
Contents

Preface	i
Highlights	ii-iv
Monetary Policy Statement	v-vii
1 Macroeconomic Developments	
1.1 External Developments	2
<i>Box A: Integration as a Source of Resilience: An Analysis of Trade Linkages in ASEAN</i>	7
1.2 Domestic Economy	11
1.3 Macroeconomic Policy	21
2 Wage-Price Dynamics	
2.1 Labour Market Conditions	30
2.2 Consumer Price Developments	34
<i>Box B: Prices of Three Global Brands across Locations: A Case Study Approach</i>	39
3 Outlook	
3.1 External Outlook	46
3.2 Outlook for the Singapore Economy	54
3.3 Labour Market	64
3.4 Inflation	68
3.5 Assessing the Macroeconomic Policy Mix	73
Special Features	
Special Feature A: Global Productivity Trends	82
Special Feature B: International Financial Flows and Domestic Credit Conditions	89
Special Feature C: Where are Countries Positioned along Global Production Lines?	94
Statistical Appendix	100
List of Selected Publications	109

LIST OF ABBREVIATIONS

ACU	Asian Currency Unit
ASEAN	Association of Southeast Asian Nations
COE	Certificate of Entitlement
CPF	Central Provident Fund
CPI	consumer price index
CSP	community, social & personal
DBU	Domestic Banking Unit
DLI	Domestic Liquidity Indicator
DRC	Dependency Ratio Ceiling
ECB	European Central Bank
EIA	Energy Information Administration
EPG	Economic Policy Group
FDI	foreign direct investment
FI	Fiscal Impulse
FTA	Free Trade Agreement
GFC	Global Financial Crisis
GST	goods and services tax
HDB	Housing Development Board
ICT	information & communications technology
IMF	International Monetary Fund
IPO	Initial Public Offering
IT	information technology
LIBOR	London interbank offered rate
m-o-m	month-on-month
NIEs	newly-industrialised economies
NEER	nominal effective exchange rate
NODX	non-oil domestic exports
OECD	Organisation for Economic Cooperation and Development
OPEC	Organisation of the Petroleum Exporting Countries
PGP	Pioneer Generation Package
PIC	Productivity & Innovation Credit
PMI	Purchasing Managers' Index
q-o-q	quarter-on-quarter
QE	Quantitative Easing
REER	real effective exchange rate
SA	seasonally-adjusted
SAAR	seasonally-adjusted annualised rate
SIBOR	Singapore interbank offered rate
SME	small and medium sized enterprise
TDSR	Total Debt Servicing Ratio
TFP	Total Factor Productivity
ULC	Unit Labour Cost
VIX	Chicago Board Options Exchange Market Volatility Index
WTO	World Trade Organisation
y-o-y	year-on-year

Preface

The *Macroeconomic Review* is published twice a year in conjunction with the release of the MAS Monetary Policy Statement. The *Review* documents the **Economic Policy Group's (EPG)** analysis and assessment of macroeconomic developments in the Singapore economy, and shares with market participants, analysts and the wider public, the basis for the policy decisions conveyed in the Monetary Policy Statement. It also features in-depth studies undertaken by EPG on important economic issues facing Singapore.

The *Review* was edited by Associate Professor Peter Wilson, and continues to feature our collaborations with academics. We are pleased to have Professor Philip Lane of Trinity College Dublin write Special Feature B of this issue, titled, "International Financial Flows and Domestic Credit Conditions". We are grateful to Associate Professor Davin Chor of the NUS Department of Economics for contributing Special Feature C, which examines how countries are positioned along global production lines. Our appreciation also goes to Rodrigo Cubero and his co-authors at the IMF who prepared a box item on their empirical research on trade linkages in the ASEAN region.

The data used in the *Review* was drawn from the following government agencies, unless otherwise stated: BCA, CPF Board, DOS, EDB, HDB, IDA, IE Singapore, JTC, LTA, MOF, MOM, MND, MTI and URA.

