INTERNATIONAL MONETARY FUND

IMF Country Report No. 12/42

SINGAPORE

2011 ARTICLE IV CONSULTATION

February 2012

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 2011 Article IV consultation with Singapore, the following documents have been released and are included in this package:

- **Staff Report** for the 2011 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on November 21, 2011, 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 January 24, 2012. 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.
- **Informational Annex** prepared bt the IMF.
- **Public Information Notice** (PIN) summarizing the views of the Executive Board as expressed during its February 8, 2012 discussion of the staff report that concluded the ArticleIV consultation.
- **Statement by the Executive Director** for Singapore.

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

Copies of this report are available to the public from

International Monetary Fund • Publication Services
700 19th Street, N.W. • Washington, D.C. 20431
Telephone: (202) 623-7430 • Telefax: (202) 623-7201
E-mail: publications@imf.org Internet: http://www.imf.org

International Monetary Fund
Washington, D.C.

SINGAPORE

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION

January 24, 2012

KEY ISSUES

Context and outlook. The economy is slowing against the backdrop of a deteriorating external environment and softening exports. While the outlook is extraordinarily uncertain, growth is expected to slow significantly in 2012 as weaker external demand and global risk aversion weigh on exports, investment and consumption. Inflation is also expected to ease.

Risks and spillovers. The main near-term risks are a protracted slowdown in advanced economies and a sharp increase in global financial stress. Given Singapore's openness, these shocks would hit the economy severely through weaker exports, reduced capital inflows, slower credit, and a fall in financial market activity. The authorities have sufficient policy space to deploy a decisive response in case these risks materialize.

Credit growth. The brisk expansion in credit after the 2008–09 recession merits close monitoring. Although partly reflecting the economic recovery and now moderating, fast credit growth could lead to deteriorating credit quality if the cycle turns abruptly. A rapid increase in foreign currency lending may also raise the risk of funding strains.

Housing market. Housing prices rebounded strongly after the crisis. The authorities have responded actively through several measures aimed at containing demand and boosting supply, and prices are now easing and likely to moderate further. Even in the event of sharp price movements, risks for growth and financial stability seem contained.

Rebalancing. Given Singapore's large external and fiscal reserves, a looser fiscal stance and continued real exchange appreciation over the medium term would help boost domestic demand.

Making growth more inclusive. Inequality has been rising and is among the highest in Asia. The authorities' strong focus on addressing this issue could be complemented with additional policies to strengthen the existing safety nets.

Approved By
Mahmood Pradhan and Dominique Desruelle

Staff team: Mahmood Pradhan (Head), Rodrigo Cubero, Sergei Dodzin, Zeiad Abdel-Rahman (all APD), and Ravi Balakrishnan (Resident Representative).
Mission Dates: November 14–21, 2011.

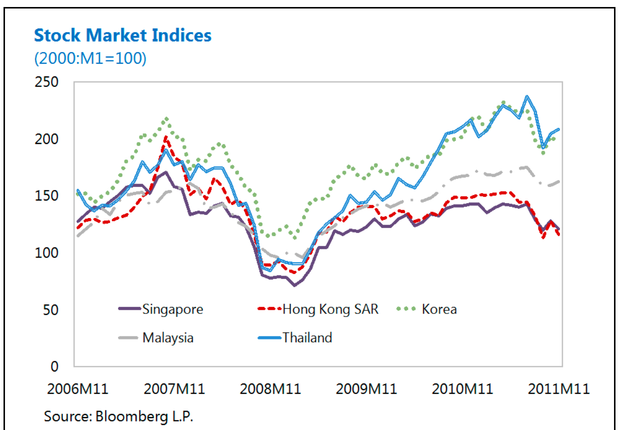
CONTENTS

TABLES

THE NEAR-TERM OUTLOOK

A. Context: Slowing Growth Amidst a Turbulent Global Environment

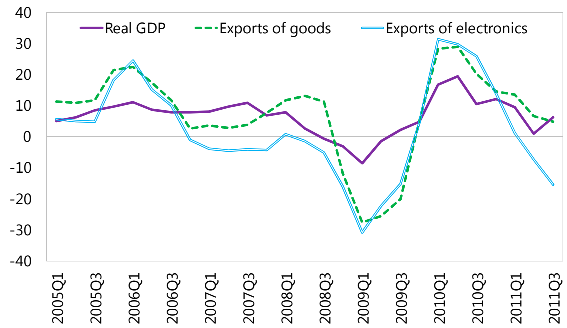
1. **Global and regional context**. The external environment is turning increasingly challenging. In the euro area and the United States, weak balance sheets and uncertainty over policy have led to slower growth and banking sector stress. Growth in Asia, though slowing, has been more resilient, as softer exports and investment are partly offset by robust consumption. International financial markets have experienced significant turbulence since the second half of 2011. This has prompted sell-offs of emerging market (EM) assets and portfolio outflows. Singapore has not been spared (see paragraph 6).



2. **Political context**. Singapore's ruling People's Action Party (PAP) was returned to power after the May 2011 general elections, but the opposition had its strongest showing since independence. Some pressing social issues—the cost of living, reduced home affordability, rising inequality, and the influx of foreign workers—were prominent in the political debate in the run up to the elections and remain high on the policy agenda.

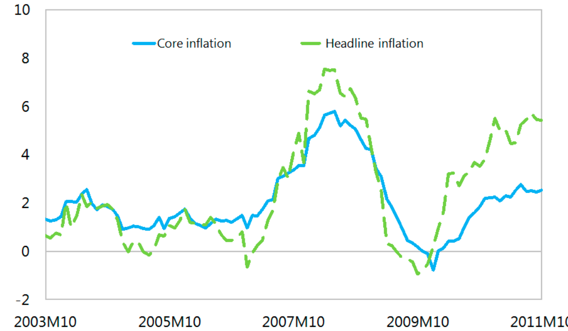
3. **Domestic economic activity**. The Singaporean economy rebounded sharply from the 2008–09 global downturn, posting growth of 14.5 percent in 2010 (Figure 1). However, activity is slowing markedly, dragged down first by supply-chain disruptions from Japan's March 2011 natural disaster and more recently by weaker global demand and negative confidence effects. Trade-related sectors, particularly electronics, have been especially affected. The weaker environment has subdued private investment. Consumption, however, has been supported by a strong labor market (exacerbated by the government's tightening of foreign worker levies), with unemployment falling to 2 percent in September 2011.

Real GDP and Exports
(Year-on-year growth, seasonally adjusted)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

Inflation
(In percent)

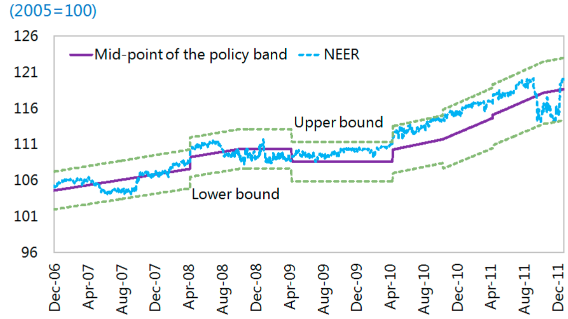


Sources: CEIC Data Company Ltd.; and IMF staff calculations.

4. **Inflation**. Headline inflation rose steadily from mid-2009 to reach 5.7 percent year-on-year in August 2011, and has since fluctuated close to that level. It has been fueled by accommodation and transport costs (in particular, costlier certificates of entitlement).[1] Imported inflation—higher food and fuel prices—has also contributed. However, core inflation, which excludes accommodation and transport, has remained relatively stable from mid-2010. The wedge between headline and core inflation thus reached a historical high in August 2011.

5. **Monetary policy**. Against a backdrop of surging economic growth and rising inflation, the Monetary Authority of Singapore (MAS) started a cycle of tightening in 2010 by re-centering the nominal effective exchange rate (NEER) policy band upward, increasing its slope and widening it. However, in October 2011, as the global and domestic outlook deteriorated, the MAS reduced the slope of the policy band.

Nominal Effective Exchange Rate and Policy Band 1/
(2005=100)



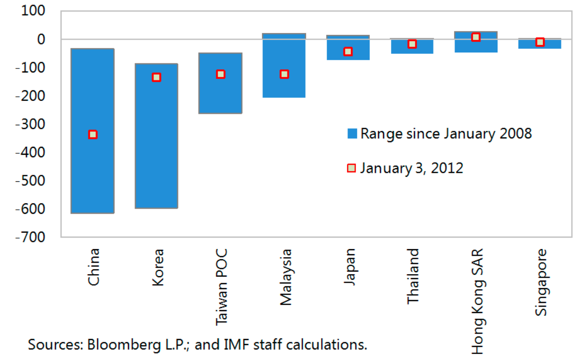
Sources: IMF, *Information Notice System*; and staff estimates.
1/ Mid-point, lower and upper bounds of the policy band are staff estimates.

6. **Financial market volatility**. Singapore has not been immune to the recent bouts of international financial turbulence: it experienced sharp declines in equity and

[1] COEs are licenses to own a motor vehicle. Their number is restricted and their prices are determined through a bidding system.

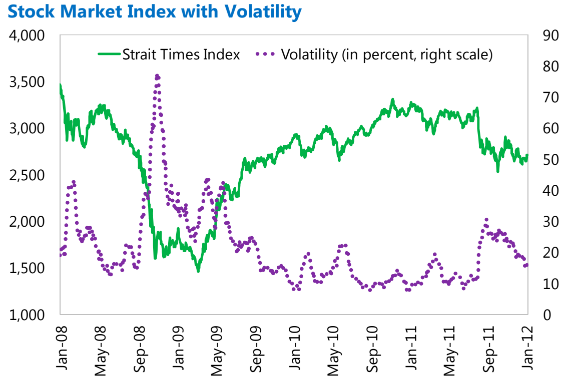
currency markets in August and September 2011, with market volatility remaining elevated after that. Outflows from the nonfinancial private sector, however, have been matched by strong inflows to banks in Q3:2011 (Figure 2). And compared to the rest of the region, stress in currency swap markets has been muted, in part reflecting the MAS' proactive provision of dollar liquidity.

U.S. Dollar – Local Currency Basis Swap Spreads
(1-year tenor, in basis points; decrease = U.S. dollar funding pressure rises)



Sources: Bloomberg L.P.; and IMF staff calculations.

Stock Market Index with Volatility



Sources: Bloomberg LP.

7. **Fiscal developments**. The FY 2010 fiscal balance outperformed the budget target, with revenue buoyed by the strong recovery. While the FY 2011 budget envisaged a slightly expansionary stance, revenue has outperformed the conservative budget estimates. As a result, the fiscal surplus is estimated to have increased in 2011, with a negative fiscal impulse of about −1 percent of GDP.

B. Near-Term Outlook and the Policy Mix

8. **Baseline assumptions**. The staff's baseline scenario assumes a moderate slowdown in global growth in 2012–13, with somewhat slower growth in the United States and a mild recession in the euro zone in 2012 followed by a timid recovery. Growth in Asia is assumed to slow but remain resilient, supported by still strong growth in China. The baseline also envisages some deleveraging by euro area banks, strains in advanced economy interbank markets, and heightened global risk aversion, but not a major financial meltdown.

9. **Growth outlook**. External demand for Singapore's exports is expected to continue to slow.[2] The electronics sector is likely to be particularly hard hit, given its high sensitivity to the global cycle and a global inventory overhang. Slower exports and increased uncertainty will weigh down on private investment. Private consumption should

[2] Floods in Thailand are expected to have a very limited impact on Singapore's overall economic activity, as supply-chain disruptions may be offset by some displacement of production to Singapore.

remain resilient on the back of a robust labor market, but will likely be dampened by increased precautionary saving by households. Overall, growth is projected to slow to 2.7percent in 2012, recovering to 3.8 percent in 2013.

10. **Inflation outlook**. Headline inflation is expected to moderate significantly. COE premiums and the recent depreciation of the Singapore dollar will likely put pressure on prices in the very near term. However, accommodation costs should ease as moderating housing prices translate into lower rentals, while weaker economic growth—with the output gap narrowing in 2012—will push down core inflation. International commodity prices are also expected to come off, while the impact of the Thai floods on rice prices is expected to be offset by supply from Vietnam. On the whole, headline inflation is projected to slow to an average of 3 percent in 2012 from 5.2 percent in 2011, with core inflation falling below 2 percent.

11. **Macroeconomic policy mix**. The MAS' decision in October 2011 to reduce the pace of monetary tightening is consistent with well anchored core inflation, slowing activity, and a difficult external environment. Further easing will be warranted in 2012 if the outlook deteriorates more than expected. The slight fiscal contraction in 2011 helped stem any mild overheating pressures. However, in light of slowing growth, the government should loosen the fiscal stance in 2012.

Authorities' Views

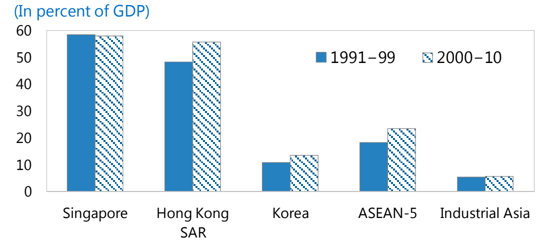
12. **The authorities concurred that growth and inflation would ease in 2012**. In light of the deteriorating global outlook, increased uncertainty and financial volatility, and Singapore's high degree of trade and financial openness, they expected growth to be between 1–3 percent in 2012. Slower growth would likely bring headline inflation down to 2.5–3.5 percent in 2012, despite some supply-related stickiness in accommodation and transport costs. They saw the pass-through from these costs to core inflation as relatively weak, however, and expect core inflation to slow to 1.5–2 percent. Against this backdrop, they viewed the current monetary policy stance as continuing to anchor inflation expectations while providing support to growth in an uncertain and volatile external environment. They also viewed the weaker outlook as a key factor in deciding the fiscal stance in the 2012 budget, to be submitted in February 2012.

C. Risks to the Outlook and Transmission of Spillovers

13. **Risks and spillovers**. The outlook is clouded by significant downside risks from the external environment. The key risks are a sharp and protracted downturn in large advanced economies and extreme financial stress spreading from the euro area, which would hit Singapore severely through trade and financial channels. A hard landing in China, although a low probability event, would also have severe negative repercussions.

14. **Trade channel**. Singapore is one of the world's most open economies: exports are over 210 percent of GDP and trade-related sectors account for over 50 percent of GDP. Therefore, while the country's direct exposure to Europe and the United States is moderate (about 10 percent and 6 percent of exports, respectively),[3] the impact on domestic GDP of any marked slowdown in those markets would be large, and larger still in the event of a marked slowdown in China and the rest of Asia. As in previous global or regional recessions (Figure 2), the resulting decline in exports would drag down investment in trade-related sectors, and will likely affect consumption through lower disposable incomes and confidence effects. Staff estimates indicate that a one percentage point fall in global growth would lead to a decline in Singapore's growth by about 1.7–1.9 percentage points.

