

Future of Fixed Income

Featuring: Andy Sparks, Managing Director, MSCI Research

Interviewer: 2019 turned out to be a banner year for most asset classes. Andy Sparks, Managing Director from MSCI's Fixed Income Multi Asset and Real Estate Research Team joins me to take a closer look at the evolution of fixed income and also to talk about how investors can stay ahead in changing markets. Andy, thank you so much for joining me today.

Andy: Thank you very much. I look forward to it.

Interviewer: Well, first and foremost, let's start out with the very basics. What are some of the key differences between the equity and fixed income asset classes?

Andy: So one of the most basic ones has to do with risk preference and risk tolerance, and equities have a lot more upside than fixed income does, but fixed income is the anchor in the portfolio. When the times get tough, fixed income is often times delivering whereas equities may be going down quite a bit in price. So you have a difference in risk reward profile, may be the expected returns in equities are higher than fixed income, but the volatility in equity is much higher too. So for many investors, having a combination of the two is one of the best strategies one could follow because you have some of the safety offered by bonds, but you still have upside offered by equities.

Interviewer: Well, we know that 2020 marks not only a new year, but also a new decade as well. So let's start out by looking at the historical perspective when it comes to the fixed income market. How has it evolved?

Andy: Oh, it's evolved tremendously. I joined Wall Street in 1987 and I can genuinely say the change has been dramatic. The models have gotten better and better and better. The sophistication of the investors has grown, it's become far more globalized. You have now significant electronic trading. Broker dealers, when I joined, and I started at a broker dealer and they had-- yeah, they sort of ruled, they were the market makers. The information, the broker dealers had lots and lots of information, but over time that knowledge has transferred increasingly to the by-side-- hedge funds, asset managers.

And I would also say that fixed income volatility has changed quite a bit over the years as well. So back in the late '70s, early '80s, inflation was very high. Volatility and fixed income in the early '80s was almost as high as it was in equities, but since then volatility has gone down, inflation has become much tamer, central banks have adopted inflation targeting regimes which inherently has made central banks more autonomous from policy makers, which is maybe been good for long-term prospects for economies as well. So there really has been a dramatic change.



Interviewer: Now Andy, you've given us the overview of the evolution of fixed income, but when it comes to portfolio construction, tell me how this fits in.

Andy: Yeah, thanks for that question, it's a very good one. And number one, I think that portfolio construction has been very underdeveloped in fixed income particularly compared to equities. So equities at-- I think for guite a while there's been a lot of focus on quantitative strategies algorithms and so on. And I think that has been much less developed in fixed income and that is changing though. I'm calling it the quantification of fixed income. So the goal is to create strong portfolios that can withstand stresses and make sure that you have protection in your portfolio against those stresses, but still to generate alpha, still to try to outperform if that is your investment style. Factors play a key role in that. And factor investing in fixed income is still very early stage compared to equities. And that's where a lot of focus is among hedge funds and asset managers in some analytic and index providers such as MSCI, but we don't yet really have the language of factor investing in fixed income that we have in the equity asset class. And that's something where I think over time it's going to be improving guite a bit. Now something else that is very important for portfolio construction and fixed income, which is maybe a little different from equities and that is liquidity. Bid-ask spreads can be very large in fixed income particularly in corporate bonds and high yields and municipals. Those bid-ask really hurt you. So from a turnover, a portfolio turnover perspective, those transactions cost and really meaningfully cut into returns. And so from the portfolio construction perspective, you want to have models of liquidity that will tell you which are the securities where there may be some market depth, where you can go trade 50 million or 100 million of them-- of a bond, and not drive the price to very high levels. And so ultimately, to do portfolio construction well, you need to have a whole range of models, not just single security models to look at things like option adjusted spreads and option adjusted durations, but you also need models of liquidity. And stress testing tools are also highly important and so a lot of investors maybe in their portfolio they want to ensure that if there is a repeat of say, the 2008 financial crisis that their portfolio will achieve some minimum level of return. So using tools such as stress testing, you can look at different sectors and how they would perform in such a sector. And you can curve out in your portfolio, you know, enough concentration and assets that will not do too badly in that scenario to provide stability to the portfolio in even very bad economic circumstances. So in general, portfolio construction is gaining traction in fixed income. I still think it's a little behind where we are in equities, but going forward, I anticipate that gap will be narrowing. And I think factor investing will play an important role and I do believe that over the next 5, 10 years you're going to see much greater adoption of factor investing on the fixed income side. And the gap will narrow versus equities.

Interviewer: Wow, I think you touched upon a lot of important points there, especially what affects the fixed income market. But tell me about some of the challenges for innovation when it comes to fixed income as an asset class.

