

Exchanges at Goldman Sachs

Investing in Climate Change 2.0

Mark Carney, UN Special Envoy for Climate Action

Chris James, founder and executive chairman,

Engine No. 1

Evy Hambro, global head of thematic and sector

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Kasper Lorenzen, group chief investment officer, PFA

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Allison Nathan: This is Exchanges at Goldman Sachs and I'm Allison Nathan, Senior Strategist in Goldman Sachs Research, and creator and editor of the firm's Top of Mind report.

In this episode we're focusing on climate change. We'll be bringing in some outside voices to explore one of the key takeaways that emerged from the recent UN Climate Change Conference in Glasgow—that the private sector is now stepping up to tackle the climate problem.

Now, this is obviously a positive development. Climate change is a global problem that will require efforts from all sides to solve. But we dig into what role the private sector and ESG investors in particular should really be playing; how effective current investor strategies really are in moving the needle on climate goals; and how these strategies square with asset managers' fiduciary responsibility to their clients to maximize returns. The answers to these questions are Top of Mind.

To start to answer them, we first speak with Mark Carney. He, of course, served as the Governor of the Bank of England and before that of the Bank of Canada, and is currently the UN Special Envoy for Climate Action and the Co-Chair of the Glasgow Financial Alliance for Net Zero, which full disclosure, Goldman is a part of. He emphasizes that solving the climate crisis will require a total of \$4 trillion dollars a year in investments through 2050, and the private sector, and especially financial institutions, have a key role to play in providing this capital.

Mark Carney: There has been a quantum leap in terms of private sector engagement since Paris. The private sector

certainly was there, but I wouldn't say the core of most industries was at the forefront here. And we see it across a range of industries from the big, heavy emitting industries: steel, cement, maritime transport, all transportation effectively. And we certainly see it in finance. And I'm sure we'll come back to that.

But the private sector, in many respects, is beginning to lead the public sector and put more pressure on the public sector to close the gap between the country objectives and the underlying policies that support them.

Allison Nathan: Tell us about the Glasgow Financial Alliance for Net Zero, which Goldman is now a part of, and what role you see it playing.

Mark Carney: Yeah. Well, I think the first thing is that this was launched at President Biden's Climate Summit back in April. And the point was to bring together a series of initiatives that were emerging across the financial sector to have a common level of ambition and to cover the whole waterfront of the financial sector so that these efforts were mutually reinforcing. So, that process had started with the

Net Zero Asset Owners Alliance, which again, go back to the start of 2020, had about \$5 trillion of assets that were committed to be managed towards net zero. And when we moved from there, net zero asset managers, Net Zero Banking Alliance, insurance underwriting, and then all the infrastructure providers bringing them together and having common commitments over timeframe for managing towards net zero. So, obviously, 2050 by the latest.

But fair share of reduction of financed emissions, and this is a critical point, it's really the clients and investee companies of asset managers across the waterfront that are making these reductions. And that they would achieve the fair share of that 50 percent reduction the world needs by 2030. And then on top of that, particularly in the banking sector, five-year decarbonization plans in order to lay out a pathway to achieve it.

So, those are the commitments. Commitments consistent across the waterfront.

Allison Nathan: You made a lot of headlines with the \$130 trillion-dollar funds committed across the financial

industry. So, tell us a little bit about that number, what it really represents, and how you're looking at it.

Mark Carney: So, what it represents is the balance sheets of those institutions, asset owners, asset manager banks. It doesn't actually include the insurance underwriting component because we have in many cases the asset side of the insurer's balance sheet. It doesn't include \$10 trillion dollars of investment consultants that have committed to align with net zero consistent with the banks and others because some of that, not all of it, but some of that is blended in with the actual assets of pension funds and others. So, it's suggested for double counting the number's bigger, but it's adjusted for double counting. That's the first thing.

