TC Webinar Series:
Revised Core Principles for effective banking supervision
Part 5: Climate-related Related Risks

Panelists:

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Deputy Governor, Bank of Ghana; Board Member, Toronto Centre

Shahin Mahmudzade

Executive Director, Central Bank of the Republic of Azerbaijan

Moderator:

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Transcript:

Jean Pesme:

Thank you very much for joining us. My name is Jean Pesme. I'm the Global Director for Finance at the World Bank, and I'm also a member of the Board of Directors of the Toronto Centre. So, welcome everybody to our fifth and last (but not least) panel on the revised Basel Core Principles. I'm very happy to be moderating this important conversation which will focus on climate-related financial risk.

So maybe, let me set the scene for two minutes before going to our panelists. So first, thank you very much to the Toronto Centre for organizing this and the last four webinars on this. The World Bank was one of the original funders of the Toronto Centre back in 1998, and I've been lucky to engage several times with the Centre even before becoming a board member and I've always been impressed by the impact of the Centre and the range of issues that it's covering. In fact, since its establishment, the Toronto Centre has trained more than 28,000 financial supervisors from more than 190 countries and territories, with a focus on building a more stable, resilient, and inclusive financial sector. The mission of the Toronto Centre is sponsored by Global Affairs Canada, Swedish SIDA, the IMF, and other valued international partners.

I'm particularly happy to be moderating this session, as both the Toronto Centre and the World Bank really pay a lot of attention to climate risk as an important supervisory challenge with relevant implications for global development. We both congratulate the Basel Committee for amending the Core Principles for effective banking supervision to reflect on climate-related financial risk.

Now, climate change poses both physical and transitional risks that could impact the safety and soundness of individual banks with broader implications for the banking system and financial stability. In response, targeted changes to the Core Principles have been introduced to explicitly include climate-related financial risks and to promote a principle-based, and I insist on that, approach to enhancing supervisory practices and banks' risk management.

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>
> **Jean Pesme**
> World Bank

Now, the Core Principles are universally applicable, and they emphasize that banks should understand how climate-related risk drivers may manifest through the traditional financial risks, such as credit risk and operational risk. Banks are also expected to recognize that risks could materialize over a varying time horizon and implement appropriate measure to mitigate them. On the other side, supervisors are also expected to incorporate climate-related financial risks into their oversight of banks, assess bank risk management processes, and require them to provide information that allows for an evaluation of the materiality of this risk. This is where the principle-based and proportionate approach comes back. But given the degree of heterogeneity and evolving practices, both the bank and supervisory practices may consider climate-related financial risk. So, I'm very lucky to be joined by distinguished panelists who will examine the inclusion of climate risks in the updated Core Principles and highlight why both banks and supervisors should adopt flexible practices to address this, but also share their own experience in their country.

Good afternoon, Elsie. Elsie Addo Awadzi is the Deputy Governor of the Bank of Ghana. Elsie, it's very nice to have you. I think we've discussed climate risks in the past already, so very happy also to see the evolution over time, and Shahin Mahmudzade, who is the Executive Director of the Central Bank of the Republic of Azerbaijan. Thank you for joining us. Some very different perspectives, but also very important role because your country will host COP29. So, even though you're not directly in charge of that, I think that also puts things in broader context with a COP29 focus on finance. Welcome to our speakers. You have seen their bios, so I will not go in more detail.

Our objective today is to have three rounds of question with very sharp answers from Elsie and Shahin and then we will open for discussion, so you can share your questions in the chat using the question-and-answer function, and then I would moderate this. So, let's get started because we have a lot to cover and I would start with you, Elsie. So, in Ghana, how are you addressing climate-related financial risk and what are you doing as a supervisor to engage your banks on this, Elsie?

Elsie Addo Awadzi:

Thank you, Jean, and thanks for the invitation, Toronto Centre; it's great to be here with Shahin and everyone. At the Bank of Ghana, we understand the importance of climate-related financial risk as a key risk which is already actually impacting, to an extent, banks' balance sheets, but we foresee that could be a bigger problem going forward. And so, we have fully embraced the Basel Core Principles, in particular the principles that were recently included that are just zeroing in on how the supervisors address the climate-related financial risk.

