



Omba Advisory & Investments Limited



What's Happened to the Fed's ETF Purchases?

Can the Fed afford to step back now that the market has rallied?

September 2020



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1. Overview

On Monday 23 March 2020, the Federal Reserve (Fed) announced¹ a raft of measures to promote financial system stability and the flow of credit to American families and businesses. The announcement was significant, and the day marked the low point for many asset assets globally, as investors welcomed the relief after a rapid decline in many risky assets. In the weeks and months that followed investors fully embraced the adage of *don't fight the Fed* – and how right those investors have been.

One of the most interesting announcements for us, as an ETF-specialist firm, was the announcement that the Fed would build exposure to corporate bonds by buying Exchange Traded Funds (ETFs). The significance of the actions by the Fed and the general market conditions at the time of crisis have had a notable impact on the perception and use of ETFs. The Fed's decision to purchase fixed income ETFs was another leap forward for the ETF industry since the Bank of Japan's use of equity ETFs in 2010.

The specific policy, in relation to corporate credit, was the establishment of two facilities to provide credit to large employers – the Primary Market Corporate Credit Facility (PMCCF) for new bond and loan issuance and the Secondary Market Corporate Credit Facility (SMCCF) to provide liquidity for outstanding corporate bonds. By 31 August 2020, no transactions had taken place under the PMCCF and so all support by the Fed (in relation to this policy) was through the secondary credit market (and perhaps most strongly, the Fed's forward guidance).² This stands in contrast to the Fed's European counterpart who has shown much more willingness to act in the primary credit markets.

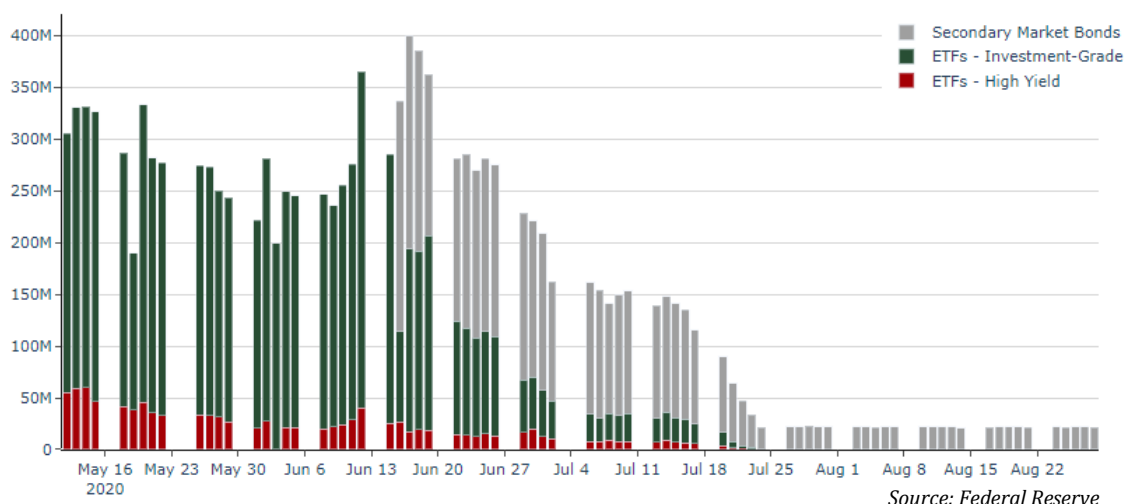
This report focuses on this credit support by the Fed, with consideration of yields, issuances and ETFs.

2. The Fed's Corporate Credit Activity Dries Up

It took from the original announcement on 23 March 2020, until 12 May 2020 for the Fed to start buying bond ETFs. As with much of Fed policy, forward guidance is an important part of the toolkit, and as is often the case, the market reacts quickly and often ahead of any actual policy implementation.

Following the Fed's subsequent announcement on Monday 14 June 2020, the Fed began buying corporate bonds in the secondary market (not by using ETFs). The Fed's ETFs purchases started to slow with the most recent ETF trade being on 23 July 2020. Purchases of secondary market bonds have also slowed but continue to occur at a constant but low rate during August 2020.

Fed's ETF and Secondary Market Bond Transactions



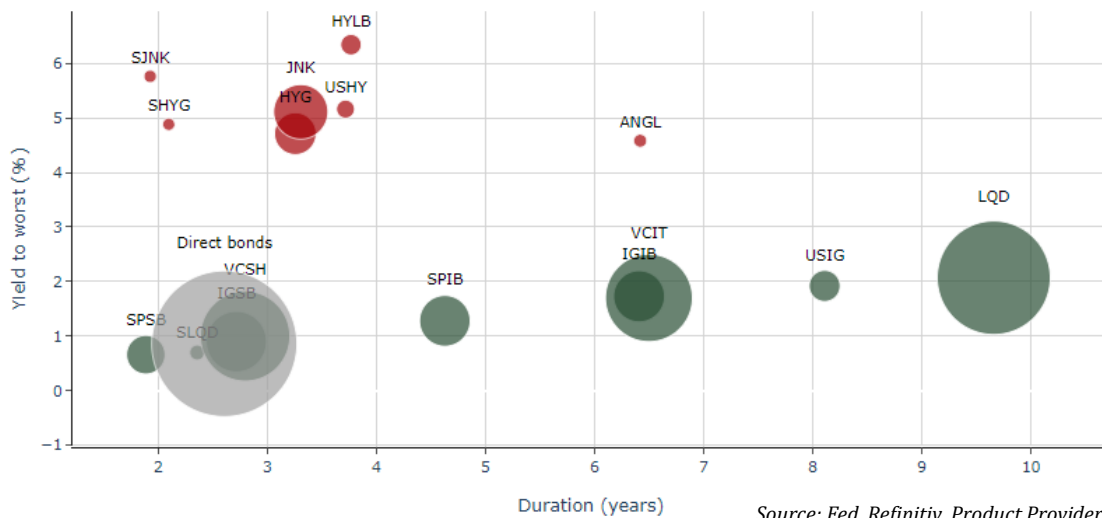
Source: Federal Reserve

3. How Does the Fed's Portfolio Look?

The Fed's ETF portfolio consists of nine investment grade (IG) bond ETFs (shaded in green below) and seven high yield (HY) bond ETFs (shaded in red below) and directly owned bonds (grouped and shaded in grey below). The IG holdings clearly dominate the Fed's portfolio (with the size of the circle below corresponding to the US dollar value of each respective position by the Fed in each ETF – LQD being its largest holding). The flatness of yield curve is evident in the IG space – LQD has a duration of 9.7 years and yields 2.1% (which is not a significantly higher yield than those IG ETFs with a duration of closer to two years).

