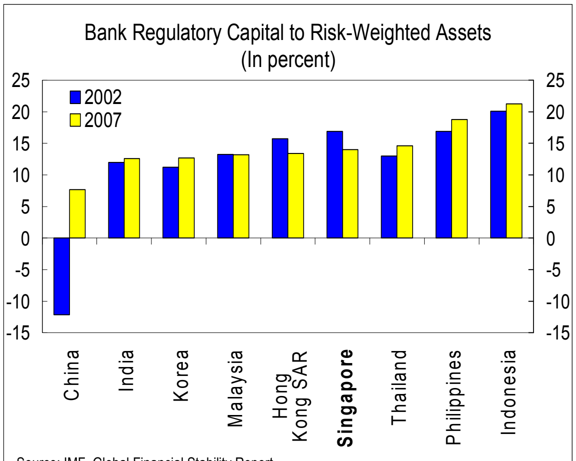
More broadly, the authorities emphasized that the reporting of the Fund's assessment of the Singapore dollar is highly sensitive and needs to be nuanced.

17. **There was consensus, however, that the Singapore dollar would appreciate in real effective terms over time**. A secular appreciation would be supported by the strong underpinnings of Singapore's economy, which benefit from ongoing structural reforms aimed at safeguarding competitiveness in trade and finance.

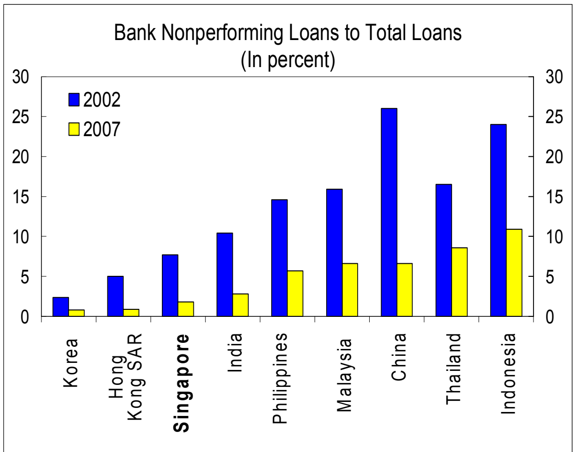
C. Preserving the Soundness of the Financial Sector

Background

18. **Singapore's financial system remains sound and the balance sheets of corporates and households are strong**. Local banks and insurance companies have benefited from robust profitability and balance sheets. Corporates' estimated default probabilities are low, and revenue and funding bases have broadened. Household balance sheets have been supported by strong property and equity prices, falling indebtedness, and favorable labor market conditions.



Source: IMF, Global Financial Stability Report.



Source: IMF, Global Financial Stability Report.

19. **The impact of the global turmoil on the financial sector has been limited, so far**. Ripple effects have been felt through wider credit spreads, higher equity market volatility, and some losses related to securities and structured products. Yet, none of these developments have had systemic implications. For example, funding costs have not risen

significantly and disclosed bank exposures to subprime-related assets have been small relative to bank capital (Box 3). Overall, the impact of global financial dislocations to date has been largely an "earnings event" more modest, in fact, than elsewhere in Asia.

Box 3. The Subprime Exposures of Singapore's Banks

The reported subprime-related exposure and estimated losses of Singaporean banks appear manageable. Estimates of the aggregate exposure to subprime and related assets (CDOs and SIVs) in Singapore are around US$2.7 billion (about 5 percent of equity). This compares to exposures of US$11 billion in Asia (ex-Japan) and US$15 billion in Japan (about 4 and 3 percent of total equity, respectively).*

It is unlikely that subprime-related losses could trigger any systemic instability in Singapore. Based on market estimates, total losses at three Singaporean banks may amount to US$0.3 billion (about 3 percent of aggregate bank capital), compared to US$144 billion in the United States and US$123 billion in Europe (about 15 and 9 percent of aggregate bank capital, respectively). According to Fitch Ratings, banks in Singapore have made adequate provisions for potential losses on their exposures to U.S. subprime mortgage assets.

Exposure and losses of the financial institutions at end-FY07
(In billions of US dollars)

	Total Financial System
Banks	
CDO	1.67
Of which: ABS	0.43
Exposure in % of Total equity	5.0
Asset management subsidiaries	
CDO	11.45
Of which: ABS	3.12
Insurance subsidiaries	
CDO	0.87
Of which: ABS	0.80
Total impairment losses, end-2007	0.27
Total estimated losses, end-2007	0.49
Total estimated losses in % of Total equity	1.2

Sources: FitchRatings, "The Singaporean Banking System", April 2, 2008; Moody's, "Singapore: Banking System Outlook," May 2008; various banks' reports; and staff estimates.

* While asset management subsidiaries of banks have large exposures to CDOs, their clients are primarily sophisticated institutional investors who bear the risk.

Policy Issues and Staff's Views

20. **In a period of global financial tremors, the MAS has risen to the challenge**. The adoption of Basel II on January 1, 2008 has boosted banks' risk management practices, including for liquidity management and stress testing; a conservative supervisory stance and early disclosure of bank exposures to structured products have helped preserve confidence in the banking system; concerns about a possible liquidity squeeze have been allayed through timely announcements of policy intentions; and, even closer ties with regulators in other jurisdictions have been established. All together, these actions have largely shielded the financial system against the spillovers from market turbulence abroad.[14]

21. **However, the turning cycle and a still-unsettled global environment suggest a number of areas that should remain on the MAS' radar screen**. On the domestic front,

[14] A *Selected Issues* paper analyzes intra-regional linkages by estimating joint probabilities of default for Singaporean and regional banks.

banks may be vulnerable to a correction in the property markets, which are facing downside risks to valuations.[15] Global spillovers can also occur to the extent that: (i) export-oriented corporates buckle as the world economy slows; (ii) bank's funding costs increase as global liquidity conditions harden; (iii) additional losses on securities and other market instruments are incurred; and (iv) fee-based income in the asset-management industry decline further if, for example, heightened risk aversion reduces securities trading. Finally, Singapore's local banks could be open to regional contagion due to their expansion across Asia, although risks through this channel appear to be limited in a baseline scenario.

The Authorities' Views

22. **The authorities agreed with the basic contours of the staff's assessment**. They shared the view that the main risks stem from bank exposures to the property market and a further deterioration in the global environment, with attendant (mostly trade-intermediated) aftershocks. However, they noted a number of risk-mitigating circumstances: (i) despite strong lending to the property sector, the overall banking system is still far from the relevant statutory lending limit and nonperforming loans for the sector remain low;[16] (ii) heavy reliance on funding through deposits and low exposures to risky financial instruments provides some protection to local banks from global financial spillovers; (iii) the regional expansion of banks' operations has been disciplined and cautious; and (iv) strong balance sheets of financial institutions, corporates, and households provide for a buffer against adverse financial shocks. Moreover, the MAS is taking steps to further strengthen its crisis management and stress testing frameworks for credit, market, and liquidity risks.

V. OTHER ISSUES

Singapore's sovereign wealth funds (SWFs) do not appear to pose challenges for the conduct of macroeconomic policies. Singapore is an active participant in the international community's efforts to identify best practices for SWFs.

