

## Singapore: MAS Monetary Policy Impact on SIBOR/SOR Rates

- The stronger SGD would likely result in more capital inflows, thereby lowering cost of borrowing, which may loosen monetary conditions.
- Domestic interest rates are largely dictated by external factors, such as US interest rates. This also means that the impact of Singapore's central bank actions on interest rates is less direct.
- Generally, the uncovered interest rate parity rule holds in Singapore over the medium to long term. Under the UIP condition, the movement of domestic interest rates in Singapore can be explained by the uncovered interest parity (UIP) condition, which states that domestic interest rates are determined by the level of interest rates abroad, and market expectations of the direction of the Singapore dollar exchange rate.
- Our view is that SGD interest rates will remain soft, but could be volatile over the next few months. Beyond that, focus will shift to the Fed interest rate tightening bias. Indeed, the strong GDP rebound, whether in Singapore or China, indicate that the Fed monetary tightening is closing in.

Post MAS policy announcement on 14 Apr, there has been numerous questions on the impact and dynamics of SGD cost of borrowing. The stronger SGD would likely result in more capital inflows, thereby lowering cost of borrowing, which may loosen monetary conditions. SIBOR was hovering around 0.65% on 14 Apr, and later fell to 0.6% on the 19 Apr. SOR which was at the 0.46% level before the 14 Apr, responded much faster, falling immediately on 14 Apr itself, to 0.38% before going down further to 0.3 on 15 Apr. So, what really dictates SGD cost of borrowing? Does policy tightening leads to softer interest rates – at least in the short-term?

### The Impossible Trinity

The 'trilemma' faced by small open economy economies with free capital mobility, targeting FX as a monetary policy choice, is that policy makers have fairly little control over domestic interest rate and money supply. Thus, domestic interest rates are largely dictated by external factors, such as US interest rates. This also means that the impact of Singapore's central bank actions on interest rates is less direct. Generally, the uncovered interest rate parity rule holds in Singapore over the medium to long term<sup>1</sup>. Under the UIP condition, the movement of domestic interest rates in Singapore can be explained by the uncovered interest parity (UIP) condition, which states that domestic interest rates are determined by the level of interest rates abroad, and market expectations of the direction of the Singapore dollar exchange rate. The UIP rule can be represented by the equation:  $i = i^* + \Delta E^e$  (1), where  $i$  is the domestic interest rate,  $i^*$  is the foreign interest rate, and  $\Delta E^e$  the expected change in exchange rate. Both  $i^* + \Delta E^e$  are external factors that cannot be controlled by the MAS, although there may be scope by the MAS to influence exchange rate expectations to a certain extent.

So, according to the UIP, holding everything else constant, we think Singapore's domestic interest rates should edge downwards, as the SGD continues climbing and capital inflows persist, on the back of expected appreciation in the SGD. The biggest factor affecting Singapore's domestic interest rates, however, is still the US fed funds rate. Based on

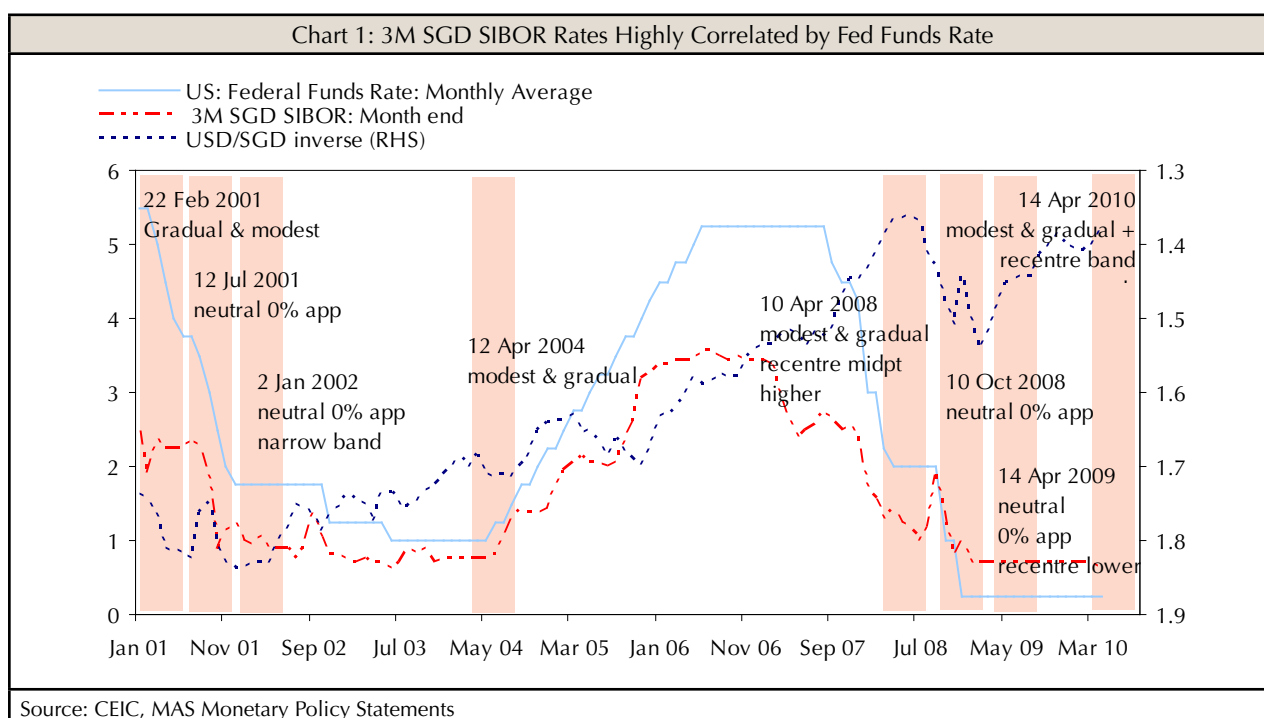
<sup>1</sup> Singapore Economic Review Vol . 52, No. 1 (2007) 7-25 "Managed Float Exchange Rate System: The Singapore Experience".