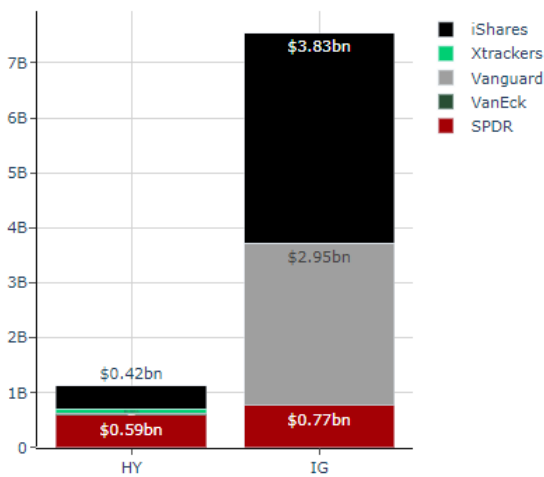
The HY space is impacted to a greater degree by other factors such as credit rating, sector exposure (especially in the current environment) and other idiosyncratic factors.

ETF and Secondary Market Bond Portfolio on 31 August 2020



Source: Fed, Refinitiv, Product Provider website

IGIB	iShares Intermediate-Term Corporate Bond ETF	ANGL	VanEck Vectors Fallen Angel High Yield Bond ETF
IGSB	iShares Short-Term Corporate Bond ETF	HYG	iShares iBoxx High Yield Corporate Bond ETF
LQD	iShares iBoxx US Dollar Investment Grade Corporate Bond ETF	HYLB	Xtrackers US Dollar High Yield Corporate Bond ETF
SLQD	iShares 0-5 Year Investment Grade Corporate Bond ETF	JNK	SPDR Bloomberg Barclays High Yield Bond ETF
SPIB	SPDR Portfolio Intermediate Term Corporate Bond ETF	SHYG	iShares 0-5 Year High Yield Corporate Bond ETF
SPSB	SPDR Portfolio Short Term Corporate Bond ETF	SJNK	SPDR Bloomberg Barclays Short Term High Yield Bond ETF
USIG	iShares Broad US Dollar Investment Grade Corporate Bond ETF	USHY	iShares Broad US Dollar High Yield Corporate Bond ETF
VCIT	Vanguard Intermediate-Term Corporate Bond ETF		
VCSH	Vanguard Short-Term Corporate Bond ETF		



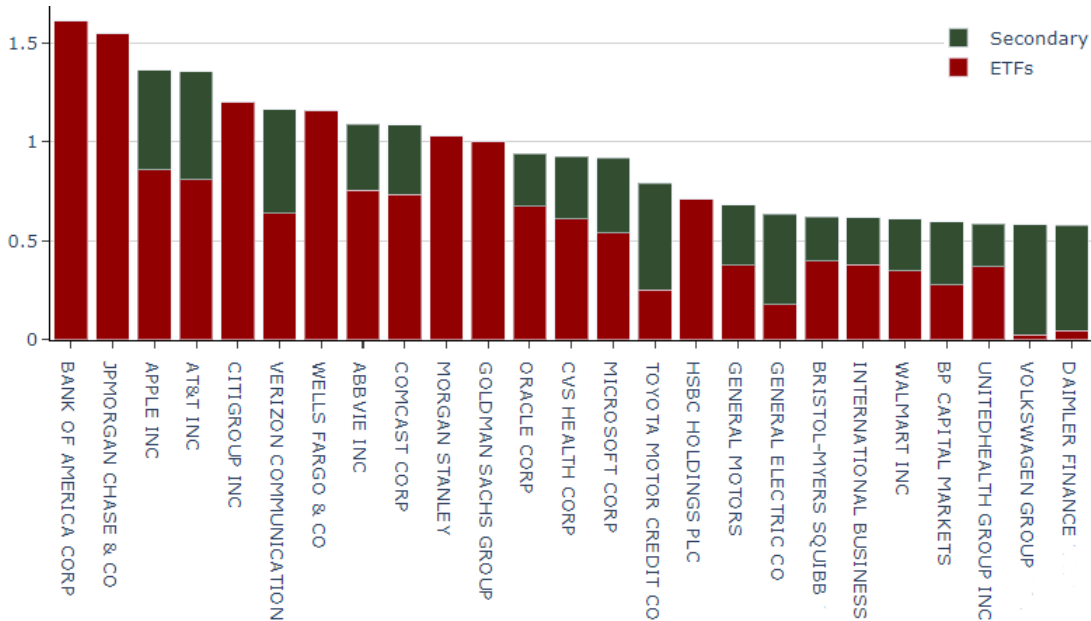
Source: Federal Reserve

By ETF issuer, iShares clearly dominates the Fed's holdings. Blackrock (the company behind the iShares brand) was appointed by the Fed, under a transparent [Investment Management Agreement](#) (IMA), to facilitate the purchase of ETFs and secondary market corporate bonds. To help manage the apparent conflict of interest, Blackrock agreed to reduce its fee under the IMA by any revenue earned by purchasing its own ETFs. With iShares market dominance (approximate 40% market share and \$1.8 trillion of assets in its US ETFs), the IMA with the Fed is less about fees and conflicts of interest and more about the effectiveness of the Fed policy.

What does the Fed actually hold?

Largest Bond Issuers

The largest bond issuer, to which the Fed's portfolio has 1.6% exposure, is the Bank of America. All of this exposure is through the Fed's ETF portfolio. The Fed's largest exposure through their direct secondary market bond purchases is to Volkswagen Group of America Finance LLC (exposure worth over USD 70 million). The Fed's ETF portfolio has very little exposure to this company. Interestingly the Fed also has relatively large direct bond holdings in Apple Inc and Microsoft Corp.



The Fed's portfolio (consisting of 16 bond ETFs plus direct bond holdings) is certainly diverse. 10,058 bonds issued by 2,284 issuers are held across the portfolio. Naturally, there is a fair amount of overlap between the ETFs and direct bonds held. The overlap of bonds owned by each of the ETFs is predictably high with the "Direct" secondary market bonds purchased by the Fed having a 30% overlap (of individual bonds) with the VCSH (Vanguard Short-Term Corporate Bond ETF), followed by SLQD.

