Transcripts of the interview with Marie Briére (Head of the Investor Intelligence and Academic Partnership, Amundi Institute) – April 2024

Caterina Rho:

Hello everyone, and welcome to the new episode of interviews with the top sustainable finance scholars, the European Commission Sustainable Finance Research Forum interview series. My name is Caterina Rho and I am the Secretary of the Forum. I have the pleasure of having here today, Marie Briére. Hi Marie, welcome to the Interview series.

Marie is the Head of the Investor Intelligence and Academic Partnership at Amundi Investment Institute. In this role, she conducts research on portfolio choice with a focus on sustainable finance, household finance, pensions and impact of financial technology, advising the strategic decisions of institutional investors and the design of investment solutions for retail clients. Marie is the Chairman of several committees, such as Inquire Europe and the Scientific Committee of the European Savings Observatory.

She's also a member of expert groups, such as the one advising the ESMA Risk Standing Committee, and a member of scientific councils, such as the French supervisory authority ACPR. She also has an academic career. She is currently a senior associate researcher with the Université Libre de Bruxelles and Paris Dauphine, and serves as Editorial Board member of the Financial Analyst Journal. As an affiliate professor, she has been teaching at Paris Dauphine University for more than 10 years. Marie Briére has a PhD in Economics. She specialized in green finance and today we will speak with her about green sentiment and its impact on stock returns and firms behaviour.

Thank you very much Marie for having accepted our invitation, and I really look forward to our conversation. First of all, can you explain us what is green sentiment and why it is important to understand its impact on stock prices and firms behaviour?

Marie Briére:

So first of all, thanks a lot Caterina for this opportunity to discuss our research during this interview series by the European Commission. It's really a great pleasure for me to be there. The past decade has seen significant changes in the way investors perceive environmental risks and there are several reasons for that. For the information that is available on the cost of climate change has grown considerably, for example, if you think about major hurricanes or wildfires. In addition, many regulatory actions have emerged, especially in Europe, for example, the European Commission Action Plan for sustainable finance, the green taxonomy, European labels, etcetera.

These regulations improve the transparency of available climate information and also encourage investors to take environmental criteria into account in their portfolio construction. And last but not least, there were also many spontaneous investors initiative bringing together bankers or institutional investors for joint climate actions such as engagement or divestment campaigns. So all that has led to a growing climate concern from all types of investors and also a growing appetite for responsible investment.

If you think about this shift in investors' appetite for green assets, it can have several consequences. On the one hand, it can modify investors appreciation of climate risk, meaning the way in which investors incorporate fundamental climate information into asset prices. And on the other hand it can also modify the preferences for different types of available assets, such as green and brown stocks for example. This changing preference for green assets that is not related to fundamental information is what we call green sentiment. So we think that this non fundamental demand is very important.

But the issue is that identifying these two components, the fundamental and the non-fundamental components and all the their impact on asset prices is difficult because the two effects potentially have a large impact on asset valuation. So basically when we observe an increase in the price of green assets, for example, relative to conventional assets or brown assets, so such as the one we observed over the last decade, we do not know whether this is related to the incorporation of fundamental climate information or if this is related to a change in investors preferences.

C.R.:

Very interesting! Thank you very much for this overview on green sentiment and this lead to my second question. You said that the interesting part of green sentiment is that is new, is linked to changing preferences in investors' behaviour with respect to the sustainability of investments and so on.

But what is so special about green sentiment with respect to just market sentiment in general? In fact, the researchers in behavioural finance already have shown that investor sentiment can impact stock prices. What is new about this green sentiment and how can we measure the "green" sentiment with respect to the "normal" sentiment, let's say.

M.B.:

Yes, Thank you, Caterina. It's a great question. So it's true as you say that market sentiment or even speculative sentiment, so meaning investors change in preferences that are not related to fundamental information has been already widely studied. So for example, the early findings of the paper by Baker and Wurgler in 2006 have shown that positive stock market sentiment generally raises stock prices but also has cross-sectional effects. For example, differential effects of sentiment on small versus large companies, more or less volatile companies, or more or less profitable stocks.