Asia: Average Export Exposure to the United States and the European Union 1/
(In percent of GDP)



Sources: IMF, *Direction of Trade Statistics* database and staff calculations.
1/ Includes indirect exposure through exports of intermediate and capital goods via intraregional trade. ASEAN–5 refers to Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. Industrial Asia refers to Australia, Japan, and New Zealand.

15. **Financial channel**. Because Singapore is a major financial center, the spillovers from global financial stress could be substantial.[4] The specific transmission mechanisms would depend on the nature of the shock, but spillovers would likely entail some deleveraging by foreign banks, particularly those exposed to the euro area, reduced capital inflows, a slowdown in credit, and a decline in financial market activity (Figure 2).

- **Offshore banking sector**. Singapore-based banks have few assets in the euro zone (less than 6 percent), and less than 10 percent of Singapore banking

[3] The overall exposure is higher if account is taken of indirect linkages through exports of intermediate goods via Singapore's trading partners.

[4] The financial services sector accounts for about 12 percent of Singapore's GDP. And, as in other financial centers, many other service sectors depend on the financial industry.

system funding comes from the euro area. However, financial spillovers from Europe are likely to have a significant impact on the offshore Asian Dollar Market (ADM), where much of euro area bank activity takes place. Because the ADM relies mostly on wholesale funding, it is more vulnerable to confidence effects, U.S. dollar funding strains, and repatriation of funds by foreign parent banks (Figure 3). Most ADM lending is to bank and nonbank customers outside Singapore. Thus, this channel entails a risk of reduced financial activity for Singapore, and of reduced financial flows for other countries, particularly in East Asia.

- **Credit to the domestic private sector**. Unlike U.K. banks, euro area banks have a small direct presence in the onshore market, with the exception of trade financing, in which French banks have been very active. Moreover, over 60 percent of domestic banking unit (DBU) funding and over three fourths of local bank funding comes from local deposits (Figure 3).[5] Therefore, deleveraging by euro area banks is likely to have a limited impact on domestic credit, unless major U.K. banks are affected. And local and regional banks—although likely to become cautious in an uncertain environment—should be able to step in to partially offset any credit slowdown.

- **Capital and currency markets**. Global financial stress could lead to a sharp reversal of portfolio equity and debt flows, with attendant negative effects on consumption.[6] In addition, there could be stress in over-the-counter derivative markets (where euro zone banks make up 14 percent of the volume), and a decline in foreign exchange market turnover.[7]

Authorities' Views

16. **The authorities agreed that the main risks were external and to the downside**. They concurred that a protracted downturn in global growth or a full-blown financial crisis spreading from the euro area are the key risks to the outlook. Under such scenarios, growth in Singapore would slow down substantially given its strong trade and financial linkages.

17. **The authorities believe that the consequences of deleveraging by euro zone**

[5] Banks operating in Singapore book their transactions in two distinct accounting units: Domestic Banking Units (DBUs) and Asian Currency Units (ACU). All transactions in Singapore dollars must be booked in DBUs. Transactions in the offshore (ADM) market (which is exclusively in foreign currency, mostly the U.S. dollar) are typically booked in ACUs, which entail some regulatory advantages relative to DBUs. However, banks may choose to book foreign currency transactions in DBUs as well. Therefore, there is no perfect overlap between ADM and ACU transactions.

[6] Financial wealth effects have been found to be significant in Singapore. See Abeysinghe and Choy, 2004, "The Aggregate Consumption Puzzle in Singapore", *Journal of Asian Economics*, Vol. 15, pp. 563–578.

[7] Singapore is the fourth largest foreign exchange market in the world by market turnover (based on BIS data).

banks in the short term would be manageable. They emphasized that the share of funding coming from the euro zone was small, and that net interbank funding from the euro zone had continued to increase through September 2011. Moreover, if deleveraging did occur, well capitalized and liquid local and regional banks could step in, as evidenced by recent trends in trade finance and syndicated loans. And, except for banks in severe distress, foreign banks would likely strive to maintain market share in Singapore and Asia more generally, which will likely remain one of the most dynamic regions globally.

POLICY CHALLENGES IN THE NEAR TERM

A. Managing Spillovers from an External Downside Scenario

18. **Staff views**. While the economy would still be buffeted given its openness, Singapore's sound financial system, sizable foreign reserves, and strong fiscal position provide it with substantial policy room to mitigate the impact from negative external shocks.

- There is sufficient fiscal space to introduce, as in 2008, a discretionary stimulus package to support employment (if necessary), help low-income families, and enhance the cash flow of firms (e.g. through measures to ensure SME access to credit). In case of a significant downturn, tapping into Past Reserves may be necessary and would be desirable.[8]
- There is scope for monetary policy to become more accommodative if the situation warrants it.
- The authorities could also adopt measures to support financial stability similar to those introduced in 2008, including domestic liquidity provision through open market operations and standing facilities, and ensuring adequate foreign currency liquidity in foreign exchange spot and swap markets. Staff welcomes the increase in the coverage limit of the deposit insurance scheme to S$50,000 for all nonbank depositors, introduced in April 2011. Nevertheless, in the event of extreme financial stress in global markets, broader measures to maintain financial stability may be needed.

[8] According to the constitution, a government cannot draw upon reserves accumulated during previous terms of government ("Past Reserves"), except with the permission of Parliament and the President of the Republic. The surplus accumulated so far by the current government, elected in May 2011, will likely be insufficient to fund a significant fiscal expansion.
(continued)

During the 2008–09 crisis the government drew on Past Reserves to finance its fiscal stimulus.

Authorities' Views

19. **The authorities stressed that they had the policy space and tools to mitigate the impact of negative external shocks.** They observed that any policy response would need to be carefully calibrated, and should explicitly consider the costs, including moral hazard. They argued that any fiscal stimulus package might have a different composition from that in 2008, with measures that are targeted and in line with efforts to raise productivity. They agreed that there is scope for monetary policy easing if necessary.

20. **To support financial stability, MAS has in place a number of regulatory and supervisory measures**. The authorities considered that the current deposit insurance scheme, with its recently expanded limit, provided significant protection. Regarding the risks associated with European bank deleveraging, they underscored the ongoing close supervision of banks' liquidity and close contacts with home nation supervisors of foreign bank branches. Moreover, the Banking Act gave the MAS necessary powers to impose and vary bank-specific asset maintenance requirements, liquid asset ratios, and minimum capital fund requirements on foreign banks, including branches.

B. Credit Growth

21. **Background**. Domestic credit has been growing rapidly (Figure 4). While the expansion has been fairly broad based, it is notably brisk for construction and other business loans, including a sharp increase in DBU lending to nonresidents. Housing credit growth has moderated, but remains elevated (next section). Growth in offshore market (ACU) loans to the private sector (mostly in other regional countries) has also accelerated.

22. **Drivers**. Several factors have fueled credit growth:

- **A booming economy**. The vigorous recovery through early 2011 is likely to have stimulated credit demand. However, credit has far outpaced income: the ratio of private credit in DBUs to GDP rose by 20 percentage points in the three quarters to September 2011.

- **Low rates**. Low interest rates are also likely to have contributed. The MAS' renewed shift to currency appreciation since 2010 and unusually low interest rates in advanced countries led to a sharp decline in Singapore dollar interbank rates (SIBOR).

- **Demand from the region**. The authorities and market participants indicated that the rapid increase in DBU credit to nonresidents largely reflects U.S. dollar lending by domestic banks—mostly in the form of trade financing—to firms in mainland China and India. Demand from East Asia has also fueled ACU loans.

23. **Policy developments**. Prudential policies by the MAS continue to be proactive and forward looking. To reduce risks from housing credit, the MAS has adopted lower loan-to-value (LTV) ratios (see next section). In June 2011, the MAS introduced capital requirements for Singapore incorporated banks that are higher than Basel III standards.[9]

24. **Staff views**. Domestic credit growth is likely to abate in the near term against a slowing economy and increased uncertainty. Moreover, domestic banks have strong capital and liquidity positions (Figure 5 and Table 7). Yet, rapid credit growth so far warrants continued close monitoring as it may lead to deteriorating credit quality, particularly if there is a significant economic downturn. Although aggregate balance sheets of the corporate and household sectors remain strong (Figure 5), firms in some sectors have low interest coverage ratios, and specific segments may be over leveraged. Therefore, these firms and segments may be more vulnerable to a turn in the cycle, a sudden spike in borrowing costs, or reduced credit availability. In addition, foreign currency lending to nonresidents has driven the U.S. dollar loan-to-deposit ratio above one for local banks, potentially increasing foreign currency liquidity risks.

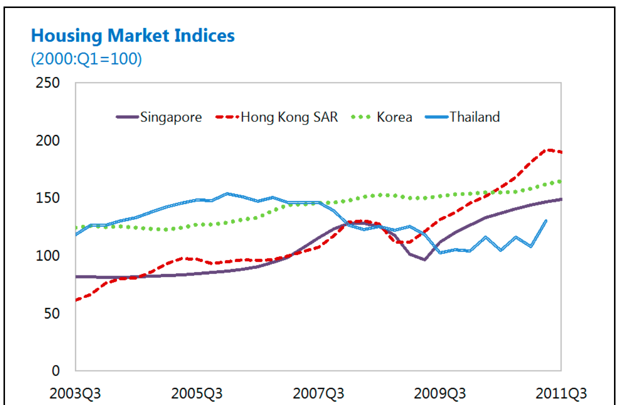
Authorities' Views

25. **The authorities acknowledged that credit growth had been strong recently but were not overly concerned**. Credit growth had largely reflected strong domestic and regional demand, which was expected to moderate significantly over the next year. Moreover, business lending tended to lag the economic recovery, and so while credit-to-GDP ratio had risen substantially over the last year, it had started from a low base at the end of the global financial crisis. The authorities are closely monitoring the recent rapid growth of U.S. dollar loan-to-deposit ratios of local banks, their liquidity risk management and dollar funding plans. They noted, however, that these were still well below pre-Asia crisis peaks of about 2.5 and that most of the dollars were funded by swaps from Singapore dollars, with local banks having an ample supply of the latter as evidenced by overall loan-to-deposit ratios below one. The local banks have embarked on notes issuance programs to raise longer-term U.S. dollar funds. Also, banks hold liquid assets well in excess of the regulatory minima, mostly in Singapore dollars.

[9] In particular, banks must meet: (i) the Basel III minimum capital adequacy requirements from January 2013, two years ahead of the Basel timeline (they already meet these requirements); and (ii) a minimum common equity tier 1 capital adequacy ratio (CAR) of 6.5 percent, tier 1 CAR of 8 percent and total CAR of 10 percent by January 2015.

C. Are Rising Property Prices a Concern?

26. **Background**. Following a steep decline in 2008–09, private residential property prices rebounded strongly and are now above the previous peak (Figure 6). Public housing resale prices, which were more resilient during the crisis, are also growing rapidly, and this has allowed many owners to sell and upgrade into private housing, contributing to price pressures in that market. House prices have outpaced median household incomes, leading to a decline in home affordability, which has become a prominent social issue.



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

27. **Drivers**. Property prices have been propelled by:

- **A resurgent economy**, which has buoyed incomes.

- **Low interest rates**. Real mortgage rates have been very low or negative for the past two years, leading to high housing credit growth rates.

- **Supply constraints**. Housing supply has not kept pace with population growth, which has been driven up by strong immigration.

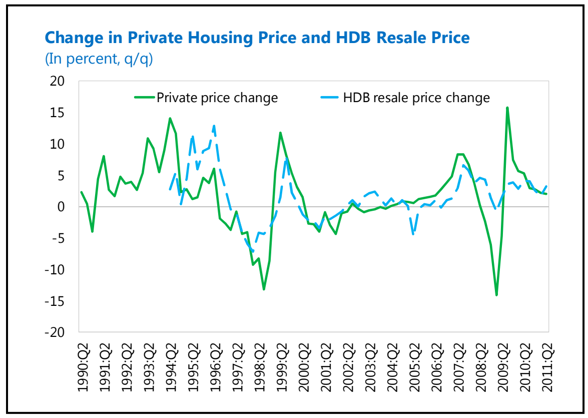
- **Demand by nonresidents**. A booming economy and prospects of currency appreciation, along with Singapore's strong investment climate, have lured foreign interest in the housing market.

28. **Policy response**. Between September 2009 and January 2011, the authorities adopted four rounds of measures to contain demand, including the introduction (and subsequent tightening) of seller stamp duties, and lowering of LTV caps on private property loans. In a fifth round in December 2011, they introduced an additional buyer's stamp duty, aimed at curbing investment demand, particularly from foreigners and corporate. The authorities have also undertaken measures to increase the supply of public and private housing (Box 1).

29. **Assessment and outlook**. Staff analysis suggests that the measures undertaken by the authorities through January 2011 have helped contain prices and transaction volumes in the housing market (Box 1), both of which are now moderating. Along with slower domestic growth, an uncertain outlook, and a significant supply pipeline of public and private housing projects

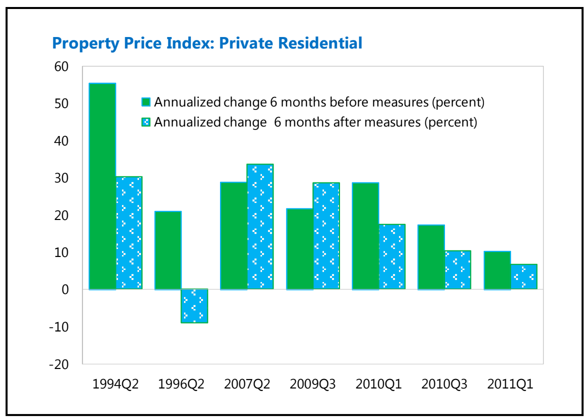
Box 1. Singapore: Policies to Address Rising Housing Prices

Background. Singapore's housing market is dominated by public housing, which covers more than 80 percent of the population. Public housing is run by a dedicated government agency: the Housing Development Board (HDB). There is a secondary resale market where public housing can be sold after a pre-determined minimum occupation period. The private market caters mainly to wealthier Singaporean citizens, permanent residents and foreigners. Private and public (resale) housing prices tend to move together, however, although the latter are less volatile. After falling during the 2008–09 crisis, housing prices recovered rapidly, raising concerns.



Policies. The authorities have introduced several policy measures in a number of steps since 2009.

- *September 2009*: The interest absorption scheme (which allowed some deferment of principal payments) and interest-only housing loans were disallowed.
- *February 2010*: Loan-to-value (LTV) ceilings were lowered from 90 percent to 80 percent for all private property loans. A seller's stamp duty (SSD) was introduced on all private properties sold within one year of purchase at the rate of 1 percent for the first S$180,000, 2 percent for the next S$180,000, and 3 percent for the remaining balance.
- *August 2010*: The SSD was extended to sales within three years of purchase, with one-third, two-thirds, or full SSD rates depending on the length of the holding period. LTVs ceilings were lowered from 80 percent to 70 percent for buyers with one or more outstanding housing loans.
- *January 2011*: The SSD was extended to sales within four years and rates raised to 16 percent for sales within a year, decreasing gradually thereafter to a minimum of 4 percent in the fourth year. LTVs were lowered to 60 percent for individuals with one or more outstanding loans and to 50 percent for nonindividuals.