Holdings

	Ticker	Number of Bonds	Number of Different Issuers
IG	IGIB	2,411	944
	IGSB	2,965	994
	LQD	2,328	417
	SLQD	1,785	480
	SPIB	4,052	850
	SPSB	1,109	477
	USIG	7,276	1,289
	VCIT	2,013	720
	VCSH	2,318	707
	HY	ANGL	328
HYG		1,234	440
HYLB		1,069	435
JNK		1,082	552
SHYG		735	449
SJNK		790	494
USHY		2,000	906
Secondary Market Bonds	1,005	503	
BLENDDED FED PORTFOLIO	10,058	2,284	

Percentage Overlap of Bond Holdings per ETF

	IGIB	IGSB	LQD	SLQD	SPIB	SPSB	Direct	USIG	VCIT	VCSH
IGIB	100									
IGSB	1	100								
LQD	37	17	100							
SLQD	1	56	16	100						
SPIB	41	42	41	36	100					
SPSB	0	33	0	38	22	100				
Direct	0	27	6	28	17	20	100			
USIG	30	31	46	21	45	12	10	100		
VCIT	72	1	37	1	45	0	0	25	100	
VCSH	0	63	17	64	47	40	30	26	1	100
ANGL										
USHY	15	71	65	62	36	33	100			
SJNK	10	36	35	30	71	100				
SHYG	10	42	39	28	100					
JNK	7	73	69	100						
HYLB	11	81	100							
HYG	7	100								
ANGL	100									

4.A Drop in the Ocean?

The response by markets to the Fed's support has been considerable. From the low on 23 March 2020 the S&P 500 is up 48.4% (2.75% year-to-date) to 18 September 2020. From a fixed income perspective, the Bloomberg Barclays US Aggregate Bond Index is up 5.8% (6.9% year-to-date).

US-domiciled ETFs

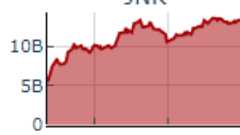
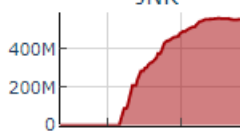
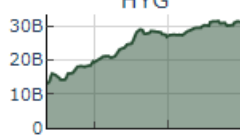
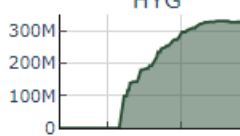
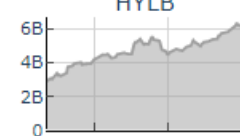
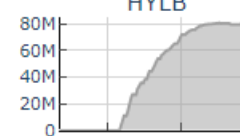
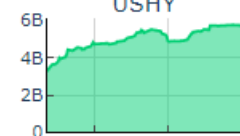
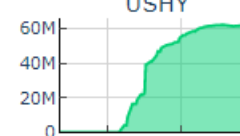
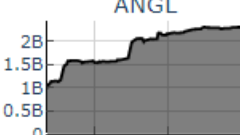
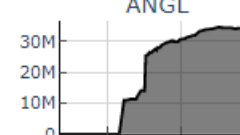

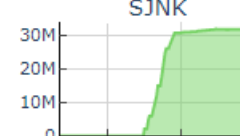
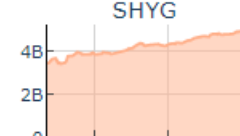
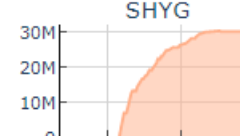
Looking more closely at the Fed's nine investment grade bond ETFs and seven high yield ETFs paints an interesting picture with the both the ETF price per share and ETF Assets Under Management (AUM) increasing significantly. While an increase in prices is a notable contributor to the growth in AUM of each ETF, a degree of "front running" and co-investing by market participants is abundantly clear. The Fed did not initially announce the exact ETFs that it would buy, but the top candidates at the time were LQD, VCIT, VCSH, HYG and JNK (contributing to some dispersion between ETFs with similar exposure).

The charts on the next page track each ETF owned by the Fed, from 23 March 2020 to 31 August 2020, and they have been ordered by the largest to smallest holding by the Fed (in USD).

High Yield ETFs:

Across the high yield ETFs, the growth in AUM of the ETFs has been phenomenal. JNK (*SPDR Bloomberg Barclays High Yield Bond ETF*) grew from USD 5.6 bn to USD 13.3 bn (138.9%) over just 161 days. The Fed's largest holdings by value are in JNK and HYG (*iShares iBoxx High Yield Corporate Bond ETF*) (and at the end of August 2020, the Fed owned 4.2% of JNK). Considering that JNK has grown (by number of shares) by 91.1%, the Fed's ownership of the ETF would have been closer to 8% should there have been no other net creations and purchases by other market participants. The Fed owns closer to 1% of each of the other ETFs. For further context see [Will the Fed Follow the Bank of Japan](#). We see these levels of ETF ownership by the Fed as low (especially given the size of the underlying bond market) but hugely significant. We see any unwind in ownership by the Fed as having a negative, albeit small, impact on the size of the ETFs. The nature and speed of any unwind, along with market conditions at the time, will determine the impact on prices.

High Yield ETFs (continued):

AUM of the ETF (USD)	Increase in AUM of the ETF (USD)	Increase in size (by number of shares) of the ETF	Value of Fed's position in each ETF (USD)	% of each ETF that is owned by the Fed
	JNK 138.9%	JNK 91.1%		JNK 4%
	HYG 137.7%	HYG 91.8%		HYG 1%
	HYLB 110.8%	HYLB 67.9%		HYLB 1.5%
	USHY 73.7%	USHY 39.1%		USHY 1%
	ANGL 127.1%	ANGL 66.2%		ANGL 1.5%
	SJNK 52.3%	SJNK 26.5%		SJNK 1%
	SHYG 43.0%	SHYG 21.0%		SHYG 0.6%