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Let me step back to 2015, 2016 where we began to see this and started to conscientize the banks around how to manage ESG-related risks. We then developed a set of ESG-related banking principles, we call it the Sustainable Banking Principles, together with a banking system and the Ghana Environmental Protection Agency. This was the first time that you were seeing a bottom-up approach with a regulator, with a banking system, and supported with a technical agency to develop this set of ESG-related principles. We did not stop there. We believe that when we launched those principles in November 2019, it was the beginning of getting banks to report on these risks and to tell the public how they're managing these risks.

Fast-forward - in addition to all of that where now we have banks reporting on ESG risks, we developed a climate-related financial risk directive, which is like a rule. This has benefited tremendously from the work at the Basel Committee and the Basel Consultative Group. And so, we exposed a draft of this in early this year. We got a lot of good input from the banking system and from the public as a whole, and we're currently finalizing our rules on that. This really incorporates all the best practices we know so far in this particular area and we expect the banks to start complying with this next year.

Now, we haven't stopped there. We have provided a lot of engagements, in the way of forums, with the banks to understand where they are. We've conducted a survey recently to understand where the banks themselves are in terms of beginning to incorporate climate-related financial risk in their governance structures, in their enterprise risk management frameworks, and basically where they think the gaps are in terms of being able to comply with the rules as we are now finalizing. We're learning a lot from that process, and together with the International Finance Corporation (IFC), we are providing a lot of capacity building to the banking system to be able to bring them up to speed on this. So, that's what I'll say as a start and as we go along, I'll be able to share more examples of what we're doing. Thank you.

Jean Pesme:

Thank you very much, Elsie, for this overview and a lot is happening indeed. That relates to the broader stability discussion in Ghana, but both supervisors and banks are active and a lot of capacity building. I think it's really important to emphasize the capacity building angle. So Shahin, same question to you. How are you addressing climate-related financial risk in Azerbaijan - what's your approach as a supervisor and with the industry?

Shahin Mahmudzade:

Thank you. First of all, I would like to thank the Toronto Centre for organizing this webinar. It's such an important topic and it's really a pleasure to be here. Unfortunately, we didn't have as much of a track record as Ghana. Back to the question, we just recently developed our roadmap in 2023 covering a three-year period and with the organization structure within the central bank, we created a special unit for ESG management. Within this project, we have four main directions, and due to the accelerated program, we are conducting around 10 to 15 projects at the same time, in parallel.

So, what are the main directions? First of all, we understand that there is the lack of capacity within the country, within the financial sector. Our first goal is to create this capacity within the country. With the discussions with the peer countries, we realize that it's not the only issue in Azerbaijan, but also in most of the developing countries as well. We lack the skilled labor in the market, the technology, and the third parties who can be the asynchronous companies or any kind of outsourcing companies; we are lacking behind the developed countries. That's the first direction that we think is important and we are conducting several training programs. We outsource the trainings to the financial sector employees, also to the private sector in order to create the awareness on this topic.

The second direction for us is closing the regulatory gap in this field. We also started with publishing the principles, as Ms. Elsie said, we published our principles in the beginning of this year, the ESG principles, and we changed the corporate governance standards not only in the banks, but also in the insurance companies. As we are the mega regulator, we are trying to make it parallel in the insurance and banking sectors as well. So, for us it's not only the Basel Core Principles, but also insurance core principles, there are some ESG elements incorporated already that we should also apply within our jurisdiction.

In monetary policy framework for 2025, we declared that we are thinking about integrating climate risks to our monetary policy instruments. We are working on integrating the ESG principles into our compulsory insurance products. It will be mainly physical risks and liability risks, not the transition risk in the first phase, but in the next phase probably we are going to integrate also the transition risk elements to the products. Also, made some, actually, changes in the regulation, like increasing the loan-to-value of electric cars compared to traditional cars, but it is a fragmental change. We understand that we need a more comprehensive approach and one of the elements of closing the regulatory policies is creating the taxonomy. We started this year working with the World Bank to create our local taxonomy, and I hope we are going to

finish it before COP29 and then integrate it into the financial decision making of the financial institutions, both banks and insurance companies.

The third direction of the Central Bank of Azerbaijan is integrating risk management to the capital planning of the banks and to the supervision cycle. We are conducting two projects with IMF, the data project and one distress testing project.

The last direction is the transparency for us, which is quite important. We published our first ESG annual report this year, and next year, we are going to make disclosure compulsory for the banks. Right now, another project we are conducting within the Central Bank is creating the reporting system between banks and the Central Bank of Azerbaijan.

