

## 1.1 External Developments

### Global Growth is Picking Up

#### Private demand has firmed and taken up the slack from lower public spending.

Following a hiatus in mid-2010, global economic growth picked up in the last quarter of the year. The US and Asian economies, in particular, expanded on the back of stronger private consumption and investment demand, despite the gradual removal of fiscal and monetary stimuli in the latter group of countries. For 2010 as a whole, the G3 and Asian<sup>1</sup> economies grew by 2.6% and 8.1%, respectively, a sharp turnaround from the -3.9% and 2.1% in 2009. (Table 1.1)

With the notable exception of the US, contribution of public sector spending to GDP growth has diminished progressively since late 2009.<sup>2</sup> (Chart 1.1) The contribution of government expenditure declined from 0.5% point in 2009 to 0.2% point in 2010, even as overall growth picked up in 2010. In contrast, private consumption spending accounted for an average of 1.2% points in 2010 as compared with -0.5% the year before. During the first half of last year, inventory restocking supported growth through a powerful boost to manufacturing output. However, as household consumption gained traction in the later part of 2010, global services activity caught up as well, leading to more broad-based growth and employment.

The recovery was supported by easier credit conditions in the advanced economies, which had the ripple effect of a surge in capital flows into Asian economies. However, the Eurozone experienced a new bout of financial turbulence in November arising from the difficulties in the Irish banking sector. Still, compared to the sovereign debt crisis in May, the repercussions on global financial markets were more contained.

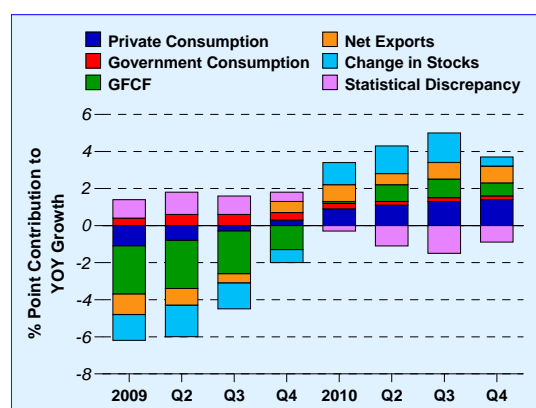
**Table 1.1**  
**GDP Growth**

	2009	2010	2010	
			Q3	Q4
			q-o-q SAAR	
<b>Total*</b>	<b>-0.4</b>	<b>5.8</b>	<b>3.3</b>	<b>4.9</b>
G3*	-3.9	2.6	2.3	1.5
Asia*	2.1	8.1	3.9	7.5
US	-2.6	2.9	2.6	3.1
Eurozone	-4.1	1.7	1.4	1.1
Japan	-6.3	3.9	3.3	-1.3
Hong Kong	-2.7	6.8	3.5	6.1
Korea	0.3	6.2	2.6	2.0
Taiwan	-1.9	10.8	3.2	0.0
Thailand	-2.3	7.8	-1.3	4.8
Philippines	1.1	7.3	-3.2	12.7
			y-o-y	
Indonesia	4.6	6.1	5.8	6.9
Malaysia	-1.7	7.2	5.3	4.8
China	9.2	10.3	9.6	9.8
India	7.0	8.8	8.9	8.2

Source: CEIC, Datastream and EPG, MAS estimates

\* Weighted by shares in Singapore's NODX.

**Chart 1.1**  
**Contribution to G3 and Asia-8\***  
**GDP Growth\*\***



Source: CEIC

\* Asia ex-China.

\*\* Weighted by 2009 nominal GDP.

<sup>1</sup> Asia comprises China, Hong Kong, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand.

<sup>2</sup> China has been excluded from the estimates as quarterly data on GDP are not available. However, public spending is expected to have displayed a similar trend – in 2010, total government expenditure increased by 5% points less than the previous year, led by slower growth in central government spending. This suggests that disbursements of stimulus measures announced in 2008 and 2009 were frontloaded and had begun to wind down.

### The US economy surprised on the upside in Q4 ...

US real GDP expanded by a better-than-expected 3.1% q-o-q SAAR in the last quarter of 2010, bringing full year growth to 2.9%. A solid 4.0% q-o-q SAAR increase in Q4 finally brought private consumption spending back to pre-crisis levels. Net exports growth also turned positive for the first time since Q4 2009 with imports shrinking by 14.2% q-o-q SAAR and exports growing by 11.1%, as the weaker US dollar led to positive expenditure switching effects and a boost to the trade sector. However, despite increasing by 6.8% in Q4 from just 1.5% in Q3, the level of non-residential and residential investment remained 14% below its pre-crisis peak.

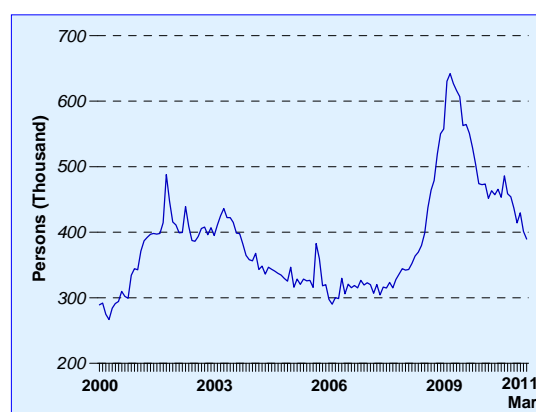
The resurgence of household spending has been underpinned by an improvement in household income and finances in recent months. Initial jobless claims have been trending lower since September 2010, while the total number of hours worked has increased steadily. (Chart 1.2) As a result, real disposable income rose faster at 0.5% q-o-q in Q4, compared to 0.2% in the preceding quarter. Concurrently, consumer credit grew during the quarter for the first time since Q3 2008, led by a pickup in loans for automobiles. Despite this, overall household credit growth stayed negative, dragged down by still-falling home mortgage loans.

### ... while the Eurozone and Japan weakened from the previous quarter.

In the Eurozone, economic growth moderated slightly to 1.1% q-o-q SAAR in Q4 2010 from 1.4% in Q3, partly due to harsh winter conditions. For the year as a whole, the Eurozone performed above expectations with GDP growth coming in at 1.7%, mostly contributed by the core economies of France, Germany and Italy, where exports soared as the euro weakened. (Chart 1.3) In the peripheral countries, fiscal tightening in the wake of the sovereign debt crisis aggravated credit conditions. Overall, government expenditure in the periphery declined by an average of 0.8% y-o-y in H2 2010, precipitating a contraction in GDP of 0.3% during the same period. (Chart 1.4)

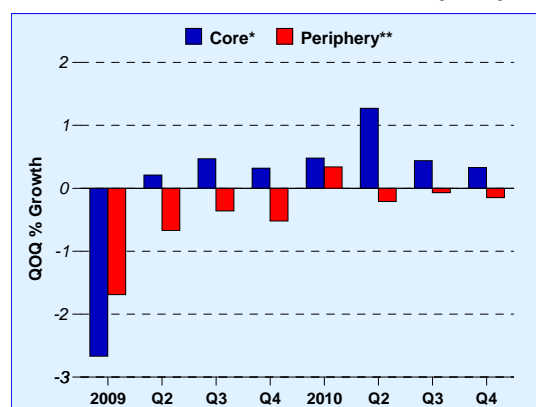
In contrast to the export boom in the Eurozone core, Japan's overseas shipments of goods and services fell by 3.0% q-o-q SAAR in Q4 2010 as the trend appreciation of the yen that commenced in the early part of the year blunted firms' competitiveness. (Chart 1.5) This decline in external demand, together

Chart 1.2  
US Initial Jobless Claims



Source: CEIC

Chart 1.3  
Eurozone Growth: Core and Periphery

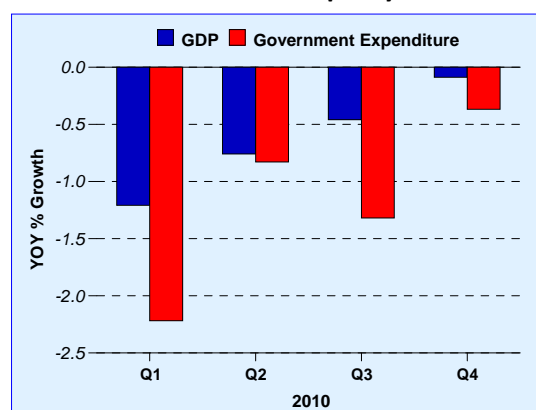


Source: CEIC

\* Core economies refer to France, Germany and Italy.

\*\* Peripheral economies include Greece, Ireland, Portugal and Spain.

Chart 1.4  
Fiscal Expenditure and Growth in the Eurozone Periphery



Source: CEIC

with a dip in private consumption expenditures and a cutback in public investment spending, caused real GDP to fall by 1.3% q-o-q SAAR in Q4 2010, after growing by 3.3% in Q3. Nevertheless, growth for the full year came in at 3.9% – Japan’s best performance since 1991.