- *December 2011*: An additional buyer's stamp duty (BSD) was imposed over and above the existing BSD, with a rate of 10 percent on foreigners and corporate entities buying any residential property, and of 3 percent on permanent residents buying their second or subsequent residential property and on Singapore citizens buying their third or subsequent residential property.
- In addition, the authorities have increased efforts to expand housing supply, in particular through the Government Land Sales program.

Effectiveness. Using a vector auto-regression framework, staff looked into the impact of demand-cooling measures from the early 1990s and through mid-2011, controlling for other factors (credit, interest rates, housing supply). The results suggest that the measures had a dampening impact on both property prices and transaction volumes.

(although residential construction activity is slowing), the housing market was already likely to cool further. The latest measures in December 2011 took markets by surprise and shifted the balance of risks further downward. Because these measures are residency-based and focus on the housing market, they also carry some risk of pushing foreign demand over to commercial and industrial property markets (which are also experiencing price increases) or to other countries.

30. **Macro-financial risks**. Risks for macro-financial stability arising from the housing market are relatively contained, but staff welcomes the authorities' continued vigilance. Aggregate household balance sheets remain strong (although the specific distribution of assets and liabilities may leave some segments vulnerable). Moreover, the average LTV of outstanding housing loans was 44.1 percent in Q3:2011 (with less than 5 percent of loans having LTVs above 80 percent), and the average debt service ratio on mortgages is estimated to be less than 25 percent as of Q4:2010. Thus, shocks to housing prices are likely to have a small impact on bank capital unless accompanied by a large, sustained rise in unemployment. And their impact on consumption would also likely be small, given limited housing wealth effects (which reflect the actual and perceived illiquidity of housing wealth).[10]

Authorities' Views

31. **The authorities said that they remained vigilant in monitoring property market developments**. They had been proactive in taking a series of measures, and these had dampened the momentum in the market. However, despite these measures and the weakening global environment, new sales of private residential units had remained firm. This partly reflected increasing foreign purchases, a trend which could strengthen given the relative attractiveness of Singapore properties as an investment asset. To moderate investment demand for private residential property, they imposed the additional buyer's stamp duty in December 2011, with a higher rate on foreigners and corporate entities. The authorities also argued that, according to their stress tests, even a 300 bps rise in interest rates or a large decline in private house prices would not endanger financial stability given relatively low debt service ratios and LTVs. In addition, Section 35 of the Banking Act caps the property exposures of the banks. They emphasized that they are monitoring the market closely and will take additional measures as and when necessary.

[10] Abeysinghe and Choy (2004).

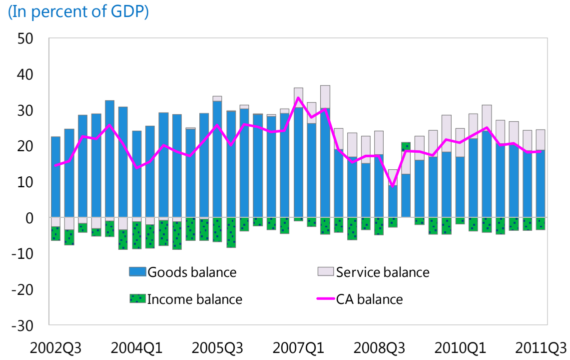
THE MEDIUM-TERM AGENDA: TOWARDS MORE BALANCED AND INCLUSIVE GROWTH

A. The External Position and Rebalancing

32. **Background**. Singapore's external position remains strong:

- **Current account**. The current account surplus bounced back in 2010, but is estimated to have narrowed to 19.4 percent of GDP in 2011 along with the weaker external environment and robust domestic demand.

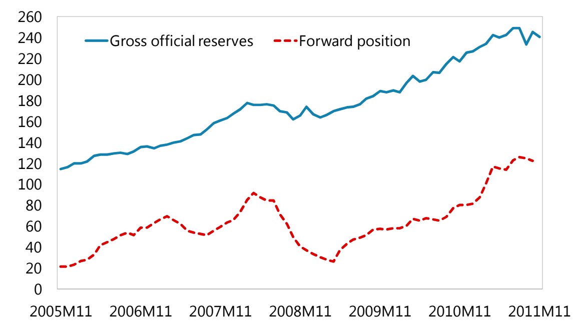
Current Account Balance
(In percent of GDP)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

- **Reserves**. With exports booming and the exchange rate close to the upper limit of the NEER policy band, official monetary reserves continued to accumulate through Q1:2011, but have since declined slightly. While Singapore's reserves are large in absolute terms, the country's high degree of openness and large financial system call for greater reserve buffers than for other countries.[11]

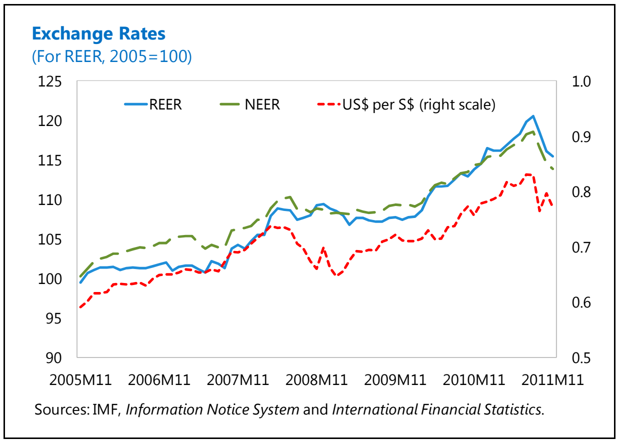
Gross Official Reserves and Forward Position
(In billions of U.S. dollars)



Sources: CEIC Data Co. Ltd; and IMF, *International Financial Statistics* database.

- **Real effective exchange rate (REER)**. Before the recent decline triggered by global financial turbulence, the REER had been appreciating steadily since late 2009, along with the authorities' decision to shift back to a policy of gradual NEER appreciation.

[11] See IMF Policy Paper, 2010, *Cross-Cutting Themes in Economies with Large Banking Systems*. Available via the Internet: http://www.imf.org/external/np/pp/eng/2010/041610.pdf.



33. **Fiscal policy over the medium term**. With structural fiscal surpluses and a large stock of fiscal reserves, there is room for a looser medium-term fiscal stance. The authorities' projected increase in public spending of about 1–2 percentage points of GDP over the next five years is consistent with such easing. Staff welcomes their plan to target increased spending toward transport and housing infrastructure, education, and healthcare.

34. **Medium-term outlook**. The current account surplus is projected to decline moderately over the medium term, driven primarily by the narrowing of the public savings-investment gap. Private savings is likely to fall slightly as a share of GDP, as increased social spending by the government reduces motives for precautionary saving. Baseline growth is expected to recover gradually and converge to its potential rate of about 4 percent, on the back of Singapore's strong fundamentals and resilient growth in Asia.

35. **Assessment**. Staff estimates based on the Consultative Group on Exchange Rates (CGER)'s macroeconomic balance and external sustainability approaches suggest that the REER may still be undervalued (by about 12 percent). In contrast, the equilibrium exchange rate approach suggests a minor overvaluation (about 5 percent). In light of the mixed evidence and wide confidence bounds surrounding these estimates, staff cannot conclude that the REER is significantly out of line with fundamentals. Going forward, the MAS' policy of allowing for a steady NEER appreciation over the medium term should contribute to continued real appreciation. This, in turn, would complement fiscal loosening and an enhancement of social safety nets (see next section) in achieving a gradual rebalancing of demand towards domestic sources.

Authorities' Views

36. **The authorities agreed that the current account surplus is likely to narrow over the medium term**, mainly reflecting the programmed increase in medium-term government spending. They added that population ageing would likely have no material impact on private savings before 2016. Regarding the Singapore dollar, they noted it had increased significantly in real effective terms in recent years, and this was likely to continue in the medium term. Their fundamental equilibrium-based estimates

suggested that the REER was now slightly overvalued, in line with the staff's estimates for the REER equilibrium approach. As in previous years, they stressed that the policy implications of the staff's estimates based on CGER-like methods are unclear.

B. Making Growth More Inclusive

37. **Background**. Singapore, as much of the rest of the world, has seen a marked increase in inequality over the last two decades (Figure 7). The authorities' current approach to tackle inequality is based on a combination of social safety nets—including Central Provident Fund (CPF)-based benefits and the workfare scheme (Box 2)—and foreign workers levies to keep unemployment low and wages strong.

38. **Staff views**. While the current social safety nets provide a good base of social protection, a key question is whether they are sufficient against a backdrop of population ageing and rising inequality. Given the multiple causes of inequality, the authorities could consider additional measures, such as:

- **Pension benefits**. Replacement ratios are low in Singapore, despite a high contribution rate by international standards (Box 2). While this partly reflects the multiple uses of CPF funds, boosting the real rates of return on CPF savings would help support the income of pensioners.[12] This could be complemented by a "first pillar" of noncontributory pensions for the elderly poor and developing a sufficient "third pillar" of private defined contribution plans.

- **Unemployment insurance savings accounts**. Analytical studies[13] have found that unemployment insurance is effective in supporting household consumption but can lead to higher and more persistent unemployment given reduced incentives to work. Unemployment insurance based on savings accounts avoids this moral hazard (as individuals would be drawing down their own savings when unemployed) and could be easily integrated into the CPF.

- **A minimum wage**. A minimum wage was recently introduced in Hong Kong SAR, and levels of minimum wages were raised in several other countries in the region. In Singapore, a minimum wage could strengthen existing safety nets. However, the evidence on the employment and

[12] Currently, rates of return are largely based off 12-month deposit rates and 10-year Singapore government bonds, with a nominal return floor of 2.5 percent or 4 percent depending on the account and an additional 1 percent for the first S$60,000 of a CPF member's savings.

[13] J Gruber, 1997, "Consumption Smoothing Effects of Unemployment Insurance," *American Economic Review*, Vol. 87, pp. 192–205.

Box 2. Singapore: CPF-Related Benefits and Workfare Schemes

Singapore's social security framework is based on the principles of self reliance, a strong work ethic and family support. In addition to tax funded subsidies for healthcare and housing, the framework consists of two main components:

1. Central Provident Fund (CPF)-Related Benefits

The main safety nets are associated with the CPF. This is a defined contribution plan with mandatory contributions from both employees and employers, and covers around 90 percent of the resident population. It has various accounts and associated benefits:

- ***Housing***. Around 60 percent of employer and employee contributions to the CPF are directed to the Ordinary Account. Members have used these savings mainly to buy subsidized homes from the Housing Development Board, as reflected in a home ownership rate of about 90 percent amongst residents.

- ***Pensions***. Retirement income comes from the Special Account, which receives around 20 percent of CPF contributions, and the remaining balance in the Ordinary Account. According to OECD estimates, net replacement rates (that is, retirement incomes relative to incomes during working life) are between 10–20 percent, which are lower than virtually all countries in the Asia Pacific region and well below the average for OECD countries (around 70 percent).

- ***Health***. The remaining share of CPF contributions go to the Medisave Account, under which savings can be used to pay for medical expenses and medical insurance. There are also subsidies of up to 80 percent for medical care at public hospitals, which all Singaporeans can access.

2. Workfare

In addition to the CPF, there is a system of *workfare*, which comprises an income supplement and a training subsidy for workers who earn less than S$1,700 per month. Job placement and training services are also available for the unemployed. Singaporeans can also approach the Community Development Councils, which have access to other government funds, to help address their financial and medical needs.

income effects of minimum wages is mixed,[14] with outcomes hinging critically on the rate at which the minimum wage is set.[15]

- **Transfers**. A strengthening of means tested cash transfers to households could complement these schemes and further enhance access to education and healthcare for the very poor.

Authorities' Views

39. **The authorities emphasized that making growth more inclusive was at the top of their medium-term policy agenda**. Their current approach was centered on work being the best form of financial security through maintaining growth and keeping the unemployment rate low. This is supported by the national drive towards higher productivity and expansion of continuing education and training, as well as the Workfare schemes, of which the Workfare Income Supplement is a transfer conditional on work. These measures reflected the government's emphasis on raising job attachment and skills, especially of the lower-skilled groups.

40. **While they were willing to consider other measures, the authorities felt strongly that the current approach should be given more time to prove itself**. Regarding pension replacement ratios, they argued that the OECD calculations did not factor in that most Singaporeans had significant retirement savings invested in housing equity, which can be monetized to supplement retirement income if needed. They also noted that the government program to buy back the unconsumed lease of public housing owned by low-income elderly households provided an additional avenue in this regard. They expressed reservations about a minimum wage at the current time, as it would act as an implicit tax on employing labor and may increase the unemployment rate.

[14] Boeri, Tito, and Jan van Ours, 2008, *The Economics of Imperfect Labor Markets* (Princeton: Princeton University Press).

[15] Minimum wage levels in most countries cluster around 40 percent of the average wage, with a range of 27 percent to 52 percent in OECD countries.

STAFF APPRAISAL

41. **The Singaporean economy is slowing against the backdrop of weaker global growth and heightened global uncertainty**. While export growth has come off, domestic demand has remained resilient, supported by a robust labor market. Going forward, external demand is expected to soften further and global financial markets to remain turbulent, dragging down domestic activity. In the baseline scenario, GDP growth is projected at 2.7 percent in 2012, before recovering to 3.8 percent in 2013.

42. **Inflation is also projected to ease**. Headline inflation accelerated for much of 2011, becoming an important policy concern. However, core inflation has remained low and stable. With growth softening and imported price pressures waning, headline inflation should moderate significantly next year.

43. **The current monetary policy stance is well tuned to the near-term outlook, but fiscal policy should be loosened in 2012**. Over the past two years, the authorities have tightened monetary policy to stem inflationary pressures. By reducing the slope of the policy band in October 2011, they are keeping a lid on inflation while providing support for growth. Further monetary accommodation will be necessary if the outlook deteriorates further. Fiscal policy was moderately contractionary in 2011, helping arrest any overheating impetus. For 2012, an easing of fiscal policy is warranted against the backdrop of weaker growth.

44. **In this extraordinarily uncertain environment, risks are mainly external and tilted significantly to the downside**. The main risks are a protracted downturn in large advanced economies or severe financial stress in global markets. The former would impact Singapore's growth through lower trade, while the latter would do so through reduced financial sector activity, a retraction of capital inflows and, possibly, a slowdown in domestic credit.

45. **Singapore has sufficient policy firepower to mitigate the impact of large adverse shocks**. In case of a shock, the authorities could deploy a fiscal expansion to support employment and protect low-income families, adopt calibrated measures to maintain financial stability, and ease monetary policy if necessary. The authorities are fully aware of the risks, have carefully considered the potential transmission channels, and are prepared to respond as necessary. They are also cognizant that, given Singapore's high degree of openness, policy responses cannot fully offset the adverse consequences of a shock, as the 2008–09 episode made clear.