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>
> Central Bank of the Republic of Azerbaijan

Jean Pesme:

Thank you very much, Shahin. So, I see some attendees saying that they don't see Shahin. I think it's an issue of bandwidth on your side, because technically it works, and I've actually been able to see Shahin all along. So, maybe you want to check your network and your connection.

So before turning to the second round, starting also with Elsie, maybe a couple of words or concepts there that were very important. First were the different types of risks: physical risk, transition risk, and also, there's been a big discussion on this, the difference between advanced economy and emerging markets, which are not necessarily confronted by the same kind of risk. Thanks to the two of you for having flagged disclosure. So ESG, but also there's a big push on disclosure, including in the context of the ISSB new standards. You mentioned taxonomy, which is really important and something that we are seeing strongly prioritized in the banking sector, but also increasingly in the securities market and what are the taxonomies as an element also to guide the financial sector. You mentioned stress testing, which is also an important tool, and increasing attention to stress testing and now to check that. Thank you very much for having already put quite a bit of markers down going forward.

So, Elsie, let me go back to you. Now, we have those principles for the effective management and supervision of climate-related financial risks. What is your experience with implementation of these principles? How useful have they been, but also what have been the challenges for both the supervisor and the bank in making these concrete and making things happen on the ground?

Elsie Addo Awadzi:

Sure. So, like I said before, we have already drafted climate-related risk directive, which is a rule and we're still finalizing it. It's gone through all of the public consultations. Now, that directive tries to implement the new principles, the new Basel Core Principles related to how you manage climate-related financial risk. And so, we're a bit far from actually seeing how it plays out, but from early indications from the banking system through our consultation, we have the sense that the new principles are principles-based enough such that incorporating them in the rules that apply to banks in Ghana, especially in relation to governance, in relation to internal control, and in relation to disclosure, isn't really a big deal. We don't anticipate that the cost of compliance is going to be too high.

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However, I think where we begin to see challenges has to do with how we all wrap our minds around the data issues. This is a national issue, a nationwide issue; it's not a banking sector-only issue. Across all of the key sectors of the economy there's a data-related issue there, it's just issues relating to scenarios. From a national perspective, do we all understand what the various scenarios could be from a physical risk standpoint, from a transition risk standpoint? Who has the data and how can we get access to the data as quickly as we need it for the banking sector?

And so, there's all that work going on at the national level, sometimes not as quick as we want it, specifically for the banking system. So, therein lies a challenge about a slight timing consistency between all of the national level issues and work that's ongoing versus the work that we are doing. We are benefiting from all the guidance from the Basel Committee, from the Network for Greening the Financial System (NGFS), and from the Basel Consultative Group, so we're feeling ready, but we recognize that there are gaps in terms of the overall national preparedness and readiness.

We're working very closely with the banks to see how we plug some of these holes. We're getting, as we speak, some technical support from the French Development Agency to map out a baseline climate study for the country that would also help to develop some scenarios going forward.

So, we anticipate that that's going to be very helpful, not only for the banks in terms of their disclosures, but also for us also in terms of how we supervise them and how we run our stress test models and such.

Another key issue has to do with the taxonomy issue that Shahin mentioned, and again, at the national level there's work on developing green taxonomy for Ghana. And so, we're playing in tow, but that also makes our work very, very challenging sometimes. But then, we're understanding that we need to convene various stakeholders, and we need to be part of various stakeholder engagement groups at the larger level, and we're working along with that.

Again, we're getting close to rolling out implementation of these principles. Hopefully, the rules will kick in early next year. The banks already have been exposed to what the rules are, and we do expect that there's a large amount of that they can already start complying with, but we need to sort out the data issues very quickly. Thank you.

Jean Pesme:

Thanks, Elsie. Maybe a quick follow up just for clarification, when you say rules, this means that they would be binding even though they're principal based, correct?

Elsie Addo Awadzi:

Oh, absolutely. Because the rules are principles-based, we believe that they're capable of being customized on a proportional basis for our context. Yes, unlike the ESG principles which are voluntary, and banks are strongly encouraged to comply with or explain, and so invariably, all the banks have complied with them. For this particular one, there's going to be a rule, and we're going to embed it very firmly in our supervisory work for the banks.