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**Asian economies have returned to a self-sustaining growth path.**

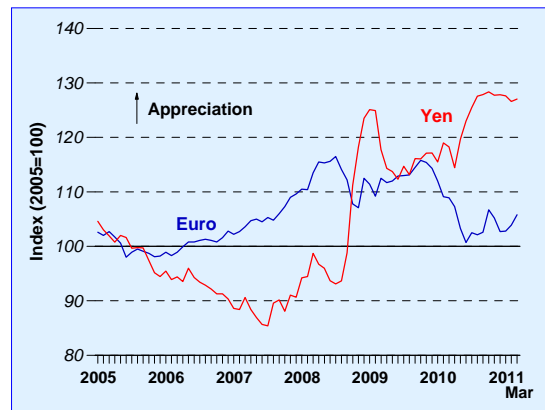
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The Asia ex-Japan economies entered a self-sustaining phase of growth in the latter half of 2010, as the export upturn in the preceding quarters raised incomes and led to higher private consumption and investment. As a result, real GDP growth accelerated to 7.5% q-o-q SAAR in Q4 from 3.9% in Q3 2010, notwithstanding the phasing out of fiscal support measures and a general tightening of monetary policy in the region. (Chart 1.6)

While China and other large economies, such as India and Indonesia, registered strong growth in domestic demand, private consumption spending also expanded significantly in the smaller and more trade-dependent economies such as Hong Kong, Korea and Taiwan. At the same time, higher agricultural prices have boosted the earnings of the farming sectors within countries like the Philippines and Thailand, giving further impetus to household spending. (Chart 1.7)

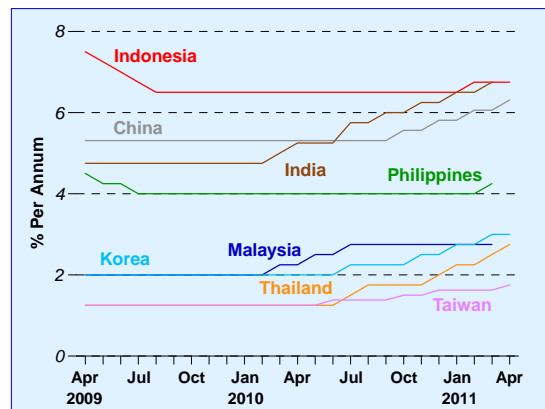
Among the larger Asian economies, China’s growth climbed back to 9.8% y-o-y in Q4 2010 after the moderation seen in the previous two quarters. This rebound can be attributed to fixed asset investment, which grew by 23.9% y-o-y even as successive tightening measures were rolled out to rein in burgeoning credit growth and curb rising inflation. Indeed, fixed investment was the key growth driver for the full year, contributing over half of the 10.3% GDP expansion in 2010. Private consumption also contributed up to a third of this, while net exports played only a minor role.

**Chart 1.5**  
**Euro and Yen Exchange Rate Indices**



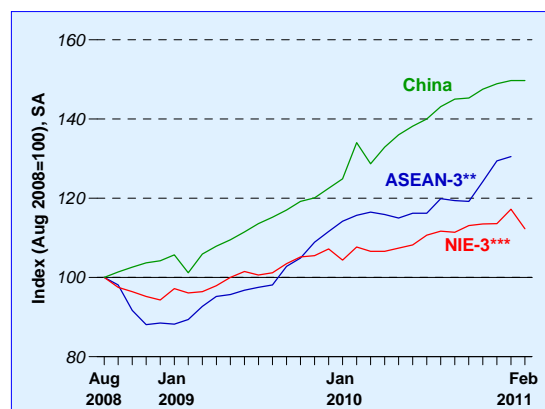
Source: CEIC

**Chart 1.6**  
**Policy Rates in Asia ex-Japan**



Source: CEIC

**Chart 1.7**  
**Retail Spending in Asia ex-Japan\***



Source: CEIC

\* Weighted by 2009 nominal private consumption.

\*\* ASEAN-3 refers to Indonesia, the Philippines and Thailand.

\*\*\* NIE-3 refers to Hong Kong, Korea and Taiwan.

### Higher commodity price pressures are adding to overheating risks in Asia.

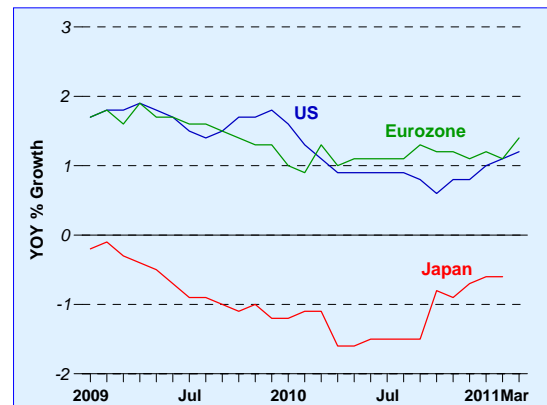
Inflation in the G3 edged higher to 1.4% in Q4 2010 from 1.1% in the quarter before. This was largely due to upward pressure from rising commodity and energy prices, which picked up on the back of the recovery in the world economy, and then rose further due to supply shocks. Indeed, with unemployment in the G3 economies above their natural rates and capacity utilisation below the norm, core inflation was considerably lower. (Chart 1.8)

In Asia ex-Japan, CPI inflation has trended up since mid-2009 and climbed more steeply over the past few months. (Chart 1.9) Food and oil prices were key contributors to this uptick in headline inflation due to their significant weights in regional CPI baskets. However, in contrast to the advanced economies, Asian core inflation also began to rise more significantly in Q4 last year, as domestic resource constraints became more binding.

Price pressures were especially pronounced in the domestic-oriented economies, such as China and India, which continued to grow throughout the global recession, and accelerated in last year's global rebound. China's CPI inflation jumped to 4.7% in Q4 2010, from 3.5% in the previous quarter. In Q1 2011, inflation rose further to 5.1% as food costs continued to escalate.

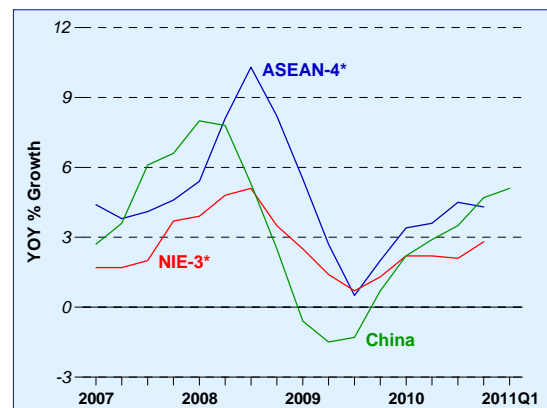
In several ASEAN economies, headline inflation would have been higher if not for subsidies and controlled prices on a range of products. In addition to subsidies on food items, such as rice and cooking oil, direct subsidies on fuel prices in Indonesia, Malaysia and more recently, Thailand, have helped to cushion the impact of the run-up in global commodity prices on domestic inflation. In the newly-industrialised economies (NIEs), businesses seem to have absorbed part of the higher input prices to fend off stiff competition. These buffers, together with currency appreciation, have helped to dampen the pass-through to core inflation, which has remained relatively subdued in most of the NIEs.

Chart 1.8  
G3 Core Inflation



Source: CEIC and Datastream

Chart 1.9  
Asia ex-Japan CPI Inflation\*



Source: CEIC and Datastream

\* Weighted by 2009 nominal GDP.

## 1.2 Domestic Economy

### Q4 2010: A Nascent Turnaround

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#### The Singapore economy recorded modest growth in Q4 2010 ...

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Economic activity in Singapore hit a soft patch in the middle of last year amidst the still-fragile global recovery. GDP contracted by a steep 16.7% on a q-o-q SAAR basis in Q3 2010. (Chart 1.10) Besides a sharp pullback in pharmaceutical output, the slowdown was also evident in the trade-related sectors.

However, there was some improvement towards the end of last year with the domestic economy recording a modest gain of 3.9% in Q4 2010, bringing full-year growth to 14.5%. Excluding pharmaceuticals, the Singapore economy expanded by 2.8% in Q4 2010. This mild turnaround was driven largely by the services industries, which were in part boosted by resilient regional demand.

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#### ... supported by a broad-based expansion in the services sector.

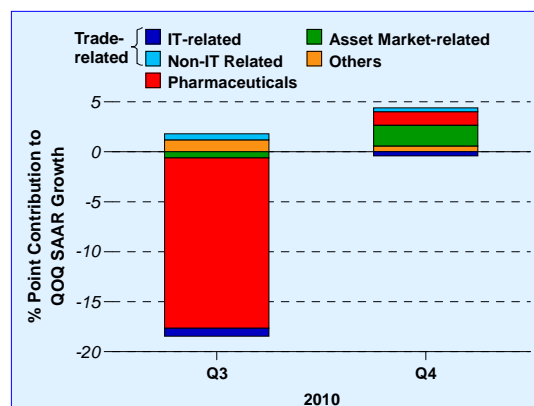
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Buoyed by regional and domestic demand, the services sector gathered momentum in Q4, following a marginal expansion in Q3. The improvement was due to the recovery in trade-related services, as well as strengthening growth in the tourism and financial sectors.

The resumption of growth in the trade-related services was bolstered by pockets of strength in the wholesale sector. On re-exports, while activity in the electronics segment remained muted, the non-oil non-electronics segment rebounded by 8.3% q-o-q SA in Q4, reversing a 2.5% decline in the preceding quarter. Growth was driven by higher re-exports of chemicals and transport equipment, in line with strong investment growth in the East Asian economies. Container throughput also expanded by 2.1% q-o-q SA, following a decline in Q3.

In the same quarter, growth in tourist arrivals strengthened to 3.4% q-o-q SAAR from 0.7% in Q3, supported by inflows from the region. The number of visitors, which neared three million in Q4, generated demand for tourism-related industries, such as hotels

Chart 1.10  
Contribution to GDP Growth



Source: EPG, MAS estimates

and restaurants. Despite the increase in room supply arising from the opening of the luxury hotels in the integrated resorts (IRs), occupancy rates have remained unchanged at 84%. The air transport segment also received a boost from a spike in global aviation traffic. Air passenger traffic through Singapore climbed 7.1% y-o-y in Q4, supported by robust visitor arrivals and a fast-expanding budget travel segment.

In addition, domestic consumer demand continued to rise in line with strong wage growth last year. Even though overall retail sales contracted by 0.2% q-o-q SAAR in Q4, this was largely due to the 20% decline in vehicle sales, following reductions in vehicle quotas. Excluding vehicle sales, the pace of increase in retail sales actually quickened from 5.5% in Q3 to 7.0% in the last quarter of 2010, spurred by big-ticket purchases such as household durables, watches and jewellery, signalling renewed strength in discretionary spending.