Andy: So the challenges are multiple. Number one is just the data and to this day broker—in contrast to equities which are largely traded on exchanges. In fixed income, most sponsors still traded over the counter through broker dealers. And that is not nearly as transparent a market as equities is. It's been changing over time. Absolutely, there is now much more electronic trading in fixed income. Price transparency is also enhanced by electronic trading which has become more prominent. But one of the



distinguishing features of fixed income historically has been-- it's not been as transparent, prices have not been as readily available. And from a research perspective and a modelling perspective that has meaning because, if you go back to how the equity market has evolved, you had major academics, Fama French for example, back in the 1990s doing some similar work on factor investing in equities. They didn't do it on fixed income, I'm guessing partly because they didn't have the data because the broker dealers had the data and they didn't really want to make it very public. So in a way I think modelling on fixed income, it's been a different type of modelling. And so for single security analytics, fixed income has always been very different from equities in that you need very strong single security analytics. So for products such as mortgage backed securities for many parts of the corporate bond market, where there are callable bonds or municipals have a lot of callability as well. It's really important to have a strong model. So fixed income has always had that modelling capability at the single security level, but the investment strategies that we've seen in equities and the growth of factor investing has been very delayed in fixed income. So in terms of some of the differences between fixed income and equities as well as part of the evolution of the two-- two different sectors, I think a very fundamental difference has been factor investing has really taken off in equities and it's just-- it's still in the early stages for fixed income.

Interviewer: Well Andy, you are able to give us some insight into factor investing and also highlight some of the distinctions when it comes to equity and fixed income market. But looking ahead, how is MSCI bringing fixed income innovation to the market and moving the asset class forward?

Andy: So a great question and MSCI has been doing fixed income for decades. So MSCI has been strong in fixed income and we continue to get stronger. So we have a large research group of fixed income specialists. We're constantly refining existing models, we're constantly challenging ourselves to improve the models. And to give you some examples, so we're now, we built a pre-payment model for mortgage securities which is crucial for valuing the securities and understating the risk and the reward characteristics. We're now using artificial intelligence. So when I started in 1987, we used the back of an envelope to do a lot of these things and it's gotten a lot better, but getting back to your question about what specifically MSCI is doing, we're doing many different things. I mentioned artificial intelligence. We're looking at machine learning and how we can apply that to various and parts of the income market. Factors are close to our hearts, so we've had a form of factors for quite a while, called them risk factors, but we've recently introduced style factors into our fixed income repertoire. And so we've been very focused on investment strategies, quantitative investment strategy using factors. In fact, we're launching factor indexes for fixed income that I think a lot of clients will be very interested in hearing about. So in terms of what, you know, every different part of the fixed income market, MSCI is really doing something. And that could include municipal securities, it could include emerging markets, it includes factors, it includes mortgage securities, it includes credit modelling of asset backed securities. And it's a great thing about working at MSCI too and interacting with the MSCI client base is it's highly global. Which is another huge difference between the fixed income market back in 1987 when I started versus now. It used to be highly localized, but it's not like that anymore. So you might have an asset manager in Japan buy US corporate bonds, or you might have a pension plan in Sweden buying CDOs, synthetic CDOs or CLOs. You might have an individual in Houston, Texas participating in the fixed income market via ETF purchases. That's all a big change, but getting back to what MSCI is doing, we're trying to service all of those clients. And it is a challenge, but we really enjoy that interaction with clients and I think its two way. So I believe we're offering significant value to our clients, but they're asking some really good questions and they challenge us. And that forces us to work harder, it raises the bar for us. And it's a nice synergy between we give them something, they give up something. And it's an example



of 1 + 1 equaling 4 in this case. I think there are strong synergies with having this global client base that is asking questions from all sorts of different directions. But we're trying to create a consistent methodology to address these questions. Sometimes it's not completely, it's not completely neat to create that consistent methodology but I think we do a pretty good job at it.

Interviewer: Well Andy, thank you so much for your insights today. I think it really helps to get this broad overview and I think your decades of experience also help us as we look forward to the upcoming decade.

Andy: Thank you very much. I appreciate it.

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 45 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process. To learn more, please visit www.msci.com.

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or redisseminated in whole or in part without prior written permission from MSCI.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including with limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.





Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company fillings on the Investor Relations section of www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data, reports and ratings based on published methodologies and available to clients on a subscription basis. We do not provide custom or one-off ratings or recommendations of securities or other financial instruments upon request.

Privacy notice: For information about how MSCI ESG Research LLC collects and uses personal data concerning officers and directors, please refer to our Privacy Notice at https://www.msci.com/privacy-pledge.