46. **The rapid growth in credit over the past two years warrants continued close monitoring**. While credit growth has abated, a rapid turn in economic and financial conditions could compromise credit quality. In this

regard, staff welcomes the authorities' forward-looking approach to supervision and regulation. They have already adopted measures to safeguard financial stability, and are continuously stress testing individual bank balance sheets and monitoring their underwriting standards. Staff also commends the authorities for the early introduction of higher capital requirements for Singapore incorporated banks, above and ahead of Basel III requirements.

47. **The balance of forces for housing prices has tilted downward**. House prices have been rising fast since 2009, and home affordability has declined. In response, the authorities have undertaken several measures to contain demand, which have helped reduce transaction volumes and moderate house price increases. Slower GDP growth, the uncertain outlook and planned increases in housing supply should have a further dampening effect. The additional residency-based buyer stamp duties introduced in December 2011, have tilted the balance further down.

48. **However, macro-financial risks from the housing market are relatively contained**. Movements in house prices, even if abrupt, are unlikely to have a significant impact on bank credit quality unless accompanied by a sharp increase in unemployment. Wealth effects on consumption are also likely to be small. Staff welcomes the authorities' continued close monitoring of risks associated with the housing market and urges continued coordination between the different government agencies in their efforts to support market and financial stability.

49. **A loosening of the fiscal stance and continued real appreciation would help reduce the large current account surplus over the medium term**. Thanks to decades of fiscal prudence, Singapore has accumulated ample fiscal reserves and is in a position to shift to a looser fiscal stance over the cycle. In this regard, staff welcomes the government's plan to increase public spending by 1–2 percentage points of GDP over the next five years, as well as the intention to direct spending increases to housing and transport infrastructure. These plans would help reduce the country's large external surplus position. Staff also welcomes the MAS' policy of allowing for a trend appreciation of the NEER, which has resulted in a steady REER appreciation.

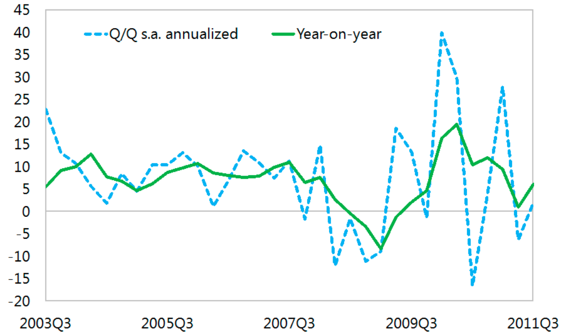
50. **Staff commends the government's focus on making growth more inclusive**. In light of rising inequality, however, there may be scope for complementing the current policies with additional measures. These could include unemployment insurance based on savings accounts; expanded pension benefits, particularly for the elderly poor; and a strengthening of means tested cash transfers to households. The authorities may also wish to assess whether a minimum wage policy would be sensible for Singapore.

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

Figure 1. Economic Activity is Slowing

Growth is slowing…

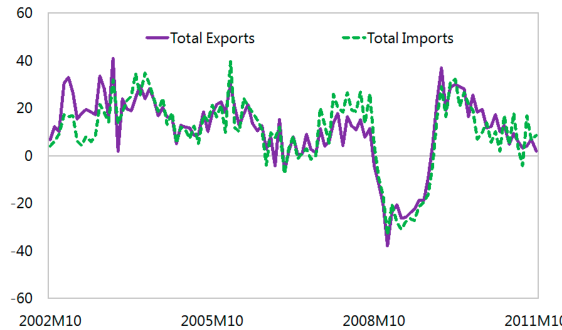
GDP Growth
(In percent)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates

…driven by weak exports.

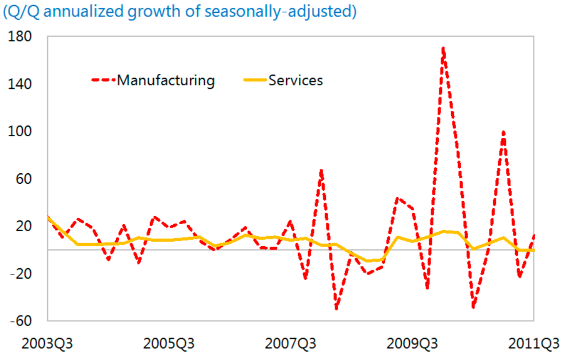
International Trade
(Percentage change year-on-year)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates

Manufacturing has taken the brunt of the external slowdown.

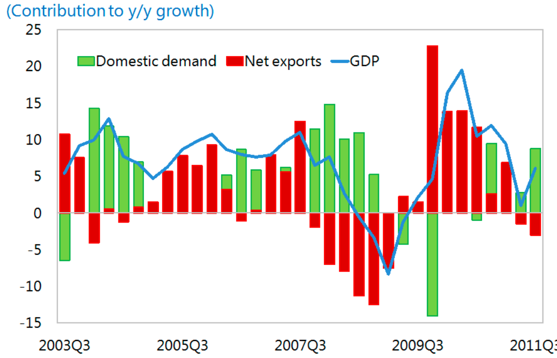
GDP Growth by Sector
(Q/Q annualized growth of seasonally-adjusted)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

Domestic demand, however, has remained relatively resilient…

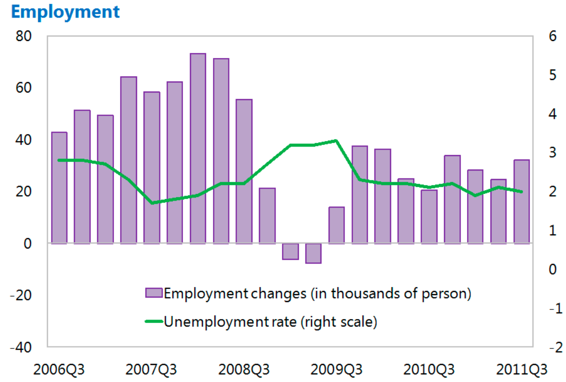
GDP by Expenditure
(Contribution to y/y growth)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

…supported by a strong labor market.

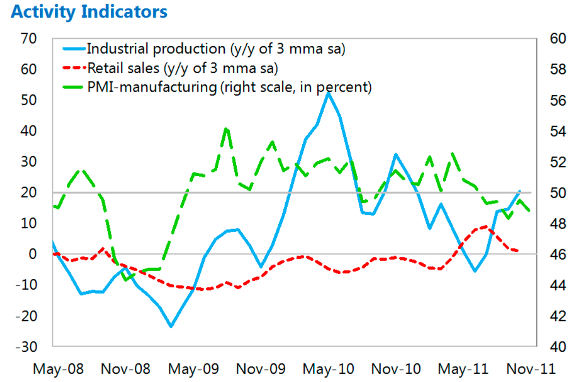
Employment



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

Although industrial production rose recently, retail sales and leading indicators point to further weakness ahead.

Activity Indicators

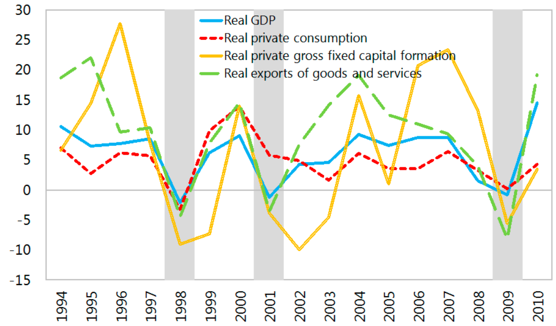


Sources: CEIC Data Co. Ltd; and IMF staff estimates.

Figure 2. Singapore is Highly Vulnerable to External Trade and Financial Spillovers 1/

Weaker global or regional growth leads to an export slowdown, which has a significant impact on investment and GDP, while consumption tends to be more resilient.

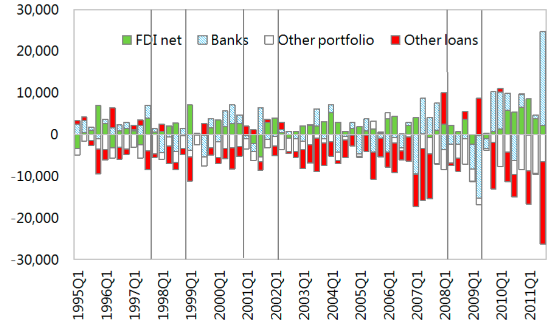
Real GDP, Consumption, Investment and Exports
(Year-on-year growth)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

Singapore is a net capital exporter, but during the 2008–09 crisis, it experienced extraordinarily large outflows from banks.

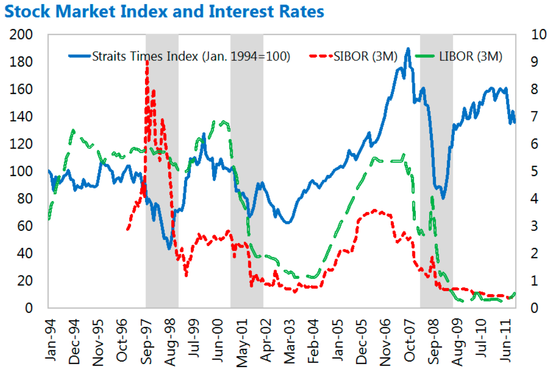
Net Capital Flows
(In millions of U.S. dollars)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

Previous global or regional crises have also led to a fall in the stock market index, an increase in borrowing costs…

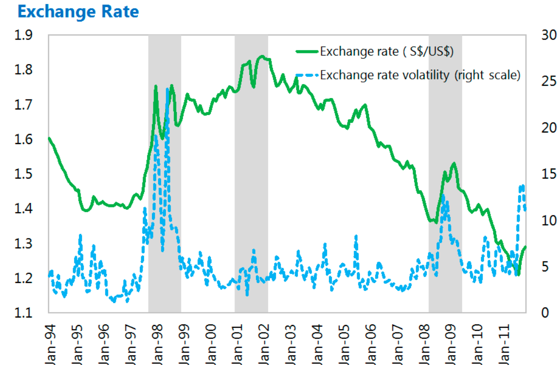
Stock Market Index and Interest Rates



Sources: Bloomberg LP.; and IMF staff estimates.

…exchange rate depreciation and increased currency volatility…

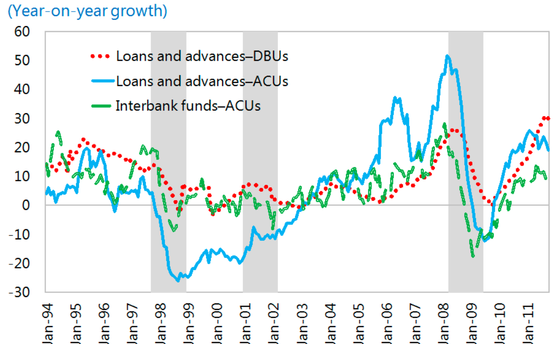
Exchange Rate



Sources: Bloomberg LP.; and IMF staff estimates.

…a slowdown in credit, particularly in the offshore banking sector…

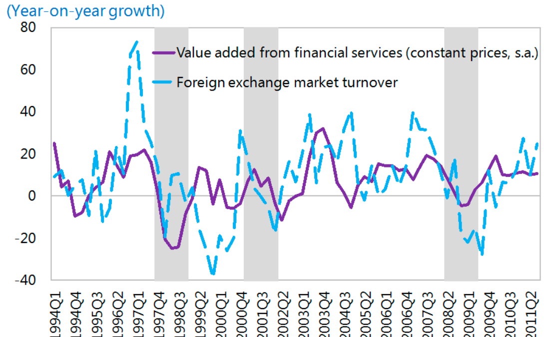
Loans and Advances
(Year-on-year growth)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

…a decline in financial market activity, and lower value added of the financial sector.

Financial Market Activity
(Year-on-year growth)



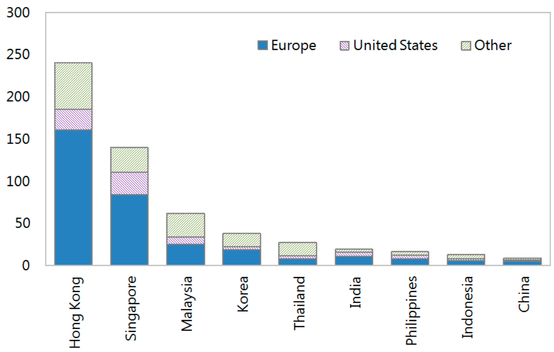
Sources: CEIC Data Co. Ltd.; Bloomberg LP.; and IMF staff estimates.

1/ Column markers indicate previous global or regional recessions. The first column from the left is for the Asian financial crisis, the second is for the 2001 tech recession, and the third is for the 2008–09 global financial crisis.

Figure 3. Exposures to Euro Area Banks are Moderate Relative to Banking System Assets

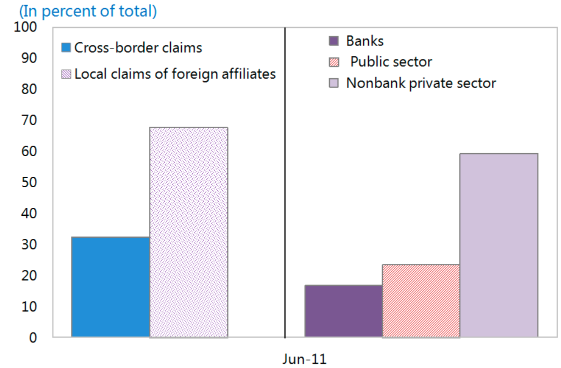
Given Singapore's status as a financial center, exposures to European banks are larger than for most other regional countries.

Foreign Banks' Claims on Selected Asian Countries
(As of June 2011, in percent of 2010 GDP)



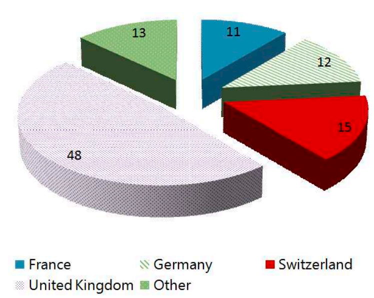
About two thirds of foreign bank claims are on the private sector, but only one third of the claims are truly cross-border.

Composition of Foreign Claims
(In percent of total)



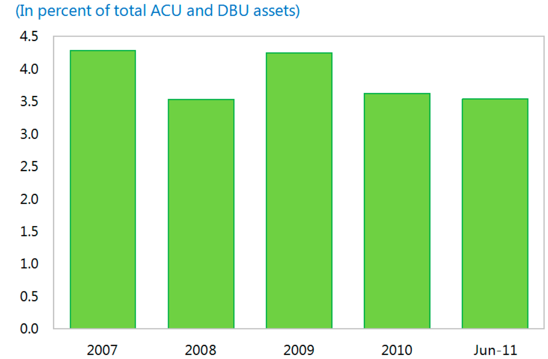
Moreover, only about 1/3 of the European bank claims are from euro-area banks…

Composition of European Banks' Claims, by Nationality
(As of June 2011)



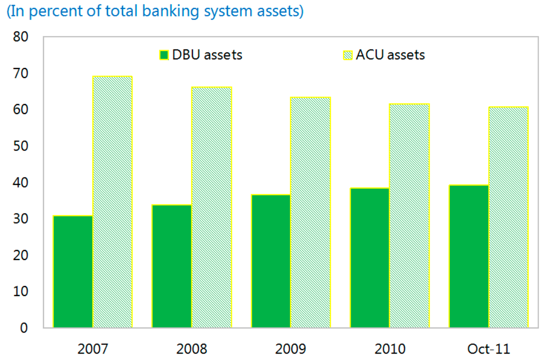
…and those claims represent a very small fraction of Singapore's total bank assets.

