Asia Credit Research

SGD Corporate Perpetual Bonds: Still worthwhile?

Tuesday, October 31, 2017

Summary

- **Flavour of the season:** For YTD2017, 14 corporate perpetual bonds worth SGD4.0bn were issued. Investors have chased up prices in the secondary markets, fuelled by still benign swap rates and decreasing credit spreads. Flushed liquidity, redemption of SGD2.3bn GENSSP 5.125% PERP and fewer alternatives for high carry led investors to chase corporate perpetual bonds.

- **A successful hunt for the impossible trinity (High yield, limited tenor, low default risk):** Effective tenors of corporate perpetual bonds have largely been 3Y-5.5Y as most have called on the first call date. All issuers paid up, even when there are firms which later went into bankruptcy. Investors have been rewarded with high yields, generating total returns of 9.6% to 38.6% (average: 24.8%) by holding the corporate perpetual bonds till their eventual call.

- **Potential to generate higher than distribution rate returns:** For most outstanding corporate perpetual bonds, total returns are positive. Usually, total returns exceed coupon returns as they trade above par. In addition to a decline in swap rates and compression of credit spread, investors could profit by riding the yield curve as bonds get re-priced (to the current yield) as they age.

- **Issuers have called for differing reasons:** We find cost savings to be the most common reason to call, when a new perpetual bond could be refinanced more cheaply than the old one. This includes factoring step-ups in the event they are not called. Several issuers called as they hold sufficient capital. An issuer called while undergoing talks of privatisation. The rest did not refinance, likely because the environment may not have been conducive for the issuer to refinance.

- **Most issues will likely be called at current rates...:** At current levels, we find that most issuers are likely to issue a potential new perpetual bond at cheaper spreads than the old one, hence increasing the chance of call. Excluding EZISP 7% PERP, TATSON 6.65% PERP and TRAFIG 7.5% PERP from our analysis, only HYFSP 6% PERP looks unlikely to be called.

- **… though chance of missing call is not zero especially during a market correction:** The compression of credit spread could be reversed during times of crisis, and we think that the tight initial spread is granting issuers a very cheap option to retain corporate perpetual bonds beyond the first call date, unless there is a sizeable step-up. For issuances prior to 2015, they may have higher likelihoods to be called as they feature wider initial spreads and coupon rates.

- **Market priced near perfection:** With the run-up in prices, upside is capped with tight YTC credit spreads against the seniors. Risk-reward is in general no longer as attractive. Investors should consider the risk of a missed call, subordination risks and the risks of distribution deferral.

- **Stay selective:** We like LMRTSP 7% PERP, LMRTSP 6.6% PERP and SCISP 5% PERP. If investors prefer the high-yielders, straight bonds can also be considered including CENSUN 7% ‘20s, HTONSP 6.1% ‘20s, NOLSP 5.9% ‘19c17, NOLSP 4.65% ‘20c15 and NOLSP 4.4% ‘21c16.

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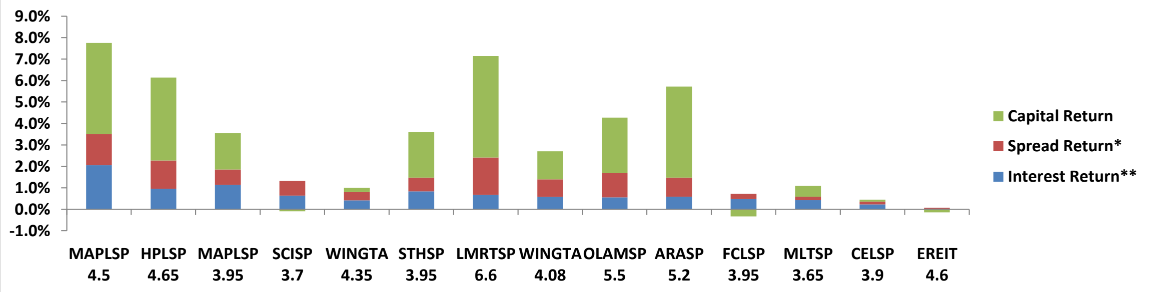
I) Background

Perpetual bonds have been the flavour of the season. For YTD2017, 14 corporate perpetual bonds totalling SGD4.0bn were issued, with orderbooks covering the issued amount on average by 2.9x. We think the optimism is fuelled by compression in spreads and swap rates. In the secondary markets, YTD2017 issuances are trading 1.8% above par on average.

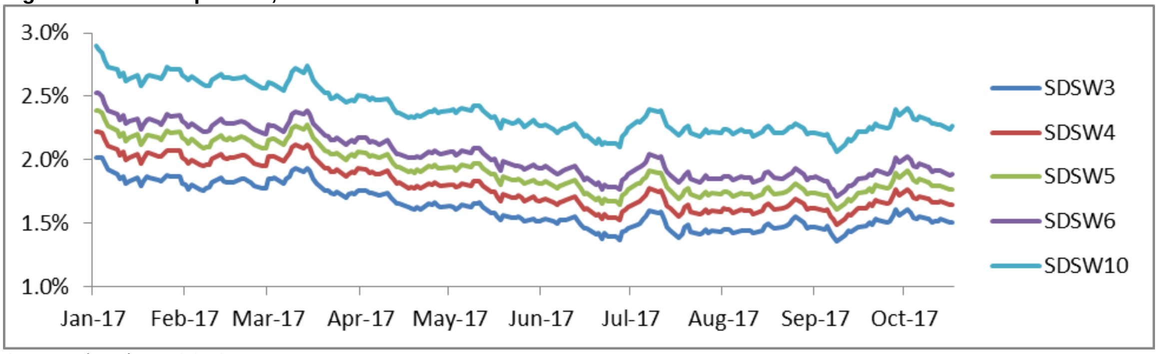
Figure 1: Returns of corporate perpetual bonds issued in YTD2017



Source: Bloomberg, OCBC
** Based on the initial spread ** Based on the relevant swap offering rate*

<u>Supportive interest rate environment</u>
Despite the Fed raising interest rates, SGD swap rates have continued to trend down. Bonds which were priced when swap rates were higher may feature higher coupons, which tend to rise in prices when swap rates subsequently decline.