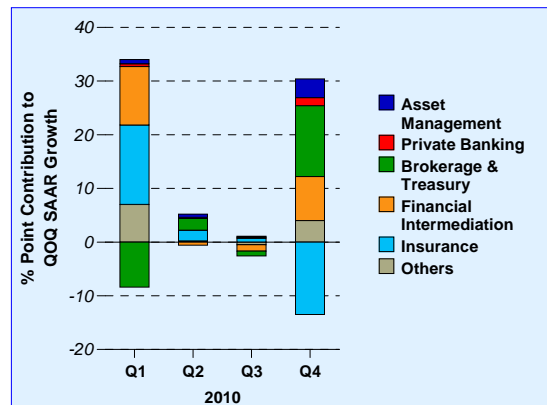
**Financial services rebounded on improving market sentiment.**

The financial services sector turned in a strong broad-based performance in Q4 2010, surging by 16.9% q-o-q SAAR in Q4 after contracting by 1.4% in the previous quarter. (Chart 1.11) In particular, the sentiment-sensitive cluster saw the largest improvement, accounting for a large proportion of growth in Q4. Investor sentiment turned more positive on firmer signs of recovery in the advanced economies and a pickup in regional growth. Fresh inflows were seen in Asia ex-Japan equity funds, which rose by 19% q-o-q in Q4, while trading activity in the foreign exchange market also increased, with average daily turnover volumes gaining 13%, after declining 6.1% in the preceding quarter. (Chart 1.12)

Traditional financial intermediation, which continued to account for the largest share in financial services, saw rises in both domestic and offshore lending. Growth in domestic non-bank lending was led by the business segment, which saw its highest sequential growth of 4.3% q-o-q in two years. Indeed, lending to most corporate segments increased and consumer lending also remained firm, anchored by continued strength in the housing segment.

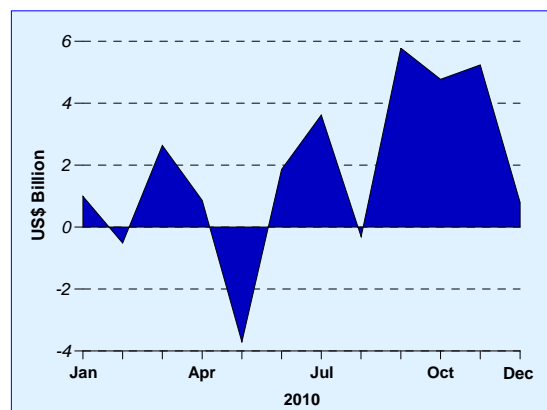
Offshore non-bank lending in Q4 grew by 5.6% q-o-q, up from 3.2% in Q3. (Chart 1.13) Alongside improving

**Chart 1.11  
Contribution to Financial Services  
GDP Growth**



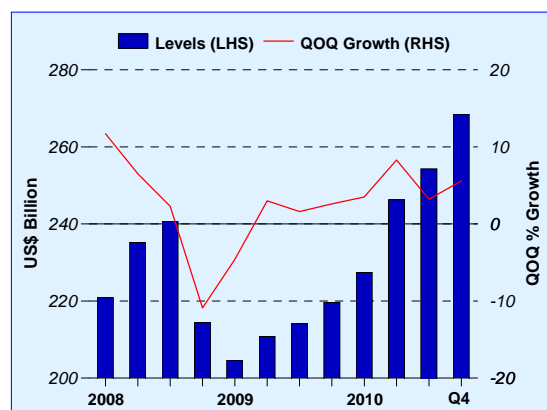
Source: EPG, MAS estimates

**Chart 1.12  
Asia ex-Japan Net Equity Inflows**



Source: EPFR Global

**Chart 1.13  
ACU Non-bank Lending**



business conditions in the advanced economies, loan growth to both Europe and the Americas turned positive in Q4 after contracting in the previous quarter. Lending to East Asia expanded for the seventh consecutive quarter.

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**In comparison, the manufacturing sector  
remained weak ...**

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As the effects of the global inventory restocking cycle waned, manufacturing activity softened going into H2 last year. Although private consumption in the G3 began to pick up in mid-2010, this had yet to filter through to end demand in the IT sector. Reflecting this, the US Tech Pulse Index, which tracks the health of the US technology sector, contracted in Q4 following a run-up in the second and third quarters.<sup>3</sup> (Chart 1.14) Concomitantly, global chip sales, a proxy for the world electronics cycle, grew only 0.5% q-o-q SA in Q4 2010.

Against this backdrop, Singapore's manufacturing grew marginally by 0.7% q-o-q SAAR in Q4, after contracting 48.5% in the preceding quarter. Excluding pharmaceuticals, it shrank by about 5.5%, weighed down by declines in the electronics, transport engineering and general manufacturing segments.

With consumer demand for IT products in the G3 still sluggish, domestic electronics output slipped 0.2% q-o-q SAAR in Q4, following six consecutive quarters of expansion. Activity in a wide range of segments slowed, including computer peripherals and infocomms & consumer electronics.<sup>4</sup>

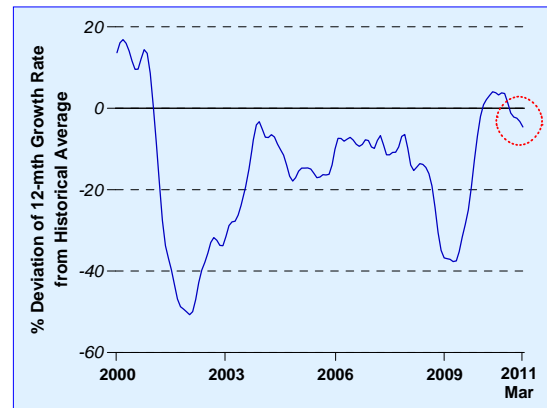
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**... and activity in the construction sector  
declined further.**

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Meanwhile, activity in the construction sector fell by a further 10.2% q-o-q SAAR in Q4 after contracting 9.6% in Q3 due to continued weakness in the private non-residential segment as major commercial projects reached completion. At the same time, civil engineering activities declined, as several MRT Downtown Line projects were postponed to 2011.

**Chart 1.14  
US Tech Pulse Index**



Source: Federal Reserve Bank of San Francisco

<sup>3</sup> The US Tech Pulse Index, compiled by the Federal Reserve Bank of San Francisco, is an index of coincident indicators of activity in the US IT sector. These indicators used are investment in IT goods, consumption of personal computers and software, employment in the IT sector as well as industrial production of, and shipments by, the technology sector. The index extracts the common trend that drives these series.

<sup>4</sup> Infocomms & consumer electronics include all final electronics products such as PCs, handphones and other types of consumer electronics.

## 2010: A Year of Exceptional Growth

**The record growth in 2010 was underpinned by regional demand.**

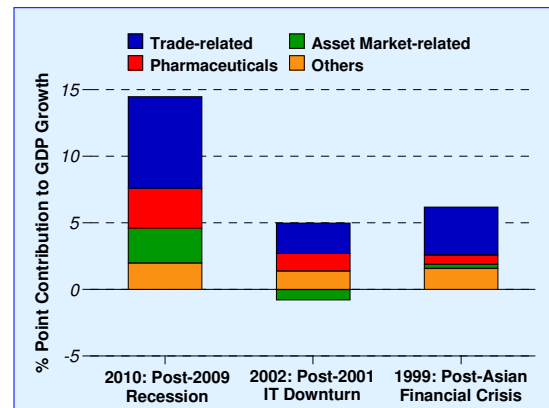
Following the worst recession since independence which saw an output loss of close to 9%, the Singapore economy rebounded by almost 20% from the trough by the end of Q4 2010. For the whole of 2010, growth came in at a record 14.5%, well above the 5.2% average growth in the year following the previous two major recessions. (Chart 1.15)

The extraordinary performance last year was primarily driven by trade-related activities, which contributed 6.9% points to overall growth, compared to 2.3% and 3.6% in the respective recovery years of 2002 and 1999. The steep expansion in trade-related activities in 2010 reflected in part the greater support from East Asia this time round. For instance, of the 22% rise in Singapore’s total merchandise exports last year, East Asia accounted for 14% points. This compares with average contributions of 3.9% points following the previous two recessions. The importance of the region to Singapore’s exports was underlined by a rise in the share of Singapore’s exports to the region from 46% at the beginning of the decade to 57% last year, while the share of exports to the G3 fell by 18% points. (Chart 1.16)

The strengthening of Singapore’s regional linkages took place alongside a shift in the centre of gravity of world trade from the high-income countries to the Asian region. (See Box A for more details.) In recent years, Singapore has also played a more significant role in driving regional trade flows. In 2010, growth in our total exports to East Asia outpaced that of overall intra-East Asia exports. Singapore’s contribution to intra-regional export growth stood at 4.3% points last year, and accounted for about 14% of total intra-regional exports, having risen from 11% in 2007. (Figure A)

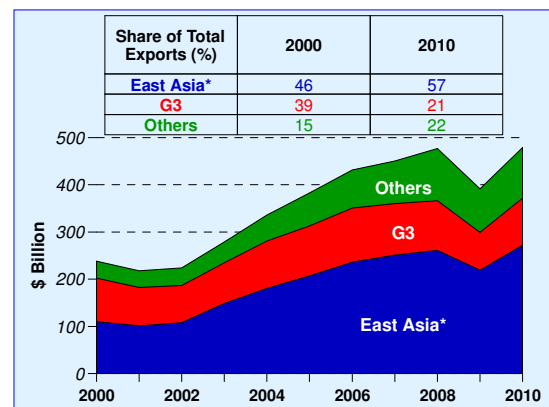
Singapore’s stellar export performance last year underscored its importance in East Asia’s cross-border production network (CPN), and its role as an entrepôt hub for the region. The heat map in Figure A shows the contribution to intra-regional trade flows by East Asian economies in 2010. Singapore was clearly an important

**Chart 1.15**  
Recovery from Downturns



Source: EPG, MAS estimates

**Chart 1.16**  
Singapore’s Total Merchandise Exports by Region



\* East Asia refers to ASEAN-4, NIE-3 and China.

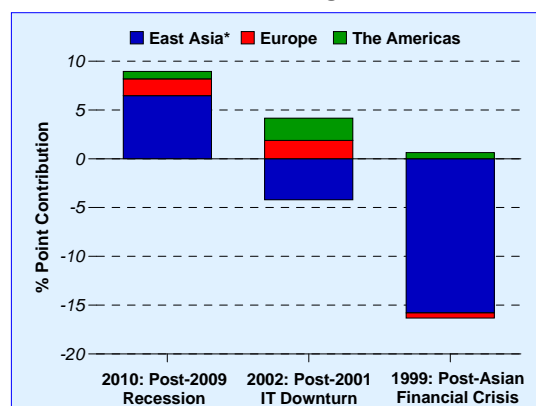


conduit for trade within ASEAN as well as a key supplier of imports to the Northeast Asian (NEA) economies.

Singapore was a key trading node within ASEAN in 2010, as shown by the darker coloured rectangles within the blue dotted lines in Figure A. For instance, close to one-third of ASEAN-4's imports were sourced from Singapore, comprising both direct and entrepôt trade flows. At the same time, Singapore was a key exporter to China<sup>5</sup> last year, as indicated by the yellow dotted lines.