Background

23. **Two SWFs manage Singapore's large public savings**. Temasek is a holding company for government-linked enterprises, although in recent years it has expanded its foreign direct investments. It manages assets worth around US$100 billion. The Government of Singapore Investment Corporation (GIC) invests abroad fiscal surpluses, some of the

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[15] Domestic banks' lending to the property sector grew by an average of 26 percent (year-on-year) during January–April 2008 and property loans currently constitute around 48 percent of total nonbank loans and around 26 percent of total loans.

[16] The property sector exposure of Singaporean banks is subject to a ceiling of 35 percent of total eligible assets (the latter refer to nonbank loans and debt instruments, and property related contingent liabilities).

foreign exchange reserves, and proceeds from government bond sales. Markets estimate the assets under GIC control at upward of US$300 billion.

24. **Singapore is participating in the multilateral dialog on SWFs under way in several *fora***. In particular, it is a member of the International Working Group (facilitated by the Fund) to identify best practices and has agreed with the United States and Abu Dhabi to abide by a broad set of principles regarding transparency, governance, and investment decisions.

Policy Issues and Staff's Views

25. **The operations of Singapore's SWFs do not appear to undercut the formulation and conduct of domestic policies**. As noted in market commentaries, the SWFs are long-term investors with a commercial orientation. They are well integrated in Singapore's fiscal management framework, essentially with a strategic role. In particular, the SWFs have been the conduits for saving fiscal resources for long-term purposes (including in preparation for population aging); have supported Singapore's early development phase; and—through prudent management—have limited or eliminated the opportunity costs of reserve holdings.[17] Long horizons and the depth of the local foreign exchange market are also supportive of the view that Singapore's SWFs have not complicated the conduct of monetary and exchange rate policies.[18] Despite some data issues, the staff's exchange rate assessment reflects the role of SWFs as drivers of Singapore's net foreign assets (Box 2).

VI. Staff Appraisal

26. **Singapore is an economic success story**. Key to sustained per capita growth and overall macroeconomic stability have been policies that leverage Singapore's outward orientation. Pragmatic macroeconomic management has underpinned resilience to external shocks, while far-reaching structural reforms and a business-friendly environment have allowed the economy to exploit the opportunities afforded by the world economy—and cope with rising regional competition.

27. **The turning of the global cycle, lingering dislocations in the international financial markets, and growing inflation pressures pose challenges, nonetheless**. The unsettled external environment points to potentially large spillover effects in light of Singapore's exceptional openness—and gives center stage in policy discussions to the requirements for domestic, external, and financial stability.

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[17] Constitutional provisions that cap transfers from fiscal reserves to the budget are under review at present. The rule allows a transfer of up to 50 percent of annual interest and dividends earned on fiscal reserves. The authorities are planning to allow for capital gains to be included.

[18] Average daily turnover in Singapore's foreign exchange market is about US$300 billion.

28. **Singapore faces at present downside risks to growth and upside risks to inflation**. Whereas the global slowdown is likely to lower GDP growth to a more sustainable pace, the key near-term policy challenge is to ensure that inflation expectations remain well anchored. Recent steps by the Monetary Authority of Singapore (MAS) to further tighten monetary policy are welcome, but more could be done to forestall second-round effects as inflation reaches its highest level in nearly three decades. Although administrative measures to ease supply-side bottlenecks may play a role in curbing localized price pressures, a careful reorientation of the policy mix should be considered.

29. **A somewhat faster appreciation of the exchange rate complemented by further fiscal loosening would be desirable from both a domestic and an international perspective**. A stronger Singapore dollar would fend off upside risks to inflation, facilitate external adjustment, and make room for additional targeted fiscal transfers to cushion the impact of the rising cost of living. From the perspective of a risk management approach to policymaking, the width of the MAS' exchange rate band would still provide insurance against downside risks to growth—if they materialize and have a disproportionate impact on Singapore.

30. **Once inflation pressures abate, the rebalancing of the policy mix could be pursued further**. Ample fiscal reserves create significant room for expanding public spending on physical and social infrastructures, a commendable policy priority of the Singaporean authorities for the medium run.

31. **The Singapore dollar remains weaker than the level implied by longer-term fundamentals**. If sustained, current policies would support a balance of payments adjustment over the medium term. To a first approximation, the current targeted rate of nominal effective appreciation could eliminate the bulk of the estimated real undervaluation. Nonetheless, a faster pace of appreciation in the near term would have the additional benefit of curbing inflation risks. Furthermore, a stronger currency could, in time, discourage speculative capital inflows and lessen the need for intervention. This said, in light of Singapore's exceptional trade and financial openness, any external adjustment should be managed to avoid a disruptive impact on the economy.

32. **Singapore's financial sector has so far been resilient to the global financial crisis**. The MAS is to be commended for continued efforts to bolster the already strong regulatory and supervisory frameworks, as well as for enhancing stress-testing and crisis-management structures. The MAS's proactive supervisory approach has for the most part shielded domestic institutions against the fallout of the global financial turmoil. A number of areas should nonetheless be monitored closely, in particular risks related to high-end segments of the property market and the possibility of contagion through trade and financial channels.

33. It is recommended that the next Article IV consultation take place on the standard 12-month cycle.

Table 2. Singapore: Selected Economic and Financial Indicators, 2002–09

Nominal GDP (2007): US$161.3 billion
Main exports (percent of total domestic exports): Electronic products (30 percent) and chemical products (19 percent)
GDP per capita (2007): US$35,163
Population (2007): 4.6 million
Unemployment rate (2007): 2.1 percent
Net FDI (2007): US$ 11.8 billion
Public debt (2007): 96 percent of GDP
Foreign government debt (2007): none
Quota: SDR 862.5 million

