

iBoxx & Securities Finance

Research Findings on iBoxx Global Developed Markets High Yield Index

January 2021



Introduction to Securities Finance

Proprietary, independent securities finance database Tracks global, daily securities finance supply, short demand, fee and market share data on Corporate and Government Bonds

Key Benefits

Investment Insight

Ability to analyze long and short fund flow activity at instrument, sector and market level; identify potential turning points and contrarian ideas

Trading Transparency

Track borrow demand, rates and availability across the capital structure and identity shifts in sentiment for single issues, issuers, sectors and regions

Comprehensive Dataset

Includes shares borrowed, inventory of available shares on loan, level of utilization, loan concentration, stock borrowing cost factors, stability metrics, short squeeze factors and Publicly disclosed global short interest data







- Leading Industry Participants Prime brokers, custodians, asset managers and hedge funds
- Integrated Workflow
 Delivery via web
 applications, Excel add-in,
 data feeds, API and third party vendors

\$25tn Lendable inventory

\$2.5tn Value on Ioan

3mn Daily transactions

20,000+ Equity instruments

200,000+ Fixed Income

instruments

15

Years of daily history



Securities Finance Data Sourced daily from industry participants





Comprehensive Index Offering

IHS Markit's main suite of tradable and benchmark indices allow investors to gain exposure to and track the performance of multiple asset classes.

Asset classes



Expertise and experience in global asset classes

Bonds	Securitised Products	Economic						
Credit	Equity	FX						
Offering the following services								
Services								
Benchmark Indices	Liquid Indices	Custom Indices						
Index Administration	Index Calculation							

28,000+ Indices **\$5trillion+** Derivative Trades Outstanding

500+ Clients **\$160billion+** AUM in ETFs **160+** ETFs



iBoxx Key Strengths

- Leveraging 15+ years of experience in designing, administrating and calculating FI indices
- Recognised global brand 2nd largest provider of bond indices for ETFs globally

Independence	 Multi-source and independent pricing and reference data Authorized benchmark administrator under EU (BMR) regulation and administering all financial benchmarks in compliance with IOSCO principles
Innovation	 Partnering closely with financial institutions to create next generation index solutions such as: liquid, long-short, alternative weighted indices, multi-fixing, transaction costs standardized Total Return Swaps
Depth of Data	 Pricing fueled by IHS Markit's evaluated bond pricing service Rigorous series of quality controls applies to prices and reference data Real time bond data (*on select indices through distribution channels) Wide range of analytical values published
Transparency	 Publicly available documentation on our rules-based methodology for constituent selection, monthly rebalancing and daily total return calculations
Flexibility	 Ability to customize and deliver standard indices to meet specific investment criteria



Research Findings

- Our results are in line with the intuition that bonds that are heavily shorted or bonds that are expensive to borrow or bonds with the low lendable supply are associated with negative sentiment and bonds with contrasting traits are associated with positive sentiment
- The low to moderate cross-sectional correlation between the *Securities Finance* measures of short interest, cost to borrow and lendable supply allowed us to create a composite short interest factor to identify bonds with the most/least negative sentiment in the index
- Using the *iBoxx Global Developed Markets High Yield Index* as our universe, we found the bonds with the most negative sentiment underperform the index by 1.4% annually and bonds with the least negative sentiment outperform the index by 0.8% annually during the test-period Dec 2009 – Oct 2020. Our results hold true even after adjusting the bias for duration, credit ratings, bond yields and after adjusting the bias towards energy issuers in our portfolios
- Our findings suggest using Securities Finance data as an additional criteria for bond index construction whereby bonds with the highest negative sentiment are either assigned lower weights in the index or could be excluded from the index. Similarly, bonds with the lowest negative sentiment could be assigned higher weights
- The risk adjusted return (IR) offered by our portfolio of bonds with the least negative sentiment is 1.17 in comparison to 0.75 from the index (an improvement of around 56%)
- The risk adjusted return (IR) from the index after excluding the bonds with the highest negative sentiment is 0.95 in comparison to 0.75 from the overall index (an improvement of 27%)



Research Findings (Continued)