Figure 2: SGD Swap Rates, YTD2017



Source: Bloomberg, OCBC

<u>Credit spread compression</u>
Credit spreads continued to tighten across the board, especially in the corporate perpetual bond space. New securities tend to price with tighter initial spreads than older securities (Figure 3).

Figure 3: Comparison of initial spread of old and new security

Old security			New security		
Security	**Spread (bps)**	**Issue date**	**Security**	**Spread (bps)**	**Issue date**
MAPLSP 4.5% PERP	186.5	12/01/17			
MAPLSP 5.125% PERP	346.7	18/07/12	MAPLSP 3.95% PERP	152	04/05/17
HPLSP 6.125% PERP	496.5	25/04/12	HPLSP 4.65% PERP	268.5	26/04/17
SCISP 4.75% PERP	211	13/05/15			
SCISP 5% PERP	218.7	13/08/13	SCISP 3.7% PERP	192	14/06/17
LMRTSP 7% PERP	524.5	20/09/16	LMRTSP 6.6% PERP	475.5	12/06/17
OLAMSP 7% PERP	496.5	01/09/12	OLAMSP 5.5% PERP	368.5	03/07/17
FCLSP 4.88% PERP	304.6	17/09/14			
FCLSP 5% PERP	301.5	02/03/15	FCLSP 3.95% PERP	224.5	14/09/17
MLTSP 4.18% PERP	230	16/05/16			
MLTSP 5.375% EPRP	418	08/03/12	MLTSP 3.65% PERP	181.5	19/09/17

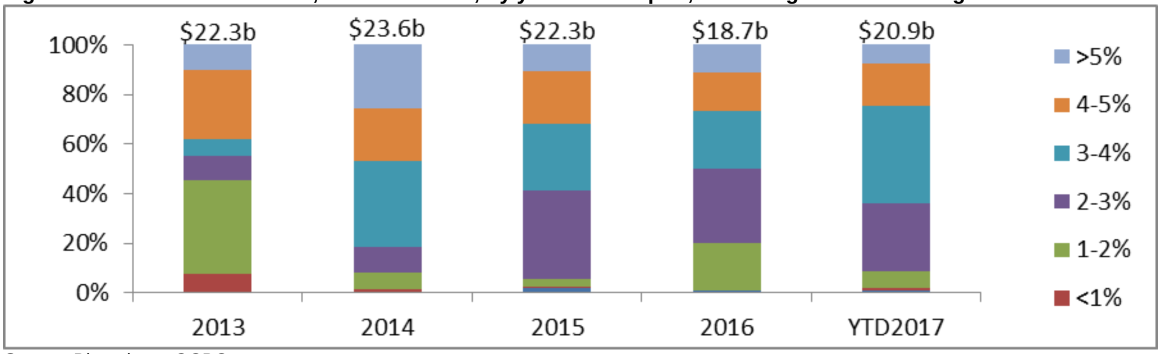
Source: Bloomberg, OCBC

II) The hunt for yield

Demand-supply mismatch drives yield tighter: The considerable tightening in credit spreads, in our view, is partly due to technical factors. In the SGD corporate bond market, liquidity remains flush while papers remain scarce. In the near-term, with the redemption of SGD2.3bn from GENSSP 5.125% PERP, technicals can be expected to remain supportive.

Decreasing alternatives for high carry: While 40% of SGD bonds issued in 2013-2015 are priced over 4% on average, only 25% of SGD bonds issued since 2016 sport coupons above 4%. With fewer alternatives for yield, investors are increasingly turning to corporate perpetual bonds - which have priced in the high 3% to over 6% region this year.

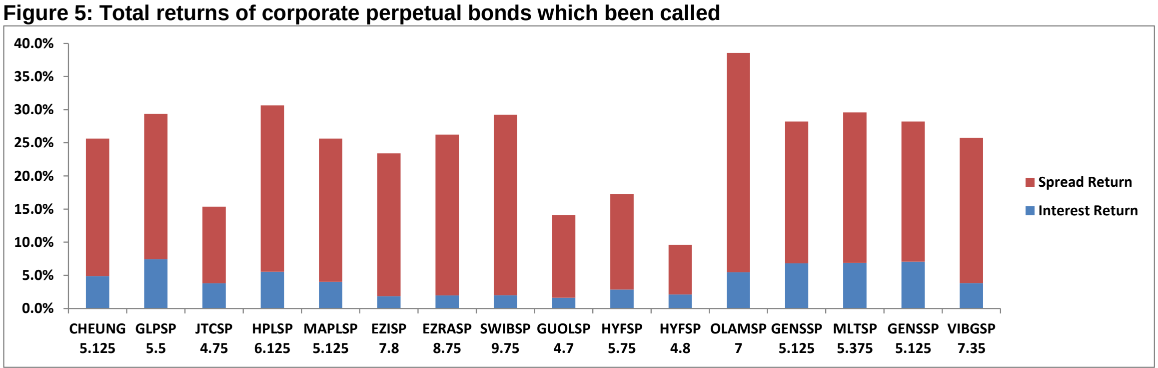
Figure 4: SGD bonds issuance, common-sized, by year and coupon, excluding <1Y tenor and govt/Temasek



Source: Bloomberg, OCBC

Good track record breeds confidence. Risk takers have been rewarded: We think the good track record of corporate perpetual bonds is another contributing factor that bolstered investors' interest. Thus far, most corporate perpetual bonds have rewarded investors with superior returns. Most perpetual bonds sport higher coupons than their straight seniors, with holders of the matured corporate perpetual bonds seeing total returns of 9.6% to 38.6% (average: 24.8%).