Claims from Euro-Area Banks
(In percent of total ACU and DBU assets)



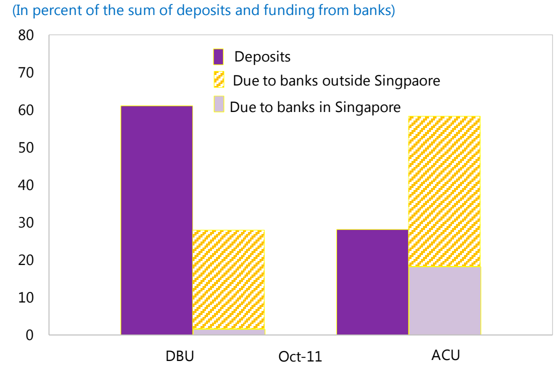
However, the ACU (offshore) banking sector, which is larger than the onshore sector,…

Assets in Domestic Banking Units and Asian Currency Units
(In percent of total banking system assets)



…is vulnerable to foreign bank deleveraging, as it depends mostly on funding from banks outside Singapore.

Funding Structure of the Banking System
(In percent of the sum of deposits and funding from banks)

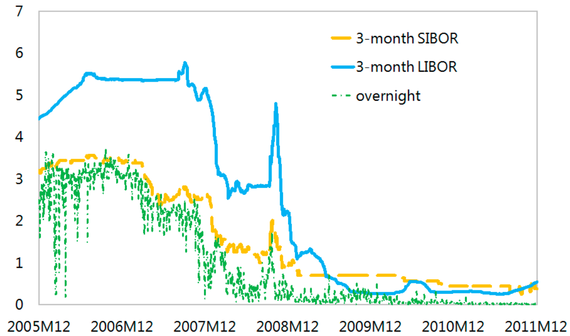


Sources: BIS; CEIC Data Company Ltd; and IMF staff estimates.

Figure 4. Credit Has Been Growing Rapidly

Fueled by record low interest rates…

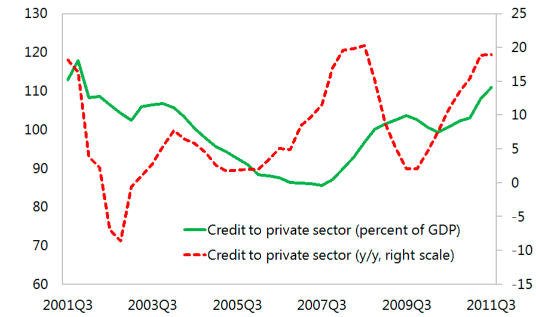
Interbank Interest Rates
(Annual, in percent)



Source: Bloomberg LP.

…credit has been increasing at a fast pace…

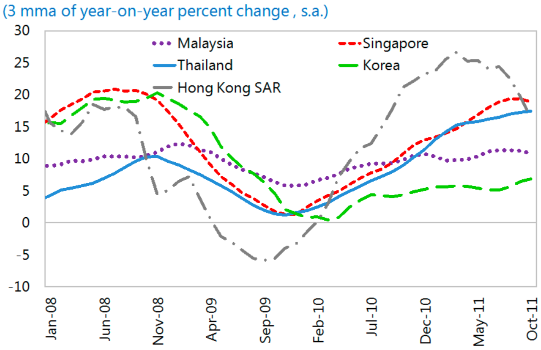
Credit to the Private Sector
(In percent)



Source: CEIC Data Company Ltd.

…faster indeed than in most other regional economies.

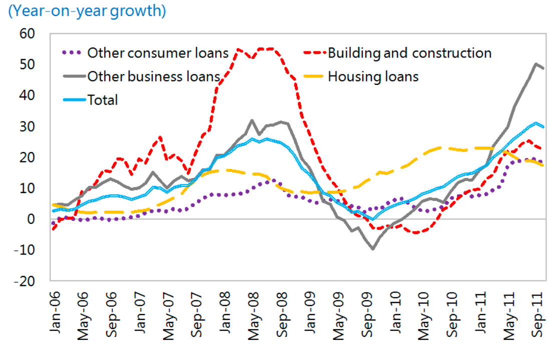
Credit to Private Sector in Selected East Asian Countries
(3 mma of year-on-year percent change , s.a.)



Sources: CEIC Data Co. Ltd; and IMF staff estimates.

DBU credit has been broad-based, with housing credit moderating but still high and business loans accelerating sharply over the past year.

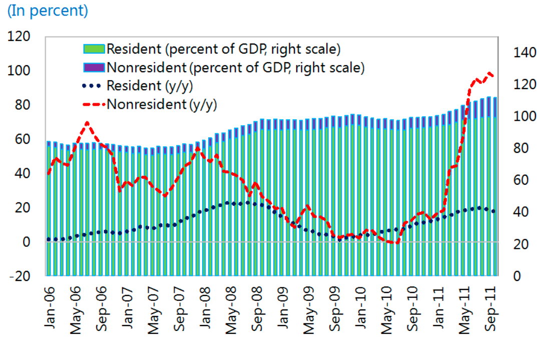
DBU Loans and Advances by Sector
(Year-on-year growth)



Sources: CEIC Data Co. Ltd; and IMF staff estimates.

DBU loans to non-resident firms have risen particularly briskly.

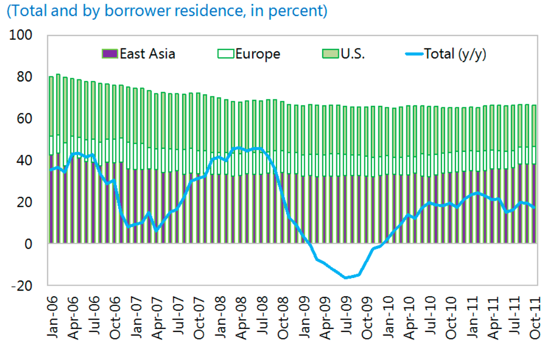
DBU Loans and Advances by Borrowers' Residence
(In percent)



Sources: CEIC Data Co. Ltd; and IMF staff estimates.

ACU credit has also expanded at an elevated pace, as surging demand from East Asia has offset declines in loans to Europe and the US.

ACU Credit to the Private Sector
(Total and by borrower residence, in percent)

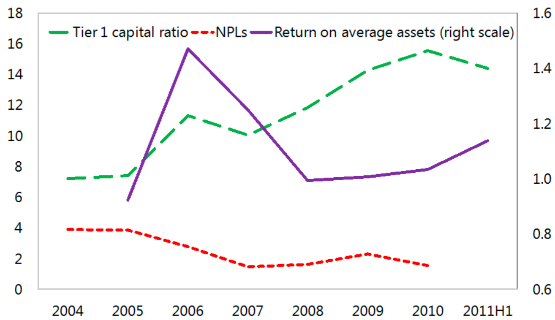


Sources: CEIC Data Co. Ltd; and IMF staff estimates.

Figure 5. Financial and Private Sector Balance Sheets Remain Sound

Domestic banks continue to show strong capital and high profitability, with NPLs low and declining.

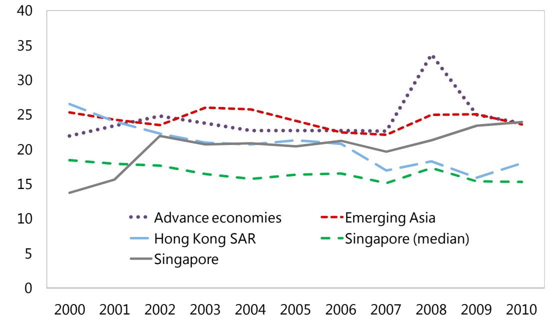
Domestic Banks: Tier 1 Capital Ratio, NPLs, and Return on Assets
(Weighted by bank assets)



Sources: Bankscope; and IMF staff estimates.

Listed firms have stable and reasonably low leverage, particularly in the case of smaller firms....

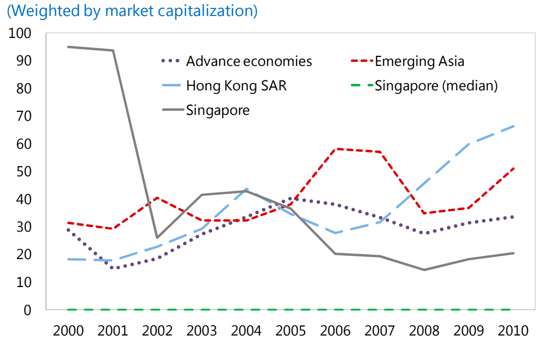
Listed Corporates Leverage, Debt to Assets
(Weighted by market capitalization, in percent)



Sources: IMF, *Corporate Vulnerability Utility*; and IMF staff calculations.

...although their interest coverage is low...

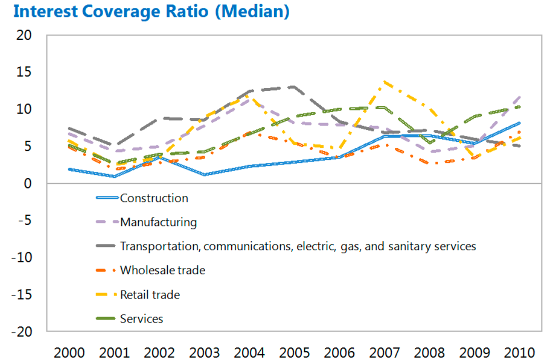
Listed Corporates, Interest Coverage Ratio
(Weighted by market capitalization)



Sources: IMF, *Corporate Vulnerability Utility*; and IMF staff calculations.

...especially for firms in transport and communications, wholesale and retail trade, and construction.

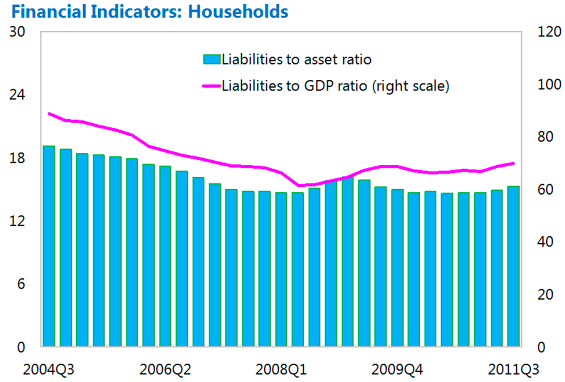
Interest Coverage Ratio (Median)



Sources: IMF, *Corporate Vulnerability Utility*; and IMF staff calculations.

Aggregate household leverage remains low...

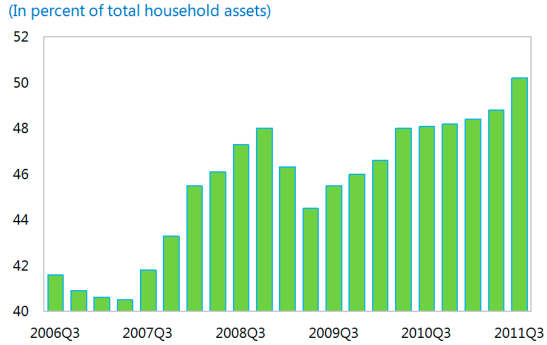
Financial Indicators: Households



Source: Singaporean authorities.

..but households are now more exposed to housing wealth.

Housing Wealth
(In percent of total household assets)

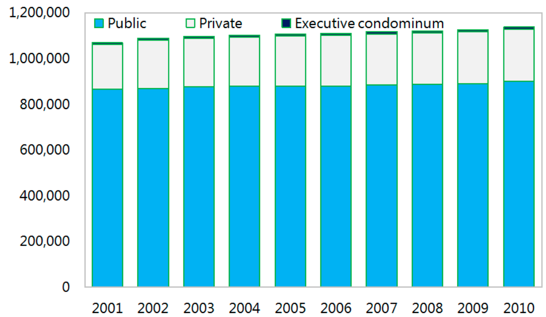


Source: Singaporean authorities.

Figure 6. Housing Prices are Moderating

Increases in the stock of public and private housing…

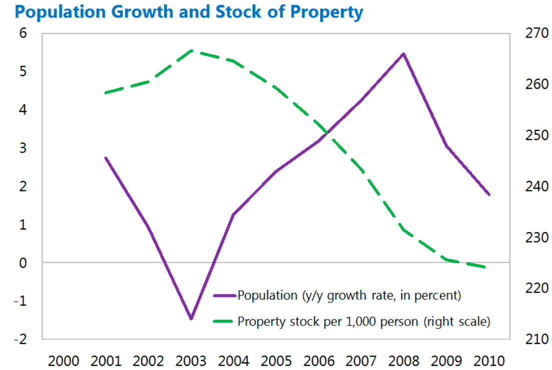
Available Stock of Residential Property
(Units)



Sources: CEIC Data Co. Ltd; and IMF staff estimates.

…have failed to keep pace with population growth…

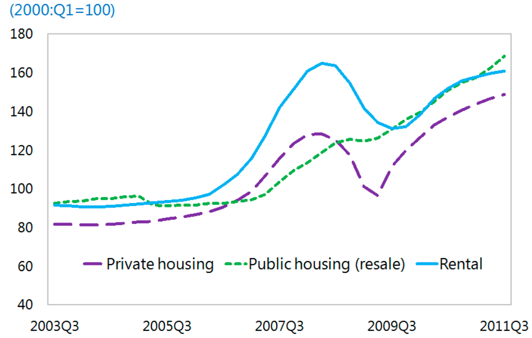
Population Growth and Stock of Property



Sources: CEIC Data Co. Ltd; and IMF staff estimates.

…contributing to a strong increase in housing prices and rentals…

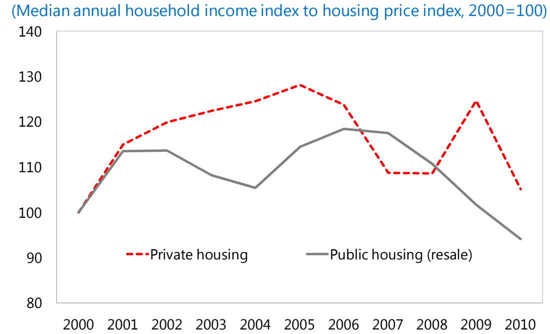
Housing Market Indices
(2000:Q1=100)



Sources: CEIC Data Co. Ltd.; and IMF staff estimates.

…and a decline in affordability.