- Securities Finance short interest composite measure also has benefits in portfolio construction. During the test-period Dec 2009 – Oct 2020, a strategy that buys bonds with the least negative sentiment in the index and sells bonds with the most negative sentiment in the index every month on the rebalance date offers an annualized spread of around 2% with an IR of 0.29
- Our findings in general are stronger during market downturns and stress periods in comparison to periods when the market rallies upwards. During periods of upward rally, bonds that have high negative sentiment perform better than the index and bonds with low negative sentiment underperform the index (The sign of the signal flips during periods of market rally)
- We also found that bonds in our most negative sentiment bucket have a higher exposure (in terms of % weight held in the portfolio) to bonds with lower credit ratings, higher duration and higher yields in comparison to the index. Similarly, bonds in our least negative sentiment bucket have a higher exposure to bonds with higher credit ratings, lower duration and lower yields relative to the index. We account for these biases in our portfolios separately by running different simulations



Universe, Factors and Back-Test Criteria

- Universe: iBoxx Global Developed Markets High Yield Index. The data on credit ratings, index components, individual bond weightings, duration, yields and 1-month forward returns were sourced from iBoxx
- Composite short interest Securities Finance factor is created using the past 1-month average of Demand Supply Ratio, Indicative Fee and Lendable Supply as % of Market Value from the index rebalance date. The bonds are first ranked based on the individual factors first using percentile ranks and then an equally weighted composite rank is created
 - > Average Demand Supply Ratio: Average dollar value on loan relative to the average dollar value of lendable supply in the bond over the past month from the rebalance date. We ranked the bonds in the index using this factor in ascending order as bonds with low Demand Supply Ratio are expected to have a positive sentiment and vice-versa
 - > Average Indicative Fee: Average Indicative Fee over the past month from the rebalance date weighted by the dollar value on loan. The indicative fee shows the expected borrow cost for a hedge fund on a given day. We ranked the bonds in the index using this factor in ascending order as bonds with low cost to borrow are expected to have a positive sentiment and vice-versa
 - > Average Lendable Supply as % of Market Value: Average Lendable Value relative to the Market Value held in the bond over the past month from the rebalance date. We ranked the bonds in the index using this factor in descending order as bonds with high Lendable Supply are expected to have a positive sentiment and vice-versa
- Back test period: Dec 2009 Oct 2020. We followed a monthly rebalance schedule where bonds in the iBoxx index were ranked and our short interest composite factor was created every month on the index rebalance date



Universe, Factors and Back-Test Criteria

- Bonds with the lowest 30% of the ranks as per our short composite factor form part of our most negative sentiment portfolio and bonds with the highest 30% of the ranks form part of our least negative sentiment portfolio
- 1-month forward total bond returns were used to judge the performance of the overall universe and the portfolios that we created using our composite short interest factor
- Returns for all the portfolios and universe constructed above were weighted by the weight of the bonds in the index where the weights had to be rescaled to ensure the weights in the individual portfolios add up to 100%
- A 2-business day lag was taken for our short interest measures to avoid the look-ahead bias in the dataset i.e. For end of month portfolio construction on 30th September 2020, we took a 2-business day lagged value for our short interest measures to account for the reporting lag in the dataset
- Short interest measure coverage: The composite factor has around 97% coverage of the overall universe on average over the test period



Performance Statistics – Composite Short Interest Factor

Bonds with the most negative sentiment underperform the index and bonds with the least negative sentiment outperform the index. Excluding bonds with the most negative sentiment from the index also improves the performance by 26% (0.95 IR vs. 0.75 IR) as measured by the Information Ratio



Universe — Most Negative Sentiment — Least Negative Sentiment — Universe ex Most Negative Sentiment

	Absolute	Performance	e			Relative Perfo	rmance	
	Universe	Most Negative Sentiment	Least Negative Sentiment	Universe ex Most Negative Sentiment		Least Negative Sentiment vs Universe	Universe vs Most Negative Sentiment	Least Negative Sentiment vs Most Negative
Annual Returns	6.0%	4.1%	7.0%	6.6%	Annual Returns	0.8%	1.4%	2.0%
Annual Volatility	8.0%	11.7%	5.9%	6.9%	Annual Volatility	2.8%	4.3%	7.0%
Information Ratio	0.75	0.35	1.17	0.95	Information Ratio	0.27	0.32	0.29
Avg. Monthly Returns	0.51%	0.39%	0.58%	0.55%	Avg. Monthly Returns	0.07%	0.12%	0.19%
Annual Turnover		1.88	2.28		Annual Turnover	2.28	1.88	2.06