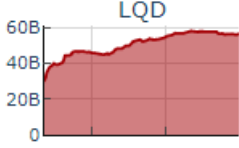
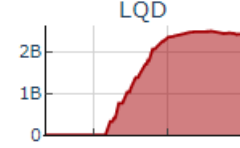
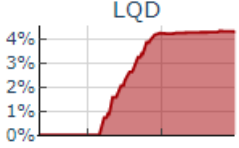
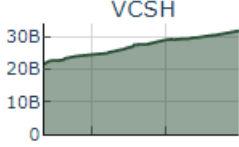
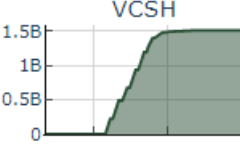
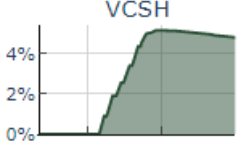
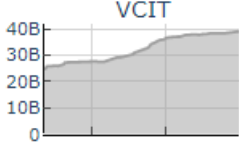
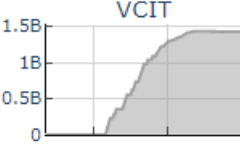
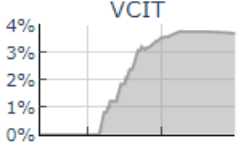
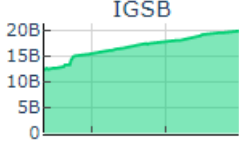
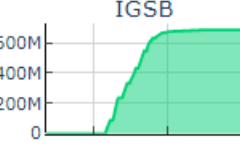
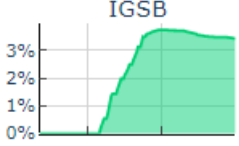
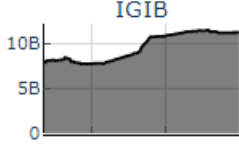
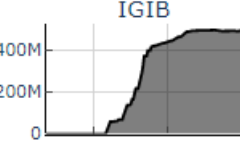
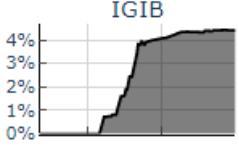
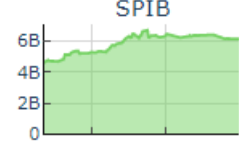
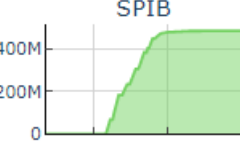
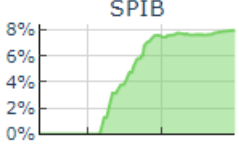
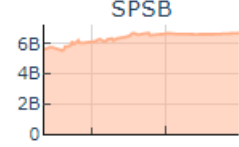
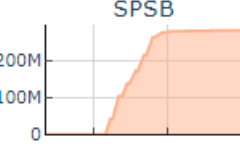
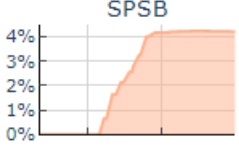
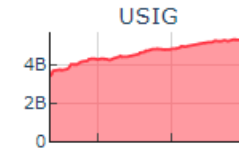
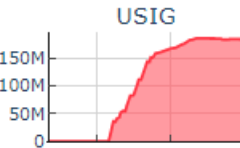
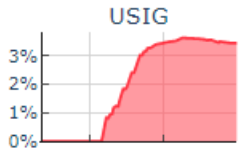
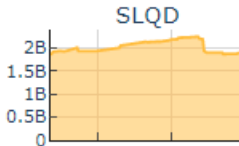
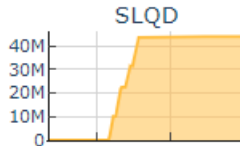
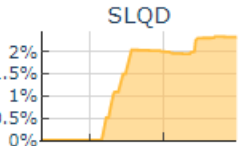
Source: Refinitiv

Investment Grade ETFs:

Compared with high yield ETFs the Fed's impact on investment grade ETFs has been more muted, however the impact is still profound. The Fed owns about 4% on average of each of the ETFs. Visually, the duration (maturity) exposure is well balanced as seen in [ETF and Secondary Market Bond Portfolio on 31 August 2020](#), with a bit more exposure to shorter dated bonds (which aligns closely with the Fed's criteria when purchasing individual corporate bonds with maturities of less than five years).

SLQD is the only ETF which has seen net outflows. This is the smallest of the investment grade ETFs purchased by the Fed which has likely contributed to its lacklustre growth. The low yield on the short end of the yield curve has also dissuaded investors.

Investment Grade ETFs (continued):

AUM of the ETF (USD)	Increase in AUM of the ETF (USD)	Increase in size (by number of shares) of the ETF	Value of Fed's position in each ETF (USD)	% of each ETF that is owned by the Fed
	87.9%	58.8%		
	46.7%	33.3%		
	56.0%	34.5%		
	59.4%	44.8%		
	41.1%	21.8%		
	32.6%	16.9%		
	18.1%	9.4%		
	54.9%	33.5%		
	2.4%	-6.5%		

Source: Refinitiv

European-domiciled ETFs

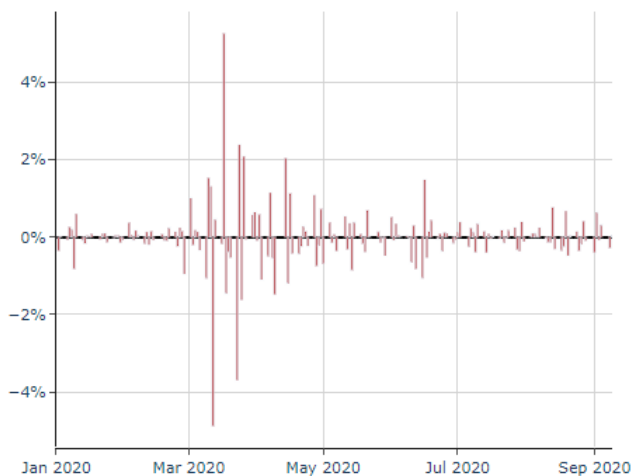
Much of the market analysis around the Fed's actions has been focussed on US-domiciled ETFs however many European investors have also been impacted as they have invested in similar underlying bonds by using European-domiciled ETFs.

European-domiciled ETFs benefitted from the same uptick in prices (as did the whole market). For the most part European-domiciled ETFs track similar indices (for example LQD listed in the US and LQDE listed in Europe both track the Markit iBoxx USD Liquid Investment Grade Index).

iShares \$ Corp Bond UCITS ETF - AUM and Flows (USD)



Europe vs US daily price difference



Source: Refinitiv

The largest product of its type in Europe, the iShares \$ Corp Bond UCITS ETF (the two main tickers being LQDE and LQDA), has almost USD 12 billion in AUM in its non-hedged share classes (vs. its US-domiciled cousin LQD at about USD 60 billion). As can be seen in the chart on the left, the ETF has almost doubled in size from the March 2020 lows (shown by the red line). As with LQD (the US-domiciled ETF), this ETF received significant net inflows (notably almost USD 2 billion in May 2020 as indicated by the bars in the chart).

One of the important aspects to understand with ETFs is the difference caused by trading hours of the ETF itself versus the trading hours of the underlying holdings. This may manifest itself in wider/narrower spreads, trading at premiums/discounts to NAV and differing performance between similar ETFs trading in different time zones.

In the case of iShares \$ Corp Bond UCITS ETF (LQDE) trading on the London Stock Exchange, it will have a closing price at 16:30 BST, while the iShares iBoxx \$ Investment Grade Corporate Bond ETF (LQD) trading in the US will have a closing price hours later. The underlying bonds held by the London-traded ETF are also subject to different trading hours to the ETF itself. For the most part, this does matter for many investors and as can be seen in the chart on the left, there were notable periods in March and April 2020 in which the European-domiciled ETF outperformed the US-domiciled ETF. This difference typically "catches up" the next trading day and the important lesson for investors is ensuring good execution with a reasonable bid-offer spread.