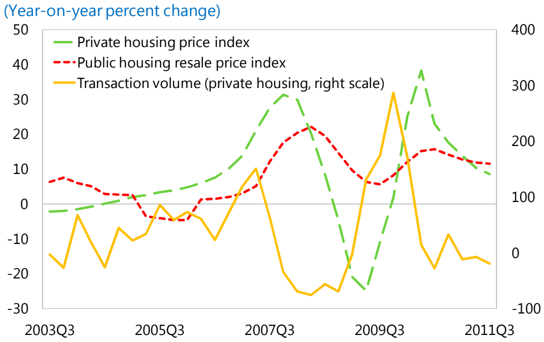
Housing Affordability
(Median annual household income index to housing price index, 2000=100)



Sources: CEIC Data Co. Ltd; and IMF staff estimates

However, prices and transaction volumes are now moderating…

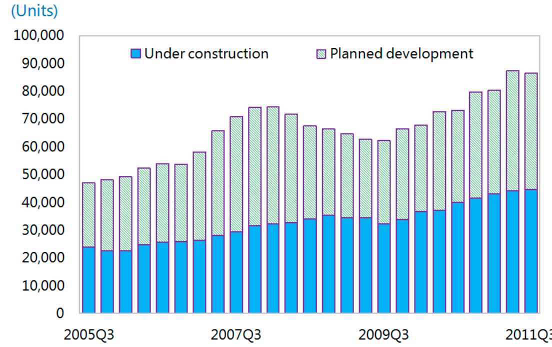
Residential Property Prices and Transaction Volume
(Year-on-year percent change)



Sources: CEIC Data Co. Ltd; and IMF staff estimates.

…and may be further dampened by an increasing supply pipeline.

Private Housing Supply in the Pipeline
(Units)

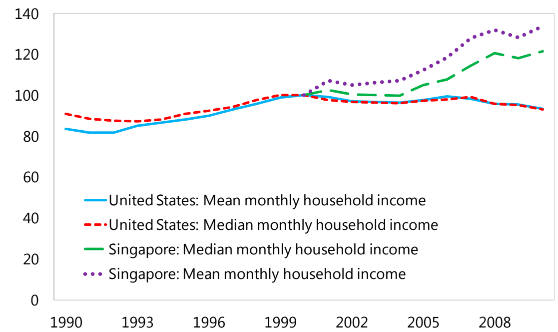


Sources: CEIC Data Co. Ltd; and IMF staff estimates.

Figure 7. Inequality is Rising

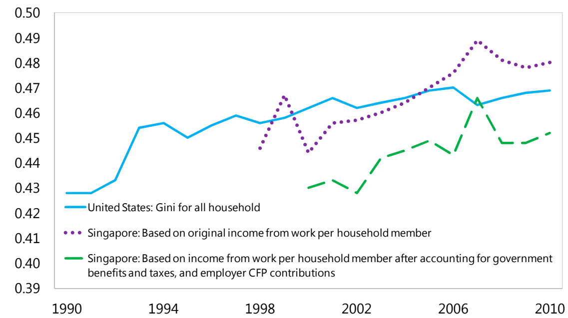
While median household income has increased significantly in Singapore over the last decade (and stagnated in the United States),...

United States and Singapore: Mean and Median Monthly Household Income
(2000 =100)



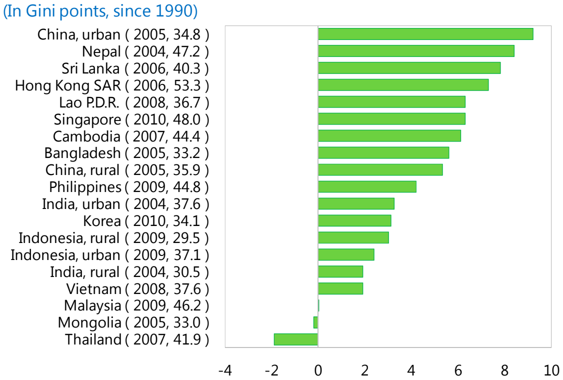
...inequality has risen more in Singapore than in the United States. Even adjusting for benefits and transfers, there has been a large increase in the Gini coefficient...

United States and Singapore: Inequality Trends
(Gini coefficient)



...making it one of the highest in the region.

Seletced Asia: Change in Gini Index
(In Gini points, since 1990)



Indeed, income gains have gone mostly to the top deciles...

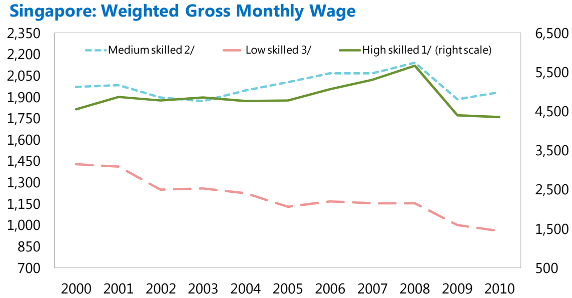
Average Monthly Real Household Income by Decile 1/

Decile	1995	2000	2010	1995–10	2000–10
				Cumulative change	
Total	1,220	1,570	2,113	73.2	34.6
1st-10th	260	290	295	13.5	1.8
11th-20th	420	490	550	31.0	12.3
41st-50th	840	1,010	1,293	54.0	28.1
51st-60th	1,010	1,230	1,579	56.4	28.4
81st-90th	1,900	2,530	3,635	91.3	43.7
91st-100th	3,710	5,280	8,125	119.0	53.9
Top decile/bottom decile	14.3	18.2	27.5		

1/ Per member in constant 2000 Singapore dollar.

....while the wages of low skilled workers have declined.

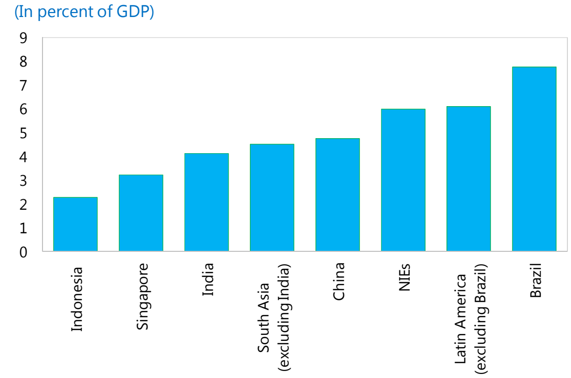
Singapore: Weighted Gross Monthly Wage



1/ High skilled comprises of managers, professionals, technicians.
2/ Medium skilled comprises of clerical and service workers, shop sales workers, production and craftsmen, plant/machine operators and assemblers.
3/ Low skilled comprises of cleaners, labourers ,and related workers.

Also, health spending is relatively low in Singapore.

Health Spending
(In percent of GDP)



Sources: Singapore Department of Statistics; WDI database; *Doing Business*; Haver Analytics; and IMF staff estimates.

Table 1. Singapore: Selected Economic and Financial Indicators, 2006–12

Nominal GDP (2010): US$222.7 billion
Main exports (percent of total domestic exports): Electronic products (26%); chemical products (17.5%)
GDP per capita (2010): US$43,867
Population (June 2011): 5.1 million
Unemployment rate (September 2011): 2.0 percent

						Est.	Proj.
	2006	2007	2008	2009	2010	2011	2012
Growth (percentage change)							
Real GDP	8.7	8.8	1.5	-0.8	14.5	4.8	2.7
Total domestic demand	7.8	7.2	14.8	-6.8	7.2	4.8	3.0
Consumption	4.3	5.7	4.0	0.9	5.7	5.0	3.8
Private consumption	3.5	6.4	3.2	0.2	4.2	5.7	4.1
Gross capital formation	16.6	10.7	38.1	-19.3	10.3	4.4	1.5
Saving and investment (percent of GDP)							
Gross national saving	45.9	48.4	44.8	45.4	46.0	44.1	43.0
Gross domestic investment	21.0	21.1	30.2	26.4	23.8	24.7	24.7
Inflation and unemployment (period average, percent)							
CPI inflation	1.0	2.1	6.6	0.6	2.8	5.2	3.0
Unemployment rate	2.7	2.1	2.2	3.0	2.2	2.1	2.2
Central government budget (percent of GDP) 1/							
Revenue	20.2	23.1	24.4	19.7	21.8	23.1	22.8
Expenditure	13.1	12.7	17.2	18.8	18.6	19.0	19.4
Overall balance	7.0	10.5	7.2	1.0	3.2	4.1	3.5
Primary balance 2/	-1.7	0.0	-2.5	-3.9	-2.5	-1.4	-1.6
Money and credit (end of period, percentage change)							
Broad money (M3) 3/	19.1	14.1	11.6	10.6	8.3	10.2	...
Lending to nonbanking sector 3/	6.3	19.9	16.6	3.4	14.7	30.5	...
Three-month interbank rate(percent)	3.4	2.4	1.0	0.7	0.4	0.4	...
Balance of payments (US$ billions)							
Current account balance	36.1	48.5	27.6	34.9	49.5	50.2	49.2
(In percent of GDP)	(24.8)	(27.3)	(14.6)	(19.0)	(22.2)	(19.4)	(18.3)
Trade balance	42.2	46.8	27.8	29.2	46.6	50.3	51.3
Exports, f.o.b.	274.3	303.1	342.8	273.0	357.9	418.1	427.6
Imports, f.o.b.	-232.2	-256.3	-315.0	-243.8	-311.2	-367.8	-376.3
Financial account balance	-17.1	-31.9	-13.6	-26.5	-6.6	-29.8	-32.9
Overall balance	17.0	19.4	13.1	11.3	42.2	20.0	15.8
Gross official reserves (US$ billions)	136.3	163.0	174.2	187.8	225.8	237.7	253.5
(Months of imports) 4/	(4.9)	(4.9)	(6.5)	(5.5)	(5.7)	(5.8)	(5.9)
Exchange rate (period average)	1.59	1.51	1.41	1.45	1.36	1.26	...

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

1/ On a calendar year basis.
2/ Overall balance excluding investment income, capital revenue, interest payments, and net lending.
3/ Figures for 2011 are as of end-November.
4/ In months of following year's imports of goods and services.

Table 2. Singapore: Balance of Payments, 2006–12 1/

(In billions of U.S. dollars)

	2006	2007	2008	2009	2010	Est. 2011	Proj. 2012
Current account balance	36.1	48.5	27.6	34.9	49.5	50.2	49.2
Trade balance	42.2	46.8	27.8	29.2	46.6	50.3	51.3
Exports, f.o.b.	274.3	303.1	342.8	273.0	357.9	418.1	427.6
Imports, f.o.b.	-232.2	-256.3	-315.0	-243.8	-311.2	-367.8	-376.3
Services balance	1.2	10.4	11.8	14.1	15.8	15.1	13.1
Exports	66.3	85.0	99.2	93.5	112.2	126.2	126.9
Imports	-65.1	-74.6	-87.4	-79.4	-96.3	-111.1	-113.8
Income balance	-5.3	-5.7	-8.3	-4.4	-8.2	-8.9	-9.1
Receipts	40.8	58.2	48.3	46.0	50.5	60.9	63.3
Payments	-46.1	-63.9	-56.6	-50.4	-58.7	-69.8	-72.4
Transfer payments (net)	-2.0	-3.0	-3.7	-4.0	-4.8	-6.2	-6.1
Capital and financial account balance	-17.4	-32.2	-13.9	-26.8	-6.9	-30.2	-33.3
Capital account (net)	-0.2	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4
Financial account (net)	-17.1	-31.9	-13.6	-26.5	-6.6	-29.8	-32.9
Direct investment	10.5	4.3	8.8	-3.2	18.9	21.5	22.3
Assets	-18.8	-32.7	0.3	-18.5	-19.7	-23.6	-25.6
Liabilities	29.3	37.0	8.6	15.3	38.6	45.1	47.9
Portfolio investment	-3.9	-15.6	-17.9	-15.5	-21.9	-32.3	-35.7
Assets	-16.4	-34.9	-3.6	-14.3	-25.1	-37.1	-41.0
Liabilities	12.5	19.3	-14.3	-1.2	3.3	4.8	5.3
Other investment	-23.8	-20.7	-4.6	-7.8	-3.6	-19.1	-19.5
Assets	-55.6	-77.1	-51.8	-17.2	-37.3	-57.2	-39.4
Liabilities	31.8	56.4	47.3	9.3	33.7	38.1	19.9
Net errors and omissions	-1.7	3.1	-0.6	3.2	-0.4	0.0	0.0
Overall balance	17.0	19.4	13.1	11.3	42.2	20.0	15.8
Memorandum items:							
Current account as percent of GDP	24.8	27.3	14.6	19.0	22.2	19.4	18.3
Trade balance as percent of GDP	29.0	26.4	14.7	15.9	20.9	19.4	19.1
Net international investment position							
(In billions of U.S. dollars)	332.3	358.2	297.7	411.0	530.5	…	…
(In percent of GDP)	228.6	202.0	157.2	224.2	238.2	…	…

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 rates.

Table 3. Singapore: Monetary Survey, 2008–11

	2008				2009				2010				2011		
	Mar.	Jun.	Sep.	Dec.	Mar.	Jun.	Sep.	Dec.	Mar.	Jun.	Sep.	Dec.	Mar.	Jun.	Sep.
	(In billions of Singapore dollars, end of period)														
Net foreign assets	252.5	251.8	256.9	262.8	274.6	293.9	300.8	294.6	293.2	292.5	303.3	304.6	308.1	308.8	289.2
Monetary authorities 1/	243.0	238.6	240.4	248.6	251.4	249.2	252.9	260.7	272.7	276.8	279.2	286.2	291.6	293.9	301.8
Deposit money banks 2/	9.4	13.2	16.5	14.2	23.2	44.7	47.8	33.9	20.5	15.6	24.1	18.4	16.5	14.9	-12.5
Domestic credit	316.0	326.5	332.2	341.6	346.8	353.2	359.8	362.2	372.7	379.4	389.4	402.5	414.3	441.3	454.7
Claims on private sector	245.1	254.4	264.6	268.1	266.4	267.0	270.0	273.5	279.0	287.1	299.4	310.2	322.0	341.1	356.0
Nonbank lending	249.3	261.1	272.9	272.2	270.7	272.2	275.8	281.3	286.3	296.6	309.4	322.7	343.4	374.3	405.4
Claims on central government	70.9	72.1	67.6	73.6	80.4	86.2	89.8	88.7	93.6	92.3	90.0	92.3	92.3	100.2	98.7
Other items (net) 3/	-255.2	-262.6	-264.4	-271.0	-272.1	-290.8	-299.1	-285.6	-285.9	-289.4	-301.9	-304.0	-309.2	-326.6	-309.1
M3	322.7	325.1	333.8	342.4	357.9	364.4	368.9	378.5	387.1	389.5	397.8	410.1	420.4	430.8	442.6
M2	313.3	315.7	324.7	333.4	349.3	356.3	361.4	371.2	380.0	382.5	390.8	403.1	413.3	423.5	434.8
	(Annual percentage change)														
Domestic credit	18.6	18.1	14.3	14.2	9.7	8.2	8.3	6.0	7.5	7.4	8.2	11.1	11.2	16.3	16.8
Claims on private sector	19.6	19.8	20.2	15.2	8.7	5.0	2.0	2.0	4.7	7.5	10.9	13.4	15.4	18.8	18.9
Nonbank lending	23.8	24.9	24.8	16.6	8.6	4.2	1.1	3.4	5.8	9.0	12.1	14.7	19.9	26.2	31.1
M3	12.5	7.9	10.3	11.6	10.9	12.1	10.5	10.6	8.2	6.9	7.8	8.3	8.6	10.6	11.3
M2	11.9	7.5	10.4	12.0	11.5	12.9	11.3	11.3	8.8	7.3	8.1	8.6	8.7	10.7	11.3
	(Contribution to M3 growth, in percent)														
Net foreign assets	4.6	4.1	6.2	8.0	6.8	13.0	13.1	9.3	5.2	-0.4	0.7	2.6	3.9	4.2	-3.5
Domestic credit (net)	17.3	16.6	13.7	13.8	9.5	8.2	8.3	6.0	7.2	7.2	8.0	10.6	10.7	15.9	16.4
Claims on private sector	14.0	14.0	14.7	11.5	6.6	3.9	1.6	1.6	3.5	5.5	8.0	9.7	11.1	13.9	14.2
Claims on central government (net)	3.3	2.6	-1.0	2.3	2.9	4.3	6.7	4.4	3.7	1.7	0.1	1.0	-0.3	2.0	2.2
Other items (net) 3/	-9.3	-12.8	-9.6	-10.2	-5.5	-9.1	-10.9	-4.8	-4.3	0.1	-0.9	-4.9	-6.0	-9.5	-1.6

Sources: IMF, *International Financial Statistics*; and CEIC Data Co., Ltd.