Regional demand also played a more important role in the recent post-crisis turnaround in the services sectors compared to previous episodes. Within the financial services sector, the recovery in ACU non-bank lending was comparatively stronger and quicker due to firm growth in the East Asian markets. This contrasts with previous rebounds where the advanced economies were the key drivers of growth. (Chart 1.17)

**Chart 1.17**  
Contribution to ACU  
Non-bank Lending Growth



\* East Asia refers to ASEAN, NIE-3, China and Japan.

**Figure A**  
Contribution to Intra-regional Exports/Imports in 2010

		Importers									% Pt Cont to Export Growth
		Singapore	Indonesia	Malaysia	Philippines	Thailand	Hong Kong	Korea	Taiwan	China	
Exporters	Singapore	Strong	Moderate	Moderate	Moderate	Moderate	Strong	Moderate	Moderate	Moderate	4.3
	Indonesia	Moderate	Strong	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	1.6
	Malaysia	Moderate	Moderate	Strong	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	1.8
	Philippines	Moderate	Moderate	Moderate	Strong	Moderate	Moderate	Moderate	Moderate	Moderate	0.9
	Thailand	Moderate	Moderate	Moderate	Moderate	Strong	Moderate	Moderate	Moderate	Moderate	1.7
	Hong Kong	Moderate	Moderate	Moderate	Moderate	Moderate	Strong	Moderate	Moderate	Moderate	4.4
	Korea	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Strong	Moderate	Moderate	4.5
	Taiwan	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Strong	Moderate	3.9
	China	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Strong	8.9
	% Pt Cont to Import Growth	2.0	2.0	2.2	1.1	1.6	7.4	2.6	2.3	11.0	Overall Growth: 32.2%

Strong Contributor  
Moderate Contributor  
Weak Contributor

Note: The colour coding is determined by a country's contribution to intra-regional exports in 2010. The darkest shade captures contributors falling within the top 25th percentile of the distribution, followed by the 50-75th percentile and bottom 50th percentile for the lightest shade.

<sup>5</sup> Exports to Hong Kong are assumed to be mostly re-exported to China.

The tourism-related cluster has emerged as an important pillar in this current recovery. Tourist arrivals in Singapore grew by 20% in 2010, compared with 0.6% in 2002 and 11% in 1999. (Chart 1.18) The exceptional performance this time round was bolstered by increased arrivals from ASEAN, partly due to the opening of the two IRs. In fact, of the 20% surge in visitor arrivals in 2010, ASEAN tourist inflows contributed 12% points, while China and India collectively added a further 3.5% points.

### Q1 2011: A Firming in Activity

#### Singapore's GDP growth accelerated in Q1 2011.

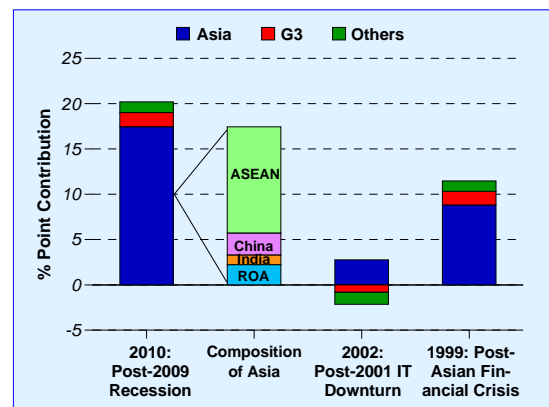
After a modest rebound in Q4 2010, growth momentum in the Singapore economy strengthened at the turn of the year. According to the *Advance Estimates*, the economy expanded by 23.5% q-o-q SAAR in Q1 2011. While this was partly due to the step-up in pharmaceutical production, activity in the rest of the economy also firmed.

The strong performance in Q1 2011 was corroborated by EPG's monthly Economic Activity Index (EAI), which pointed to a spike in economic activity in January, after recording mild gains in the latter half of last year. (Chart 1.19) The index suggests that the spike could largely be attributed to the trade-related cluster, which comprises of the manufacturing, wholesale trade and transport & storage sectors. (Chart 1.20) Financial services also reported solid growth. Notwithstanding fewer working days, overall activity in February stayed relatively high.

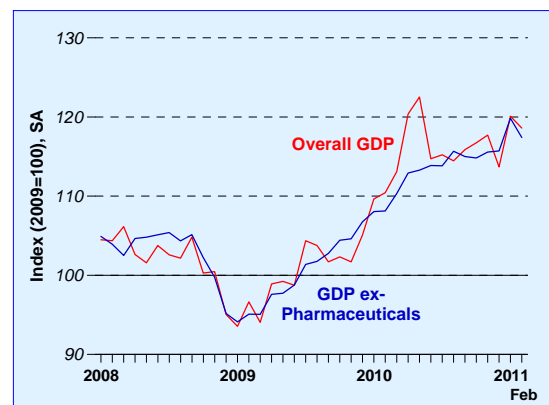
#### The recovery in manufacturing was due in part to the pickup in end demand in the developed economies ...

Unlike in Q1 last year when growth was propelled mainly by inventory restocking, the expansion in trade-related activities this time round was supported by an improvement in end demand. In the manufacturing sector, electronics output grew by 32% q-o-q SAAR in Q1 2011, following flat growth in the second half of 2010, due to increases in the semiconductor and infocomms & consumer electronics segments. The latter, which had been languishing since Motorola's exit in 2009, saw a surge in output in Q1 2011. Domestic export data indicate that the share of final electronics products bound for the G3 markets

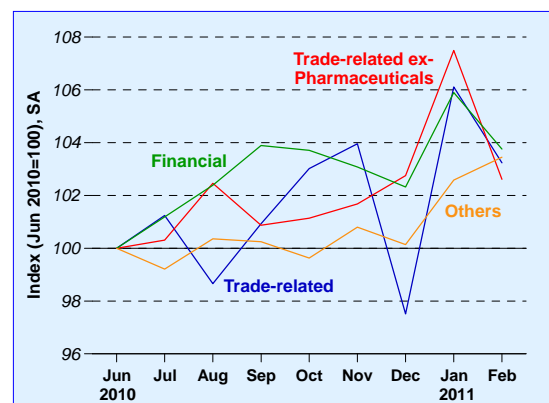
**Chart 1.18**  
Contribution to Growth in Tourist Arrivals



**Chart 1.19**  
EPG's Economic Activity Index



**Chart 1.20**  
EPG's Economic Activity Index - Component Readings



is increasing. (Chart 1.21) The precision engineering cluster also saw its output increase by 38% q-o-q SAAR in Q1 this year as companies expanded their capacity in Singapore.

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**... while activity in the services cluster strengthened further.**

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Meanwhile, tourism-related services were buttressed by firm visitor flows from the region. Tourist arrivals from ASEAN accelerated from 3.3% m-o-m SA in January to 5.2% in February while visitors from China increased by an average 23% m-o-m in Jan-Feb 2011. This lifted hotel occupancy rates to about 88% in the first two months of the year. (Chart 1.22)

Similarly, domestic-oriented services continued to pick up in the first quarter. Excluding motor vehicles, retail sales saw a 2.1% SA expansion in Jan-Feb 2011, an improvement from the 1.7% q-o-q SA growth in the preceding quarter. In particular, discretionary purchases<sup>6</sup> rose further in January and February, after increases in Q3 and Q4 last year. (Chart 1.23)

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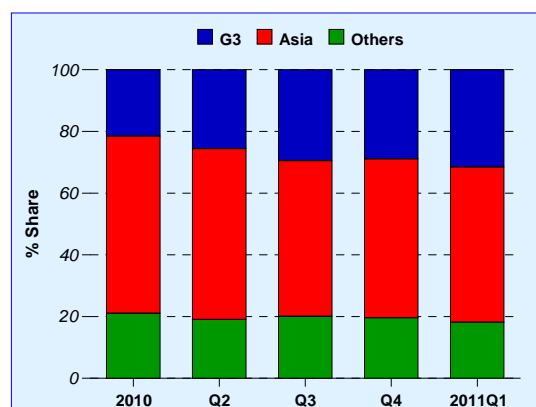
**Financial services continued to post steady gains, despite external uncertainty.**

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Fresh uncertainties in the external environment, such as the political crisis in the Middle East/North Africa (MENA) region and the massive earthquake and tsunami in Japan, triggered the return of risk aversion in financial markets in the first quarter of the year. Since late January, Asia ex-Japan funds saw nine consecutive weeks of outflows totalling US\$10 billion. Nevertheless, near-term indicators in the domestic financial services sector, particularly sentiment-sensitive industries, have not been as adversely affected as in the past. Average daily turnover volumes in the stock market fell by 6.5% q-o-q in Q1 2011, compared to a decline of 26% in Q3 2008 at the height of the global financial crisis.

Overall, the financial services sector was supported by steady growth in the intermediation cluster in Q1 2011. Domestic business lending which has continued to rise since August 2010 expanded further in January and February this year. Consumer lending also remained

**Chart 1.21**  
**Share of Domestic Exports of Final IT Products**

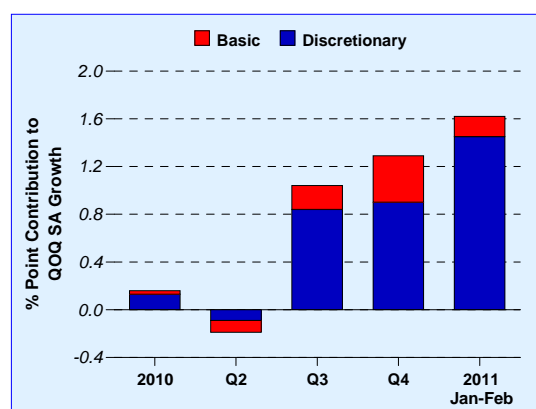


**Chart 1.22**  
**Visitor Arrivals and Hotel Occupancy**



Source: EPG, MAS estimates

**Chart 1.23**  
**Contribution to Non-vehicle Retail Sales Growth**



<sup>6</sup> Non-vehicle discretionary retail items comprise purchases from department stores, wearing apparel and footwear, recreational goods, telecommunications and computers, furniture and household durables, watches and jewellery. Basic purchases comprise food and beverages, medical goods and toiletries, optical goods and books, purchases made in supermarkets, provision and sundry shops and others.

resilient, despite a slowdown in the housing loans segment, probably due to the property cooling measures announced since September 2009. In addition, the offshore lending segment was boosted by an increase in demand for funds from Europe and the Americas, in line with improving economic prospects for the advanced economies.