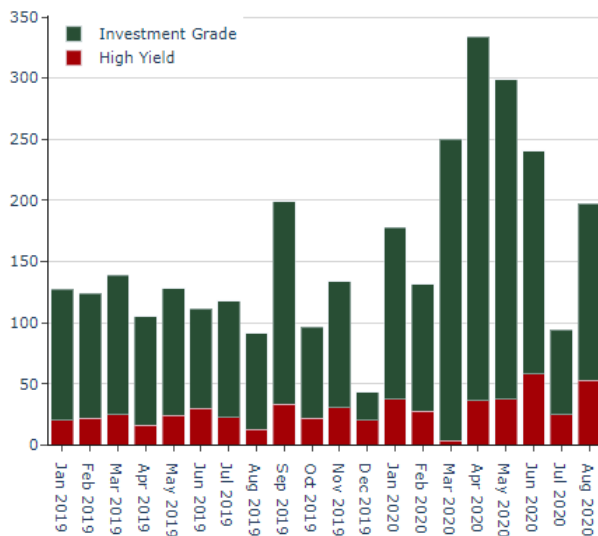
Corporate Debt Issuance

One of the biggest stories on the corporate debt side is the massive amount of new issuance (especially in the investment grade space) as companies tried to shore up their finances and cash flow and to take advantage of low interest rates. The Fed funds rate/range started 2020 at 1.5-1.75% and by mid-March 2020 was just 0-0.25%.

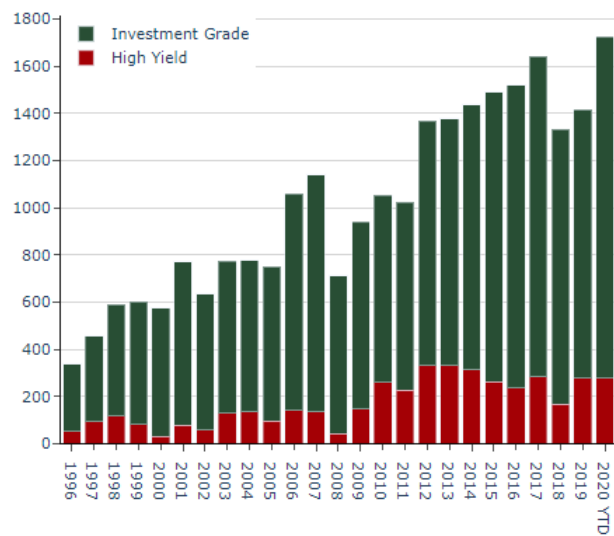
When compared to 2019, monthly corporate debt issuance doubled (and sometimes tripled) each respective month from March 2020 to August 2020 (with the exception of July 2020). Overall, investment grade issuance increased by 87% and high yield issuance increased 61% (January to August 2019 vs January to August 2020).

On an annual basis, and looking further back in time, these figures are still significant. Total corporate debt issuance for just the first eight months of 2020 has totalled over USD 1.7 trillion, higher than any prior calendar year. The next four months will be interesting to watch, in particular for defaults and credit downgrades.

US Corporate Bond Issuance - Monthly



US Corporate Bond Issuance - Annually



Source: SIFMA

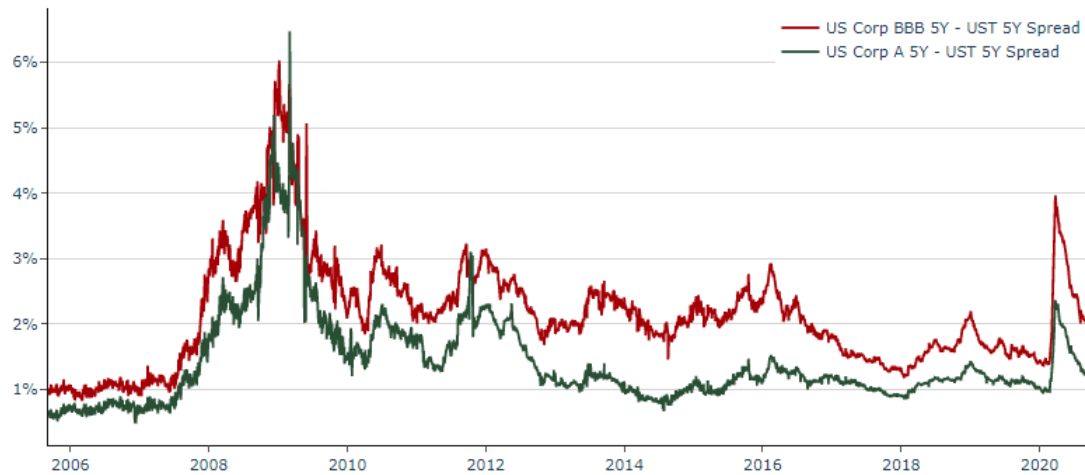
5. Is the Tide Turning for Prices?

US Investment Grade Corporate Yields

The tide has started to turn against US investment grade bonds with a number of market participants turning less positive on the asset class. Since 23 March 2020 spreads over US treasuries have narrowed significantly as prices have risen. For A and BBB-rated bonds (42% and 48% of LQD - iShares iBoxx \$ Investment Grade Corporate Bond ETF), spreads over US treasuries have reduced significantly since peaking in late-March 2020.

At a constant 5-year maturity, the more credit worthy A-rated bonds are just 20bps off their February 2020 level, while BBB-rated bonds are still 60bps off their February 2020 level, as seen on the next page.

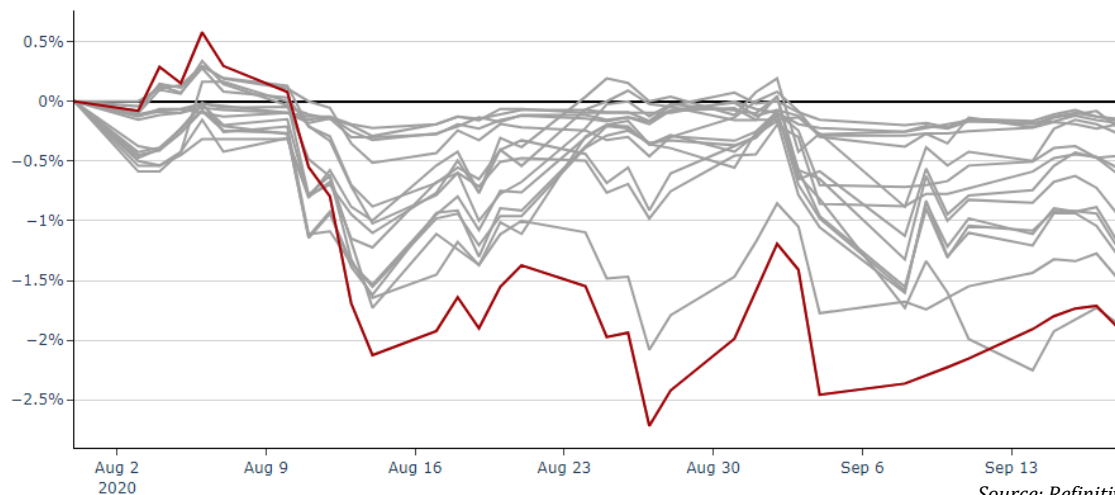
US Investment Grade Corporate Yields over US Treasury Yields at 5-Year Maturity



Source: Refinitiv

Many of the IG and HY bond ETFs have peaked (in price terms). From 1 August 2020 to 18 September 2020, the price return for both IG and HY bond ETFs has been poor. Distributions would certainly increase the below returns but this would be relatively small over such a short timeframe. The **red line** below relates to LQD (the ETF with the longest duration – comprising investment grade bonds). The longer duration ETFs were negatively impacted as longer dated treasuries also sold off over the last few weeks.