1/ Total foreign reserves (international liquidity concept) minus foreign liabilities.
2/ Commercial banks.
3/ Including other nonbank financial institutions.

Table 4. Singapore: Indicators of Vulnerability, 2006–11

	2006	2007	2008	2009	2010	2011 Sep.
Financial sector indicators						
Broad money (M3, percent change, y/y)	19.1	14.1	11.6	10.6	8.3	11.3
Private sector credit (percent change, y/y)	4.9	16.9	15.2	2.0	13.4	18.9
Credit to the property sector (percent change, y/y)	5.5	23.4	17.1	8.3	18.2	20.2
Share of property sector credit in total nonbank credit (percent) 1/	46.1	47.4	47.6	49.9	51.4	46.8
Credit rating of local banks (S&P) 2/	A+/AA-	A+/AA-	A+/AA-	A+/AA-	A+/AA-	A+/AA-
Three-month interbank rate (percent, end-year)	3.4	2.4	1.0	0.7	0.4	0.3
NPL ratio (local banks, percent) 3/	2.8	1.5	1.7	2.4	1.6	1.2
Capital adequacy ratio of local banks (percent)	15.4	13.5	14.7	17.3	18.6	16.2
Asset market indicators						
Stock prices (percent change, y/y)	28.0	18.7	-49.2	64.5	10.1	-13.6
P/E ratio	19.4	18.0	6.2	19.3	19.0	10.6
Stock prices of the finance sector (percent change, y/y)	29.3	8.0	-52.7	73.6	4.6	-17.8
Real estate prices (percent change, y/y) 4/						
Private residential	7.1	23.6	12.3	-14.1	25.4	10.8
Office space	10.2	28.1	10.3	-20.0	8.6	20.8
External indicators						
Current account balance (US$ billion)	36.1	48.5	27.6	34.9	49.5	...
(In percent of GDP)	24.8	27.3	14.6	19.0	22.2	...
Gross official reserves (US$ billion)	136.3	163.0	174.2	187.8	225.8	233.6
(In month of next year's imports of goods and services)	4.9	4.9	6.5	5.5	5.7	5.9
Real exchange rate (end of period, 2000=100)	93.2	103.8	109.0	107.2	114.4	118.3

Sources: Data provided by the Singapore authorities; and IMF, *Information Notice System*.
1/ For domestic banking units (DBU).
2/ Ratings of the three major local banks.
3/ In percent of global nonbank loans.
4/ The underlying price indices are computed based on the Laspeyres method and are 4-quarter moving averages.

Table 5. Singapore: Summary of Central Government Operations and Stock Positions, 2007/08–2011/12 1/

	2007/08	2008/09	2009/10	2010/11		2011/12
				Budget	Prel.	Budget
I. Statement of government operations						
	(In millions of Singapore dollar)					
Revenue	65,736	64,306	50,807	55,688	71,999	64,618
Taxes	36,630	37,709	36,617	37,567	41,223	43,426
Social contributions	0	0	0	0	0	0
Grants	0	0	0	0	0	0
Other revenue	29,106	26,598	14,190	18,121	30,776	21,191
Expenditure	33,832	49,451	52,141	59,031	58,053	61,966
Expense	26,105	38,376	38,088	42,241	43,880	48,817
Compensation of employees	4,736	4,677	4,765	5,351	5,862	5,751
Use of goods and services	15,503	16,949	15,584	17,465	16,759	17,654
Interest	45	25	25	0	0	0
Expense not elsewhere classified	5,821	16,725	17,715	19,424	21,259	25,413
Grants, subventions & capital injections to organisations	4,211	4,868	5,493	5,993	6,043	6,246
Transfers	6,384	12,751	10,749	9,230	9,081	11,659
Other expense	-4,773	-894	1,473	4,201	6,135	7,508
Net acquisition of nonfinancial assets	7,727	11,075	14,053	16,791	14,173	13,149
Development expenditure	7,030	9,357	10,982	12,472	12,261	11,198
Land-related expenditure	697	1,718	3,071	4,319	1,912	1,950
Gross operating balance	39,631	25,930	12,718	13,448	28,119	15,800
Net lending/borrowing	31,904	14,855	-1,334	-3,343	13,947	2,651
Net acquisition of financial assets	...	...	...	...	...	...
Net incurrence of liabilities	...	...	...	...	...	...
	(In percent of GDP)					
Revenue	24.1	24.5	18.3	17.8	23.0	20.0
Taxes	13.4	14.3	13.2	12.0	13.2	13.4
Other revenue	10.7	10.1	5.1	5.8	9.8	6.5
Expenditure	12.4	18.8	18.8	18.9	18.6	19.1
Expense	9.6	14.6	13.7	13.5	14.0	15.1
Net acquisition of nonfinancial assets	2.8	4.2	5.1	5.4	4.5	4.1
Gross operating balance	14.5	9.9	4.6	4.3	9.0	4.9
Net lending/borrowing	11.7	5.7	-0.5	-1.1	4.5	0.8
II. Stock positions	2007	2008	2009	2010		
Gross debt (S$ millions)	234,093	255,465	291,502	321,182		

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

1/ Fiscal year runs from April 1 through March 31. The presentation of the table is based on GFSM 2001.

Table 6. Singapore: Medium-Term Scenario, 2006–16

	2006	2007	2008	2009	2010	Est. 2011	Proj. 2012	2013	2014	2015	2016
Real growth (percent change)											
GDP	8.7	8.8	1.5	-0.8	14.5	4.8	2.7	3.8	4.1	4.0	4.0
Total domestic demand	7.8	7.2	14.8	-6.8	7.2	4.8	3.0	3.6	4.2	4.2	4.2
Final domestic demand	7.3	10.1	7.3	-0.5	5.5	1.5	2.3	3.7	4.3	4.3	4.3
Consumption	4.3	5.7	4.0	0.9	5.7	5.0	3.8	4.1	4.2	4.2	4.1
Private	3.5	6.4	3.2	0.2	4.2	5.7	4.1	3.9	3.8	3.8	3.7
Public	7.3	3.1	7.2	3.5	11.0	2.5	2.7	4.9	5.4	5.4	5.4
Gross capital formation	16.6	10.7	38.1	-19.3	10.3	4.4	1.5	2.6	4.2	4.2	4.5
Private	22.8	14.1	37.7	-21.6	8.6	6.3	1.3	1.7	3.5	3.6	3.9
Public	-11.6	-10.7	41.0	-1.5	20.7	-6.0	2.7	8.0	8.1	7.8	7.7
Net exports /1	2.8	6.0	-9.7	4.6	10.5	1.6	0.6	1.3	1.2	1.1	1.1
Saving and investment (percent of GDP)											
Gross national savings	45.9	48.4	44.8	45.4	46.0	44.1	43.0	42.6	42.3	42.4	42.2
Central government 2/	9.9	13.3	11.0	5.9	7.9	8.3	7.7	7.6	7.5	7.4	7.2
Private and other	35.9	35.1	33.8	39.5	38.2	35.8	35.4	35.0	34.8	35.1	35.0
Gross capital formation	21.0	21.1	30.2	26.4	23.8	24.7	24.7	24.5	24.6	24.8	25.0
Central government 3/	2.9	2.4	3.8	4.1	3.9	4.2	4.2	4.3	4.5	4.6	4.8
Private and other	18.1	18.7	26.4	22.3	20.0	20.5	20.5	20.2	20.1	20.1	20.2
Inflation and unemployment (period average, percent)											
CPI inflation	1.0	2.1	6.6	0.6	2.8	5.2	3.0	2.3	2.1	2.0	2.0
Unemployment rate	2.7	2.1	2.2	3.0	2.2	2.1	2.2	2.1	2.1	2.1	2.1
Output gap	2.3	5.0	1.5	-3.5	2.2	1.7	0.4	0.1	0.1	0.0	0.0
Central government (percent of GDP) 4/											
Revenue	20.2	23.1	24.4	19.7	21.8	23.1	22.8	23.0	23.0	23.0	23.0
Expenditure	13.1	12.7	17.2	18.8	18.6	19.0	19.4	19.7	20.0	20.3	20.6
Overall balance	7.0	10.5	7.2	1.0	3.2	4.1	3.5	3.3	3.0	2.7	2.4
Primary balance 5/	-1.7	0.0	-2.5	-3.9	-2.5	-1.4	-1.6	-1.8	-2.1	-2.4	-2.7
Merchandise trade (percent change)											
Export volume	10.7	5.9	3.2	-11.9	22.0	3.2	2.6	5.0	5.4	5.4	5.4
Import volume	11.2	6.9	10.6	-14.4	18.1	1.2	3.5	5.1	5.6	5.7	5.8
Terms of trade	-1.1	-0.9	-1.1	1.0	-1.2	-3.0	0.8	0.2	0.3	0.1	0.1
Balance of payments (percent of GDP)											
Current account balance	24.8	27.3	14.6	19.0	22.2	19.4	18.3	18.1	17.7	17.7	17.2
Balance on goods and services	29.8	32.3	20.9	23.6	28.1	25.3	24.0	23.7	23.4	22.8	22.2
Balance on income and transfers	-5.0	-4.9	-6.4	-4.6	-5.9	-5.9	-5.7	-5.7	-5.7	-5.1	-5.0
Gross official reserves (US$ billions)	136.3	163.0	174.2	187.8	225.8	237.7	253.5	261.5	269.4	277.4	285.4
(In months of imports) 6/	(4.9)	(4.9)	(6.5)	(5.5)	(5.7)	(5.8)	(5.9)	(5.8)	(5.7)	(5.7)	(5.7)

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

1/ Contribution to GDP growth.
2/ Based on budget data.
3/ Based on national accounts data.
4/ On a calendar year basis.
5/ Overall balance excluding investment income, capital revenue, interest payments, and net lending.
6/ In months of next year's imports of goods and services.

Table 7. Singapore: Financial Soundness Indicators—Local Banking Sector, 2006–11

	2006	2007	2008	2009	2010	2011		
						Mar.	Jun.	Sep.
	(In percent)							
Capital adequacy ratio								
Regulatory capital to risk-weighted assets	15.4	13.5	14.7	17.3	18.6	17.8	17.4	16.2
Regulatory tier I capital to risk-weighted assets	11.2	9.8	11.5	14.1	15.5	14.7	14.3	13.5
Shareholders' equity to assets	9.6	9.2	8.3	9.9	9.5	9.4	9.2	8.6
Asset quality								
NPLs to nonbank loans	2.8	1.5	1.7	2.4	1.6	1.5	1.3	1.2
Total provisions to NPLs	89.5	113.6	108.5	90.8	110.9	116.6	126.4	129.5
Specific provisions to NPLs	41.3	39.3	43.4	40.0	40.5	40.7	42.2	41.2
Loan concentrations (in percent of total loans)								
Bank loans	22.8	16.2	13.8	14.1	12.2	13.3	13.0	14.0
Nonbank loans	77.2	83.8	86.2	85.9	87.8	86.7	87.0	86.0
Of which:								
Manufacturing loans	8.4	9.2	9.2	8.3	8.1	7.8	8.1	7.9
Building and construction loans	9.5	11.4	13.2	12.4	12.0	12.0	11.6	11.5
Housing loans	21.0	20.6	20.3	22.2	23.2	22.4	21.5	20.6
Loans to professionals and private	8.7	8.6	8.5	8.7	8.6	8.4	8.4	7.9
Loans to nonbank financial institutions	10.5	12.3	11.7	11.2	11.7	11.4	10.9	10.9
Profitability								
After tax return on assets	1.4	1.3	1.0	1.1	1.2	1.2	1.1	1.1
After tax return on equity	13.7	12.9	10.7	10.8	12.2	12.1	11.8	11.2
Net interest margin	2.1	2.1	2.2	2.2	2.0	1.9	1.9	1.9
Non-interest income to total income	42.6	39.1	32.2	34.9	40.6	41.8	39.6	38.2
Liquidity								
Liquid DBU assets to total DBU assets	9.8	10.1	9.9	10.3	9.3	9.3	9.2	9.3
Liquid DBU assets to total DBU liabilities	10.6	10.8	10.8	11.2	10.1	10.1	10.0	10.0

Source: Monetary Authority of Singapore.

INTERNATIONAL MONETARY FUND

SINGAPORE

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

January 24, 2011

Prepared By | Asia and Pacific Department

CONTENTS

ANNEX I: SINGAPORE—FUND RELATIONS

(As of December 31, 2011)

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

II. General Resources Account

	SDR Millions	Percent of Quota
Quota	1,408.00	100.00
Fund holdings of currency	953.33	67.71
Reserve position in Fund	454.73	32.30
Lending to the Fund: New Arrangement to Borrow	87.80	

III. SDR Department

	SDR Millions	Percent of Allocation
Net cumulative allocation	744.21	100.00
Holdings	867.78	116.60

IV. Outstanding Purchases and Loans: None

V. Financial Arrangements: None

VI. Projected Payments to the Fund: None.

VII. Exchange Arrangement:

Singapore's exchange rate is classified as "other managed." 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.

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. Article IV Consultation:

Singapore is on the 12-month consultation cycle. The 2010 Article IV consultation discussions were held during May 11−17, 2010; the Executive Board discussed the staff report (IMF Country Report No. 10/226) and concluded the consultation on July 16, 2010.

IX. FSAP Participation:

The FSAP was undertaken in conjunction with the 2003 Article IV consultation. The FSSA was published as IMF Country Report No. 04/104. An FSAP update is scheduled for 2013.