These stocks are affected basically differently because sentiment based demand or arbitrage constraints vary across stocks and there's some stocks are more sensitive to speculative demands. It's also true that theoretical work indicated investors environmental preferences can affect asset prices and in turn also corporate behaviour. The famous paper by Pastor Stambaugh and Taylor, also the more recent paper by Zerbib, is also showing theoretically that these preferences can have an impact on the asset prices. But despite this growing importance of green finance and also this interest in sentiment, the understanding of the influence of environmental concerns on financial markets and also corporate, meaning firms decisions, remains still relatively limited.

A research with Stefano Ramelli proposes a unique way to estimate green sentiment, meaning these changes in investors preferences for green assets that is not related to fundamental information, and to measure its impact on equity returns. To do this we evaluate the arbitrage activity on the green ETF market, meaning the creation and redemption of shared in the ETF primary market, which leads to observable flows in or out of ETFs. Interestingly, recent work by Brown, Davies and Ringgenberg and also Davies has shown that these flaws reflect non fundamental information. And the intuition behind that is very simple. ETFs and their underlying assets, meaning the underlying individual stocks that belong to the ETF, they share the same fundamental value. But ETFs are more prone to sentiment than the underlying assets and that's due to a different ownership structure which is significantly more tilted towards retail investors.

So for example, in our sample green ETFs, they have a median institutional ownership of approximately 24% compared to 42% for conventional ETFs and it's above 70% for individual stocks. So you see that green ETFs are primarily bought by retail investors. So given the differences in ownership structure, the non-fundamental demand shocks impact the ETF price differently from the underlying securities. So when we observe violations of the law of one price, and so the price of the ETF should be equal to the price of the underlying assets. But it happened that there is a disconnection between the two. So for example, the ETF price trades higher at a higher price than the underlying assets, so leading to an ETF premium.

This reveals non-fundamental demand shocks, so excess demand for the ETF, the green ETF and these mispricing incentivize arbitrageurs, these are called the authorized participants, to create or redeem ETF shares to correct the mispricing and that generates observable ETF flows. By measuring the difference between these arbitrage flows on green and conventional ETFs, we can obtain an estimate of these non-fundamental demand for green assets. And it's not fundamental because if it was fundamental information it would have affected also in a similar way the underlying stocks belonging to the basket of the ETF. So the fact that there is a differential impact is related to the fact that it's non fundamental information.

So concretely in practice what we do is we use data on a comprehensive sample of U.S. equity ETFs. We estimate each month the differential flow into green ETFs relative to flows into conventional ETFs net of the effects of other fun characteristics. Then we use this estimated abnormal flows into green ETFs to build a green sentiment index which is measuring the changes in investors' appetite for this theme which is not incorporated in the value of underlying securities belonging to the ETF. So it's important to keep in mind that our green sentiment index differs significantly and we show that from all the proxies of attention to climate change such as for example the Google search volume index which is widely used or also these climate change news based type of information. So the indices built for example by Engle, Giglio, Kelly, Lee and Stroebel also very prominent climate change attention measure but which is measured from news information so newspaper information. So these other measures are likely to reflect a kind of mix between both fundamental and non-fundamental information. And because when journalists talk about climate it might be both because there is climate fundamental information, but also because there is more sentiment about the climate, while our measure is measuring more pure sentiment information.

C.R.:

Very interesting. But if I can add just one small question, how do you make sure that the non-fundamental information that you grasp and that then you use to measure the green sentiment is not some other unexpected shock that was part of the of the normal of the more normal dynamics of markets?

M.B.:

Yes, it's an interesting question. So what we show is that there is a weak relationship with climate fundamental information. So these speaks in green sentiment do not correlate very strongly with fundamental information and which we try to identify where these peaks come from. So is it related to particular climate news and new agreement etcetera, we do not see that there is a very strong relationship. So it's something additional which is maybe more related to the growing appetite for sustainable funds at certain particular periods and it happens that for example in some periods there is less appetite also for sustainable funds and we experienced that during the Ukraine war for example. But that's something which is special and which is not completely connected to the climate news and climate fundamental information.