Recent ETF Price Performance



Source: Refinitiv

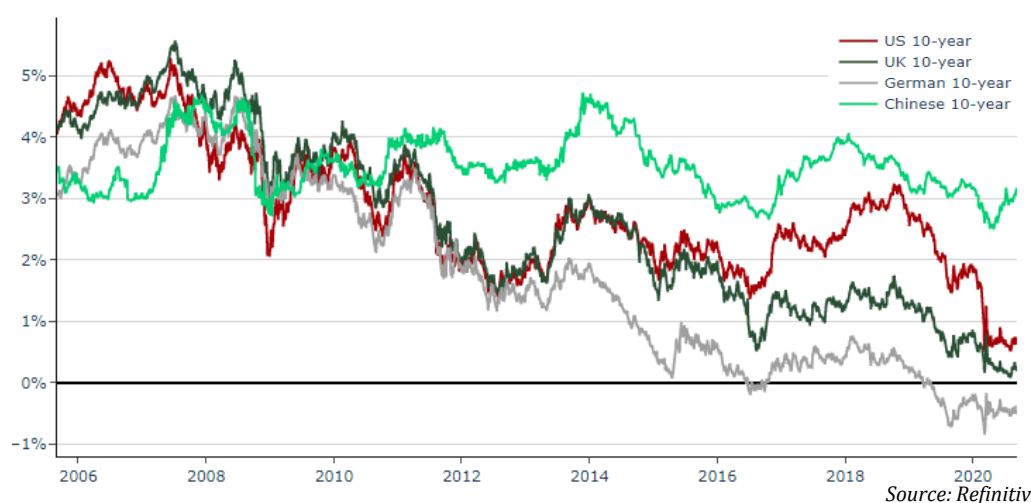
A Hunt for Yield

Many market participants are well versed in the search for yield as yields continue to grind ever lower (as bond prices move higher). Investors have already increased duration (contributing to a flattening of the curve), increased credit risk (lower credit spreads at least relative to March 2020 highs), moved into equities and are considering alternative assets.

The death of a typical 60:40 portfolio is also the topic of much conversation and the benefit of a balanced portfolio of 60% equity and 40% bonds (which has historically functioned well as a diversified portfolio) is seriously in question with yields at such historic lows.

Chinese (local currency) government bonds have recently received a lot of attention, not least due to their ongoing inclusions in the Bloomberg Barclays Global Aggregate Index and the JP Morgan emerging markets bond index and their speculated inclusion in the World Government Bond Index (WGBI) (potentially driving USD 140 bn of inflows from the WGBI inclusion)³. With yields of around 3%, a gradual opening up of Chinese markets and a diminishing global view of the United States and the USD, it comes as no surprise. Chinese local currency government bonds are certainly not without risk, but we see them as something to which attention should be paid. In 2020, in Europe, we have seen Chinese bond ETF launches by [UBS](#), [iShares](#), [KraneShares](#), adding to the existing ETFs by [Goldman](#) and [Xtrackers](#).

10-Year Government Benchmark Yields



6. It's All About (Fed) Policy

Not that investors currently need any reminding, but every so often markets react directly and meaningfully to the Fed's policy (or more aptly, their forward guidance).

Price Action

There were two key dates: **23 March 2020** (the initial announcement by the Fed to buy IG corporate bonds) and **9 April 2020**⁴ (the Fed extended the scope of several of their stimulus measures, including the addition of ETFs tracking US high-yield corporate bonds).

As seen below, IG bond ETFs rallied strongly on 23 March 2020 with little reaction by HY bond ETFs – risks remained heightened for HY at the time. On 9 April 2020, the opposite was true as HY bond ETFs rallied while IG bond ETFs performed less strongly. To better understand where this performance came from, we look at the percentage change in the price of the ETF vs the Net Asset Value (NAV) level of the ETF. The accuracy of NAV as a measurement in a bond ETF context has been strongly debated over the past six months – with the balance of the argument strongly in favour of the ETF price being more representative of fair value than NAV.

Nevertheless, it is important to understand what factors are considered in a NAV calculation as NAV as a value does have some merit. Take LQD for example. On 23 March 2020, the price of the ETF increased by 7.4%. On the preceding trading day, the ETF was trading at a 2.8% discount to NAV. After close on 23 March 2020, the ETF was trading at a 2.9% premium to NAV. The change from discount to premium was a 5.7% movement. Therefore of the 7.4% ETF price increase one could attribute the 5.7% to a change in premium/discount over NAV and 1.7% to a true change in actual value of the underlying bonds held by the ETF (assuming one assigns a degree of accuracy to NAV as a measurement).

Ticker	Name	Type	23 March 2020		09 April 2020	
			ETF Price Change	ETF Price Change (not due to change in NAV)	ETF Price Change	ETF Price Change (not due to change in NAV)
LQD	iShares iBoxx US Dollar Investment Grade Corporate Bond ETF	Investment Grade	7.4%	1.7%	4.7%	3.3%
VCIT	Vanguard Intermediate-Term Corporate Bond ETF	Investment Grade	5.4%	0.4%	2.7%	1.7%
USIG	iShares Broad US Dollar Investment Grade Corporate Bond ETF	Investment Grade	5.2%	0.6%	2.8%	1.8%
SP1B	SPDR Portfolio Intermediate Term Corporate Bond ETF	Investment Grade	4.8%	0.0%	2.3%	1.3%
IGIB	iShares Intermediate-Term Corporate Bond ETF	Investment Grade	4.7%	0.2%	2.5%	1.8%
IGSB	iShares Short-Term Corporate Bond ETF	Investment Grade	4.0%	0.1%	1.7%	0.9%
SPSB	SPDR Portfolio Short Term Corporate Bond ETF	Investment Grade	3.9%	0.0%	0.7%	0.6%
VCSH	Vanguard Short-Term Corporate Bond ETF	Investment Grade	3.5%	0.1%	1.5%	0.8%
SLQD	iShares 0-5 Year Investment Grade Corporate Bond ETF	Investment Grade	2.9%	-0.2%	1.0%	0.9%
ANGL	VanEck Vectors Fallen Angel High Yield Bond ETF	High Yield	-0.3%	-1.7%	5.1%	3.1%
USHY	iShares Broad US Dollar High Yield Corporate Bond ETF	High Yield	-0.7%	-2.3%	6.1%	3.2%
SHYG	iShares 0-5 Year High Yield Corporate Bond ETF	High Yield	-1.4%	-2.2%	5.5%	2.8%
HYG	iShares iBoxx High Yield Corporate Bond ETF	High Yield	-1.6%	-2.5%	6.6%	3.7%
SJNK	SPDR Bloomberg Barclays Short Term High Yield Bond ETF	High Yield	-1.8%	-2.2%	5.9%	2.7%
JNK	SPDR Bloomberg Barclays High Yield Bond ETF	High Yield	-1.8%	-2.2%	6.7%	3.5%
HYLE	Xtrackers US Dollar High Yield Corporate Bond ETF	High Yield	-2.1%	-2.3%	6.2%	3.6%

