



Convertible Bonds Liquidity:

A very Liquid Asset Class - A look at Turnover Ratios and Daily Volumes



Antoine Marmoiton

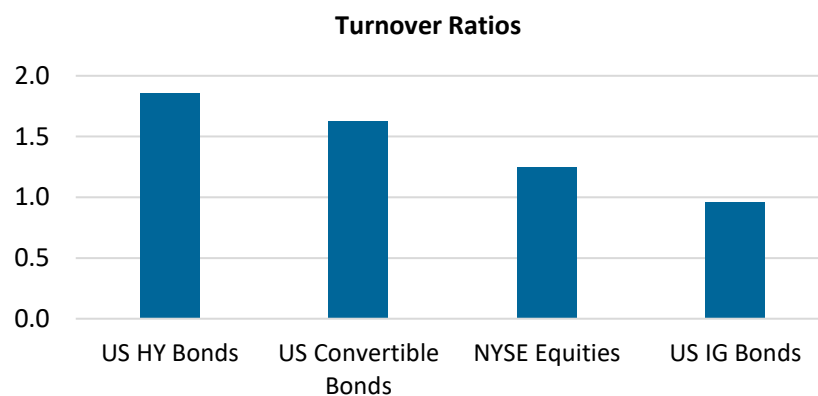
Trader/Analyst

Summary

In what follows we look at convertible bonds through data on US convertibles and ascertain their liquidity versus other corporate asset classes through their turnover ratios and have a look at how volumes react during large moves in equity markets. We find that comparatively it is likely that Convertible Bonds are one of the most liquid corporate assets.

A first look at liquidity in convertibles

Liquidity refers to the ease of buying or selling an asset without significantly affecting its price. To gauge liquidity, one can compare the trading volume to the total number of securities owned by investors. This is called the turnover ratio. Before going into why turnover ratios are important, let's have a quick look at them for corporate asset classes:



Using this metric, Convertible bonds come out near the top:

2022 Data	Total Volume*	Outstanding / Market Cap*	Annualized Turnover Ratio	Source
US Convertible Bonds	486	299	1.62	<i>TRACE / Bloomberg</i>
US IG Bonds	6,145	6,425	0.96	<i>TRACE / Bloomberg</i>
US HY Bonds	2,758	1,483	1.86	<i>TRACE / Bloomberg</i>
NYSE Equities	30,049	24,060	1.25	<i>World federation of stock exchanges</i>

*All amounts in USD bn

*For bonds: Par Value traded / Par Value Outstanding, for Equities: USD Volume traded / USD Market Cap

We took US convertibles data because the lack of consolidated tape in Europe and the currently relatively low quality of MIFID data makes it impossible to have very reliable measures, but we expect statistics to be of the same order in Europe for example.

Why are turnover ratios both useful and important?

They relate the asset/liability situation of a fund, i.e., your position size vs the total amount of bonds in existence and the volume that will be tradeable:

In most asset classes, the market impact is proportional to the square root of the desired trade volume divided by the daily volume¹. This relationship is considered in the numerator of the metric.

For passive investors holding the market portfolio, their ownership of different asset classes is based on their respective market capitalizations. Consequently, these investors aim to buy or sell assets in proportion to their market caps, which provides further rationale for examining the ratio of volume to market cap.

Turnover ratios are also the backbone of liquidity models in fixed income

The easiest way to form a model that predicts volumes is to model the Turnover ratios of Individual bonds against their characteristics²:

-It is possible to ensure that the total volume predicted matches what you expect for the market as a whole if you know the distribution of the turnover ratio.

-You can anticipate the volume that a bond will trade on the day where it is issued without waiting to see any further data.