Performance Statistics – Energy Sector

Using our composite short interest factor within the Energy sector offers significant risk adjusted performance for all our portfolios



	Absolute	Performance	e			Relative Perfe	ormance	
	Energy Universe	Most Negative Sentiment	Least Negative Sentiment	Energy Universe ex Most Negative Sentiment		Least Negative Sentiment vs Energy Universe	Energy Universe vs Most Negative Sentiment	Least Negative Sentiment vs Most Negative Sentiment
Annual Returns	1.3%	-5.7%	5.8%	4.0%	Annual Returns	3.9%	6.1%	9.9%
Annual Volatility	16.7%	21.6%	14.5%	15.1%	Annual Volatility	5.1%	6.3%	10.9%
Information Ratio	0.08	-0.26	0.40	0.26	Information Ratio	0.77	0.96	0.91
Avg. Monthly Returns	0.23%	-0.28%	0.56%	0.43%	Avg. Monthly Returns	0.33%	0.51%	0.84%



Performance Statistics – Non-Energy Sectors

In Non-Energy sectors, our least negative sentiment bonds outperform the Non-Energy universe by 0.5% per annum and offers a significant reduction in volatility. The most negative sentiment bonds underperform the Non-Energy universe by around 0.9% on an annual basis and excluding the most negative sentiment bonds from the Non-Energy Universe improves the risk adjusted performance by 23%



	Absolute	Performance	9			Relative Perfe	ormance	
	Non-Energy Universe	Most Negative Sentiment	Least Negative Sentiment	Non-Energy Universe ex Most Negative Sentiment		Least Negative Sentiment vs Non-Energy Universe	Non-Energy Universe vs Most Negative Sentiment	Least Negative Sentiment vs Most Negative Sentiment
Annual Returns	6.5%	5.0%	7.2%	6.9%	Annual Returns	0.5%	0.9%	1.3%
Annual Volatility	7.6%	11.3%	5.5%	6.6%	Annual Volatility	2.8%	4.3%	7.1%
Information Ratio	0.85	0.44	1.30	1.05	Information Ratio	0.18	0.22	0.19
Avg. Monthly Returns	0.55%	0.46%	0.59%	0.57%	Avg. Monthly Returns	0.05%	0.09%	0.13%



Performance Statistics – Energy Sector Neutral

After making our short interest composite portfolios neutral for the Energy sector, we note similar performance metrics to our base case



	Absolute	Performance	9			Relative Performance			
	Universe	Most Negative Sentiment	Least Negative Sentiment	Universe ex Most Negative Sentiment		Least Negative Sentiment vs Universe	Universe vs Most Negative Sentiment	Least Negative Sentiment vs Most Negative Sentiment	
Annual Returns	6.0%	3.8%	7.1%	6.6%	Annual Returns	0.8%	1.6%	2.3%	
Annual Volatility	8.0%	11.8%	5.9%	6.9%	Annual Volatility	2.8%	4.3%	7.1%	
Information Ratio	0.75	0.33	1.20	0.96	Information Ratio	0.30	0.37	0.33	
Avg. Monthly Returns	0.51%	0.37%	0.58%	0.56%	Avg. Monthly Returns	0.07%	0.14%	0.21%	



Yearly Breakdown & Performance in Up vs. Down Markets

Splitting the performance of the short interest composite measure highlights the cyclical nature of this factor in general. Bonds with the least negative sentiment outperform the index in down periods but not in up periods. Similarly, bonds with the most negative sentiment underperform the index in down periods but not in up periods.

		Average Returns by Year										
Factor Portfolios	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Jan - Oct 2020	
Least Negative Sentiment vs. Universe	0.08%	0.24%	-0.30%	-0.18%	0.33%	0.50%	-0.15%	-0.24%	0.20%	0.12%	0.14%	
Universe vs. Most Negative Sentiment	-0.11%	0.37%	-0.31%	-0.27%	0.48%	0.90%	-0.24%	-0.35%	0.36%	0.25%	0.25%	
Least Negative Sentiment vs Most Negative Sentiment	-0.03%	0.61%	-0.61%	-0.45%	0.81%	1.40%	-0.39%	-0.59%	0.56%	0.37%	0.39%	
Universe	0.96%	0.43%	1.31%	0.63%	-0.05%	-0.51%	1.01%	0.77%	-0.29%	1.06%	0.05%	
Universe Ex Most Negative Sentiment	0.94%	0.54%	1.21%	0.53%	0.13%	-0.21%	0.94%	0.65%	-0.17%	1.13%	0.13%	