							Proj.	
	2002	2003	2004	2005	2006	2007	2008	2009
Growth (percentage change)								
Real GDP	4.2	3.5	9.0	7.3	8.2	7.7	4.5	4.5
Total domestic demand	1.8	-8.4	14.0	2.9	7.7	9.2	8.9	5.3
Consumption	5.2	0.9	4.2	4.4	4.8	4.1	4.4	4.2
Private consumption	4.9	0.9	5.2	3.9	3.3	4.6	4.0	4.3
Gross capital formation	-5.8	-30.7	48.1	-1.0	15.2	21.4	18.2	7.4
Net exports	20.6	55.6	-2.0	21.2	8.3	5.4	-6.9	1.8
Contribution to GDP growth	3.4	10.7	-0.6	5.5	2.5	1.6	-2.0	0.5
Saving and investment (percent of GDP)								
Gross national savings	36.3	39.2	38.4	38.5	41.8	46.8	43.8	43.8
Gross capital formation	23.7	16.0	21.7	19.9	20.0	22.6	25.6	26.2
Inflation and unemployment (period average, percent)								
CPI inflation	-0.4	0.5	1.7	0.5	1.0	2.1	6.7	3.5
Unemployment rate	3.6	4.0	3.4	3.1	2.7	2.1	2.1	2.2
Central government budget (percent of GDP) 1/								
Revenue	22.9	20.3	20.1	21.1	21.6	24.3	23.2	23.4
Expenditure	18.6	14.1	14.3	13.0	14.4	14.7	17.5	16.8
Overall balance	4.2	6.2	5.8	8.2	7.2	9.5	5.7	6.6
Primary operating balance	-2.7	-2.9	-1.9	-1.2	-1.8	0.4	-1.6	-1.2
Money and credit (end of period, percentage change)								
Broad money (M3) 2/	-0.8	5.9	6.1	6.4	19.1	14.1	12.4	...
Lending to non-banking sector 2/	-1.0	6.3	4.5	2.2	6.3	20.0	24.4	...
Interest rate (three-month interbank, in percent) 2/	0.8	0.8	1.4	3.3	3.4	2.4	1.4	…
Balance of payments (US$ billion)								
Current account balance	11.1	21.6	18.2	22.3	29.8	39.2	34.5	36.2
(percent of GDP)	(12.6)	(23.2)	(16.7)	(18.6)	(21.8)	(24.3)	(18.2)	(17.6)
Trade balance	18.8	29.4	31.0	37.1	43.4	49.2	48.8	49.4
Overall balance	1.3	6.8	12.1	12.3	17.0	19.4	17.7	10.8
Gross official reserves (US$ billion)	82.2	96.2	112.6	116.2	136.3	163.0	180.7	191.5
(months of imports) 3/	(5.7)	(5.3)	(5.4)	(4.7)	(5.0)	(5.0)	(5.1)	(4.9)
Exchange rate (end of period)								
S$/US$ 4/	1.737	1.701	1.634	1.664	1.534	1.441	1.366	...
Nominal effective exchange rate 5/	101.0	97.0	97.9	100.3	104.0	106.0	109.5	...
Real effective exchange rate 5/	97.5	92.8	92.4	93.2	95.1	98.0	102.6	…

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

1/ Fiscal year beginning April 1.
2/ Latest observations as of April 2008.
3/ In months of following year's imports of goods and services.
4/ Latest observations as of May 2008
5/ IMF Information Notice System monthly index (2000 full-year average = 100). Latest observations as of May 2008.

Table 3. Singapore: Balance of Payments, 2002–09 1/

(In billions of U.S. dollars)

	2002	2003	2004	2005	2006	2007	Proj. 2008	Proj. 2009
Current account balance	11.1	21.6	18.2	22.3	29.8	39.2	34.5	36.2
Trade balance	18.8	29.4	31.0	37.1	43.4	49.2	48.8	49.4
Exports, f.o.b.	140.6	161.7	199.3	232.7	275.1	302.8	357.8	383.6
Imports, f.o.b.	-121.9	-132.2	-168.3	-195.6	-231.7	-253.7	-309.0	-334.2
Services balance	-3.9	-3.8	-3.3	-2.7	-2.6	-2.6	-3.5	-3.6
Exports	29.5	36.3	46.8	53.0	61.1	69.7	81.1	90.1
Imports	-33.4	-40.1	-50.1	-55.7	-63.7	-72.3	-84.6	-93.7
Income balance	-2.3	-2.6	-8.1	-10.9	-9.6	-5.7	-8.8	-7.3
Receipts	14.2	17.4	21.5	27.2	32.2	43.0	47.2	53.6
Payments	-16.4	-20.1	-29.7	-38.1	-41.8	-48.7	-56.0	-60.9
Transfer payments (net)	-1.5	-1.4	-1.3	-1.3	-1.4	-1.7	-2.1	-2.3
Net capital flows	-9.8	-14.8	-6.1	-10.0	-12.8	-19.7	-16.7	-25.3
Capital and financial account balance	-10.5	-18.0	-8.7	-12.9	-14.3	-18.6	-16.7	-25.3
Capital account (net)	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3
Financial account (net)	-10.3	-17.8	-8.5	-12.7	-14.1	-18.4	-16.4	-25.0
Direct investment	4.9	9.0	9.0	7.0	12.5	11.8	13.2	14.0
Assets	-2.3	-2.7	-10.8	-6.9	-12.2	-12.3	-14.4	-16.1
Liabilities	7.2	11.7	19.8	13.9	24.7	24.1	27.6	30.1
Portfolio investment	-13.1	-10.0	-5.5	-3.3	-8.9	-16.6	-15.0	-22.9
Assets	-13.4	-14.3	-7.0	-8.3	-17.8	-22.6	-20.4	-31.1
Liabilities	0.2	4.3	1.6	5.0	8.9	6.0	5.4	8.3
Other investment	-2.0	-16.7	-12.1	-16.4	-17.7	-13.6	-14.6	-16.2
Assets	-8.5	-21.1	-28.3	-32.2	-53.4	-67.7	-72.6	-80.3
Liabilities	6.5	4.3	16.2	15.9	35.7	54.1	58.0	64.1
Net errors and omissions	0.6	3.2	2.6	2.9	1.6	-1.1	0.0	0.0
Overall balance	1.3	6.8	12.1	12.3	17.0	19.4	17.7	10.8
Memorandum items:								
Current account as percent of GDP	12.6	23.2	16.7	18.6	21.8	24.3	18.2	17.6
Trade balance as percent of GDP	21.2	31.6	28.4	31.0	31.8	30.5	25.7	24.0
Net international investment position								
(In billions of U.S. dollars)	81.7	98.2	112.6	143.2	160.8	154.7	...	...
GDP in US$ billion	88.3	93.2	109.2	119.8	136.6	161.3	189.7	206.1
(In percent of GDP)	92.6	105.4	103.1	119.6	117.7	95.9	...	...
MAS forward position (in billions of US$) 2/	0.0	5.4	13.9	21.3	58.8	63.5	91.7	...
Net capital and financial flows 3/	-9.8	-9.5	2.4	-2.7	24.7	-15.0	...	...

Sources: Monetary Authority of Singapore, Economic Survey of Singapore; and staff estimates and projections.

1/ Data for the current account balance, the capital and financial account balance, and net errors and omissions are converted to U.S. dollars from the official presentation in Singapore dollars using period-average exchange

2/ Latest observation as of April 2008.

3/ Including net errors and omissions and excluding capital flows associated with changes in the MAS' forward position.