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**Broad-based growth in Q1 has set the domestic economy on a firm footing.**

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After recording a modest rebound in Q4 2010, the Singapore economy witnessed a step-up in activity in the first quarter of 2011. While services recovered more quickly in Q4, the manufacturing sector caught up in Q1 2011. Although growth could soften temporarily in Q2, the level of economic activity across a broad range of sectors is expected to remain high in the quarters ahead. This will be discussed in greater detail in Chapter 3.

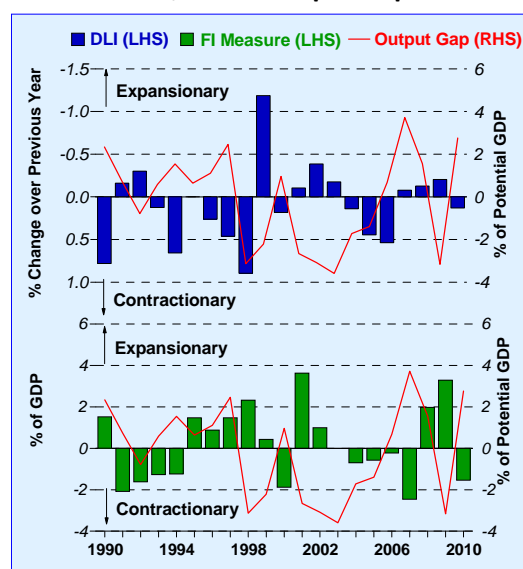
## 1.3 Macroeconomic Policy

**Macroeconomic policy in Singapore plays a countercyclical role, while maintaining a medium-term orientation.**

Amidst the multiple shocks emanating from the external environment, shifts in the macroeconomic policy setting in Singapore have been congruent with cyclical developments in the economy. Chart 1.24 plots the Domestic Liquidity Indicator (DLI)<sup>7</sup> and Fiscal Impulse (FI)<sup>8</sup> measure, which are proxies for the monetary and fiscal policy stance respectively, against the output gap. Points above the horizontal axis denote a positive output gap and an expansionary policy stance, and vice versa for points below the axis. A positive output gap signals that output is above potential, leading to inflationary pressures as the economy faces bottlenecks in meeting demand. Conversely, a negative output gap indicates that the economy is producing below capacity, resulting in the easing of cost and price pressures. Movements in the DLI and/or FI in the opposite direction to the output gap indicate that macroeconomic policy is countercyclical in the short term.

The chart shows that macroeconomic policy in Singapore has been expansionary during downturns in the economy, including the recession in 2009. In 2010, the output gap turned positive as the economy recovered decisively from the Great Recession to post record growth. Appropriately, the macroeconomic policy stance was contractionary in 2010 as monetary and fiscal stimuli were withdrawn. The policy setting was thus gradually restored to that conducive to price stability and sustainable growth in the medium term.

**Chart 1.24**  
**DLI, FI and Output Gap**



Source: EPG, MAS estimates

<sup>7</sup> The DLI is a measure of overall monetary conditions, which reflects changes in the S\$NEER and 3-month domestic interbank rate.

<sup>8</sup> See the January 2002 issue of the *Review* for more details on the methodology used to calculate the FI measure.

## Monetary Policy

**The monetary policy stance was pre-emptively tightened in 2010.**

MAS pre-emptively tightened monetary policy in April 2010, marking the end of the accommodative monetary policy stance taken since October 2008, by re-centring the S\$NEER policy band upwards and restoring its modest and gradual appreciation path. MAS tightened further in October 2010 by shifting to a slightly steeper appreciation of the S\$NEER policy band without altering the level at which the band was centred. At the same time, the policy band was widened slightly to accommodate volatility in international financial markets.

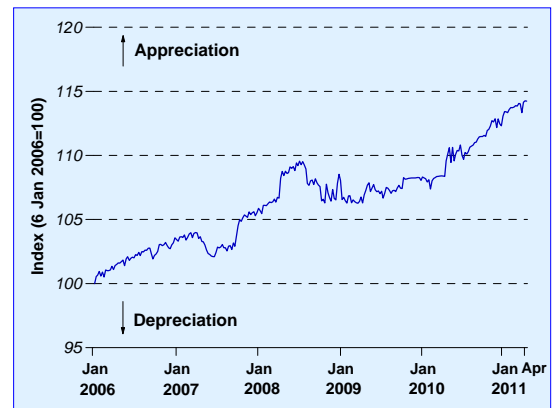
**The S\$NEER fluctuated in the upper half of the policy band in the past six months.**

Since the October 2010 policy review, the S\$NEER has appreciated gradually within the upper half of the exchange rate policy band. (Chart 1.25) This took place in the context of a general strengthening in regional currencies given broad-based weakness in the US\$ and continued capital flows into higher-growth Asian and emerging markets. (Chart 1.26) Rising inflationary pressures in tandem with the higher level of resource utilisation, and exacerbated by the run-up in oil prices on fears of prolonged conflict in Libya, also added to upward pressures on the S\$ in Q1 2011.

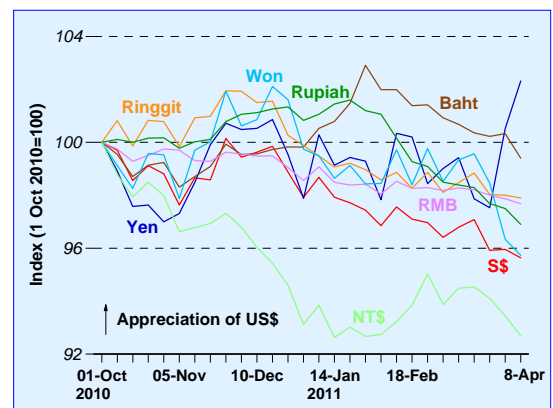
**The S\$REER appreciated over the last few quarters.**

The S\$ real effective exchange rate (S\$REER) is a measure of the S\$NEER adjusted for price differentials between Singapore and its trading partners. As the key (relative) price variable for an open economy, it captures the domestic economy's adjustment to external demand shocks. Using the CPI as the price deflator, the S\$REER is estimated to have appreciated slightly by 0.9% q-o-q in Q3 2010 and 1.3% in Q4, on account of both the stronger nominal exchange rate and higher domestic CPI inflation relative to foreign CPI inflation. (Chart 1.27) Comparing over a longer period, the S\$REER has trended up steadily by 6.6% since the trough in Q3 2009, largely driven by the appreciating S\$NEER.

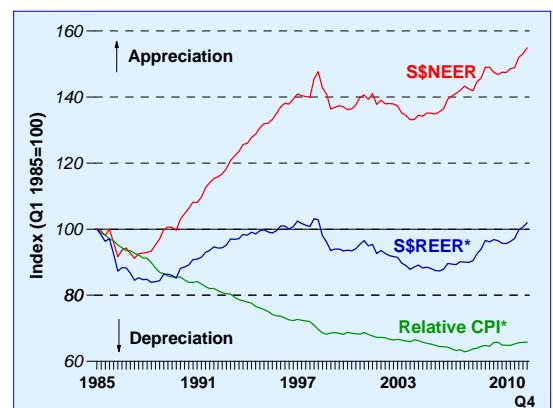
**Chart 1.25  
S\$NEER**



**Chart 1.26  
Movements of Regional Currencies  
against the US\$**



**Chart 1.27  
S\$NEER, S\$REER and Relative CPI**



\* EPG, MAS estimates.

**Liquidity conditions have tightened since October last year, driven largely by exchange rate appreciation.**

Over the past six months from October 2010 to March this year, the DLI was positive, suggesting a tightening in overall liquidity conditions. (Chart 1.28) This entirely reflected the effects of the strengthening S\$NEER, given that domestic interest rates have fallen close to the zero bound. The 3-month domestic interbank rate stayed at 0.69% between January 2009 and March 2010, before edging down to 0.56% in May 2010. (Chart 1.29) Thereafter, it fell further to 0.44% in October and has stayed at this level since.

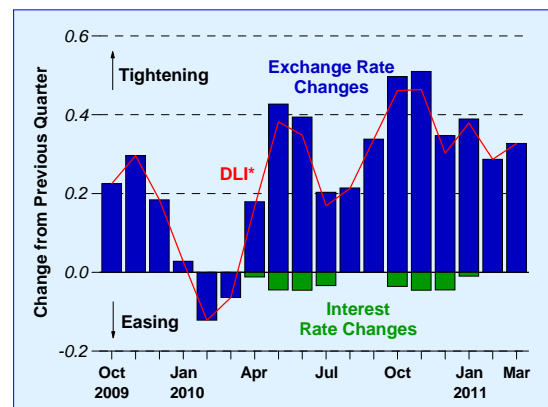
Likewise, the 3-month S\$ swap offered rate (SOR), which represents the cost of borrowing S\$ via a swap out of US\$, has trended down since the beginning of 2010. The SOR fell to a fresh low of 0.08% in February 2011 on further inflationary concerns, as market participants built in expectations of a stronger S\$ going forward. Typically, the SOR tracks the interbank rate closely, but tends to be more responsive to liquidity conditions as swap markets are deeper than deposit markets.

In comparison, the 3-month US\$ SIBOR edged down from 0.54% in May 2010 to 0.29% in September, before picking up to 0.31% since January this year, as recovery in the US economy gained traction. The gap between domestic and US interest rates has thus narrowed slightly since October.