C.R.:

I see. Very interesting. So you're saying that the green sentiment you saw in your research that is that is growing and that it doesn't depend only on the regulation of public institutions, but also from the private sector, private sector ideas and projects. But now how important is a green sentiment for financial markets? Is it significant ?Is it still growing?

M.B.:

Yes, So what we show in this research is that when we look at the impact of green sentiment on stock market, there is a strong relationship. So in particular we find that when there is a one standard deviation higher green sentiment, this is associated with an outperformance of greener stocks let's say or one standard deviation more environmental responsible firms, and we measure that with various sustainable ratings or environmental ratings, of approximately 30 basis points over a one month horizon. So higher green sentiments mean an outperformance of green stocks by about 30 basis points over the next month. And if we look at the longer term effects, we find an even stronger impact, about 50 basis points over six months horizon. So and all that is net of all the firm's characteristics because we control for firm characteristics also in the regressions. This impact on stock returns is really large and it is significant and it has the same order of magnitude than the impact of fundamental climate news. And because we also use the index of climate news to measure both impacts, the impacts of sentiment and the impact of climate fundamental information, and we find impacts of relatively same orders of magnitude. So it means that both the climate risk information, the climate fundamental information and also changing green investors preferences can have an impact on stock prices.

What's interesting and before you were asking me what's the difference with traditional more market based sentiment. What we find is that green sentiment has a long lasting impact. So I mentioned over six months and it has only a slight decay after that. While if you look at previous papers where we're looking at market based sentiment, the impact is much more short term. So I think that's something which is very special about green sentiment, and it's particularly striking to see that this measure of sentiment derived from green ETFs has effects outside of the universe of stocks comprised in the ETF. And that's also something we check and that the effect is not limited to the stock that belong to the basket of green ETFs which are typically climate, I mean green technology type of stocks. But it is, it has an impact on the much larger universe of greener stocks, so environmentally friendly companies, highly rated environmental companies. So it's not a pure, you know demand effect that would be related to the belonging of this ETF basket. So there is a general appetite towards green stocks during these episodes of high green sentiment that goes beyond the particular sector of clean energy and that is widely shared across markets.

C.R.:

Very interesting. So it's not a phenomenon that is limited only to a sector and is also stronger than expected in a way because general market sentiment has a shorter effect. That's very interesting. Do you think that it could it be, because there are expectations of future regulations maybe, or a way that is already clear for markets but also the real economy towards a real green transition? Maybe that's why.

M.B.:

Yes, you're completely right. I mean people, I mean financial market participants anticipate the higher stringency of regulation, they anticipate that other investors might join and all that participate to that movement of, you know, incorporating these sentiment into stock prices.

C.R.:

That's very interesting also for our future and our work as policy makers to see that there is an impact from the financial side. This lead to my last questions. From the financial side to the real economy.
In your research, did you see, did you find also some real effect of green sentiments on firms behaviour?

M.B.:

Yes, Caterina, it's very important question, right, because I mean stock market impact is important but what we would like to see is also an impact on firms decision. So as you say on the real economy. So that's something we check in the paper and it's also something which is special about green sentiment. We show in our paper that in quarters with higher green sentiment, the environmentally responsible firms are able to profit from this growing market appetite by increasing their capital investment and their cash holdings. And we find that one standard deviation higher green sentiment is associated with a 0.2% higher Capex and 0.3% higher cash holdings by greener firms. So it looks small, but in relative terms it represents about 5% for Capex and 3% for cash holdings. So it's still relatively substantial. And what's also interesting to notice is that this real impact of green sentiment is heterogeneous across firms. And in particular it depends on their access to credit and we proxy that with their credit rating.