		Average Return	s in Up/Down Period	ls		
	Least Negative Sentiment vs. Universe	Universe vs. Most Negative Sentiment	Least Negative Sentiment vs Most Negative Sentiment	Universe	Universe Ex Most Negative Sentiment	
Up	-0.31%	-0.44%	-0.75%	1.74%	1.60%	
Down	0.74%	1.13%	1.87%	-1.69%	-1.32%	
Overall	0.07%	0.12%	0.19%	0.51%	0.55%	

- Time Period: Dec 2009 - Oct 2020, monthly rebalance

- Universe and Portfolio returns are weighted based on the market value of the bonds on the rebalance date of the index

- Down Market = When Universe return < 0, Up Market = When Universe return > 0. There are a total of 47 Down Market and 84 Up Market periods during our time period of study



Performance in Stress Periods

Short Interest composite factor performs well during periods of market crash i.e., bonds with the most negative sentiment underperform the index and bonds in the least negative sentiment outperform the index. However, during periods of market recovery, the signal from the short interest composite factor flips in sign

			Average Returns de	uring Stress Periods		
	Jun 2015 - Feb 2016 Mar 2016	- Sep 2016	Oct 2018 - Dec 2018	Jan 2019 - Feb 2019	Jan 2020 - Mar 2020	Apr 2020 - Jul 2020
Least Negative Sentiment vs. Universe	0.54%	-0.58%	0.57%	0.09%	1.39%	-0.68%
Universe vs. Most Negative Sentiment	1.03%	-0.79%	0.99%	0.06%	2.44%	-1.12%
Least Negative Sentiment vs Most Negative Sentiment	1.57%	-1.37%	1.56%	0.15%	3.83%	-1.79%
Universe	-0.87%	1.84%	-1.53%	2.91%	-4.56%	3.61%
Universe Ex Most Negative Sentiment	-0.54%	1.58%	-1.21%	2.93%	-3.85%	3.30%

- Time Period: Dec 2009 Oct 2020, monthly rebalance
- Universe and Portfolio returns are weighted based on the market value of the bonds on the rebalance date of the index
- A few specific time periods were chosen for this stress period study that include both market crash and market recovery to understand the behavior of the short interest factor during such volatile periods



Exposure to Credit Rating, Duration & Yield

Bonds with the most negative sentiment was found to have a higher exposure to lower rated bonds, bonds with higher duration and bonds with higher yields in comparison to the overall universe and bonds with the least negative sentiment and vice-versa

Exposure to Ratings / Duration / Yield (Mcap Weighted)	Universe	Most Negative Sentiment	Least Negative Sentiment
% Weight Held - BB	54.0%	49.7%	60.5%
% Weight Held - B	35.7%	33.0%	34.3%
% Weight Held - CCC & Below	10.2%	17.3%	5.2%
% Weight Held - Duration 1	24.8%	22.0%	28.3%
% Weight Held - Duration 2	24.4%	28.0%	22.6%
% Weight Held - Duration 3	25.1%	27.0%	23.2%
% Weight Held - Duration 4	25.7%	23.0%	26.0%
% Weight Held - Yield 1	24.5%	30.3%	23.0%
% Weight Held - Yield 2	26.4%	15.3%	36.0%
% Weight Held - Yield 3	26.0%	18.4%	29.2%
% Weight Held - Yield 4	23.0%	36.0%	11.8%

- Time Period: Dec 2009 Oct 2020, monthly rebalance
- We compared the average % weight held in our most negative sentiment and the least negative sentiment portfolios (after rescaling the weights in the individual portfolios) in comparison to the overall index to identify exposure to different bond metrics
- The index was divided into 4 quartiles based on Annual Modified Duration and Annualized Bond Yields on every rebalance date. Duration 1 refers to bonds that fall under the lowest duration bucket (Q1) and Yield 1 refers to bonds that fall under the lowest yield bucket (Q1)