Figure 5: Total returns of corporate perpetual bonds which been called



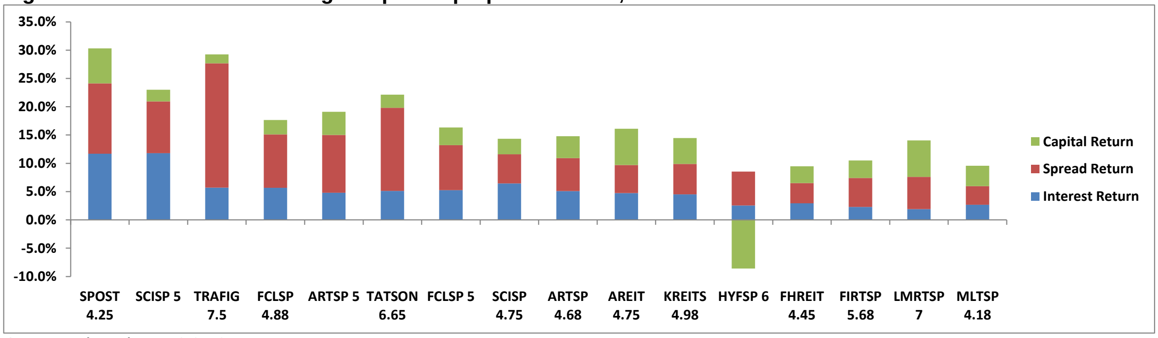
Source: Bloomberg, OCBC

All have redeemed, even when the issuer was on the brink of bankruptcy: It is noteworthy that we have yet to experience a corporate perpetual bond that elected to defer distributions, even for securities issued by troubled offshore & marine companies (e.g. EZRASP 8.75% PERP and SWIBSP 9.75%) as they were called before the eventual default on the straight seniors. EZISP 7.8% PERP was also called, though the outcome on EZISP 7% PERP is still pending.

Most called on first call, behaving like high yield bonds with medium tenor: The effective tenors of corporate perpetual bonds (as opposed to being truly perpetual) have been medium term (3Y to 5.5Y) as thus far most have called on the first call date. This applies even for CHEUNG 5.125% PERP, which was shunned due to its fixed-for-life structure that was deemed unfriendly to investors. Only OLAMSP 7% PERP missed the first call, although Olam then quickly announced its intention to repurchase the outstanding corporate perpetual bonds. It appeared that investors preferred Olam not to call as no one tendered (we had recommended a Hold instead of tendering). Olam called subsequently.

III) Potential to generate more than distribution rate returns

Figure 6: Returns of outstanding* corporate perpetual bonds, issued 2012-2016



Source: Bloomberg, OCBC
**Excludes EZISP 7% PERP*

Profit on both coupon and capital: For the outstanding corporate perpetual bonds, except for EZISP 7% PERP[1], the total returns are positive. Usually, total returns have been higher than coupon returns (spread + interest return) as they generally trade above par (except HYFSP 6% PERP). The compression of credit spreads and decreasing swap rates are two of the discussed factors driving prices higher. Another reason is due to the upward sloping yield curve as bonds get re-priced (to the current yield) as they age (see example below).

Riding the yield curve: In general, corporate perpetual bond prices have increased over time (before declining again prior to the eventual call). At issuance, corporate perpetual bonds are typically priced off the SGD swap rate (Figure 7). As discussed, investors expect most issuers to call, with corporate perpetual bonds' behaviour similar to higher-yielding bonds with medium tenor. When time passes, they get increasingly re-priced based on the shorter end (towards the left side) of the yield curve. If the re-priced yield is lower, prices (for newer bonds) typically rise. However, when call date nears, prices trend back towards par. As such, investors could profit through buying securities with longer maturity/call dates and selling before maturity/call when yields decline while prices are high ("riding the yield curve"). Corporate perpetual bonds may provide more upside as they feature a larger credit spread. However, the yield curve may not stay constant with time and hence the strategy of riding the yield curve is exposed to interest rate risks. The risk of non-call should also be remembered.

An illustration:
Assume a 5Y bond is priced at 5Y SOR (1.93%). After 1 year, if the yield curve remains unchanged, the time to maturity falls to 4Y and the bond will be re-priced to 4Y SOR. Price will rise (0.5 pts above par) as the coupon (1.93%) is higher than the required yield (1.80%). The results for holding the 5Y bond and bonds of various tenors to maturity are shown in Figure 7.