Source: Refinitiv, 2020

Corporate Credit Facility

The maximum size of the SMCCF will be up to USD 250 billion and for the PMCCF it will be up to USD 500 billion (these maximum amounts would reduce for any assets purchased that have a greater risk than investment grade corporate bonds due to risks imposed on leverage of the portfolio). At current values on 31 August 2020 of USD 8.67 bn and USD 0 (zero) respectively, the facility limits are far from being reached. The facilities were implemented by the Department of the Treasury, using the Exchange Stabilization Fund, by making an equity investment in a Special Purpose Vehicle (SPV) established by the Federal Reserve.

These two corporate credit facilities (SMCCF and PMCCF) have evolved since the initial announcement on 23 March 2020. The current pertinent points are⁵:

- The SPV will purchase in the secondary market (i) eligible individual corporate bonds; (ii) eligible corporate bond portfolios in the form of **exchange traded funds**; and (iii) eligible corporate bond portfolios that track a broad market index.
 - **Eligible Individual Corporate Bonds**, at the time of purchase: (i) were issued by an eligible issuer; (ii) have a remaining maturity of 5 years or less; and (iii) were sold to the SMCCF by an eligible seller.
 - **Eligible ETFs** The SMCCF may purchase US listed ETFs whose investment objective is to provide broad exposure to the market for US corporate bonds. The preponderance of ETF holdings will be of ETFs whose primary investment objective is exposure to US investment-grade corporate bonds, and the remainder will be in ETFs whose primary investment objective is exposure to US high-yield corporate bonds.
 - **Eligible Broad Market Index Bonds.** The SMCCF may purchase individual corporate bonds to create a corporate bond portfolio that is based on a broad, diversified market index of US corporate bonds. Eligible broad market index bonds are bonds that, at the time of purchase, (i) are issued by an issuer that is created or organized in the United States or under the laws of the United States; (ii) are issued by an issuer that meets the rating requirements for eligible individual corporate bonds; (iii) are issued by an issuer that is not an insured depository institution, depository institution holding company, or subsidiary of a depository institution holding company, as such terms are defined in the Dodd-Frank Act; and (iv) have a remaining maturity of 5 years or less.
- **The SMCCF will cease purchasing eligible bonds and ETFs no later than 31 December 2020 (this has already been extended from 30 September 2020).**

- Limits per Issuer: The maximum amount of instruments that the SMCCF and the PMCCF combined will purchase with respect to any eligible issuer is capped at 1.5 percent of the combined potential size of the SMCCF and the PMCCF (this equates to circa USD 11.25 bn).
- The maximum amount of bonds that the SMCCF will purchase from the secondary market of any eligible issuer is also capped at 10 percent of the issuer's maximum bonds outstanding on any day between March 22, 2019, and March 22, 2020.
- The SMCCF will not purchase shares of a particular ETF if after such purchase the SMCCF would hold more than 20 percent of that ETF's outstanding shares.
- The SMCCF will generally not purchase shares of an ETF that were determined to have closed at a premium above:
 - the lower of the following limits relative to the prior end-of-day official net asset value (NAV): (a) 1%, or (b) the mean premium observed over the prior 52 weeks, on a rolling basis, plus the 1-standard deviation of the premium for the same period.
 - Additionally, on an intraday basis, the SMCCF will generally limit purchases of eligible ETFs that are trading at levels well above estimates of intraday net asset value (iNAV) as measured during trading hours. These limits will serve the dual purpose of avoiding overpayment for an ETF relative to the cost of purchasing its underlying assets, and avoiding contributing to elevated demand that an ETF may already be experiencing, while affording operational flexibility.⁶



Policy Review and Average Inflation Targeting

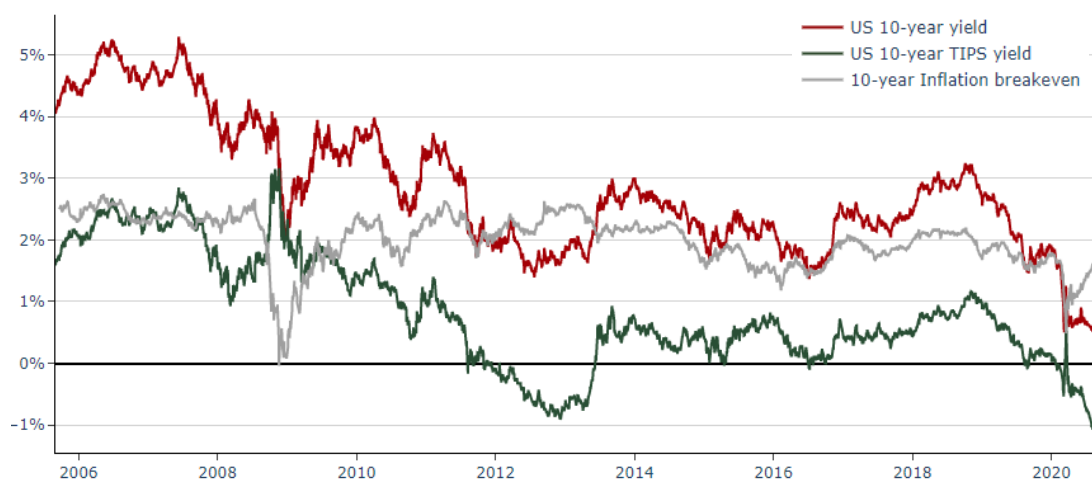
As seen in the recent crisis, the Fed has many tools in their toolkit – or so they would have market participants believe. One of the challenges faced by the Fed in recent years has been a persistently low inflation rate (core PCE inflation, the measure targeted by the Fed has not persisted above 2% since 2004 to 2008).