Construction of Ratings Neutral Portfolio

- On each index rebalance date, we identified the most negative sentiment and the least negative sentiment bonds within each credit rating category. Please note, bonds with ratings below CCC were all considered as part of the CCC bucket to form the CCC & below bucket
- Then, bonds from the most negative sentiment and the least negative sentiment from different ratings category were selected to form the final most negative sentiment and the least negative sentiment buckets
- For the final selected most negative sentiment bonds, the weights were rescaled to ensure they add up to 100%. We did the same for the least negative sentiment bonds and for the overall universe after excluding the most negative sentiment bonds chosen from each rating bucket
- We followed the same procedure to make our portfolios duration and yield neutral. Please note: The index was divided into four equal duration and yield buckets individually based on quartile values derived from Annual Modified Duration and Annual Yield fields respectively



Performance Statistics – Ratings Neutral

Adjusting the most/least negative sentiment buckets of our short interest factor for the credit ratings bias has no significant impact on the performance statistics

Cumulative Returns: Dec 2009 - Oct 2020



	Absolute	Performance	9		Relative Performance			
	Universe	Most Negative Sentiment	Least Negative Sentiment	Universe ex Most Negative Sentiment		Least Negative Sentiment vs Universe	Universe vs Most Negative Sentiment	Least Negative Sentiment vs Most Negative Sentiment
Annual Returns	6.0%	4.2%	7.1%	6.5%	Annual Returns	0.9%	1.3%	2.1%
Annual Volatility	8.0%	11.3%	6.2%	7.0%	Annual Volatility	2.5%	3.9%	6.5%
Information Ratio	0.75	0.37	1.15	0.93	Information Ratio	0.36	0.32	0.33
Avg. Monthly Returns	0.51%	0.40%	0.59%	0.55%	Avg. Monthly Returns	0.08%	0.11%	0.19%



Performance Statistics – Duration Neutral

Adjusting the most/least negative sentiment buckets of our short interest factor for the duration bias has no significant impact on the performance statistics

Cumulative Returns: Dec 2009 – Oct 2020



	Absolute	Performance	e			Relative Performance			
	Universe	Most Negative Sentiment	Least Negative Sentiment	Universe ex Most Negative Sentiment		Least Negative Sentiment vs Universe	Universe vs Most Negative Sentiment	Least Negative Sentiment vs Most Negative Sentiment	
Annual Returns	6.0%	4.2%	6.9%	6.5%	Annual Returns	0.7%	1.3%	1.8%	
Annual Volatility	8.0%	11.6%	6.0%	6.9%	Annual Volatility	2.7%	4.1%	6.8%	
Information Ratio	0.75	0.36	1.14	0.94	Information Ratio	0.24	0.31	0.27	
Avg. Monthly Returns	0.51%	0.40%	0.57%	0.55%	Avg. Monthly Returns	0.06%	0.11%	0.17%	



Performance Statistics – Yield Neutral

Adjusting the most/least negative sentiment buckets of our short interest factor for the bond yield bias has no significant impact on the performance statistics

Cumulative Returns: Dec 2009 – Oct 2020



Absolute Performance					Relative Performance			
	Universe	Most Negative Sentiment	Least Negative Sentiment	Universe ex Most Negative Sentiment		Least Negative Sentiment vs Universe	Universe vs Most Negative Sentiment	Least Negative Sentiment vs Most Negative Sentiment
Annual Returns	6.0%	4.8%	7.1%	6.4%	Annual Returns	1.0%	0.9%	1.8%
Annual Volatility	8.0%	10.3%	6.7%	7.3%	Annual Volatility	2.0%	3.0%	5.0%
Information Ratio	0.75	0.46	1.07	0.88	Information Ratio	0.48	0.29	0.36
Avg. Monthly Returns	0.51%	0.44%	0.59%	0.54%	Avg. Monthly Returns	0.08%	0.08%	0.16%



Appendix



Performance Statistics – Average Demand Supply Ratio

The most shorted bonds underperform the index and the least shorted bonds outperform the index as per the intuition. Excluding the most shorted bonds from the index improves the performance by 21% (0.91 IR vs. 0.75 IR) as measured by the Information Ratio

Cumulative Returns: Dec 2009 – Oct 2020



Absolute Performance					Relative Performance			
	Universe	Most Shorted Bonds	Least Shorted Bonds	Universe ex Most Shorted Bonds		Least Shorted Bonds vs Universe	Universe vs Most Shorted Bonds	Least Shorted Bonds vs Most Shorted Bonds
Annual Returns	6.0%	4.5%	6.5%	6.5%	Annual Returns	0.4%	1.1%	1.5%
Annual Volatility	8.0%	10.5%	6.5%	7.1%	Annual Volatility	1.8%	2.8%	4.5%
Information Ratio	0.75	0.43	1.00	0.91	Information Ratio	0.23	0.41	0.33
Avg. Monthly Returns	0.51%	0.41%	0.55%	0.55%	Avg. Monthly Returns	0.03%	0.10%	0.13%