Table 4. Singapore: Monetary Survey, 2005–08

	2005	2006				2007				2008
		Mar.	Jun.	Sep.	Dec.	Mar.	Jun.	Sep.	Dec.	Mar.
	(In billions of Singapore dollars, end of period)									
Net foreign assets	193.7	204.1	210.5	219.7	224.8	238.5	238.6	237.5	237.2	251.1
Monetary authorities	191.8	195.6	201.3	204.0	207.9	208.0	219.6	225.5	233.8	244.2
Deposit money banks 1/	1.9	8.5	9.2	15.7	16.9	30.5	19.0	11.9	3.4	7.0
Domestic credit	240.6	240.2	249.4	255.8	256.4	266.5	276.5	290.6	299.2	316.0
Claims on private sector	189.8	189.1	193.4	197.4	199.1	205.0	212.3	220.1	232.8	245.1
Nonbank lending	183.1	182.6	189.6	194.0	194.6	201.4	209.1	218.7	233.4	249.5
Claims on central government	50.8	51.1	55.9	58.4	57.3	61.5	64.2	70.5	66.4	70.9
Other items (net) 2/	-208.6	-210.7	-216.2	-224.1	-212.5	-218.2	-213.8	-225.4	-229.6	-244.4
M3	225.7	233.6	243.7	251.4	268.7	286.8	301.3	302.7	306.8	322.7
	(Annual percentage change)									
Domestic credit	1.0	0.6	3.1	4.7	6.6	11.0	10.9	13.6	16.7	18.6
Claims on private sector	2.0	1.9	3.4	5.0	4.9	8.4	9.7	11.5	16.9	19.6
Non-bank lending	2.2	2.8	5.7	7.5	6.3	10.3	10.3	12.8	20.0	23.9
M3	6.4	8.3	11.2	12.7	19.1	22.8	23.6	20.4	14.1	12.5
	(Contribution to M3 growth, in percent)									
Net foreign assets	9.9	10.2	11.6	12.0	13.8	14.7	11.5	7.1	4.6	4.4
Domestic credit (net)	1.1	0.6	3.3	5.1	7.0	11.3	11.1	13.9	15.9	17.3
Claims on private sector	1.7	1.6	2.9	4.2	4.1	6.8	7.7	9.0	12.5	14.0
Claims on central government	-0.6	-1.0	0.4	0.9	2.9	4.4	3.4	4.8	3.4	3.3
Other items (net) 2/	-4.6	-2.5	-3.7	-4.5	-1.7	-3.2	1.0	-0.5	-6.4	-9.2

Source: Monetary Authority of Singapore and IMF, *International Financial Statistics.*

1/ Commercial banks.
2/ Including other non-bank financial institutions.

Table 5. Singapore: Summary of Government Operations, 2004/05–2008/09 1/

(In percent of GDP)

	2004/05	2005/06	2006/07	2007/08		2008/09	
				Budget	Prel.	Budget	Proj.
Total revenue	20.1	21.1	21.6	17.3	24.3	21.9	23.2
Current revenue	18.7	17.9	17.8	16.0	19.4	18.2	19.2
Tax revenue	12.7	12.6	13.0	12.0	14.4	13.2	13.9
Investment income 2/	4.0	4.1	3.7	3.1	3.6	3.5	3.8
Other nontax revenue	2.0	1.2	1.1	0.9	1.4	1.5	1.5
Capital revenue 3/	1.5	3.3	3.8	1.3	4.9	3.7	4.0
Total expenditure	14.3	13.0	14.4	14.5	14.7	17.5	17.5
Current expenditure	11.9	11.3	13.0	11.7	12.2	13.1	13.1
Operating expenditure	10.9	10.5	10.8	10.3	10.5	10.7	10.7
Debt servicing	0.2	0.1	0.1	0.0	0.0	0.0	0.0
Agency fees on land sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Investment expenses	0.4	0.4	0.7	0.6	0.9	0.9	0.9
Transfer payments	0.5	0.3	1.4	0.7	0.8	1.4	1.4
Development expenditure and net lending	2.0	1.5	1.2	2.7	2.5	3.9	3.9
Development expenditure 4/	4.9	3.7	2.9	3.5	3.3	3.9	3.9
Net lending	-2.8	-2.2	-1.7	-0.8	-0.8	0.0	0.0
Fund transfers 5/	0.4	0.1	0.2	0.1	0.1	0.6	0.6
Overall balance	5.8	8.2	7.2	2.8	9.5	4.4	5.7
Primary balance 6/	-1.9	-1.2	-1.8	-2.2	0.4	-2.2	-1.6
Memorandum items:							
Budget balance (the government's definition)	-0.1	0.7	0.0	-0.3	2.6	-0.3	0.7
Government saving	6.4	6.4	4.6	4.2	7.1	4.6	5.5
Structural primary balance 7/	-1.8	-1.2	-1.9	-2.5	0.1	-2.3	-1.7
Fiscal impulse 8/	-0.6	-0.6	0.8	0.6	-2.0	2.4	1.7
Gross government domestic debt 9/	101.1	100.3	95.1	96.3	96.3	...	...

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

1/ Fiscal year runs from April 1 through March 31.
2/ Includes investment income from government assets (interest and dividends), including interest earnings on development loans from 2000/01.
3/ Sale of government property.
4/ Includes the land reclamation expenditure.
5/ Includes transfers to the Endowment Funds: Edusave, Medical, Lifelong Learning, Community Care, and ElderCare.
6/ Overall balance excluding investment income, capital revenue, debt service, net lending, and fund transfers.
7/ Primary balance adjusted for cyclical impact on revenues associated with deviation between actual and potential economic output.
8/ Change in the structural primary balance.
9/ Data for end of calendar year. The table reports gross debt and does not reflect large net asset position of the government. Gross debt is (for a large part) issued to the Central Provident Fund (CPF) and as part of the Singapore Government Securities (SGS) program.

Table 6. Singapore: Financial Soundness Indicators: Local Banking Sector, 2002–07

	2002	2003	2004	2005	2006 Mar.	2006 Jun.	2006 Sep.	2006 Dec.	2007 Mar.	2007 Jun.	2007 Sep.	2007 Dec.	2008 Mar.
					(In percent)								
Capital adequacy ratio													
Regulatory capital to risk-weighted assets	16.9	17.9	16.2	15.8	15.4	15.9	15.4	15.4	14.9	15.0	14.0	13.5	13.7
Regulatory tier I capital to risk-weighted assets	11.3	12.0	11.5	11.4	11.2	11.3	11.0	11.2	10.9	10.6	10.1	9.8	10.3
Shareholders' equity to assets	10.7	10.7	9.6	9.6	9.6	9.5	9.4	9.6	9.6	9.3	9.3	9.2	8.7
Asset quality													
NPLs to non-bank loans	7.7	6.7	5.0	3.8	3.8	3.4	3.1	2.8	2.5	2.1	1.8	1.5	1.4
Total provisions to NPLs	61.2	64.9	73.6	78.7	78.3	74.5	82.8	89.5	94.4	98.6	105.9	115.6	118.9
Specific provisions to NPLs	33.8	36.2	40.7	40.4	39.9	33.7	39.4	41.3	42.7	39.0	38.7	39.9	38.8
Loan concentrations (in percent of total loans)													
Bank loans	29.3	24.0	23.3	24.1	25.6	23.5	25.2	22.8	21.1	20.7	19.5	16.2	17.7
Non-bank loans	70.7	76.0	76.7	75.9	74.4	76.5	74.8	77.2	78.9	79.3	80.5	83.8	82.3
Of which :													
Manufacturing loans	8.4	6.5	7.4	7.7	7.8	8.3	8.4	8.4	9.0	9.1	9.2	9.2	9.1
Building and construction loans	14.1	9.4	8.4	8.8	9.0	9.2	9.2	9.5	9.5	10.1	10.2	11.4	12.1
Housing loans	27.5	22.2	22.5	22.0	21.4	21.1	20.4	21.0	20.8	20.6	20.6	20.6	19.8
Loans to professionals and private individuals	14.1	10.4	10.1	9.5	9.1	8.9	8.5	8.7	8.6	8.5	8.6	8.6	8.2
Loans to nonbank financial institutions	13.4	10.2	9.8	9.6	9.6	10.4	10.3	10.5	11.7	11.1	11.3	12.3	11.8
Profitability													
After-tax return on assets	0.8	1.0	1.2	1.2	1.2	1.5	1.4	1.4	1.4	1.4	1.4	1.3	1.2
After-tax return on equity	7.6	8.7	11.6	11.2	11.8	14.5	13.6	13.7	13.8	14.1	13.4	12.89	12.2
Net interest margin	2.1	2.0	2.0	1.9	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
Non-interest income to total income	32.4	38.4	41.4	39.0	37.1	46.5	43.0	42.6	41.6	40.7	39.5	39.1	36.5
Liquidity													
Liquid DBU assets to total DBU assets	12.6	13.1	11.3	10.5	10.2	11.6	11.2	11.1	11.2	11.6	12.1	11.1	10.4
Liquid DBU assets to total DBU liabilities	19.3	20.3	18.4	16.4	16.4	18.2	17.6	17.4	17.9	18.2	19.2	17.6	17.0