X. Technical Assistance: None

XI. Resident Representative:

Mr. Ravi Balakrishnan

ANNEX II: SINGAPORE—STATISTICAL ISSUES

I. Assessment of Data Adequacy for Surveillance
General: Data provision is broadly adequate for surveillance. 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.
National accounts: The Singapore Department of Statistics (DOS) has made improvements in data sources and methodology. The reconciliation of various national accounts estimates was conducted in 2006, resulting in lower statistical discrepancies. (DOS) has completed the rebasing of the Singapore's national accounts to reference year 2005. **Price statistics**: DOS has completed the rebasing of the Consumer Price Index (CPI) to base year 2009. The CPI is rebased once every five years to reflect the latest consumption pattern and composition of goods and services consumed by resident households.
Government finance statistics: Information on government assets held abroad is neither published nor provided to the Fund. Interest and dividends 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.
Monetary statistics: 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.
Balance of payments: Data on the international investment position (IIP) are not provided on a disaggregated level as suggested by the *Balance of Payments Manual* (5th edition). Also, the IIP position does not include all the net foreign assets held by Singapore's Government Investment Corporation, although the associated flows are included in the balance of payments data. The authorities are improving over time the reporting of the international investment position to the IMF.

II. Data Standards and Quality	
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.	No data ROSC is available.

Singapore—Table of Common Indicators Required for Surveillance
(As of January 12, 2012)

	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Frequency of Publication[6]
Exchange rates	1/12/12	1/12/12	D	D	D
International reserve assets and reserve liabilities of the Monetary Authorities[1]	12/2011	1/2012	M	M	M
Reserve/base money	11/2011	12/2011	M	M	M
Broad money	11/2011	12/2011	M	M	M
Central bank balance sheet	11/2011	1/2012	M	M	M
Consolidated balance sheet of the banking system	11/2011	1/2012	M	M	M
Interest rates[2]	1/12/12	1/12/12	D	D	D
Consumer price index	11/2011	12/2011	M	M	M
Revenue, expenditure, balance and composition of financing[3]—general government[4]	...	...	...	...	...
Revenue, expenditure, balance and composition of financing[3]—central government	11/2011	12/2011	M	M	M
Stocks of central government and central government-guaranteed debt[5]	...	...	...	...	...
External current account balance	2011:Q3	11/2011	Q	Q	Q
Exports and imports of goods and services	11/2011	12/2011	M	M	M
GDP/GNP	2011:Q3	11/2011	Q	Q	Q
Gross external debt[7]	2011:Q3	12/2011	Q	Q	Q
Net international investment position[8]	2010	2011	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. 12/15
FOR IMMEDIATE RELEASE
February 10, 2012

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

IMF Executive Board Concludes 2011 Article IV Consultation with Singapore

On February 8, 2012, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Singapore.[1]

Background

The Singaporean economy emerged strongly from the 2008−09 global financial crisis, with real GDP growth reaching 14½ percent in 2010. However, the transition from recovery to sustained growth was disrupted by an abrupt deterioration in the external environment from the second quarter of 2011. This has dragged down exports, particularly of electronics, and weighed down on investment, leading to slower economic growth. Consumption has remained resilient, however, on the back of a robust labor market.

Headline inflation rose steadily through mid-2011 and has remained elevated thereafter, driven up by accommodation and transport costs. Core inflation—which excludes those two components—remained low and relatively stable from mid-2010, but has risen slightly in recent months reflecting higher food and service prices.

Bouts of global financial market turbulence in the second half of 2011 led to a decline in Singapore's stock market index, a depreciation of the Singapore dollar, and episodes of

[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. An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

heightened volatility in equity and currency markets. Domestic credit, however, has been expanding rapidly, particularly business loans, reflecting in part the strong economic recovery but also low interest rates and rising credit demand from the Asia region. Public and private residential property prices have also been growing rapidly, leading to a decline in house affordability, although housing prices and transaction volumes have moderated recently.

Despite these developments, the financial system has remained sound, with domestic banks maintaining strong capital and liquidity positions, and non-performing loans remaining low. The aggregate balance sheets of the corporate and household sectors are also strong.

The near-term outlook is clouded by an extraordinary degree of uncertainty. Growth is expected to slow significantly in 2012, driven down by softening external demand and global financial volatility. Against the backdrop of a weaker external and domestic outlook, headline inflation is also expected to ease sharply in 2012.

Executive Board Assessment

Executive Directors commended the authorities for proactive macroeconomic and financial policies, which have underpinned a strong rebound in activity. Directors noted that Singapore's economic growth is likely to slow in the near term amidst an unsettled global environment, and that significant downside risks weigh on the outlook. Nevertheless, they agreed that Singapore has sufficient policy room and tools to cushion the impact of external shocks and preserve macroeconomic stability.

Against this background, Directors agreed that the current stance of monetary policy appropriately balances the risks to inflation and growth. With price pressures expected to ease and inflation expectations well anchored, there is scope for cautiously easing monetary policy further in the event of a sharper than expected deterioration of the growth outlook. In such a scenario, the authorities could also use available fiscal space to boost aggregate demand, support employment, and protect low-income families.

Directors commended the authorities for their proactive supervision of banks and welcomed the measures adopted to safeguard financial stability, including capital requirements for Singapore incorporated banks that are more prudent than the Basel III norms. In light of the rapid growth in credit and house prices, Directors encouraged continued close monitoring of developments to mitigate risks to credit quality, including in the corporate sector. They also recommended that the authorities maintain close coordination among different government agencies overseeing the housing market, and stand ready to implement additional measures if necessary.

Directors noted that a loosening of the fiscal stance and a continued appreciation of the real exchange rate would help reduce the current account surplus and facilitate a rebalancing of the economy over time. In this regard, they welcomed the government's medium term plan to increase public spending on housing, infrastructure, and education.

Directors supported the authorities' approach to promoting inclusive growth, centered on keeping unemployment low and preserving incentives to work. They agreed that complementing these efforts with enhanced and targeted social safety nets could help reduce inequality. More broadly, Directors looked forward to further progress in improving labor productivity across the economy.

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 2011 Article IV Consultation with Singapore is also available.

Singapore: Selected Economic and Financial Indicators, 2006–12

	2006	2007	2008	2009	2010	Est. 2011	Proj. 2012
Growth (percentage change)							
Real GDP	8.7	8.8	1.5	-0.8	14.5	4.8	2.7
Total domestic demand	7.8	7.2	14.8	-6.8	7.2	4.8	.0
Consumption	4.	5.7	4.0	0.9	5.7	5.0	.8
Private consumption	.5	6.4	.2	0.2	4.2	5.7	4.1
Gross capital formation	16.6	10.7	8.1	-19.	10.	4.4	1.5
Saving and investment (percent of GDP)							
Gross national saving	45.9	48.4	44.8	45.4	46.0	44.1	4.0
Gross domestic investment	21.0	21.1	0.2	26.4	2.8	24.7	24.7
Inflation and unemployment (period average, percent)							
CPI inflation	1.0	2.1	6.6	0.6	2.8	5.2	.0
Unemployment rate	2.7	2.1	2.2	.0	2.2	2.1	2.2
Central government budget (percent of GDP) 1/							
Revenue	20.2	2.1	24.4	19.7	21.8	2.1	22.8
Expenditure	1.1	12.7	17.2	18.8	18.6	19.0	19.4
Overall balance	7.0	10.5	7.2	1.0	.2	4.1	.5
Primary balance 2/	-1.7	0.0	-2.5	-.9	-2.5	-1.4	-1.6
Money and credit (end of period, percentage change)							
Broad money (M) /	19.1	14.1	11.6	10.6	8.	10.2	...
Lending to nonbanking sector /	6.	19.9	16.6	.4	14.7	0.5	...
Three-month interbank rate(percent)	.4	2.4	1.0	0.7	0.4	0.4	…
Balance of payments (US$ billions)							
Current account balance	6.1	48.5	27.6	4.9	49.5	50.2	49.2
(In percent of GDP)	(24.8)	(27.)	(14.6)	(19.0)	(22.2)	(19.4)	(18.)
Trade balance	42.2	46.8	27.8	29.2	46.6	50.	51.
Exports, f.o.b.	274.	0.1	42.8	27.0	57.9	418.1	427.6
Imports, f.o.b.	-22.2	-256.	-15.0	-24.8	-11.2	-67.8	-76.
Financial account balance	-17.1	-1.9	-1.6	-26.5	-6.6	-29.8	-2.9
Overall balance	17.0	19.4	1.1	11.	42.2	20.0	15.8
Gross official reserves (US$ billions)	16.	16.0	174.2	187.8	225.8	27.7	25.5
(Months of imports) 4/	(4.9)	(4.9)	(6.5)	(5.5)	(5.7)	(5.8)	(5.9)
Exchange rate (period average)	1.59	1.51	1.41	1.45	1.6	1.26	...

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

1/ On a calendar year basis.

2/ Overall balance excluding investment income, capital revenue, interest payments, and net lending.

/ Figures for 2011 are as of end-November.

4/ In months of following year's imports of goods and services.

Statement by Der Jiun Chia, Executive Director for Singapore and Peishan Yeo, Senior Advisor to Executive Director
February 8, 2012

1 Introduction

1.1 The Singapore authorities would like to thank the IMF staff for the 2011 Article IV Consultation. The Consultation, which focused on policy responses to cushion the domestic economy from the current global downturn and on Singapore's medium-term challenges, was timely and constructive.

2 Near Term Economic Outlook

2.1 Economic growth in Singapore's key export markets weakened discernibly in the second half of 2011. Against this backdrop, activity in the Singapore economy also slowed. Excluding the volatile pharmaceutical segment, the Singapore economy slipped 0.9%[1] on a seasonally-adjusted quarter-on-quarter annualised basis in Q4, following declines of 9.3% and 4.4% in Q3 and Q2 2011 respectively, led by a contraction in the manufacturing sector. Activity in the financial services was also dampened by the deterioration in global business and consumer confidence. For the year as a whole, the Singapore economy expanded by 4.8% in 2011, lower than the 14.5% recorded in 2010.

2.2 For 2012, the Singapore economy is expected to grow at a modest pace, as turbulent financial markets, subdued global economic conditions and the ongoing weakness in the global IT industry weigh on activity in the immediate quarters. In H2 2012, activity could pick up moderately if cyclical headwinds in the external environment subside. Support for the recovery will come mainly from services, particularly those that are more exposed to regional demand, as well as a stabilisation in global IT markets. However, the authorities are anticipating generally subdued demand conditions in the G3 for some time, given the continued stresses in the global financial system and sluggishness in labour markets. As such, Singapore's GDP growth is expected to be about 1-3% this year, below its medium-term potential rate of 3-5%.

2.3 Domestic CPI inflation rose from 5.0% in H1 2011 to 5.5% in H2, mainly reflecting higher car prices and imputed rentals on owner-occupied accommodation arising from tight supply-side constraints. These two items accounted for about two-thirds of CPI inflation in 2011. MAS Core Inflation, which excludes the costs of accommodation and private road transport, and is the more important measure for monetary policy, was much lower at 2.3% in H2. Nevertheless, it edged up from 2.0% in H1, due to the continued pass-through of earlier increases in global commodity prices and business costs.

2.4 Over the next few months, these same factors will keep CPI inflation and MAS Core Inflation elevated before price pressures moderate more significantly in the second half of the

[1] According to Advance Estimates from the Department of Statistics, Singapore.

year. External price pressures will ease given the subdued global growth prospects while the sluggishness in domestic economic activity will reduce the tightness in the labour market and alleviate cost pressures in the coming months. For the whole of 2012, CPI inflation and MAS Core Inflation are forecast to be 2.5-3.5% and 1.5-2.0% respectively, compared to 5.2% and 2.2% in 2011.

2.5 Singapore's overall macroeconomic policy stance is calibrated to support the transition to slower economic growth, even as the output gap remains slightly positive through 2012[2]. In October 2011, the MAS kept the S$NEER policy band on a modest and gradual appreciation path but reduced the slope of the band in line with expectations of easing core inflationary pressures and sub-trend growth in 2012. The next policy review will take place as scheduled in April when the need for further adjustments to the policy stance will be carefully weighed. On the fiscal front, the FY2011 Budget that was announced in February last year focused on measures to raise skills and productivity, and strengthen the society. Building on that, the coming FY2012 Budget will look at stepping up efforts to generate sustainable and inclusive growth.

2.6 Singapore's financial system has remained resilient and markets have been functioning normally thus far. Nonetheless, the authorities are monitoring closely the US$ funding of the banks and their overall liquidity risk management. The anticipated slowdown in the world economy is expected to temper domestic credit growth, which has already moderated to 3.7% q-o-q in Q4 2011 after growing by 8.3% q-o-q in Q3 2011. The non-performing loans (NPL) ratio has remained low at 1.3% as at end Q4 2011.

3 Medium Term Issues

3.1 Beyond the short term cyclical issues, the authorities are focused on the medium term challenges facing Singapore. The Government is focused on promoting inclusive growth, and has undertaken significant initiatives to enhance the progressivity of the fiscal system over the last five years. These include the introduction of Workfare, which tops up the wages of lower-income workers, and significantly enhanced grants to help them own their homes.

3.2 Singapore's basic approach however remains one of strengthening opportunities for lower income citizens to develop skills and capabilities so as to secure quality jobs. Social mobility remains significant through the education system, which provides for multiple pathways for advancement and is recognised internationally as providing relatively strong educational outcomes for a broad spectrum of students. Continuous education and training of adult workers is now a major priority and an area of investment, as is the effort to upgrade productivity across the economy and especially in service industries, as the basis for improved wages.

[2] The authorities estimate that the output gap as a percentage of potential GDP will narrow from 3.5% in 2011 to 1.4% in 2012.

3.3 The returns on savings in the Central Provident Fund (CPF), Singapore's defined-contribution retirement scheme, have been enhanced in recent years. The authorities estimate net replacement rates to be around 60%, taking members' full CPF savings into account. Further, this does not include the value of equity in citizens' homes, which are funded in significant part from their CPF accounts and can be monetised in their retirement years.

3.4 Taken as a whole, the Government's approach to promoting an inclusive society through education and skills training, work and home ownership, is a working model. Unemployment rates remain amongst the world's lowest. Real median incomes have grown faster over the last decade than in most economies at a similar level of advancement. Home ownership is close to 90%, even for those in the lowest quintile of incomes. Social spending will increase in future years especially as the population gets older. However, the Government intends to continue targeting subsidies at the poor through means-tested programmes, and avoid a build-up of broad-based entitlements, so as to preserve fiscal sustainability.

4 Final Remarks

4.1 The external environment remains challenging with a myriad of risks on the horizon. The authorities will continue to monitor the economic situation closely and stand ready to ensure that macroeconomic and financial stability are maintained. They are prepared to introduce additional cyclical supports should external conditions deteriorate and significantly worsen the prospects for the domestic economy. At the same time, the authorities are well placed to focus on medium term policies to raise productivity and workers' real incomes.

4.2 The Singapore authorities are pleased to inform the Board that they are agreeable to the publication of the Staff Report associated with the 2011 Article IV consultation and will be releasing the Buff Statement at the same time.