The second thing is to recognize it's interesting, some of the comments on it are, like, well, that money's already invested. It's like, yes, so? Various estimates of the energy transition range in the \$100 to \$125 trillion-dollar range, let's say. Let's pick the upper end of that. And let's not adjust for the one third or so of capex that is normally internally funded by cash flow of companies. Tends

actually to be a little higher, but I'll round it down to one third. So, the headline number is actually lower than it is. But let's keep the 125.

Well, that works out to about \$4 trillion dollars a year of spend that's required for this transition. So, you have \$130 of assets. You need \$4 trillion that's aligned with net zero per year. You have a series of loans that, you know, are maturing. You have a series of daily investment decisions of which consumer product company am I going to own versus the other, or tech company versus the other. Or energy company versus the other. And you have a series of financial institutions who have annual reporting requirement for all their portfolios. Commitment for their fair share of the 50 percent reduction are going to be looking to transition towards companies who have high emissions today, but very importantly, have plans to reduce those emissions tomorrow because that's your biggest bang for the transition buck.

So, on a flow basis, the stock converts into a flow of investments and those balance sheets move over time, that's their commitment, to be more and more aligned.

So, the money is there. I mean, that is the message. The money is there for the transition. And this is about going to help companies that need to change in order to get their own emissions down. And many of those changes are very capital intensive. Virtually all of them take time. And one of the things we've really emphasized is, and people don't want to hear it, but it would be great if there were a green switch we could flip in order to get there. And one of the most contentious things, Allison, is this desire that the only energy financing is for renewables and that there's no continued energy financing on bridge fossil fuels. There's certainly much less financing for that. But the IEA, the IPCC and other scenarios recognize that there are hundreds of billions of dollars of transition financing in the fossil fuel sector globally as we move from where we are to where we need to get to.

Allison Nathan: There's a lot of discussion about divestment versus engagement. And it sounds to me like you're fully in the camp of engagement.

Mark Carney: I'm fully in the camp of engagement. What's changing and changing more rapidly than some companies

my fully appreciate is they have to have a plan for net zero. If that hasn't fully sunk in, it will sink in pretty quickly. And that's challenging. The good news is, if you have a plan, there's going to be financing available for it.

Allison Nathan: But even if the capital is available, is the private sector properly incentivized to invest it in alignment with climate goals? We get perspectives from two asset managers: Chris James, Founder and Executive Chairman of Engine No. 1, which led a successful proxy fight earlier this year to put climate-minded individuals on Exxon Mobile's board, and Evy Hambro, Global Head of Thematic and Sector Investing at BlackRock who lives and breathes these asset allocation decisions everyday.

Both of them make the case that the private sector can drive the green transition then that market-based incentives are sufficient to attract the necessary capital investments. Here's James.

Chris James: Coming from COP 26, my conclusion was the private sector is going to drive this much more than the public sector. It's like Microsoft's ability and willingness to

go to all renewable energy by 2025, all renewable energy 24 hours a day by 2030, these are the type of efforts that are going to really drive a much broader ecosystem that gets created by these movements. And I think that's going to work much more effectively than just indices that don't have near-term deliverables.

Near term targets are absolutely key. When I say near term, like, you know, two- or three-year targets and five-to-seven-year targets, not just 30-year targets.

Allison Nathan: What motivated your move into impact investing?

Chris James: I read this white paper around what is the total social value of a business. It was written by Luigi Zingales and Oliver Hart, and it had a very simple formula. And it said the total social value of a business is the profits minus the damage that they do. And after I read that white paper, it started to make sense that maybe we could actually build a framework that was taking advantage of the proliferation of information that we had, whether they're ESG criteria, whether it was something like net

ratings score, whether it was something like Glassdoor. Like, all of these indicators of the culture, of the impact on communities, of the impact on the environment, of how inclusive the workplace is, I felt that after looking at some of this root cause analysis, that there actually was linkage between many of these ESG criteria and the company's ability to create value over the long term.