Figure 7: SGD swap offering rate, 1Y-5Y yield curve

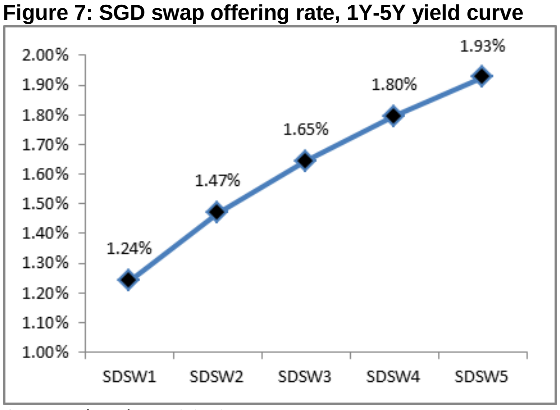
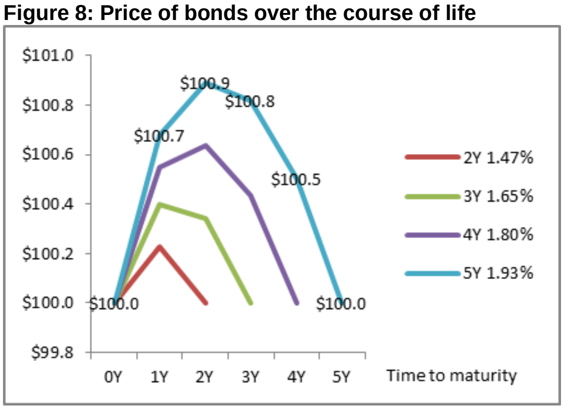


Figure 8: Price of bonds over the course of life



Source: Bloomberg, OCBC

[1] Ezion has been holding informal meeting with its bond and perpetual securities holders.

IV) Will all be called?

No historical precedence of not calling, though reasons may differ: We examine the reasons for issuers to call their perpetuals. For a large number of issues, they appear to have been called as it was economical to refinance them as the new security has a lower yield and/or yield spread, or the step-up (if call not exercised) could have made the original security more onerous. Several issuers appear to have adequate capital and did not refinance but called on their perpetuals. One issuer called while it was in the midst of a potential privatisation. Others did not refinance, likely because the environment may have been not conducive for refinancing.

Issues which were called and 'refinanced'

Several issuers issued a new security because these could be priced more cheaply (lower coupon, lower spread) than the called securities. They include MLTSP 5.375% PERP (replaced with MLTSP 3.65% PERP), MAPLSP 5.125% PERP (vs MAPLSP 3.95% PERP), OLAMSP 7% PERP (vs OLAMSP 5.5% PERP) and HPLSP 6.125% PERP (vs HPLSP 4.65% PERP). While the issuance size of the new MLTSP 3.65% PERP (SGD180mn) was smaller than old MLTSP 5.375% PERP (SGD350mn), we note that Mapletree Logistics back then had divested 4 properties for SGD267.5mn, raised SGD640mn equity while acquiring SGD848mn in assets (see our credit update on Mapletree Logistics Trust – 16 Oct 2017). On the other hand, VIBGSP 7.35% PERP, HYFSP 4.8% PERP and HYFSP 5.75% PERP were refinanced into more expensive securities with higher coupons. However, these issuers should be similarly economically motivated to call due to the punitive 200bps-500bps step-ups in the event they are not called.

Figure 9: Comparison of initial spread of called and new security

Called security			New security		
Security	**Initial Spread (bps)**	**Call date**	**Security**	**Initial Spread (bps)**	**Issue date**
MLTSP 5.375 PERP	418	19/09/17	MLTSP 3.65 PERP	181.5	19/09/17
MAPLSP 5.125 PERP	346.7	25/07/17	MAPLSP 3.95 PERP	152	04/05/17
VIBGSP 7.35 PERP	626.1	11/10/17	VIBGSP 7.5 '20	-	03/10/17
OLAMSP 7 PERP	496.5	01/09/17	OLAMSP 5.5 PERP	368.5	03/07/17
HPLSP 6.125 PERP	496.5	04/05/17	HPLSP 4.65 PERP	268.5	26/04/17
HYFSP 4.8 PERP	414.8	29/07/16	HYFSP 6 PERP	420	17/05/16
HYFSP 5.75 PERP	479	23/01/17			

Source: Bloomberg, OCBC

Issues which may have called due to sufficient capital

GENSSP 5.125% PERP, GUOLSP 4.7% PERP and CHEUNG 5.125% PERP appear to have been called and not refinanced as the company had ample cash / cashflows. Prior to call, the cash balance for Genting Singapore was SGD5.7bn (vs SGD2.3bn GENSSP 5.125% PERP), Guocoland Ltd was SGD1.7bn (vs SGD200mn GUOLSP 4.7% PERP), and CK Hutchison Holdings Ltd was SGD26.9bn (vs SGD730mn CHEUNG 5.125% PERP).

Issues which may have called but not refinanced due to special circumstances

GLPSP 5.5% PERP was called as it was expensive not to do so with a 100bps step-up while it was issued with a 420bps yield spread. In addition, with the ongoing talks of privatisation, in the event of change of control, the distribution rate would be increased by 5% p.a. (refer to credit overview on Global Logistics Properties – 24 Jan 2017).

Issues which called but environment may have been not conducive for refinancing

EZRASP 8.75% PERP, SWIBSP 9.75% PERP and EZISP 7.8% PERP may have called due to the hefty 300bps step-up if the call were not exercised. It also cannot be discounted that these perpetuals may have been called to maintain confidence as going concerns and maintain access to external financing. However, these issuers did not refinance as the environment may not have been conducive given their stressed circumstances. We note that EZRA and SWIBER had subsequently defaulted on their senior debt while the outcome on EZI is pending.

We acknowledge that other reasons (e.g. reputational risks, ongoing access to capital) may be contributing factors for issuers to call, though this would be difficult to ascertain. As such, for our analysis below, we will focus on the economic incentives of the issuer to do so.