**Credit growth has picked up in line with the domestic recovery.**

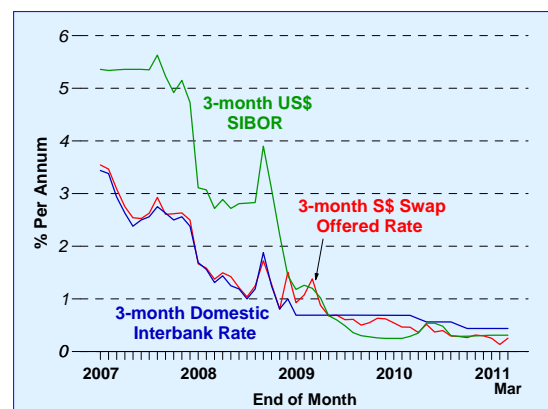
In response to the low interest rate environment and buoyant income growth, domestic credit growth strengthened over Q4 2010 and the first two months of this year. Accordingly, the loan-to-deposit ratio edged up to 0.76 in February, following a sharp decline from its peak of 0.80 in Q3 2008. In particular, business loan growth accelerated to an average of 2.3% m-o-m in the first two months of the year from 1.3% in Q4 2010. In contrast, sequential consumer loan growth eased over the same period. (Chart 1.30)

**Chart 1.28  
Domestic Liquidity Indicator**

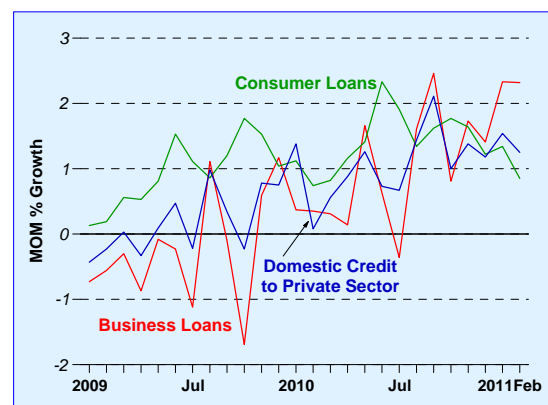


\* EPG, MAS estimates.

**Chart 1.29  
Interest and Swap Rates**



**Chart 1.30  
Domestic Credit to Private Sector**



**M1 growth has been firm while growth in broad money has eased.**

The relationship between money supply and the monetary base can be expressed as:

$$M2 = \text{Monetary Base} * mm,$$

where mm is the money multiplier.

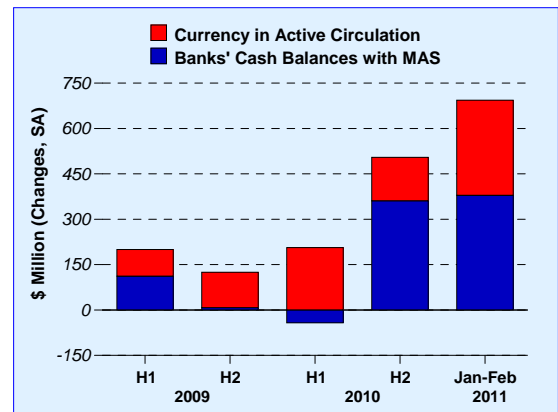
Through this bank intermediation process, the money supply adjusts to facilitate transactions in the economy. A higher level of economic activity requires a corresponding increase in money supply, either through an expansion of the monetary base, or through the money multiplier.

In the first half of 2010, the sequential rise in the monetary base largely reflected the expansion in currency in active circulation. (Chart 1.31) However, in the second half, banks' cash balances with MAS surged, due to the rapid increase in deposits in the banking system, part of which banks are obliged to put aside as balances with MAS to meet minimum cash balance requirements. Overall, the monetary base rose by 11.5% in 2010 and increased further by an average of 15.3% y-o-y in the first two months of 2011. (Chart 1.32)

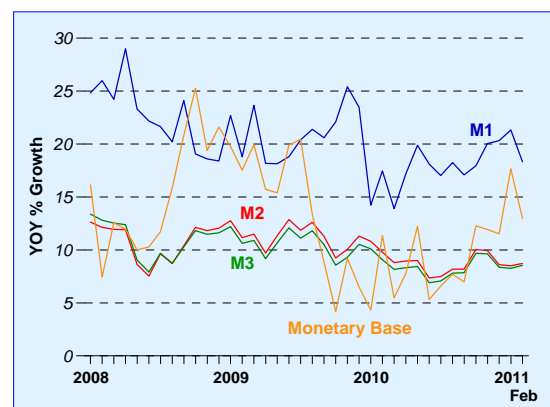
With the strong economic recovery in 2010 and the step up in activity in Q1 this year, income growth of businesses and households in Singapore has resulted in firm demand for money and money-equivalents for transactional purposes. Growth in M1 has thus been very rapid – averaging 19.4% in Q4 2010 and 19.8% y-o-y in Jan-Feb this year – as both demand deposits and currency in active circulation rose, albeit slower than in 2007-08. Meanwhile, growth in the broader monetary aggregates, M2 and M3, has remained lower and broadly stable at around 8.5% since Q4 2010, given the persistently low interest rates for fixed and other savings accounts.

In sequential terms, however, the level of seasonally-adjusted demand deposits and quasi-money, the largest components of M1 and M2 respectively, appears to have plateaued in recent months. (Chart 1.33)

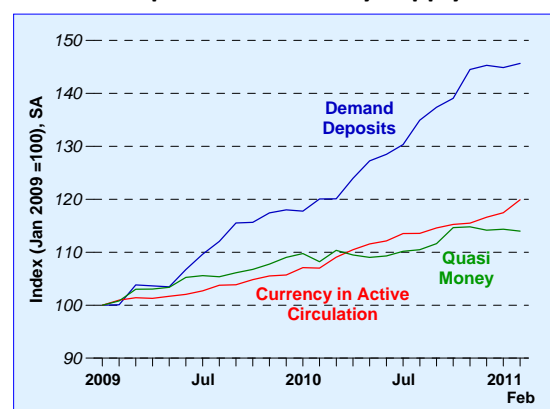
**Chart 1.31**  
**Average Monthly Change in Components of the Monetary Base**



**Chart 1.32**  
**Money Aggregates**



**Chart 1.33**  
**Components of Money Supply**





## Fiscal Policy<sup>9</sup>

### Operating revenue surged on the back of strong economic growth last year.

Operating revenue surged by \$6.7 billion to \$44.6 billion (14.7% of GDP) in 2010, arising from buoyant economic activity which raised income and consumption. (Chart 1.34) The largest revenue contributions came from income tax, stamp duty, vehicle quota (COE) premiums and GST, which increased by more than \$1 billion each last year, together contributing to 75% of the total rise in operating revenue.

Income tax, which is the biggest component of operating revenue, rose by \$1.4 billion to \$18.3 billion in 2010. The bulk of the increase was accounted for by corporate taxes, notwithstanding the reduction in the corporate income tax rate from 18% to 17% with effect from Year of Assessment 2010. In comparison, collection from individual taxpayers (personal and withholding income taxes) was largely unchanged from the previous year, reflecting the lag between earned income and personal income tax collection given the preceding year basis of tax assessment.<sup>10</sup>

Stamp duty increased by more than 50% to \$3.1 billion, amidst the strong recovery of the residential property market since Q3 2009. Nevertheless, the amount of stamp duty collected in 2010 was still below the peak of \$4.1 billion recorded in 2007. (Chart 1.35)

Revenue from COE premiums – captured under fees and charges – shot up last year, as a result of the series of reductions in the COE quota. Despite the continued fall in new car registrations over the course of 2010, the surge in premiums led to higher government receipts. (Chart 1.36) Meanwhile, GST collections rose to \$7.7 billion last year, boosted by strong consumption growth and tourist receipts.

The government also collected more revenue from other items. Betting taxes, for example, rose by \$0.4 billion to \$2.1 billion as a result of the opening of the two integrated resorts last year. Increases were also recorded for property taxes

Chart 1.34  
Components of Operating Revenue

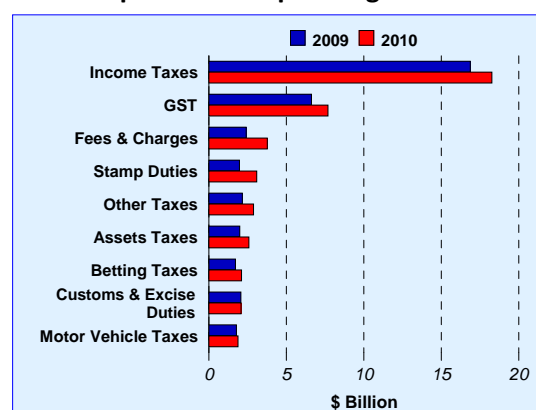


Chart 1.35  
Private Residential Property Transactions and Stamp Duty Collections

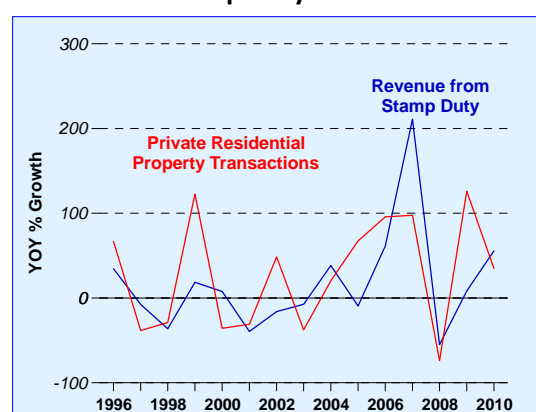
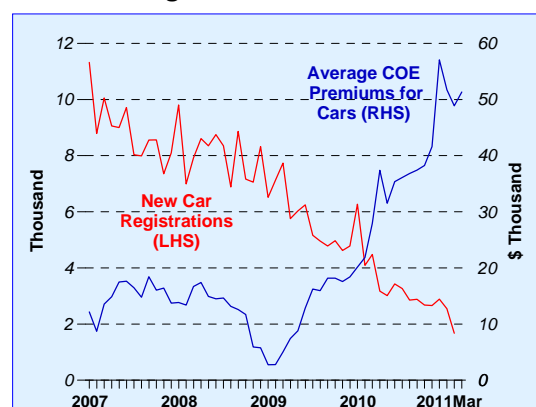


Chart 1.36  
New Car Registrations and COE Premiums



<sup>9</sup> This section is reported in calendar year rather than fiscal year.

<sup>10</sup> The lag is not as apparent for corporate income tax as companies are required to file their tax returns three months after the close of their financial year based on estimates of their chargeable income for that year.

(captured under asset taxes), as well as “other taxes”, the latter due, in part, to the graduated increases in the foreign worker levy since July 2010.