Source: Monetary Authority of Singapore.

Table 7. Singapore: Indicators of Vulnerability, 2002–07

	2002	2003	2004	2005	2006	2007
Financial sector indicators						
Broad money (M3, percent change, y/y)	-0.8	5.9	6.1	6.4	19.1	14.1
Private sector credit (percent change, y/y)	-8.6	5.4	4.4	2.0	4.9	16.9
Credit to the property sector (percent change, y/y)	0.3	11.2	8.2	3.1	5.5	23.4
Share of property-sector credit in total non-bank credit (percent)	42.5	44.4	46.0	46.4	46.1	47.4
Credit rating of local banks (S&P) 1/	A/A+	A/A+	A+	A+/AA-	A+/AA-	A+/AA-
Three-month Interbank rate (percent, end-year)	0.8	0.8	1.4	3.3	3.4	2.4
NPL ratio (local banks, percent) 2/ 3/	7.7	6.7	5.0	3.8	2.8	1.8
Capital adequacy ratio of local banks (percent) 3/	16.9	17.9	16.2	15.8	15.4	14.0
Asset market indicators						
Stock prices (percent change, y/y)	-20.3	32.8	15.6	14.0	28.0	18.7
P/E ratio	21.2	24.9	16.6	15.4	19.4	18.0
Stock prices of the finance sector (percent change, y/y)	-13.5	23.8	9.8	5.9	29.3	39.7
Real estate prices (percent change, y/y) 4/						
Residential	-6.5	-1.8	-0.4	2.9	7.1	23.6
Office space	-18.1	-13.4	-5.4	3.4	10.2	28.1
External Indicators						
Current account balance (US$ billion)	11.1	21.6	18.2	22.3	29.8	39.2
(In percent of GDP)	12.6	23.2	16.7	18.6	21.8	24.3
Gross official reserves (US$ billion)	82.2	96.2	112.6	116.2	136.3	163.0
(In month of next year's imports of goods and services)	5.7	5.3	5.4	4.7	5.0	5.0
Real exchange rate (end of period, 2000=100)	97.5	92.8	92.4	93.2	95.1	98.0

Sources: Data provided by the Singapore authorities; and IMF, *Information Notice System.*

1/ Ratings of the three major local banks.
2/ In percent of global non-bank loans.
3/ Latest observation as of September 2007.
4/ The underlying price indices are computed based on the Laspeyres method and are 4-quarter moving averages.

Table 8. Singapore: Medium-Term Scenario, 2004–13

					Proj.					
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Real growth (percent change)										
GDP	9.0	7.3	8.2	7.7	4.5	4.5	5.7	5.7	5.5	5.5
Total domestic demand	14.0	2.9	7.7	9.2	8.9	5.3	4.5	5.1	5.8	5.9
Consumption	4.2	4.4	4.8	4.1	4.4	4.2	4.6	5.0	5.3	5.4
Private	5.2	3.9	3.3	4.6	4.0	4.3	4.7	5.0	5.3	5.5
Public	0.3	6.5	10.7	2.3	5.8	3.7	4.3	4.8	5.3	5.4
Gross capital formation	48.1	-1.0	15.2	21.4	18.2	7.4	4.5	5.3	6.6	6.6
Private	55.8	-0.5	20.3	24.9	19.6	7.5	4.4	5.3	6.8	6.7
Public	20.2	-3.5	-9.6	-1.3	6.8	6.6	4.7	5.3	5.5	5.5
Net exports /1	-0.6	5.5	2.5	1.6	-2.0	0.5	2.2	1.9	1.2	1.0
Saving and investment (percent of GDP)										
Gross national savings	38.4	38.5	41.8	46.8	43.8	43.8	44.0	44.1	44.2	44.1
Gross capital formation	21.7	19.9	20.0	22.6	25.6	26.2	26.2	26.2	26.5	26.8
Inflation and unemployment (period average, percent)										
CPI inflation	1.7	0.5	1.0	2.1	6.7	3.5	1.9	1.9	1.7	1.7
Unemployment rate	3.4	3.1	2.7	2.1	2.1	2.2	2.3	2.4	2.5	2.5
Output gap	-0.7	-0.4	0.7	1.7	0.7	-0.3	-0.1	0.2	0.2	0.1
Central government (percent of GDP) 2/										
Revenue	20.2	20.9	21.5	23.6	23.4	23.3	23.5	23.7	24.0	24.2
Expenditure	14.3	13.3	14.0	14.7	16.8	17.0	16.9	17.2	17.5	17.8
Overall balance	5.9	7.6	7.5	9.0	6.6	6.3	6.6	6.6	6.5	6.4
Budget balance (the government's definition)	-0.3	0.1	0.2	1.9	0.9	0.7	0.6	0.4	0.1	-0.2
Primary balance	-2.2	-1.4	-1.6	-0.2	-1.1	-1.3	-1.3	-1.5	-1.8	-2.2
Merchandise trade (percent change)										
Export volume	20.1	12.2	11.4	7.4	4.8	4.5	5.3	4.9	4.6	4.5
Import volume	22.0	9.5	11.0	6.5	7.0	4.9	5.1	4.9	5.0	4.9
Terms of trade	-1.0	-2.1	-1.1	-0.9	-0.9	-0.5	-0.3	-0.2	0.0	0.0
Balance of payments										
Current account balance	16.7	18.6	21.8	24.3	18.2	17.6	17.9	17.9	17.7	17.3
Balance on goods and services	25.4	28.7	29.8	28.9	23.9	22.2	22.0	21.7	21.2	20.8
Balance on income and transfers	-8.7	-10.1	-8.0	-4.6	-5.7	-4.6	-4.1	-3.8	-3.5	-3.5
Gross official reserves (US$ billions)	112.6	116.2	136.3	163.0	180.7	191.5	202.7	210.2	217.8	225.4
(In months of imports) 3/	(5.4)	(4.7)	(5.0)	(5.0)	(5.1)	(4.9)	(4.8)	(4.6)	(4.5)	(4.5)

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

1/ Contribution to GDP growth.
2/ On a calendar year basis.
3/ In months of next year's imports of goods and services.