Most outstanding corporate perpetual bonds are likely to be called: We compare the yield to reset ("YTR") spread against the initial spread of the recent issues (since 2016). The more the YTR spread has tightened, the higher the incentive to call (when the call date comes) as a potential new security to refinancing the existing security could be issued with a lower spread. Based on the current YTR spread, only HYFSP 6% PERP looks unlikely to be called given the significant widening of its spread. We also note that the 402bps difference between YTR spread and initial spread is greater than the step-up of 200bps. Otherwise, the remaining YTR spread are lower than the initial spread, though we think the borderline cases include SCISP 3.7% PERP, FCLSP 3.95% PERP, MAPLSP 3.95% PERP, CELSP 3.9% PERP, MLTSP 3.65% PERP.

For the older issuances (2015 and prior), we compare them to the initial spread of the newer issuances. While we do not always have like-for-like comparables[2], the compression in yield spread suggests that most securities are likely to be called (Figure 11). Note that we have excluded EZISP 7% PERP, TATSON 6.65% PERP and TRAFIG 7.5% PERP from our analysis[3].

Figure 10: 2016-2017 issuance

Security	Initial Spread (bps)	Yield to Reset (%)	YTR Spread (bps)	Spread Change (bps)
FHREIT 4.45 PERP	245	3.54	182	63
MLTSP 4.18 PERP	230	3.22	143	87
HYFSP 6 PERP	420	9.78	822	-402
FIRTSP 5.68 PERP	393	4.73	299	93
LMRTSP 7 PERP	525	5.14	337	188
MAPLSP 4.5 PERP	187	3.93	160	26
HPLSP 4.65 PERP	269	3.72	187	82
MAPLSP 3.95 PERP	152	3.74	134	18
STHSP 3.95 PERP	172	3.68	131	40
LMRTSP 6.6 PERP	476	5.52	359	116
SCISP 3.7 PERP	192	3.71	185	7
WINGTA 4.08 PERP	237	3.84	197	40
OLAMSP 5.5 PERP	369	4.94	307	62
ARASP 5.2 PERP	312	4.43	233	79
WINGTA 4.35 PERP	209	4.20	182	27
FCLSP 3.95 PERP	225	3.97	207	18
MLTSP 3.65 PERP	182	3.54	158	23
CELSP 3.9 PERP	238	3.82	219	19

Source: Bloomberg, OCBC

Figure 11: 2012-2015 issuance

Security	Initial Spread (bps)	Comparable	Initial Spread (bps)	Difference (bps)
SPOST 4.25 PERP	219	WINGTA 4.35 PERP	209	11
SCISP 5 PERP	219	SCISP 3.7 PERP	192	27
FCLSP 4.88 PERP	305	FCLSP 3.95 PERP	225	80
ARTSP 5 PERP	341	FHREIT 4.45 PERP	245	96
FCLSP 5 PERP	302	FCLSP 3.95 PERP	225	77
SCISP 4.75 PERP	211	SCISP 3.7 PERP	192	19
ARTSP 4.68 PERP	250	FHREIT 4.45 PERP	245	5
AREIT 4.75 PERP	243	MLTSP 3.65 PERP	182	62
KREITS 4.98 PERP	271	FHREIT 4.45 PERP	245	40

Source: Bloomberg, OCBC

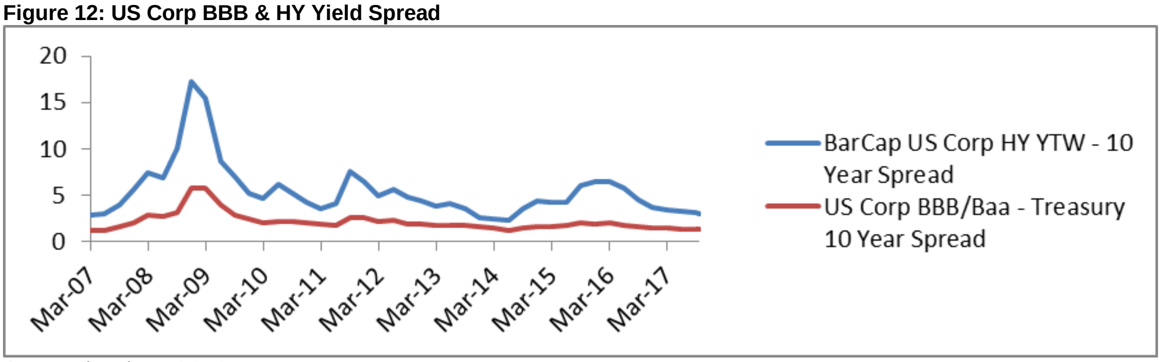
[2] Without like-for-like comparables, we have used companies with equal or weaker credit profiles (in our view) as comparables.
[3] Ezion is currently holding informal meetings with noteholders while pricing for TATSON and TRAFIG are illiquid.

V) Stay selective as markets may have priced near perfection

Don't chase the yield blindly: Although corporate perpetual bonds have provided a good track record and rewarded investors handsomely, we think that risk-reward is no longer as attractive as credit spreads have tightened considerably. We think the main risk (aside from credit risk) is the risk of a missed call. While there is no precedence of a missed call (except Olam, technically speaking), investors should not assume that companies will always call. Most issuers have called so far as there were economic reasons to do so (e.g. refinance at lower spreads). Given the rising rate environment, it would be less certain that issuers will be able to refinance at lower rates. Investors should also consider subordination risks. Recoveries in a restructuring or gone-concern scenario should be poorer for a subordinated perpetual bond compared to its seniors, especially if the layer of seniors is large (e.g. Hyflux, Olam, refer to Figure 16). Investors in subordinated perpetual bonds should also be aware of the plausibility of the company to defer distributions.