Performance Statistics – Indicative Fee Average

The most expensive bonds underperform the index and the least expensive bonds outperform the index as per the intuition. Excluding the most expensive bonds from the index improves the performance by 25% (0.94 IR vs. 0.75 IR) as measured by the Information Ratio

Cumulative Returns: Dec 2009 – Oct 2020



Absolute Performance					Relative Performance			
	Universe	Most Expensive Bonds	Least Expensive Bonds	Universe ex Most Expensive Bonds		Least Expensive Bonds vs Universe	Universe vs Most Expensive Bonds	Least Expensive Bonds vs Most Expensive Bonds
Annual Returns	6.0%	4.2%	6.9%	6.5%	Annual Returns	0.7%	1.1%	1.7%
Annual Volatility	8.0%	12.4%	6.2%	6.9%	Annual Volatility	2.6%	5.2%	7.8%
Information Ratio	0.75	0.34	1.11	0.94	Information Ratio	0.28	0.22	0.22
Avg. Monthly Returns	0.51%	0.41%	0.57%	0.54%	Avg. Monthly Returns	0.06%	0.11%	0.17%



Performance Statistics – Average Lendable Supply as % Market Value

Bonds with the most lendable supply outperform the index and bonds with the least lendable supply underperform the index as per the intuition. Excluding bonds with the least lendable supply from the index also improves the IR by around 17% (0.88 IR vs. 0.75 IR)

Cumulative Returns: Dec 2009 – Oct 2020



Least Lendable Supply Bonds

-----Most Lendable Supply Bonds -Universe ex Least Lendable Supply Bonds

Absolute Performance					Relative Performance				
	Universe	Most Lendable Supply Bonds	Least Lendable Supply Bonds	Universe ex Least Lendable Supply Bonds		Universe vs Least Lendable Supply Bonds	Most Lendable Supply Bonds vs Universe	Most Lendable Supply Bonds vs Least Lendable Supply Bonds	
Annual Returns	6.0%	6.4%	4.9%	6.4%	Annual Returns	0.8%	0.3%	1.0%	
Annual Volatility	8.0%	7.0%	10.5%	7.2%	Annual Volatility	3.4%	2.2%	5.4%	
Information Ratio	0.75	0.91	0.46	0.88	Information Ratio	0.22	0.15	0.19	
Avg. Monthly Returns	0.51%	0.54%	0.44%	0.54%	Avg. Monthly Returns	0.07%	0.03%	0.10%	

IHS Markit Customer Care

CustomerCare@ihsmarkit.com Americas: +1 800 IHS CARE (+1 800 447 2273) Europe, Middle East, and Africa: +44 (0) 1344 328 300 Asia and the Pacific Rim: +604 291 3600

Disclaimer

The information contained in this presentation is confidential. Any unauthorized use, disclosure, reproduction, or dissemination, in full or in part, in any media or by any means, without the prior written permission of IHS Markit or any of its affiliates ("IHS Markit") strictly prohibited. IHS Markit owns all IHS Markit logos and trade names contained in this presentation (including other media) are solely those of the individual author(s) at the time of writing and do not necessarily reflect the opinions of IHS Markit Neither IHS Markit nor the author(s) has any obligation to update this presentation in the event that any content, opinions, statement, estimate, and projections in this presentation (including other media) are solely those of the makes no warranty, expressed or implied, as to the accuracy, completeness, or timeliness of any information in this presentation, and shall not in any way be liable to any recipient for any inaccuracies or omissions. Without limiting the foregoing, IHS Markit shall have no liability whatsoever to any recipient, whether in contract, in tort (including negligence), under warranty, under statute or otherwise, in respect of any loss or dmarge suffered by any recipient as a result of or in connection with any information provided, or any course of action determined, by it or any third party, whether or not based on any information provided. The inclusion of a link to an external website by IHS Markit should not be understood to be an endorsement of that website or the site's owners (or their products/services). IHS Markit is not a service of 116 2019, IHS Markit All rights are line and linellectual property rights are realined by IHS Markit.