INTERNATIONAL MONETARY FUND

SINGAPORE

Staff Report for the 2008 Article IV Consultation—Informational Annexes

Prepared by the Asia and Pacific Department

June 30, 2008

Contents Page

ANNEX I: SINGAPORE—FUND RELATIONS

(As of April 30, 2008)

I. Membership Status: Joined August 3, 1966; Article VIII

II. General Resources Account:

	SDR million	Quota (In percent)
Quota	862.50	100.00
Fund holdings of currency	807.41	92.80
Reserve position in Fund	55.13	7.20

III. SDR Department:

	SDR million	Allocation (In percent)
Net cumulative allocation	16.48	100.00
Holdings	223.96	1,359.35

IV. Outstanding Purchases and Loans: None

V. Financial Arrangements: None

VI. Projected Payments to Fund: None

VII. Exchange Arrangement:

Singapore's exchange rate regime is a managed floating system. The Monetary Authority of Singapore (MAS) monitors its value against an undisclosed basket of currencies and intervenes in the market to maintain this value within an undisclosed target band. The U.S. dollar is the intervention currency. As of June 4, 2008, US$1=S$1.3638

Singapore has accepted the obligations of Article VIII, Sections 2, 3, and 4 and maintains an exchange rate system that is free of restrictions on the making of payments and transfers for current international transactions.

Singapore maintains restrictions on Singapore-dollar credit facilities to, and bond and equity issuance by nonresident financial institutions. Singapore-dollar proceeds obtained by nonresident financial entities (such as banks, merchant banks, finance companies, and hedge funds) from loans exceeding S$5 million, or any amount for equity listings or bond issuance to finance activities outside Singapore have to be swapped or converted into foreign currency upon draw-down. Financial institutions are prohibited from extending Singapore-dollar credit facilities in excess of S$5 million to nonresident financial entities if there is reason to believe that the Singapore-dollar proceeds may be used for Singapore-dollar currency speculation.

VIII. Last Article IV Consultation:

The 2007 Article IV consultation discussions were held in Singapore during April 19 to May 3, 2007, and the consultation was concluded by the Executive Board on September 5, 2007.

IX. FSAP Participation:

The FSAP was undertaken in conjunction with the 2003 Article IV consultation. FSAP missions took place in November 2002, July–August 2003, and September 2003.

X. Technical Assistance: None

XI. Resident Representative: Mr. Salgado

ANNEX II: SINGAPORE—STATISTICAL ISSUES

Singapore provides data on a timely basis and meets all the SDDS specifications. These include the coverage, periodicity, and timeliness of the data; and the dissemination of advance release calendars; quarterly certification of the metadata posted on the Fund's Dissemination Standards Bulletin Board; and provision of information to allow users to assess data quality.

While the authorities have continued to improve the quality of data, dissemination of more disaggregated data would enhance the basis for macroeconomic policy analysis, particularly in the external and fiscal areas.

- In early 2006, the Singapore Department of Statistics (DOS) completed rebasing the reference year for the Singapore System of National Accounts from 1995 to 2000. The DOS also made improvements in data sources and methodology. The reconciliation of various national accounts estimates was conducted, resulting in lower statistical discrepancies. Work on further improvements, particularly with respect to changes in inventories, is ongoing.

- The authorities have released the full set of statistics on merchandise trade including trade with Indonesia since January 2006. Prior to this, merchandise trade statistics did not fully include trade with Indonesia, although trade transactions with Indonesia are captured elsewhere in the current account of the balance of payments (BOP).

- Information on government assets held abroad is neither published nor provided to the Fund. Interest and dividend on these assets and debt service payments on domestic debt made from the extra budgetary Government Securities Fund are published on an annual basis. Data on the financial position of the consolidated public sector are not published.

- Data on the international investment position (IIP) are not provided on a disaggregated level as suggested by the Balance of Payments Manual (5^{th} edition). Moreover, the IIP position does not include the net foreign assets held by the Government of Singapore Investment Corporation, although the associated flows are included in the balance of payments data.

The Monetary Authority of Singapore has not submitted the standardized report forms (SRFs) for monetary statistics introduced in October 2004. The SRFs provide for accounting data to be broken down by instrument, sector, and currency.

Singapore—Table of Common Indicators Required for Surveillance

(As of June 5, 2008)

	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Frequency of Publication[6]
Exchange rates	Jun 2008	Jun 2008	D	D	D
International reserve assets and reserve liabilities of the Monetary Authorities[1]	Apr 2008	May 2008	M	M	M
Reserve/base money	Apr 2008	May 2008	M	M	M
Broad money	Apr 2008	May 2008	M	M	M
Central bank balance sheet	Apr 2008	May 2008	M	M	M
Consolidated balance sheet of the banking system	Apr 2008	May 2008	M	M	M
Interest rates[2]	Jun 2008	Jun 2008	D	D	D
Consumer price index	Apr 2008	May 2008	M	M	M
Revenue, expenditure, balance and composition of financing[3]—general government[4]	...	...	...	...	...
Revenue, expenditure, balance and composition of financing[3]—central government	Apr 2008	May 2008	M	M	M
Stocks of central government and central government-guaranteed debt[5]	...	...	...	...	...
External current account balance	2008: Q1	May 2008	Q	Q	Q
Exports and imports of goods and services	2008: Q1	May 2008	M	M	M
GDP/GNP	2008: Q1	May 2008	Q	Q	Q
Gross external debt[7]	2007: Q4	Mar 2008	Q	Q	Q
Net international investment position[8]	2006	2007	A	A	A

[1] Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.
[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes, and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).
[7] Official external debt is zero.
[8] The reported number does not include the net foreign asset position of the Government of Singapore's Investment Corporation.

INTERNATIONAL MONETARY FUND
Public Information Notice
EXTERNAL RELATIONS DEPARTMENT

Public Information Notice (PIN) No. 08/107
FOR IMMEDIATE RELEASE
August 13, 2008

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2008 Article IV Consultation with Singapore

On July 16, 2008, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Singapore.[1]

Background

Spillovers from the global slowdown and lingering turbulence in international financial markets have been propagated to Singapore mostly through the trade channel. After growing by about 7¾ percent last year, flagging exports have weighed on the pace of activity since late 2007. Relatedly, the current account surplus fell from 24 percent of GDP in 2007 to 14 percent of GDP in the first quarter of this year.

Inflation has risen significantly on the back of international and home-grown cost pressures, reaching a 26-year high of around 7 percent during January–April this year. Increases in food and energy prices have added to pressures from a hike in indirect takes, a housing boom, and tighter labor markets. Housing prices have stabilized but there may remain some froth in the high-end market.

The global market turmoil has had only limited reverberations on Singapore's financial system. Credit spreads have widened, equity volatility has risen, and banks have incurred trading-related losses, including on structured credit products. Yet, none of these developments have had systemic implications, so far.

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[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities.

Monetary policy has been tightened further. Following a slight increase in the slope of its policy band for the nominal effective exchange rate of the Singapore dollar last October, in April 2008 the Monetary Authority of Singapore shifted the band up by an estimated 2 percent in response to inflation concerns and upward pressures on the exchange rate.