Upside capped for corporate perpetual bonds with tight pricing relative to seniors: We think that upside looks capped for a number of corporate perpetual bonds, with their tight YTC credit spreads against their seniors (Figure 13). As such, it appears that the market, in general, has priced very little chance of a non-call event. For REITs, this appears ironic as no terms are allowed to incentivize REITs to redeem early in order for the perpetual bond to be treated as equity by MAS. We think that the market has grown somewhat complacent, given that global economic conditions look rosy with credit spreads hitting the lows (Figure 12).

Figure 12: US Corp BBB & HY Yield Spread



Source: Bloomberg, OCBC

Likelihood to call may be impacted during crisis though older issuances may have lower call risks: We think for the newer bonds with tight initial spread (e.g. Figure 9), the thin spread effectively grants issuers a very cheap option to retain such perpetual bonds beyond the first call date, unless there is a sizeable step-up. Spreads on yield to reset ("YTR") and yield to step-up ("YTS") also appear compressed in general (Figure 14-15), though we opine that resets and step-ups may provide economic incentive for issuers to call. If the compression of credit spread were reversed (e.g. during GFC in 2008, Eurozone crisis in 2011, refer to Figure 12), we wouldn't be surprised if several issues will eventually be held perpetually. For the corporate perpetual bonds issued prior to 2015, in general, we think the call risks are lower due to their wider initial spreads and high coupon rate. Even if the call dates of these issues are missed, as long as the issuer is not in a distressed scenario, investors may continue to enjoy the carry (e.g. in the case of Olam). Overall, we think that unless the credit spreads of the senior bonds tighten further, it will be difficult for credit spreads of corporate perpetual bonds to continue grinding lower.

Staying selective amidst the pricey environment: While the market continues to chase yields lower, we prefer to stay selective. We would not be surprised of increased supply if issuers continue to take advantage of the benign environment, utilising corporate perpetual bonds as a cheap form of equity. Amongst the corporate perpetual bond space, we like LMRTSP 7% PERP, LMRTSP 6.6% PERP and SCISP 5% PERP. However, we are mostly Neutral or Underweight on the rest given the significant yield compression, and may prefer their seniors (e.g. WINGTA 4.25% '22s over WINGTA 4.35% PERP, OLAMSP 6% '22s over OLAMSP 5.5% PERP). Investors on the hunt for yield can also consider CENSUN 7% '20s, HTONSP 6.1% 20s, and NOLSP 5.9% '19c17, NOLSP 4.65 '20c15 and NOLSP 4.4% '21c16.

Figure 13: YTC spread pickup over comparable senior bond*

Corporate perpetual bond	YTC	Spread	Comparable senior bond	YTM	Spread	Spread pickup
AREIT 4.75 PERP c'14/10/2020	2.48	81	AREIT 2.95 08/03/20	2.01	38	43
ARTSP 4.68 PERP c'30/06/2020	3.14	152	ARTSP 4.205 11/23/22	2.65	67	85
ARTSP 5 PERP c'27/10/2019	2.86	137	ARTSP 4.205 11/23/22	2.65	67	70
FCLSP 5 PERP c'09/03/2020	3.60	204	FCLSP 3.95 10/07/21	2.69	87	118
FCLSP 4.88 PERP c'24/09/2019	3.47	200	FCLSP 3.95 10/07/21	2.69	87	114
FCLSP 3.95 PERP c'05/10/2022	4.01	205	FCLSP 3.95 10/07/21	2.69	87	119
FIRTSP 5.68 PERP c'08/07/2021	4.73	295	FIRTSP 4.125 05/22/2018	2.12	96	199
FHREIT 4.45 PERP c'12/05/2021	3.53	178	FHREIT 2.63 07/06/2022	2.53	60	117
HPLSP 4.65 PERP c'05/05/2022	3.71	181	HPLSP 3.85 05/27/2021	2.76	99	81
HYFSP 6 PERP c'27/05/2020	9.79	820	HYFSP 4.2 08/29/2019	8.76	730	90
KREITS 4.98 PERP c'02/11/2020	3.38	171	KREITS 3.15 02/11/2022	2.57	70	100
LMRTSP 7 PERP c'27/09/2021	5.19	338	LMRTSP 4.1 06/22/2020	3.60	199	138
LMRTSP 6.6 PERP c'19/12/2022	5.53	355	LMRTSP 4.1 06/22/2020	3.54	199	156
MAPLSP 4.5 PERP c'19/01/2022	3.41	155	MAPLSP 2.85 08/29/2025	2.81	53	101
MAPLSP 3.95 PERP c'12/11/2022	3.56	159	MAPLSP 2.85 08/29/2025	2.81	53	105
MLTSP 4.18 PERP c'25/11/2021	3.22	138	MCTSP 3.2 04/12/2021	2.06	31	107
MLTSP 3.65 PERP c'28/03/2023	3.55	153	MCTSP 3.25 02/03/2023	2.34	33	120
OLAMSP 5.5 PERP c'11/07/2022	4.89	296	OLAMSP 6 10/25/22	4.19	222	74
SCISP 5 PERP c'21/08/2018	2.37	114	SCISP 3.7325 04/09/2020	2.13	55	58
SCISP 4.75 PERP c'20/05/2022	3.59	199	SCISP 3.7325 04/09/2020	2.13	55	144
SCISP 3.7 PERP c'22/06/2020	3.74	213	SCISP 3.7325 04/09/2020	2.13	55	158
SPOST 4.25 PERP c'02/03/2022	2.74	86	SPOST 3.5 03/30/2020	1.59	3	84
STHSP 3.95 PERP c'16/06/2022	3.44	152	STHSP 3.08 09/12/22	2.28	33	119
WINGTA 4.08 PERP c'28/06/2022	3.74	182	WINGTA 4.5 09/26/22	3.05	109	73
WINGTA 4.35 PERP c'24/08/2020	4.11	247	WINGTA 4.25 11/29/22	3.37	139	108
CELSP 3.9 PERP c'19/10/2020	3.86	219	CELSP 4.7 04/29/2018	1.94	78	141
EREIT 4.6 PERP c'03/11/2022	4.66	274	EREIT 3.95 05/29/2020	2.95	136	138