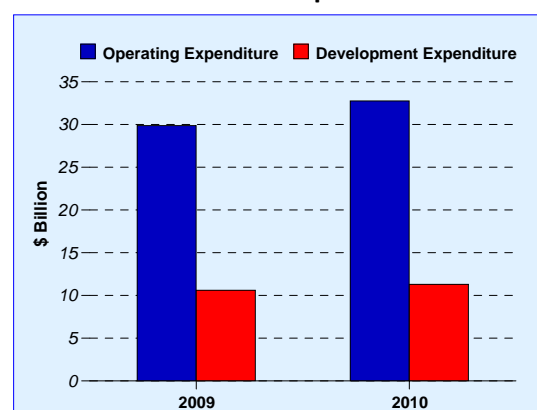
### The increase in government expenditure was driven by operating expenses.

Total government expenditure rose by \$3.6 billion in 2010 to \$44.0 billion (14.5% of GDP), largely driven by the increase in operating expenditure. (Chart 1.37) Operating expenditure, which accounts for about three-quarters of total government expenditure, includes expenses on manpower, equipment and supplies, as well as operating grants to statutory boards and aided educational institutions to support their day-to-day operations. This contrasts with development expenditure which comprises of longer-term investment in capitalisable assets, such as roads and buildings.

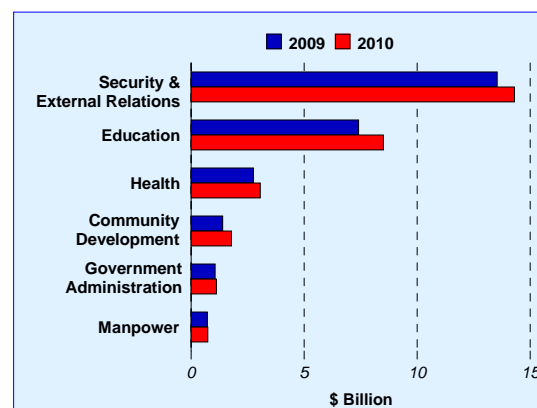
Operating expenses amounted to \$32.8 billion (10.8% of GDP) in 2010, \$2.9 billion more than that in 2009. This was driven by social spending, as well as security and external relations. (Chart 1.38) For social spending, the largest increase was for education (\$1.1 billion), in particular, the increase in the number of education officers recruited and higher operating grants given to Institutions of Higher Learning. The Ministry of Community Development, Youth and Sports also incurred more expenses hosting the Youth Olympic Games (YOG) and providing incentives for marriage and parenthood, while the Ministry of Health disbursed additional funding to the restructured hospitals, as well as for manpower training and other new initiatives.

Development expenditure rose by \$0.7 billion to \$11.3 billion (3.7% of GDP) in 2010. The bulk of the increase was attributed to spending on infocomms technology, in particular, the implementation of the Next Generation National Broadband Network. (Chart 1.39) The Ministry of National Development (MND) also incurred higher expenses for the Gardens by the Bay Phase 1 development and additional lift upgrading under the Housing Estates Management Programme.

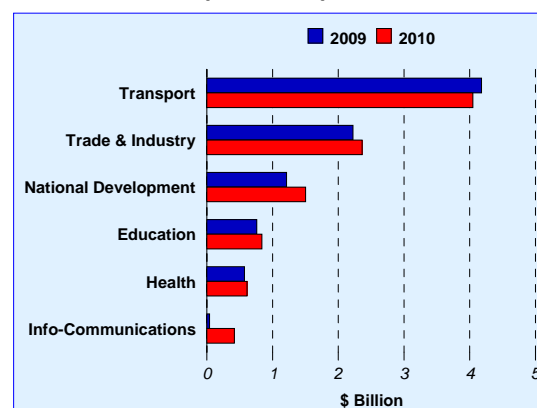
**Chart 1.37**  
Government Expenditure



**Chart 1.38**  
Selected Components of Operating Expenditure



**Chart 1.39**  
Selected Components of Development Expenditure

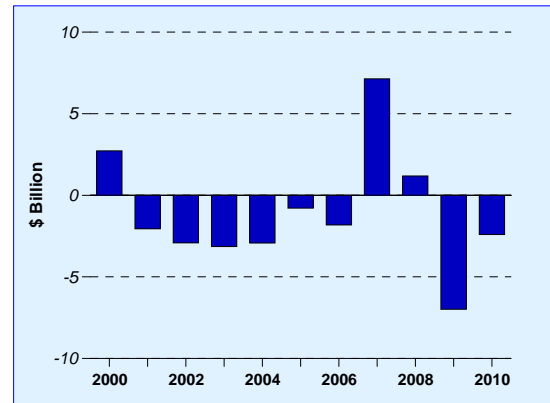


**The fiscal policy stance was contractionary in 2010, as stimulus measures put in place during the recession were withdrawn.**

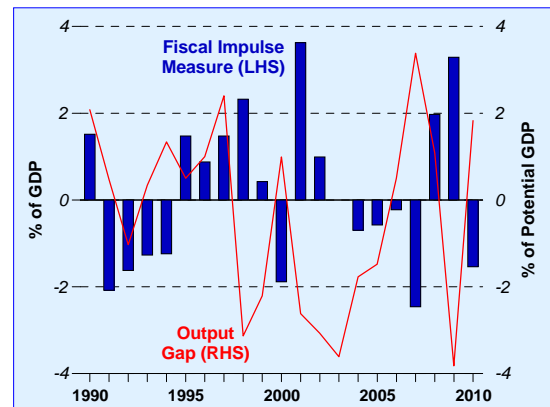
With operating revenue almost offset by total expenditure, the government recorded a small primary surplus<sup>11</sup> of \$0.5 billion in 2010, compared to the \$2.6 billion deficit in 2009. Including special transfers but without the top-ups to endowment and trust funds, the basic balance was in deficit to the extent of \$2.4 billion, largely due to the payouts under the Jobs Credit Scheme, which was extended until June 2010. (Chart 1.40)

The FI measure provides a useful indication of the initial stimulus to aggregate demand arising from fiscal policy. In CY2010, the fiscal stance was contractionary compared to the previous year, as shown by the negative FI at -1.6% of GDP. (Chart 1.41) This was consistent with the withdrawal of the fiscal stimulus measures put in place during the Great Recession in 2009. In addition, many of the fiscal measures introduced in Budget FY2010 were essentially geared towards enhancing the productive capacity of the economy, including policies that were supportive of the shift towards productivity-driven growth over the longer term.

**Chart 1.40**  
**Basic Surplus/Deficit**



**Chart 1.41**  
**Fiscal Impulse Measure**



Source: EPG, MAS estimates

<sup>11</sup> The primary surplus/deficit is defined as operating revenue less the sum of operating and development expenditures.

**Box A**  
**The Shifting Contours of Global and Asian Trade**<sup>1/2/</sup>

Global trade expanded rapidly over the past one and a half decades (1996-2009), with global merchandise exports and imports growing at an annual average rate of 7.5%. The pace of expansion, which has varied across major geographical regions and income groups of countries, saw a sharp acceleration after 2001. There was a near doubling of the growth rate of merchandise exports in 2002-09 to 9.7%, compared to 4.3% in 1996-2001. (Table A1) While much of the analysis of East Asian trade has been from the supply-side, this box examines Asian regional and global integration from a demand-side perspective.

**Table A1**  
**Growth of Global and China Exports** (%)

	World			China		
	1996-2009	1996-2001	2002-2009	1996-2009	1996-2001	2002-2009
Total	7.4	4.3	9.7	17.1	10.7	21.9
Consumption goods	6.9	3.5	8.6	12.5	7.8	16.0
Intermediate goods	7.5	4.0	10.0	17.4	10.4	22.6
Capital goods	6.9	4.8	8.5	26.5	21.3	30.0

Source: COMTRADE

Against this backdrop, there were significant compositional and geographical shifts in global trade, especially for middle income countries. With rapid export growth in middle income countries in East Asia and Latin America, the world trade centre of gravity shifted away from the high income countries. These changing patterns can be presented in the form of trade “heat maps”.

***Heat Maps: Capturing the Intensity of Trade Activity***

Figures A1 and A2 provide visual representations of trade among regions, both globally and for Asia and the US, respectively. Each figure is divided into eight panels: Column 1 depicts trade patterns among various geographical regions/countries in 1997; Column 2 shows this for 2009. Columns 1 and 2 are in turn divided into four rows, with separate charts providing trade information on total, consumer, intermediate and capital goods exports. The vertical axis in each chart lists the reporters (exporters), while the horizontal axis lists the partners (importers) for each reporter. For example, in Figure A1, the top row in Column 1 provides information on total exports of the world’s seven geographical regions. East Asia and Pacific (EAP) is the reporting (exporting) region in the bottom left corner, and horizontally across are its seven partner regions, which, sum up to EAP’s total exports to the world.

The colour scheme in the heat maps provides information about the relative magnitudes of trade among the regions. The large dark blue areas in the charts depict relatively low activity levels. At higher levels of trade activity, the contours change colour through lighter shades of blue, to green, yellow, orange and finally shades of red, which demarcates the most intensive concentration in trade activity.

***The Shifting Contours of Global and Asian Trade***

As seen in Figure A1, an overwhelming proportion of world trade in 1997 was among the high income (HY) countries, with middle income EAP economies as secondary suppliers of consumer goods. The HY countries were also the dominant suppliers of intermediate and capital goods, among themselves and to other countries. By 2009, however, the picture had changed noticeably. Not only had the EAP economies further

<sup>1/</sup> This box was contributed by Sanjay Kalra, Deputy Division Chief, Asia and Pacific Department, IMF, who has been visiting EPG. The views expressed in this box are those of the author and should not be interpreted as those of the IMF or MAS.

<sup>2/</sup> See Kalra (2010) and Pula and Peltonen (2009) for demand side input-output analyses of Asian trade and regional integration.

solidified their role as exporters of consumer goods to HY countries (second row), they also emerged as more prominent suppliers of intermediate and capital goods (third and fourth rows), along with middle income Latin American (LAC) and Eastern European countries (EUR).

In Asia, the patterns of trade have also changed for several countries over the same period, with significant shifts in partner countries and product categories. Spurred by its membership of the WTO in 2001 and supportive policies, the expansion of China's exports was more than double the growth rate of global trade. (Table A1) This was also a period of catch-up and rapid growth for several ASEAN economies, after the dislocation of the 1997-98 Asian Financial Crisis and the 2001 dotcom bust. The acceleration in trade for the Asia-9 economies was even more dramatic, buoyed by the rapid growth of China.<sup>3/</sup> Intra-Asian trade was a significant portion of this expansion, although some economies such as Thailand did increase their exports beyond the G3 and China. At the same time, import demand expanded in the US, supported by an environment of low interest rates and easy credit conditions.