And so, when we engage with the private sector, what is it that really gets their ear? What gets their ear is if you minimize these negative externalities and you enhance positive externalities, the market translation mechanism is the multiple of your business. And that gets people intrigued. And a CEO will pay attention if you tell them that by doing this your multiple of your business is going to expand. And if you don't, it's going to contract. Solely on the idea that the durability of your business model is always going to be questioned. And the stability of your business model is always going to be questioned if you have a large externality, that if internalized, is going to dramatically impact your earnings.

And this is why the autos are such an easy space to focus

on and the move to battery electric vehicles because you remove Scope 3 emissions and that will drive a lot of value to the equity shareholders because if you do the counter argument, if GM decided, you know what, we're going to sell only internal combustion engines, we would all assume as investors they don't sell a car past 2035.

And so, I think the place where we're going to get vast and quick and aggressive movement from the private sector is you show them how that translates to value creation. And that's an easy argument. And it's one that I think is absolutely true.

Allison Nathan: And here's Hambro, who agrees that capital will naturally flow towards sources of value creation and returns stemming from the green transition.

Evvy Hambro: Regulation has a role to play, without a doubt. But I think what we'll happen is that the market will naturally move, which has always been the case, to where the returns are coming from. And if the value is being generated from the transition in a certain way, then the capital will move there. At the end of the day, it's down to

us to do the right job for our clients. We've got to respond to the demand side of the equation just as much as we do on the supply side. And it is going to be the demand element that, I think, is going to be probably more powerful through time in terms of driving the transition than necessarily the supply side.

If customers are all move their home electricity supply to renewables, then that's going to be very, very powerful and bring the transition away from fossil fuels much more quickly. Can regulation incentivize and help businesses evolve the production of power towards renewables?

Absolutely. Can they provide a grid that is better placed to accommodate it, distribute it, store it? All of that is an area where regulation come in. But I think money will always flow to where the returns are coming from.

Look at the returns that have been generated by renewable power companies, the incredible share price performance that they've generated over many, many years. Look at the bankruptcies and so on in the thermal coal space. There is definitely a global agenda on this. And that's why these things trade at the levels that they trade at.

Allison Nathan: Neither Hambro nor James sees a conflict between fiduciary duty and climate considerations. Here's Hambro.

Evy Hambro: Investors should always be a fiduciary of the capital that they look after on behalf of their clients. And I don't think ESG should change that. I think within that, obviously, investors should always try to provide the best possible financial outcomes for the capital that clients have given them. And I think what's become very, very clear is that in doing this role, it is so obvious that the risks to a portfolio from climate change are very real. And therefore, in order to look after your clients' capital, you have to be investing through a lens that brings those risks into account.

The two things are inextricably linked. You can't be making an investment decision without taking climate risk into account.

Allison Nathan: And here's James.

Chris James: What we learned during the Exxon campaign is what can bring everyone together is the idea that climate risk is business risk. And that if you ignore the externality, you ignore our reaction items to that externality. We call it kind of the path of the impact.

When you have a large negative impact, you have innovation to mitigate this. You have regulation. And you have consumer behavior change. And the consumer behavior change is a result of people understanding and being more intentional about their decisions after they understand what the impact of a certain action or a certain product or a certain level of consumption actually is.

And once they understand that, you see a gradual change of behavior by customers. So, what do people try to do? They try to buy a Prius. And then the Prius is an awful car, right, but people bought it to make a statement that they care about the environment. And then what happens over the course of the next 10 years, we actually see the Tesla, which is a much better car. And using this as a way to bring customers into the fold. So, people can get both.

People love having their cake and eating it too. And that's what a Tesla is. It goes really fast. It looks good. And it has a much lower environmental impact.

And I think that over time, and certainly with all the transparency in impacts, that's the direction that we go. Why is Allbirds successful? Why has Patagonia been so successful? It's this willingness and desire for customers to align their values with what they buy. And that has only been true because of transparency.