Source: Bloomberg, OCBC
**We have excluded EZISP 7% PERP and the perpetual bonds of 3 private companies*

OCBC Bank

Figure 14: Yield to Reset ("YTR") spread pickup over comparable senior bond*

Corporate perpetual bond	YTR	Spread	Comparable senior bond	YTM	Spread	Spread pickup
AREIT 4.75 PERP c'14/10/2020	2.48	81	AREIT 2.95 08/03/20	2.01	38	43
ARTSP 4.68 PERP c'30/06/2020	3.14	152	ARTSP 4.205 11/23/22	2.65	67	85
ARTSP 5 PERP c'27/10/2019	2.86	137	ARTSP 4.205 11/23/22	2.65	67	70
FCLSP 5 PERP c'09/03/2020	3.60	204	FCLSP 3.95 10/07/21	2.69	87	118
FCLSP 4.88 PERP c'24/09/2019	3.47	200	FCLSP 3.95 10/07/21	2.69	87	114
FCLSP 3.95 PERP c'05/10/2022	4.01	205	FCLSP 3.95 10/07/21	2.69	87	119
FIRTSP 5.68 PERP c'08/07/2021	4.73	295	FIRTSP 4.125 05/22/2018	2.12	96	199
FHREIT 4.45 PERP c'12/05/2021	3.53	178	FHREIT 2.63 07/06/2022	2.53	60	117
HPLSP 4.65 PERP c'05/05/2022	3.71	181	HPLSP 3.85 05/27/2021	2.76	99	81
HYFSP 6 PERP c'27/05/2020	9.79	820	HYFSP 4.2 08/29/2019	8.76	730	90
KREITS 4.98 PERP c'02/11/2020	3.38	171	KREITS 3.15 02/11/2022	2.57	70	100
LMRTSP 7 PERP c'27/09/2021	5.19	338	LMRTSP 4.1 06/22/2020	3.60	199	138
LMRTSP 6.6 PERP c'19/12/2022	5.53	355	LMRTSP 4.1 06/22/2020	3.60	199	156
MAPLSP 4.5 PERP c'19/01/2022	3.94	155	MAPLSP 2.85 08/29/2025	2.81	53	102
MAPLSP 3.95 PERP c'12/11/2022	3.74	127	MAPLSP 2.85 08/29/2025	2.81	53	74
MLTSP 4.18 PERP c'25/11/2021	3.22	138	MCTSP 3.2 04/12/2021	2.06	31	107
MLTSP 3.65 PERP c'28/03/2023	3.55	153	MCTSP 3.25 02/03/2023	2.34	33	120
OLAMSP 5.5 PERP c'11/07/2022	4.89	296	OLAMSP 6 10/25/22	4.19	222	74
SCISP 5 PERP c'21/08/2018	4.58	252	SCISP 3.64 05/27/2024	3.18	103	149
SCISP 4.75 PERP c'20/05/2022	4.31	206	SCISP 3.593 11/26/2026	3.48	117	89
SCISP 3.7 PERP c'22/06/2020	3.72	180	SCISP 2.94 11/26/2021	2.24	45	135
SPOST 4.25 PERP c'02/03/2022	2.74	86	SPOST 3.5 03/30/2020	1.59	3	84
STHSP 3.95 PERP c'16/06/2022	3.68	125	STHSP 3.08 09/12/22	2.28	33	92
WINGTA 4.08 PERP c'28/06/2022	3.74	182	WINGTA 4.5 09/26/22	3.05	109	73
WINGTA 4.35 PERP c'24/08/2020	4.27	183	WINGTA 4.25 11/29/22	3.37	139	43
CELSP 3.9 PERP c'19/10/2020	3.86	219	CELSP 4.7 04/29/2018	1.94	78	141
EREIT 4.6 PERP c'03/11/2022	4.66	274	EREIT 3.95 05/29/2020	2.95	136	138