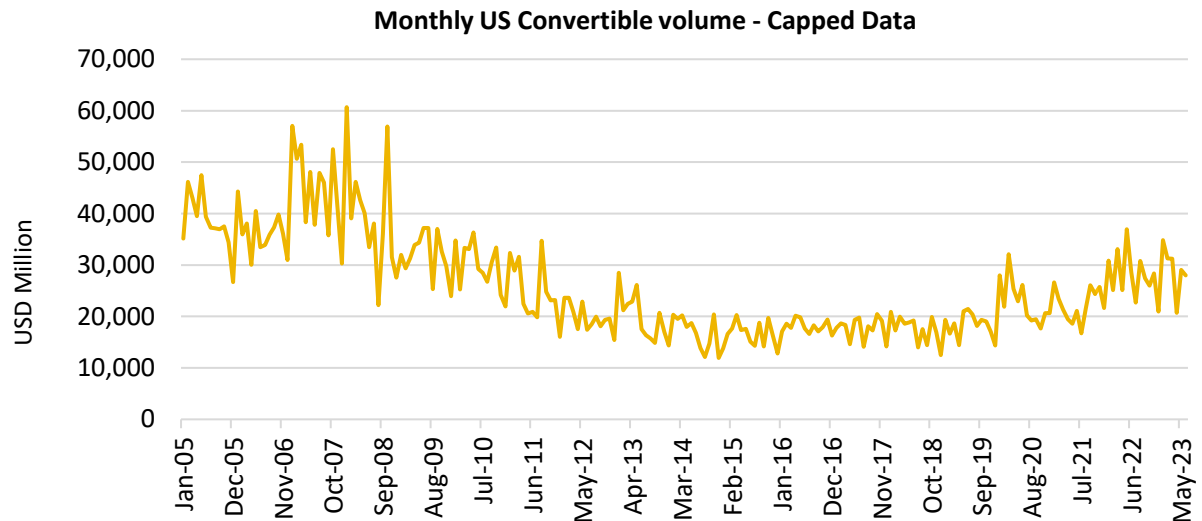
¹ Toth & al: Anomalous price impact and the critical nature of liquidity in financial markets, <https://arxiv.org/abs/1105.1694>

² See Norges Bank Investment Management, The Liquidity of a Diversified Portfolio – Discussion Note – 19.09.2017

How stable are convertible bond volumes?

When we ask this question most of us will think of market crashes. Two things are at play when a crisis hits, the initial liquidity and the potential price discovery. When markets go down it creates opportunity and the volume is usually proportional to volatility, which explains that in the end even in relatively difficult periods the volume traded in US convertibles for example, was relatively resilient.

We cannot see long range data on full trades but the uncapped data, which represents on average 65% of the total volume can be seen in Bloomberg:



We can even check what happens on daily volumes and see whether large moves in equity markets are linked to particularly low volumes. To assess this, we look at the difference daily volume in US CBs to its 1-month average, which we compare to the percentage move in S&P 500:

US Convertibles Volume vs its 1 month average on:

The 10 worst days

Date	S&P Move	1D Volume vs 1M Average
3/16/2020	-11.98%	22.9%
3/12/2020	-9.51%	31.5%
10/15/2008	-9.03%	21.3%
12/1/2008	-8.93%	-14.0%
9/29/2008	-8.79%	-19.3%
10/9/2008	-7.62%	18.8%
3/9/2020	-7.60%	-0.5%
11/20/2008	-6.71%	-9.3%
8/8/2011	-6.66%	26.0%
11/19/2008	-6.12%	-6.9%

The 10 best days

Date	S&P Move	1D Volume vs 1M Average
10/13/2008	11.58%	14.5%
10/28/2008	10.79%	12.8%
3/24/2020	9.38%	18.2%
3/13/2020	9.29%	10.5%
3/23/2009	7.08%	-20.2%
4/6/2020	7.03%	-32.6%
11/13/2008	6.92%	-13.9%
11/24/2008	6.47%	-34.9%
3/10/2009	6.37%	-11.6%
11/21/2008	6.32%	-27.5%

It is clear that crashes have little impact on volumes. This is coherent with our view that unlike Equities the volumes do not go up with very large events, but that at the same time the new buyers emerging from price discovery offset the absence of other participants.

DISCLAIMER

This document has been issued for the attention of institutional investors and other professional investors and should not be circulated to retail investors for whom it is not suitable.

The document has been prepared by AFFM S.A. ("AFFM") with the support of Alken Asset Management Ltd.

AFFM has its registered office at 3, Boulevard Royal, L-2449 Luxembourg, Grand Duchy of Luxembourg, is registered with the Luxembourg Commercial Registry ("R.C.S.") under number B 221.009 ("AFFM") and is authorised in the Grand Duchy of Luxembourg and regulated by the "Commission de Surveillance du Secteur Financier" (the "CSSF").

The document is issued for information purposes only and shall not be regarded as a public offer to buy or sell any security or financial instrument mentioned in it.

AFFM does not represent that the information contained in this document, including any data, projections, and underlying assumptions, is accurate or complete and it shall not be relied upon as such.

This document is based upon certain assumptions, management forecasts and analysis of information available as at the date hereof and reflects prevailing conditions and AFFM's views as of the date of the document, all of which are accordingly subject to change at any time without notice, and neither the Fund nor AFFM is under any obligation to notify any of these changes.

AFFM makes no representation or warranty whether expressed or implied and accept no responsibility for its completeness or accuracy or reliability.

AFFM shall not be liable for any loss or damage, whether direct, indirect, or consequential suffered by any person as a result of any errors in or omissions from the document or as a result of relying on any statement contained in this document.