The wide-open road here or the real opportunity is the place where there's alignment between what's good for shareholders is what's good for stakeholders. And we think that the only difference between shareholder primacy and stakeholder capitalism is duration. If you look out 10 to 15 years, there is complete convergence of the two. If you look out over two years, yeah, sometimes shareholder primacy is going to be in direct conflict with what has been defined as fiduciary duty. But my argument is fiduciary duty should be over the long term. I mean, there is no end to a company logically. So why is fiduciary duty defined as one year or two-year returns? They should be defined for are

you setting this company up for future success? And I think over time that the rules on fiduciary duty should change. And they should be to take into account these externalities because that is what's going to drive long-term success or failure.

Allison Nathan: While investors are choosing different strategies to facilitate the green transition, both Hambro and James believe in engaging with heavy emitting companies that need to transition towards cleaner energy as opposed to divesting from them entirely. Here's James.

Chris James: I think that divestment was an important early step in bringing awareness to the impacts that companies have. And I think the divestment, in many cases, is a result of the frustration that many shareholders had on a company's unwillingness to engage with multiple shareholders around issues that are not defined over the very current narrow definition and wrong definition of fiduciary duty. But I also think that, and if there's anything that brought this to light, it was during the last presidential election campaign back when I was on social media. And I would watch people talk about get out and

vote, how important it was for everyone to express themselves at the ballot station if they're unhappy with the current environment. If they wanted change. Yet the same people would also be posting aggressively hurraing divestment of oil and gas. And it just breaks my brain to think that someone could have a narrative that was so similar with dramatically different actions that came out of that narrative.

I think the idea of giving up your voice, giving up your vote is wrong. There was recently a paper published by a combination of Wharton and Stanford that showed that not only does divestment not work or not have any impact, it actually gives economic rent to people who care dramatically less about the issue.

I don't think people who are divesting want to do this, but the reality is, if the people who actually care about these issues sell all of their stock, we don't have much of an opportunity to try to affect change. And certainly, if all the people who've been asked to divest did divest, we certainly wouldn't have won those board seats.

Allison Nathan: But you said yourself that the big oils missed a big opportunity when oil prices were very, very high to invest in change. So, what gives you more confidence now that engagement is going to produce results?

Chris James: I'm afraid I don't have the answers yet. We're five months in. We'll see what three board members on a board where governance has been incredibly poor for decades, how long it takes for some improvement across governance and the ability to hold management teams accountable if we have some new blood in the boardroom. But from what we've seen so far, I mean, think about from the day with launched the campaign, Exxon's goal was to go from 3.7 to 5 million barrels a day of production. And they changed that two months afterwards. They barely mentioned carbon before we started the campaign. They started a low-carbon solutions business midway through the campaign. They added two new board members aside from the three that we won. And they made some promises of future people with energy experience and some scientific background around climate change.

Just the 1.3 million barrels alone they took out of their production targets for 2025, I think, is worth about 220 something million tons of carbon annually. They took capex down dramatically and have taken up capex for the low-carbon solutions business. Well, we know that none of those changes would have happened without us launching the campaign. I feel pretty confident that this is not a company that would have changed unless they had to.

And now, we'll see where we go from here. But already, it's a company that's also, since we launched the campaign, it's outperformed Chevron by 30 percent. This is 30 percent on a couple \$100-billion-dollar company. And that has been because people, I think, understand that maybe there's much more accountability than has ever existed at Exxon. And we'll see if this continues. But it's not a bad start.

Allison Nathan: And here's Hambro.

Evy Hambro: There are certain areas which we don't invest in, which are the obvious areas: exposure to thermal coal and so on. So, there are a bunch of no-go areas for us. But

I think that the way that we're thinking about this more broadly now is to move away from the concept of exclusions and to try and work with companies to understand the plans that they have to move their businesses forward as part of this transition.

If all you're going to do is exclude businesses based on historical backward-looking data, then you're going to have an incredibly narrow undiversified portfolio that is probably not going to help the world transition. If you really want to achieve positive change, then you need to be backing companies that might be in more difficult areas, but hopefully if they have strong plans to evolve their business, then they actually will make a really big difference in terms of moving the world economy forward with regards to the carbon transition. So, I think that is our role.