The Federal Open Market Committee (FOMC) has a statutory mandate from Congress of promoting maximum employment, stable prices, and moderate long-term interest rates. On 27 August 2020, the FOMC announced an update to its Statement on Longer-Run Goals and Monetary Policy Strategy. The most notable update being **“the Committee seeks to achieve inflation that averages 2 percent over time, and therefore judges that, following periods when inflation has been running persistently below 2 percent, appropriate monetary policy will likely aim to achieve inflation moderately above 2 percent for some time.”**⁷

While not unexpected by the market there are two major considerations for investors. Firstly, investors (other than those already heavily invested in gold and crypto) need to believe that there will be meaningful inflation (as measured by core PCE and not soaring asset prices, rising medical bills or solely as a result of an increase in money supply (M2)). The overwhelming view is that inflation could increase in the medium term driven by the increase in money supply and potential re-shoring or diversification of global supply chains. High unemployment, technological advancements and the historic lack of inflation may indicate otherwise. 10-year break-evens (10-year Treasury yield less 10-year TIPS yield) rallied strongly off their lows but currently only sit at 1.67% (as of 18 September 2020) – pretty much in line with its average over the last five years.

Secondly, investors watch to see if the Fed will not act when (or if) inflation exceeds 2%. The Fed’s new guidance certainly gives them enough scope not to act in hiking rates should the underlying economy be resilient and inflation rising. This policy stance needs to be weighed against the need to build a buffer (of higher rates which can be cut) for when the next recession arises (i.e. they now have a blunt tool in their toolkit as rates remain at the zero bound).

US 10-Year Yields and TIPS Break-Even



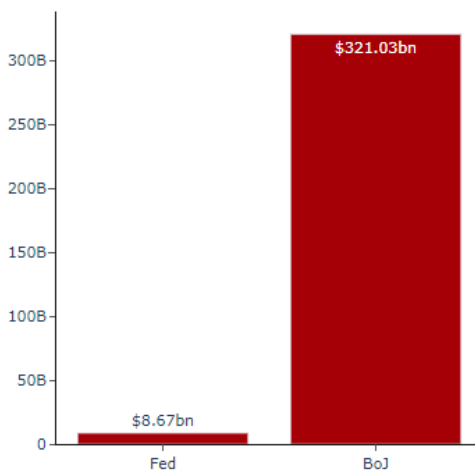
Source: Refinitiv

7. Will the Fed Follow the Bank of Japan?

The Bank of Japan (BoJ) and the Fed's ETF programmes are currently vastly different, but this was not always the case. The BoJ programme started (in 2010) with a ¥450 bn (\$5.3 bn at the time) total outstanding limit along with a circa one-year time-limit. More than a decade later this programme continues now at an annual rate of incremental purchases of about ¥6 trillion (\$57 bn), with a total outstanding value of ¥33.8 trillion (\$320 bn).

While the list of differences between the two programmes is long, one parallel is the confidence by central banks in their use of ETFs as an investment vehicle. This is not a blind confidence in ETFs but has rather been carefully considered and nuanced (as also shown by the Fed's appointment of BlackRock, arguably the biggest name in ETFs, to manage their programme). It is also important to note that the respective central bank policies are not about ETFs in isolation but rather point towards the nature of ETFs as an effective tool for the respective central banks to use and is a demonstration of confidence in their construct.

Value of ETF holdings



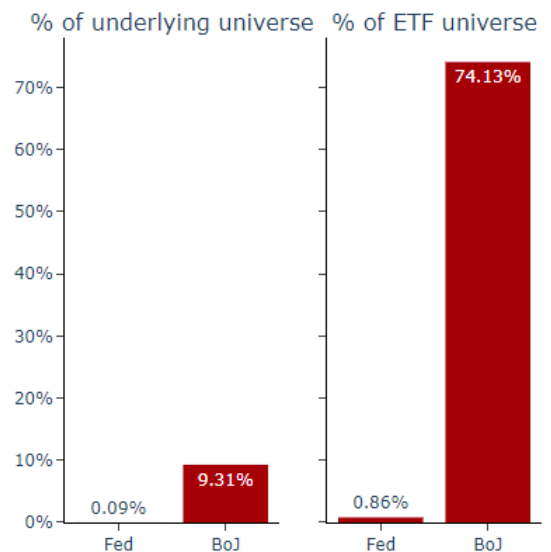
	US Fed	Bank of Japan
Start Date	May 2020	December 2010
End Date	December 2020	Ongoing
Scope	US-domiciled bond ETFs that meet certain criteria.	Japanese-listed equity ETFs tracking TOPIX, Nikkei 225 or Nikkei 400 that meet certain criteria.
Limit	\$ 250 bn (total outstanding value limit).	Expected annual ¥6 trillion (\$57 bn), with an annual ¥12 trillion limit (\$57 bn) ⁸ . No total outstanding value limit.

Source: Fed and BoJ⁹

As one further compares the size of the Fed and BoJ positions, it's important to look at the size of ETFs and the size of the underlying securities markets.

The Fed's USD 8.67 bn of ETFs is just 0.86% of US-domiciled corporate bond ETFs and is only 0.09% of the total universe of US corporate bonds. The Fed's largest ownership of a single ETF is 7.9% of the SPIB ETF (and they have a self-imposed limit of 20%).

The BoJ however owns approximately 74.13% of Japanese-domiciled equity ETFs – a significant amount. But as a percentage of the total market cap of Japanese equities, the BoJ owns approximately 9.31% (total market cap as measured by the float adjusted Topix index).



Source: BoJ, Fed, Refinitiv, SIFMA, JPX



8. Conclusion

2020 has been an unconventional year on many fronts. While certainly more niche and perhaps unnoticed by many casual investors, the Fed's involvement in corporate credit markets through ETFs, announced along with a raft of other significant measures on 23 March 2020, has led to record-breaking recovery in many global markets, not least technology stocks – something noticed by all investors.

Transactions by the Fed in ETFs and secondary market bonds have slowed significantly since late July 2020. While purchases of high yield bond ETFs have been important, the quantum involved has been small and the narrative blown out of proportion. The Bank of Japan still dwarfs the Fed in terms of ETF ownership and use although the Fed's recent involvement has been a great endorsement for ETFs.

The AUM of bond ETFs has increased drastically in both US- and Europe-domiciled ETFs as investors piled into the trade along with the Fed, which coincided with a significant increase in price from the 23 March 2020 lows. Credit spreads have tightened significantly since March 2020 but performance since 1 August 2020 has been lacklustre by both investment grade and high yield ETFs as policy support has slowed.

2020 has been a record year for US corporate debt issuance, especially in investment grade as businesses scrambled to take advantage of low funding costs and to shore up their balance sheets in the midst of the uncertainty of the pandemic.

We now look to the next phase of this recovery as investors' focus shifts to thinking about inflation risks, sector dispersion, a continued hunt for yield, earnings estimates and the next season, a resurgence in trade tensions, a green economy and the US presidential election.

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