our estimates, the relationship between movements in the Fed funds rate and the 3M SGD is reflected by a substantial correlation of around 0.8 between year 2003 to present. The 3M SGD SIBOR has typically been lower than the US rates, on the account of strong internal and external balances, as well as a reflection of the US-Singapore inflation gap on average.

In chart 1, 3M SGD SIBOR movements are shown to be correlated to the US interest rates. Where they have diverged, in some of the instances, the likely cause might have been attributed to the result of the expected movements in the SGD. For example, looking at 10 Apr 2008, where the modest & gradual policy was maintained, and also supplemented with a recentring of the midpoint higher, the 3M SGD SIBOR went down to a low of 1% in Jul 2008, even though the Fed rates were kept constant at 2%.

Some other factors supporting the continued appreciation of the SGD and enhancement of the capital inflows into Singapore, are expectations of a revaluation in the RMB, as well as improving local economic growth. The official forecast now is for a bullish expansion of between 7.0-9.0% for the Singapore economy, from 4.5-6.5% earlier. And foreign portfolio equity investment in Singapore has been surging since 2004, growing more than 4 times to \$42.02 bn in 2008, according to data from the department of Statistics. The growth trend corresponded to the same time period as when the SGD was set on an appreciating trend starting in Apr 2004. So, the trend looks likely to continue with the current policy of a gradual and modest appreciation of the SGD.

Our view is that SGD interest rates will remain soft, but could be volatile over the next few months. Beyond that, focus will shift to the Fed interest rate tightening bias. Indeed, the strong GDP rebound, whether in Singapore or China, indicate that the Fed monetary tightening is closing in. We expect the 3m SGD SIBOR to move up to 1.10% by end 2010, and 3M SGD SOR to be 0.7%. Historically, the SOR and SIBOR track each other, with the spread at a narrow range. However, the spread between SOR and SIBOR is expected to remain positive in the coming quarters, with SOR being a function of foreign interest rate, forward exchange rate, and spot exchange rate. According to the ABS, USD/SGD SOR represents the cost of borrowing SGD synthetically, by borrowing USD for the same tenor, and swapping out the USD in return for the SGD. SIBOR, however is the Singapore Interbank Offered Rate and is the rate at which banks lend to one another, and is traditionally more stable. The SOR has been much more responsive to the expected movements of the SGD due to the UIP condition assumed in its pricing framework.



Overall, the determinants of SGD cost of borrowing are, in the short term, flows into Singapore, as well as the expected appreciation of the RMB, as well as local economy gaining traction. This should ensure rates remaining soft in the short term. In the long term, the Fed tightening bias closing in, as well as the expected long-term rate of appreciation in the SGD/USD will see domestic interest rates going up.

SIBOR/SOR Forecast				
	2Q10	3Q10	4Q10	1Q11
3M SGD SIBOR	0.8	0.9	1.1	1.5
3M SGD SOR	0.50	0.70	0.90	1.30
Source: UOB				

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