How do we actually do that? We have access to everything else that everybody has from external data providers. We build that into our tools. On my team that means we do all of the ESG analysis on certain companies. We work out where companies are weak and where they are strong. We'll also look at our internal, proprietary processes, again, to

make sure that there aren't any kind of missing gaps. And then we'll seek to engage with companies. And it's that engagement which is really important.

If a company is unable to respond to that engagement, doesn't have any plans with regard to the future, isn't thinking about this as a risk or an opportunity for their business going forward, then that's a real red flag to us. If companies might have bad initial reviews in terms of data, but they have a really robust and strong plan to improve, that's a great opportunity because some investors might have marginalized them by thinking around exclusion. And there could be a lot of value from a company delivering on its plans with regards to the transition.

Allison Nathan: We also spoke to Kasper Lorenzen, Group Chief Investment Officer at Danish pension fund PFA. He also supports engaging with companies committed to the green transition, but makes the point that smaller investors can only credibly do so with a few companies at a time, which has led to a large role for divestment in PFA's ESG strategy.

Kasper Lorenzen: Maybe if we just take one step back. So, there's a big climate externality sitting out there. So, there's a huge liability which is sitting out there. And if you think about it, all assets, all investable assets, somehow carry part of that liability with them. We don't see it on their balance sheet, but it's sitting there. And you don't want to invest in companies that kind of carry a higher participation in their liability.

And let's face it, oil and gas are carrying a higher part of that liability. So, I'm very comfortable reducing my exposure, generally, to oil and gas. Then of course at one stage when I observe how big a portfolio can do [UNINTEL] oil and gas, the dialogue we have, and that's across the organization. It's [UNINTEL] team. It's equity. The investment team. It's myself. It's even our chairmanship. I think it just gives some credibility that it's kind of all of this organization who have a touch point. And then if you kind of approach things that way, then you don't want to have too many engagements. I mean, you'd rather be a bit more concentrated.

And if you're a big organization, maybe you can handle a

larger number of companies. But I think the combination of the investment belief and the carbon liability, together with the size of the organization and the credible engagement just made us reduce the number of companies we have in oil and gas from 22 to a couple of companies.

Allison Nathan: But despite the optimism about the ability of the private sector to lead the way on addressing climate change, Carney still sees an important role for government policy to create the necessary investment incentives. Here he is again.

Mark Carney: We need clear, consistent, comprehensive climate disclosure. We've known that for a while. We went through a relatively short period of experimentation, voluntary disclosure. Now that's being coalesced. It's becoming mandatory. G7 agreed to that, 40 countries plus with the IFRS, the SEC going through its consultation process. You can see the pathway in very short order from mandatory disclosure. And that's going to make the market function better.

We're also seeing that with climate stress testing. And we

talked a moment ago about mandatory net zero transition plans. Again, so there's common information, common approach. And we can be effective as possible, we the financial sector, in allocating capital to those who have solutions.

And one of the interesting things on the finance day of [UNINTEL] was that UK HS, [UNINTEL] stood up and announced the UK will mandate net zero plans for all listed companies. So, that's where the world is headed. And this is the opportunity through GFANZ and others to make sure we get it right.

That's a series of necessary building blocks within the financial sector. But the core of this is what really maximizes the benefit of this. So, clear country policies by sector that incentivize investment. Let me give specific examples. The UK, France, a few other European countries have called the end of the internal combustion engine. 2030 in the UK, for example. 2035 in some European countries. No new internal combustion engine vehicle sales after that point.

Well, that date's certain, which is far enough in the future you could do something about it, but close enough that you have to, is spurring a huge amount of investment in, not surprisingly, zero emission vehicles in Europe and all elements of that. And of course, the financial sector is looking at that and can see where the end game is in transport and allocating capital accordingly, backing winners, and moving away from those who don't have plans.

A similar dynamic in Canada with a legislated carbon price path that rises to \$170 dollars per ton by 2030. It's \$30 today. It's legislated. Date's certain. The \$30-dollar carbon price today in Canada is interesting. The \$170 one is relevant for a capital decision.