Figure A2, which depicts trade flows to Asia-9 and the US, shows that there was a steady shift in the centre of gravity of global trade from Japan and the US to China. By 2005, China's dominance of the US consumer market was well established (second row). It had also made substantial inroads into the Korean and Japanese consumer markets, as production facilities shifted from the latter two to China alongside large inflows of FDI. Another distinctive cross-country feature of the composition of exports was a tripling of the share of capital goods in China's total exports from 10% in 1997 to 30% in 2009, a doubling from 10% to 20% for the Philippines and a decline in the share of capital goods exports from 20% to 10% for both Singapore and Taiwan. As early as 2005, China had surpassed Korea and Japan as the primary exporter of capital goods to the US (fourth row). This trend is consistent with the increasing sophistication of Chinese exports in recent years.<sup>4/</sup> Intermediate exports present a more variegated picture (third row), as shown by the range of colour patterns. Japan is now the dominant exporter of intermediate goods to China, followed by Korea, Taiwan, Singapore and Malaysia.

### **Sum-up**

In sum, by 2009, the Asia-9 economies had moved up the supply chain from being mere producers of consumer goods to become exporters of capital goods. This shift in composition reflects a rising sophistication in the region's export mix. These trends, which have taken place fairly rapidly over a period of one and a half decades, have been accompanied by the rapid rise of China as a global producer and exporter and a shift of production networks from other countries in the region to China.

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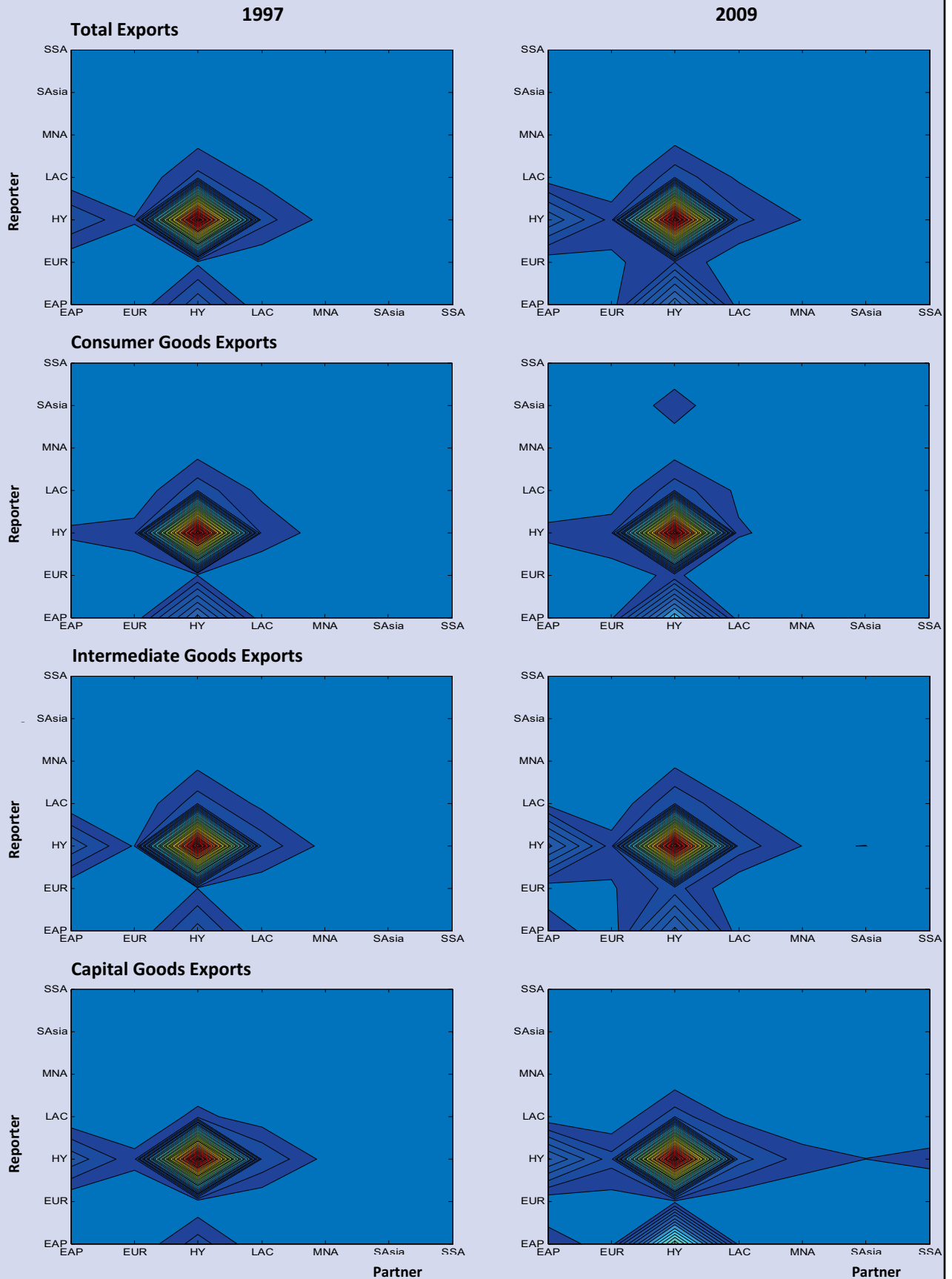
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<sup>3/</sup> Asia-9 consists of China, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Taiwan and Thailand, a region that has evolved into a close-knit cross-border regional production network.

<sup>4/</sup> See Li and Syed (2007) and Schott (2006).

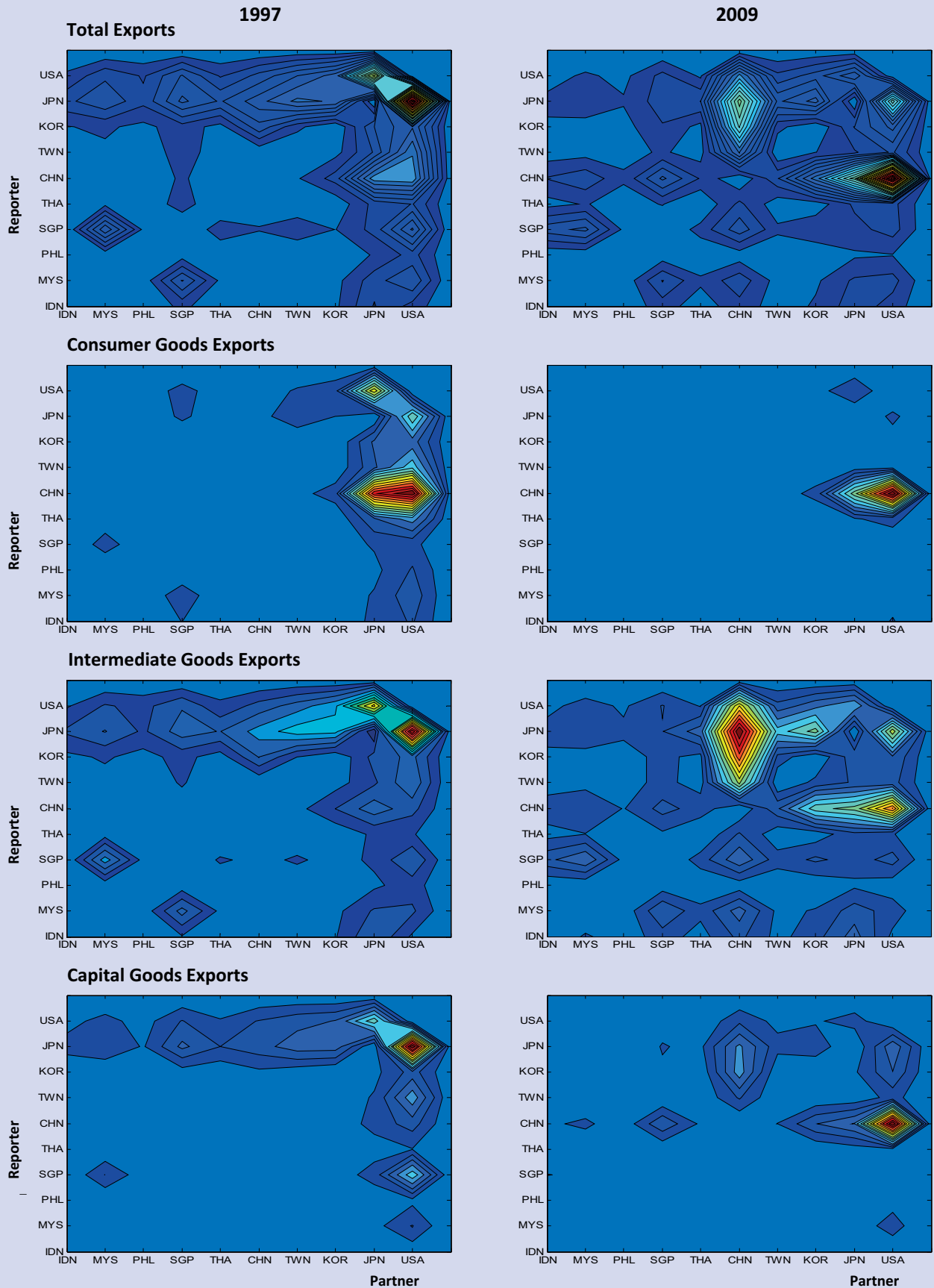
**Figure A1**  
**Global Exports**



Source: COMTRADE and IMF staff calculations

Note: There are seven regional groupings; High Income (HY), which includes the G7; East Asia and Pacific (EAP); Eastern Europe (EUR); Latin and Caribbean (LAC); Middle East and North Africa (MNA); South Asia (SAsia); and Sub-Saharan Africa (SSA).

**Figure A2**  
**Asia-9 and US Exports**



Source: COMTRADE and IMF staff calculations

Note: Asia-9 consists of China (CHN), Indonesia (IDN), Japan (JAP), Korea (KOR), Malaysia (MYS), the Philippines (PHL), Singapore (SGP), Taiwan (TWN) and Thailand (THA).