In particular, we find that the influence of green sentiment on Capex is really focused, it's much higher on low and medium term rated funds. So those that have probably more difficulties to access to financing. So these real effects are something which is potentially very important, as you mentioned. Many policy makers, regulators, they expect a redirection of capital markets from brown to green activities and that it will have an impact on reducing carbon emissions. And what we show is that these changes in investors preferences for green assets, they have the power to shift investment from brown to green companies, which can affect the cost of capital of green firms and in turn affect their capital investment decision. So there is a potential virtuous circle that is something that would need further research, but we see in this research already that there is something happening here and green sentiment can also incentivize in a way firms, I mean those benefiting from the sentiment, to invest more. So that's a very good news. And the market for green assets is not in equilibrium. So for sure they will be as you say before, because the regulation also involving investors are also changing their mind and continuing to shift their portfolio. So in a world where investors preferences are likely to remain heterogeneous, there is really a quick question on which equilibrium you are going to lead to and what will be the new equilibrium in the economy.

So that's one first question. Another question I like to point on that is also, how will green firms use the extra resources? So it's good to know that green sentiment can help them to fund certain activities and that that gives them access to allow them to invest more etcetera. But it might also mean that this flow of investment might be diverted from browner stocks. And we know that brown firms, in particular in the energy sector, are also key in the energy transition process because, for example, they are key issuers of green patents, it has been shown by prominent papers in the academic literature, for example. So I think that we also need to be very careful in that and monitor the risk that green sentiment might divert resources away from brown firms that have a high green innovation potential, high green transition potential, those firms can also be very, very influential in the transition process. I think this sentiment is something very important for financial markets. We have seen that it has stock market implications. It can have real market implications. We've seen that it can lead to a higher investment for companies. So the key question is: how do these companies invest, and do they invest for, you know, more sustainable projects, climate innovation? Do they issue more climate patents? That's something that we'll still need more investigation and more research to better understand how these financial flows can have a real impact on the climate transition process.

C.R.:

Very interesting. But at this point I have an extra question, if I may. You said that the green sentiment is helping environmental responsible firms, but these may be maybe an issue for transition finance. Do you think that more transparency in investments also when speaking of brown firms may help? Because more transparency on one side can help transition finance: I am investing in a brown firm even if I know it's brown, because it needs my help for research and green patents. On the other side, how can we be sure that a green firm is for real green? There is always a risk of green washing, right? How could we deal with this?

M.B.:

Yes, it's a great question also very difficult question I guess. So you're completely right. So I think that's what I'm trying to say in this very last point that knowing that there is more investment per se is not enough. We need to know how these investments are made: is it really, I mean, green investment, green CapEx or not? I fully agree with your point that with having more transparency on the firm's behaviour on the investment that are made at the company level is key here, because a green investment can be made by a brown and a green firm. Being green per se, having a high environmental score per se, is not enough to mean that you will be very influential in this transition process. So I think having transparency and monitoring the detail of investment that are made, and also what are the consequences of this investment in terms of innovation, in terms of the changes in market products that will be sold and all that is very, very important. I believe all the efforts that are made by the European Commission, I think in Europe we are very, very strong on that, right. Pushing firms to disclose more information is key and will be key in that process. I agree with you on that.

C.R.:

Very interesting. Thank you very much for this conversation. I got many, many ideas both for my work as a researcher and my work as a policymaker. I would say that the bottom line is to continue monitoring, both from research side and from the policy side, to make sure that all the good work on green finance and the green transition that has been done up to now will continue in the right direction, and will not be lost in in the future for maybe a change of sentiment. Let's keep that green sentiment going and let's hope that will make a difference in the future.

M.B.:

Yes. Thank you very much. Caterina I thank you, I believe you have a unique position to do that right being both sports which is really key and very important, I agree. So thank you, it was a pleasure to discuss that with you, thank you very much.

C.R.:

Thank you very much Marie. It was a pleasure to have you here today and to discuss with you about green sentiment and green investment. You gave me and our audience several point to work on. I hope also our public will have some new ideas from this interview and I will now close our interview. I am deeply grateful for your presence today and I will say goodbye to our audience. Stay tuned for the next episode of the Sustainable Finance Research Forum interview series coming in May. Goodbye!