Fiscal policy has been loosened. After a sizable revenue overperformance last fiscal year (which ended in March), the FY 2008–09 budget is slightly expansionary. It focuses on improving competitiveness and supporting household disposable income through tax measures (including a one-off personal income tax rebate) and targeted cash transfers.

Executive Board Assessment

Executive Directors noted that the pragmatic macroeconomic policies and proactive structural reforms have underpinned Singapore's strong economic performance and increased resilience to adverse external shocks. Directors observed that, given the challenges of weakening global growth, ongoing turbulence in international financial markets, and mounting inflation pressures, the pace of economic activity in Singapore is likely to decline in the near term, with inflation remaining elevated. Against this background, ensuring that inflation expectations remain well anchored is a policy priority.

Directors agreed that, given the uncertainties in the global outlook facing Singapore's open economy, macroeconomic policies should remain flexible and pragmatic and seek an appropriate balance to sustain solid growth while containing inflationary pressures and maintaining macroeconomic stability.

Directors welcomed the recent steps by the Monetary Authority of Singapore to tighten the monetary policy stance further by adjusting the exchange rate target band. Directors noted the staff's assessment that the Singapore dollar remains weaker than the level implied by long-term fundamentals. However, given the downside risks to growth, many Directors favored maintaining the current policy mix in the short-term, with the authorities remaining ready to modify the policy stance going forward if necessary. These Directors felt that the extent of exchange rate undervaluation is difficult to gauge, and that given monetary policy lags, it would be sensible to assess the impact of the monetary tightening already in the pipeline before adjusting the policy stance. In this regard, indications of recent easing in wage pressures were welcomed.

A number of other Directors favored the staff's view that a further degree of rebalancing of the macroeconomic policy mix toward a somewhat tighter monetary stance and a looser fiscal policy would be desirable in the current conjuncture from both a domestic and an international perspective. Given the recent upsurge in inflation, they considered that a moderately faster pace of appreciation would help ensure that price expectations remain well-anchored and facilitate the needed external adjustment. These Directors acknowledged the difficulty of additional tightening when the external environment remains fragile, but observed that the width of the exchange rate policy band could provide flexibility to cope with adverse shocks. They also considered that a stronger Singapore dollar would fend off upside risks to inflation, facilitate external adjustment, and create room in the near-term for additional targeted spending to alleviate the impact of rising prices on low-income households. Directors generally agreed that a gradual external adjustment is warranted in light of Singapore's exceptional trade and financial openness.

Directors agreed that, over the medium term, a broader reorientation of the policy mix is desirable. Singapore's ample fiscal reserves provide space for more spending on physical and social infrastructures once inflation risks abate, in line with the authorities' medium-term priorities.

Directors commended the Monetary Authority of Singapore for continuing efforts to bolster the already strong regulatory and supervisory frameworks, including by enhancing stress-testing and crisis management. In their view, this proactive approach has largely shielded domestic financial institutions from the impact of the global financial turmoil. Nonetheless, Directors noted that the risks of a price correction in some segments of the property market and the possibility of contagion through the trade and financial channels warrant continued vigilance.

Directors welcomed Singapore's participation in the Fund-facilitated initiative to identify best practices for sovereign wealth funds.

Public Information Notices (PINs) form part of the IMF's efforts to promote transparency of the IMF's views and analysis of economic developments and policies. With the consent of the country (or countries) concerned, PINs are issued after Executive Board discussions of Article IV consultations with member countries, of its surveillance of developments at the regional level, of post-program monitoring, and of ex post assessments of member countries with longer-term program engagements. PINs are also issued after Executive Board discussions of general policy matters, unless otherwise decided by the Executive Board in a particular case. The staff report (use the free Adobe Acrobat Reader to view this pdf file) for the 2008 Article IV Consultation with Singapore is also available.

Singapore: Selected Economic and Financial Indicators, 2004–09

	2004	2005	2006	2007	Proj. 2008	2009
Growth (percentage change)						
Real GDP	9.0	7.3	8.2	7.7	4.5	4.5
Total domestic demand	14.0	2.9	7.7	9.2	8.9	5.3
Consumption	4.2	4.4	4.8	4.1	4.4	4.2
Private consumption	5.2	3.9	3.3	4.6	4.0	4.3
Gross capital formation	48.1	-1.0	15.2	21.4	18.2	7.4
Net exports	-2.0	21.2	8.3	5.4	-6.9	1.8
Contribution to GDP growth	-0.6	5.5	2.5	1.6	-2.0	0.5
Saving and investment (percent of GDP)						
Gross national savings	38.4	38.5	41.8	46.8	43.8	43.8
Gross capital formation	21.7	19.9	20.0	22.6	25.6	26.2
Inflation and unemployment (period average, percent)						
CPI inflation	1.7	0.5	1.0	2.1	6.7	3.5
Unemployment rate	3.4	3.1	2.7	2.1	2.1	2.2
Central government budget (percent of GDP) 1/						
Revenue	20.1	21.1	21.6	24.3	23.2	23.4
Expenditure	14.3	13.0	14.4	14.7	17.5	16.8
Overall balance	5.8	8.2	7.2	9.5	5.7	6.6
Primary operating balance	-1.9	-1.2	-1.8	0.4	-1.6	-1.2
Money and credit (end of period, percentage change)						
Broad money (M3) 2/	6.1	6.4	19.1	14.1	12.4	...
Lending to non-banking sector 2/	4.5	2.2	6.3	20.0	24.4	...
Interest rate (three-month interbank, in percent) 2/	1.4	3.3	3.4	2.4	1.4	…
Balance of payments (US$ billion)						
Current account balance	18.2	22.3	29.8	39.2	34.5	36.2
(percent of GDP)	(16.7)	(18.6)	(21.8)	(24.3)	(18.2)	(17.6)
Trade balance	31.0	37.1	43.4	49.2	48.8	49.4
Overall balance	12.1	12.3	17.0	19.4	17.7	10.8
Gross official reserves (US$ billion)	112.6	116.2	136.3	163.0	180.7	191.5
(months of imports) 3/	(5.4)	(4.7)	(5.0)	(5.0)	(5.1)	(4.9)
Exchange rate (end of period)						
S$/US$ 4/	1.634	1.664	1.534	1.441	1.366	...
Nominal effective exchange rate 5/	97.9	100.3	104.0	106.0	109.5	...
Real effective exchange rate 5/	92.4	93.2	95.1	98.0	102.6	…

Sources: Data provided by the Singapore authorities; and IMF staff estimates and projections.
1/ Fiscal year beginning April 1.
2/ Latest observations as of April 2008.
3/ In months of following year's imports of goods and services.
4/ Latest observations as of May 2008.
5/ IMF Information Notice System monthly index (2000 full-year average = 100). Latest observations as of May 2008.