Another example would be a hydrogen fuel mandate in maritime. Five percent blend, for example. We're starting to see that come in. Again, dates certain in the future. We have a financial system that's oriented to net zero. It's going to push capital to those who are reacting to those policy signals. And that is a very, very powerful and positive dynamic because it means the economy is ready at

the point the regulation comes in.

The more that's appreciated, and it's becoming more appreciated amongst policy makers, but the more it is, the better policy we're going to see. The smoother adjustment.

Allison Nathan: Jeff Currie, Goldman Sachs Global Head of Commodities Research takes this one step further, emphasizing that global coordinated policies are necessary to prevent significant misallocation of capital in the pursuit of climate goals. He argues that a government mandated carbon tax or price is the most efficient way to solve the climate problem.

The private sector is now beginning to direct a substantial amount of capital to addressing climate change. Do you think these efforts will be enough to solve the problem?

Jeff Currie: Well, they can always solve the problem. It's just a question of how long and how much money. Time is something we obviously don't have. And I think it's important to emphasize that if the private sector has to go alone in this, it's more likely than not that they're going to

create a misallocation of capital. It's going to substantially raise the cost of capital of doing this, which increases the overall cost of solving climate change.

And to see this, you know, take a step back and think about what are we trying to do here? We're trying to internalize a cost of an externality produced by consuming hydrocarbons, i.e., carbon emissions. Private sector cannot internalize these costs. They can use blunt instruments like ESG to try to do it. But it's not going to be an efficient way to do it.

In fact, the way you can think about it is through divestiture, ESG raises the cost of hydrocarbons, which acts as, like, a tax on consumption. Now the problem with that tax on consumption is that it is very inefficient. It's a blunt instrument that hits the entire industry. And second, it's a tax that is without representation and a tax that does not collect any revenue.

As we like to point out, it's a tax where the revenue goes to those who invest in hydrocarbons or it's a revenue that goes to the foreign nations that produce these

hydrocarbons like Russia and Saudi Arabia. So, right there from the get-go it's a very inefficient way.

And the way you can think about this is it disconnects the relationship between commodity prices and commodity supplies so that the supply curve becomes much more inelastic. And a more inelastic supply curve leads to much higher prices for hydrocarbons than what you would get under the standard taxation regime. And that's how you can think about how it raises the costs. But I would like to argue, let's think about time as well because it then creates a much longer time period in which you would actually solve these problems because it creates a misallocation of capital. And all of that adds to time and adds to cost.

Allison Nathan: So, what is the optimal solution for solving climate change? What do we need?

Jeff Currie: We need a carbon price or a carbon tax. Think about a carbon price like a cap and trade, you're holding the quantity of carbon emissions fixed and you're letting the market solve for the price. If you think about a carbon tax, you're holding the price of carbon fixed and

letting the market solve for the quantity. Either way, they get to a more optimal solution.

So, point number one, we need a carbon price. Point number two, the rules and regulations around decarbonization must be enforceable such that they can identify those who are polluting and those who are creating the externality. Now, when we think about the current environment, particularly with carbon emissions, policing and enforcement is very difficult.

Then the third really important requirement is you need a mechanism in which you really start to tighten the regulations around decarbonization so that you raise that carbon price and reduce the amounts that are being emitted. And that schedule really determines how fast you decarbonize. If you took carbon prices up to \$200 dollars a ton, immediately you would lose a lot of carbon consumption. But the question is, do you have the green economy put in place that can offset that loss in the carbon economy?

Allison Nathan: With the problem of climate change sure

to remain a key focus for shareholders, customers, and the world, we'll continue to closely watch how private sector efforts help move us closer to solving it.

I'll leave it there for now. If you enjoyed this show, we hope you subscribe on Apple Podcasts and leave a rating or comment.

I'm Allison Nathan. Thanks for listening to Exchanges at Goldman Sachs and I'll see you next time.

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