The *Review* may be accessed in PDF format on the MAS website: <http://www.mas.gov.sg/Monetary-Policy-and-Economics/Monetary-Policy/Macroeconomic-Review.aspx>

The *Review* may also be purchased at major bookstores, online (<http://asp.marketasia.com.sg/subscriptions/mainsubindex.asp>), or on an annual subscription basis (details can be found on the last page).

Highlights

Global economic growth picked up towards the end of 2013, with Asia providing much of the uplift, even as the G3 economies continued to expand, albeit at a slightly slower pace. Overall, the recovery in the advanced economies remains on a firm footing. Consumption and investment spending in the US are expected to improve, underpinned by a strengthening labour market and rising capacity utilisation. The recovery in the Eurozone is also gaining further traction as tightness in bank lending gradually abates and the drag from fiscal tightening recedes. In Japan, the squeeze on domestic demand from the consumption tax hike will be cushioned by offsetting fiscal measures and is unlikely to hamper the economy's moderate expansion in 2014 as a whole. While the rebound in G3 growth augurs well for Asia ex-Japan exports, the overall growth outlook for emerging Asia is a little more cautious, especially in view of lingering uncertainties regarding ongoing political transitions in several countries, and the impact of China's restructuring and rebalancing efforts. Against this external backdrop, the Singapore economy should achieve modest growth of 2–4% in 2014.

Chapter 1 begins with an analysis of recent developments in the external and domestic economies. The improvement in Singapore's GDP outturn in 2013 was largely on account of a pickup in trade-related activities, as the recovery in the global economy gradually strengthened. However, growth momentum eased in Q1 2014, reflecting a temporary pullback in the external-oriented sectors, even as domestic activities remained firm. Notably, the manufacturing sector slackened due, in part, to inclement weather conditions in the US which dampened demand for Singapore's exports. The sentiment-sensitive financial services segment likewise slowed due to concern over weakness in China's economic data, the pace of tightening in global liquidity and geopolitical tensions in Ukraine. A review of the growth drivers of the Singapore economy last year shows that the external-oriented sectors accounted for half of GDP growth, with the bulk coming from the services industries—particularly modern services—alongside a weaker contribution from manufacturing. EPG's analysis points to firm-specific influences that have had an increasing impact on the manufacturing sector's performance over the past few years.

Also included in Chapter 1 is a box item contributed by Rodrigo Cubero from the IMF. This is based on joint work with his co-authors at the IMF and examines the nature and implications of trade linkages and spillovers within the ASEAN-5 and, in particular, whether such linkages have become a source of resilience for these countries against extra-regional shocks. Their findings suggest that the ASEAN-5 have developed strong intra-regional and international trade linkages, consistent with an increasing degree of business cycle co-movement among themselves and with their major trading partners. Moreover, the increasing intensity of intra-regional trade appears to have been underpinned by trade in final consumption goods, which has some interesting implications for the nature of domestic demand dynamics among the ASEAN-5 economies.

Chapter 2 focuses on recent developments in the labour market and prices. With slowing foreign worker inflow, the hiring of resident workers continued apace in the second half of last year, driven mainly by robust final demand in the domestic-oriented sectors. The tightness in the labour market manifested itself in strong resident wage growth, which contributed to a further build-up in domestic cost pressures. Thus, MAS Core Inflation has picked up in recent months and consumer price increases have become more broad-based. Meanwhile, CPI-All Items inflation moderated recently, reflecting the decline in car prices as well as softer housing rentals.

Chapter 2 also contains a box item which is based on a study jointly commissioned by the MAS and MTI that analyses how Singapore's prices for three global retail brands compare with those in other major cities. The results show that price differentials across locations can be very large for individual products. Prices in Singapore are higher than the median for up to two-thirds of the goods surveyed. For the

majority of the items which are more expensive domestically, the price premiums do not generally exceed 20%, and Singapore is not the most expensive location in most instances. It appears that the pricing decisions of these firms are influenced by unit cost and demand for their products in the respective markets.