**Statement by Mr. Warjiyo, Executive Director for Singapore
and Ms. Tok, Senior Advisor to Executive Director
July 16, 2008**

The Singapore authorities would like to thank the IMF staff for the 2008 Article IV Consultation. The focus of the discussions on short-term conjunctural issues and policy challenges facing the Singapore economy was appropriate and useful. In general, there was agreement that macroeconomic policies should remain flexible and pragmatic. As the broad contours of the authorities' views were already reflected in the staff report, we will focus our remarks on monetary policy and exchange rate.

1 Recent Economic Developments and Outlook

1.1 The global economy has slowed over the past few quarters, following several years of robust growth. The impact of the US subprime crisis through the ongoing credit squeeze and widespread financial turmoil since late last year continues to present a drag on economic activity. At the same time, inflation has been rising across both the industrialised and emerging market economies. The forces exerting downward pressure on growth and upward pressure on inflation are acute challenges for the global economy.

Growth

1.2 Being an open economy, Singapore is impacted by these global developments. Growth has moderated from an average of 7.4% y-o-y in H2 2007 to 1.9% y-o-y in Q2 2008. The slowdown in Q2 was exacerbated by a 5.6% y-o-y contraction in the manufacturing sector. Likewise, Singapore's non-oil domestic exports remained weak, contracting by 10.5% y-o-y in May 2008, with electronics exports posting its sixteenth consecutive month of negative growth.

1.3 In the next few quarters, economic growth is expected to continue easing in view of slowing external demand, particularly from the developed economies. The downside risks are therefore not insignificant, although they should be mitigated partly by continued growth in a number of industries that are relatively resilient to a global slowdown. These include construction, financial intermediation and marine & offshore engineering, which are largely driven by industry-specific factors and therefore insulated to some degree from external conditions over the short-term.

Inflation

1.4 Domestic CPI inflation picked up to an average of 7% y-o-y in the first five months of 2008, higher than the 3.4% in H2 2007. A deeper analysis of the inflation dynamics and trends reveal that the step-up in CPI inflation can in large part be attributed to external sources, even as one-off domestic factors also affected the headline figure. In particular, the surge in global oil and food commodity prices has strongly impacted domestic prices, given

Singapore's heavy import reliance and policy of allowing market forces to determine the appropriate relative price levels. In this context, the contribution of food and direct energy-related items to CPI inflation rose from 0.8% point in H2 2007 to 2.8% points in Jan-May 2008, accounting for 40% of overall inflation. At the same time, cost of accommodation in the CPI has risen, reflecting the upward revision in the Annual Values (AV) of residential property by the Inland Revenue Authority of Singapore (IRAS).[1] This, together with the 2%-point hike in the Goods and Services Tax (GST) in July 2007, contributed another 40% to overall CPI inflation in Jan-May 2008.

1.5 Nonetheless, the strong S$ policy has mitigated the inflationary impact of high global oil and food commodity prices. While WTI oil prices in US$ have doubled from a year ago, domestic electricity tariffs and petrol prices have risen by slightly less than 30% each. Similarly, while the IMF food and beverage index has soared by 43% from a year ago, domestic food prices rose by a more moderate 9%.

1.6 Inflation is likely to have peaked in Q2 2008, and is expected to taper off from H2. A significant pass through of global commodity price increases and pent-up domestic cost pressures to the CPI has already taken place in H2 2007 and Jan-May 2008, and the pace of price increases going forward is expected to moderate somewhat. The anticipated slowdown in economic growth would also cause some abatement in cost pressures, while the dissipation of the GST effect from July 2008 onwards would further contribute to lower headline inflation rates in H2 2008.

1.7 The authorities are cognizant that further upside risks to inflation hinge on external price developments. Given the tight market conditions for global food and oil commodities, prices can react significantly to adverse developments on the supply side, such as weather-related supply disruptions. In such instances, domestic prices of food and oil-related items (direct and indirect) – which altogether makes up a third of the CPI basket - would increase in tandem.

2 Monetary Policy

2.1 Against the backdrop of an increasingly challenging external economic environment, the authorities would like to reiterate that monetary policy remains focused on its core objective of price stability in the medium-term. The policy of a modest and gradual appreciation of the S$NEER has been in place since April 2004. During the latest policy review in April 2008, MAS re-centred the exchange rate upwards at the prevailing level of the S$NEER to further moderate inflation against the backdrop of continuing external and domestic price pressures. The authorities are of the view that these monetary policy actions, complemented by other mitigating measures taken to address supply-side cost pressures in

[1] Owner-occupied housing costs are computed on the basis of imputed rent, which is the expected rental that a property would fetch if it was leased. This is in turn based on the AV assessed by IRAS for tax purposes. The AV is the estimated annual rent on a property for the purpose of computation of property tax. It is useful to point out though that about 91% of households currently own their homes.

the economy, have and will continue to moderate consumer price inflation while providing support for sustainable growth over the medium term.

2.2 Between April 2004 and April 2008, the S$NEER has appreciated by a significant 11.4%. Against the US$, the S$ has appreciated by an even more substantial 23.4% between April 2004 and June 2008. This has directly dampened external price pressures as highlighted earlier. In addition, the stronger S$NEER helped to ease domestic cost pressures indirectly by narrowing the output gap. Estimates show that had the MAS not allowed the S$NEER to appreciate over the last two years, CPI inflation in 2007 would have averaged 3.8%, instead of the 2.1% that was actually recorded. Furthermore, given this pre-emptive tightening of monetary policy coupled with the inherent lags in the price transmission process, domestic cost and price pressures would continue to moderate in the periods ahead, thereby ensuring that the second round effects emanating from external price developments are minimized. The effectiveness of the strong S$ policy is enhanced by the presence of keen competition and relative flexibility in Singapore's factor and product markets, which help to limit the propagation of cost increases in the economy.

2.3 With regard to (medium-term) exchange rate valuation, the authorities note that the degree of imprecision in the staff's assessment has increased. In particular, compared to the 2007 Article IV consultation estimate of 15-20% undervaluation in the (real) exchange rate, the lower bound estimate of a 5% undervaluation in the current range is not significantly different from fair valuation in view of the relatively large standard errors associated with such statistical estimates. This underscores the authorities' point that model-based estimates of equilibrium exchange rates are unreliable and subject to large margins of statistical uncertainty. This brings into question the usefulness and relevance of such yearly assessments to policymakers. Indeed, the staff's estimated range of the equilibrium exchange rate has increased from last year's assessment.

2.4 The authorities would also like to reiterate that the current account surplus reflects savings that have been increasingly generated by the private sector - particularly the corporates - against the backdrop of strong income growth. Such surplus savings are efficiently intermediated by the financial sector, including for investments abroad. Significantly, the current account surplus has narrowed from a peak of 29% of GDP in Q3 2007 to 14% of GDP in Q1 2008, with private investment increasing by more than 8% of GDP over that period. Over the longer term, the authorities wish to reiterate that the current account surplus is expected to narrow further as the population ages and economic growth moderates.

2.5 The authorities would like to express appreciation to the IMF staff for their excellent in-depth research and empirical analysis in the selected issues paper. In particular, the studies on "The Effects of Monetary Policy in Singapore" and the "Effectiveness of Fiscal Policy in Singapore" will provide the authorities with useful analytical tools for future research work on assessing the monetary transmission mechanism as well as the relative efficacy of fiscal policy measures.

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