Source: Bloomberg, OCBC

**We have excluded EZISP 7% PERP and the perpetual bonds of 3 private companies*

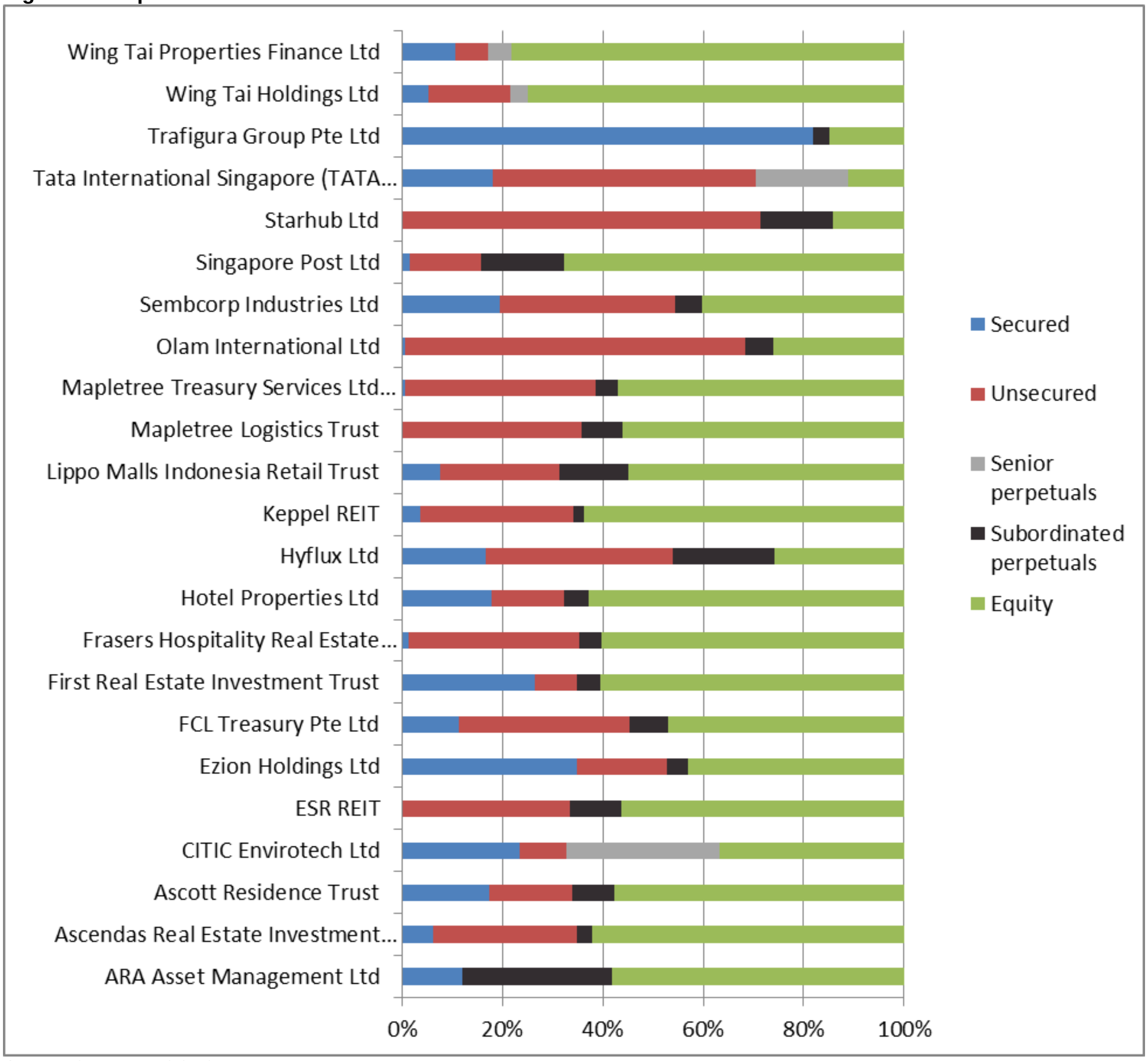
Figure 15: Yield to step-up ("YTS") spread pickup over comparable senior bond*

Corporate perpetual bond	YTS	Spread	Comparable senior bond	YTM	Spread	Spread pickup
FCLSP 5 PERP	4.85	262	FCLSP 4.25 04/21/26	3.63	130	132
FCLSP 4.88 PERP	4.88	269	FCLSP 4.25 04/21/26	3.63	130	139
FCLSP 3.95 PERP	4.56	211	FCLSP 4.15 02/23/2027	3.67	126	84
HPLSP 4.65 PERP	4.60	218	WINGTA 4.7 02/28/24	3.44	132	86
HYFSP 6 PERP	9.79	820	HYFSP 4.2 08/29/2019	8.76	730	90
MAPLSP 4.5 PERP	3.94	155	MAPLSP 2.85 08/29/2025	2.81	53	102
MAPLSP 3.95 PERP	3.74	127	MAPLSP 2.85 08/29/2025	2.81	53	74
OLAMSP 5.5 PERP	4.89	296	OLAMSP 6 10/25/22	4.19	222	74
SCISP 5 PERP	4.58	252	SCISP 3.64 05/27/2024	3.18	103	149
SCISP 4.75 PERP	4.31	206	SCISP 3.593 11/26/2026	3.48	117	89
SCISP 3.7 PERP	3.72	180	SCISP 2.94 11/26/2021	2.24	45	135
SPOST 4.25 PERP	2.74	86	SPOST 3.5 03/30/2020	1.59	3	84
STHSP 3.95 PERP	3.68	125	STHSP 3.08 09/12/22	2.28	33	92
WINGTA 4.08 PERP	4.47	204	WINGTA 4.7 02/28/24	3.44	132	72
WINGTA 4.35 PERP	4.27	183	WINGTA 4.25 11/29/22	3.37	139	43
CELSP 3.9 PERP	3.86	219	CELSP 4.7 04/29/2018	1.94	78	141

Source: Bloomberg, OCBC

**We have excluded EZISP 7% PERP and the perpetual bonds of 3 private companies. This list also does not feature REIT perpetual bonds as they do not feature a step-up.*

Figure 16: Capital Structure



Source: Company, OCBC

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