Chapter 3 discusses the economic outlook. Overall, the prospects for the global economy have brightened, anchored by improving conditions in the G3 as a whole. In comparison, the Asia-ex Japan region is likely to grow only slightly faster compared to 2013. As highlighted in the last *Review*, Singapore remains more tied to final demand in the advanced economies than in emerging Asia. Together with a mild turnaround in the global IT industry, this should provide some support for the domestic electronics industry as well as trade-related services. This Chapter also examines in some detail the global secular forces and changes in the domestic manufacturing sector that have underpinned the growth of services activities in the economy. In particular, there has been a rise in Singapore's modern services exports, alongside a shift towards servicisation in the domestic IT industry.

In 2014, the interaction of cyclical and structural factors will continue to affect Singapore's economic growth profile. At the same time the ongoing restructuring towards productivity-led growth will generate further transitional frictions, notably through higher labour costs as the anticipated rise in labour demand will come up against binding supply constraints. Given the sustained pass-through of domestic costs to consumer prices, there is also likely to be some upward pressure on MAS Core Inflation, which is projected to come in at 2–3% in 2014, up from 1.7% last year. The continuation of the appreciating stance of MAS' exchange rate policy will, however, help to moderate inflationary pressures and anchor inflation expectations.

This issue of the *Review* includes three Special Features. Special Feature A re-examines recent empirical evidence regarding the synchronised slowdown in productivity growth across the developed world in the 2000s, and compares the results with the experience of Asian economies over the same period. Using principal components analysis and multiple-breakpoint tests, the results show that, although labour productivity growth in Asia has generally held up over the last decade relative to the advanced economies, it has nevertheless been markedly lower since the Asian Financial Crisis (AFC). While the downshift in productivity growth for the advanced economies is almost entirely due to the decline in total factor productivity (TFP) growth, which likely began prior to the Global Financial Crisis, the step-down in labour productivity growth for the Asian economies can largely be traced to a persistently low level of investment following the AFC, even as TFP growth remained unimpaired.

In Special Feature B titled "International Financial Flows and Domestic Credit Conditions", Professor Philip Lane of Trinity College Dublin highlights the findings from his recent work on the inter-linkages between international financial flows and domestic credit conditions. In particular, he finds that domestic credit growth was more rapid in countries that experienced net debt inflows. In addition, he views international credit (direct cross-border lending that bypasses the domestic banking system) as an important contributor to overall domestic credit growth. Apart from these direct and indirect contributions of international financial flows to aggregate credit conditions in the domestic economy, another area of focus is the risks posed by international financial flows through macroeconomic channels. For example, financial flows that fuel expenditure in excess of income growth, could lead to unsustainable external positions. The need to mitigate such risks has sparked considerable interest in macro-prudential regulation of the financial system, with an important benefit that an effective macro-prudential policy framework would allow conventional monetary policy to remain focused on its traditional price stability target.

Finally, the Special Feature by Associate Professor Davin Chor from the National University of Singapore asks “Where are Countries positioned along Global Production Lines?” Professor Chor proposes an innovative and theoretically-based measure of industry “upstreamness” that provides a useful descriptive tool for summarising where each industry, and hence each country, is positioned along global production lines. Based on data from Input-Output Tables, this new measure shows that the most upstream industries in the US tend to be related to the extraction and processing of raw minerals and resources, while the most downstream industries are in textiles, footwear, furniture and motor vehicles. When used to compute the “degree of upstreamness” of the export mix for a selected number of countries in ASEAN and the broader Asia-Pacific region, the measure shows that exports are relatively downstream compared to their import mix.

The next issue of the *Review* will be released in October 2014.

Economic Policy Group
Monetary Authority of Singapore
29 April 2014