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> Bank of Ghana

We have also had to think of how we apply this to smaller banks, especially the rural and community banks. The challenge there is adopting a proportionality approach, which doesn't necessarily mean less rules for these ones. Because if you think about it, these are some of the closest to the real action. I mean the community banks, the rural banks, they're in the farming areas, where we're experiencing droughts, et cetera, and so, they are sometimes the hardest hit by climate change. At the same time, their capacity to be able to do the work that is required and manage these risks may not be as strong as that of the bigger banks, who sometimes may be a little bit more removed, not altogether, but a little bit more removed from the first impacts.

It's a bit of a struggle how you think of proportionality in these cases, right? But evidently, we're guided by what is reasonable to do and where the risks are for these small banks and what's reasonable to expect of them in the circumstances.

Jean Pesme:

Thank you very much, Elsie, and thank you very much for that discussion and the complexity of proportionality; it's not just against capacity, it's also around the materiality of risk, and indeed sometimes the smaller bank, in particular on the agricultural side, and the exposure to the climate risk related to that is really important. Thanks a lot for highlighting that, which I think is a challenge that we are seeing in many jurisdictions. This is also why we organized this event, to share experiences and practices, et cetera.

So Shahin, similar question but a very different kind of context, also. Your country is very different from Ghana, so I'm very keen to understand how you are planning to implement the revised Core Principles, use the Principles, and what do you foresee as implementation challenges, including this element of what does it mean to be proportionate? And I'm very curious, also of your views on the data issue which Elsie highlighted, which is a real challenge across the globe actually, but even more so in an emerging market. Shahin?

Shahin Mahmudzade:

> When you have a less developed financial market with a lack of other financial instruments, it's not that easy even to mitigate climates risks.
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> **Shahin Mahmudzade**
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> Central Bank of the Republic of Azerbaijan

Thank you for the question. I don't think I will have different answers. The countries are different, but I think the problems are common for both countries. As I said before, we already incorporated the ESG principles to the corporate governance of insurance companies and banking companies, which is one of the main principles of the BCP. Right now, we are running the risk-based supervision (RBS) project with the World Bank as well, which is not only about the ESG risks, but also the changing structure of the supervision. We see this opportunity to incorporate the ESG principles into risk-based supervision. It's not only about developing the risk profile including the ESG elements and developing the risk profile of the financial institution, but also, we are thinking about integrating the Internal Liquidity Adequacy Assessment Process (ILAAP) and the Internal Capital Adequacy Assessment Process (ICAAP) whenever we are going to include it in our regulation.

The main challenge for us, except for lack of capacity within the financial sector, also within the Central Bank of Azerbaijan, I will say is the same, the data issue. While comparing the traditional risk realization process to climate risk, it takes a much more longer period to materialize, so we need more time to do the stress testing or analyze, even, the exposures. Also, the channels of these risks are quite complex when compared to the traditional risks, we know that there are credit, market, liquidity, and operational risks, but ESG risk is not a standalone risk. It is affecting these risks, and the channels of physical risk, transition risk, and liability risk are quite different, which make it complex to quantify these risks, which make it complex for data collecting from the financial institutions, which are probably not readily available.

As Ms. Elsie said, it's not only about the financial sector, also while developing the taxonomy, the boundaries between green and brown, we realize that it's not only the data issue within the finance sector, but also in the relevant agencies for relevant subsectors of the economy, which we see is green above some thresholds.

To sum it up, we need more granular data, which we don't have right now. It's not only about the data issue; even incorporating the BCP Principles, let's say we succeed on applying the BCP Principle to the banks. When we have these exposures, how we can mitigate them? It's also another question. When you have a less developed financial market with a lack of other financial instruments, it's not that easy even to mitigate those risks. As a mega regulator, we

have this advantage to incorporate insurance, and through the insurance, to transfer these risks to abroad. Still, it's one of the main challenges for us: the data, the capacity, and the mitigation of those risks.

Jean Pesme:

> The issue of resilience from an insurance perspective and what kind of products can also be put in place to help mitigate some of these risks is really important.
>
> **Jean Pesme**
> World Bank

Thank you very much, Shahin, and thank you to the two of you for flagging that of course the financial sector supervisors are doing their job, including implementing the global standard, but they cannot do it on their own. The connection with a broader discussion on climate issues and environmental development is a system-wide one, and sometimes you have dependency, but also how to move even without everything being perfect. Shahin, thank you for highlighting the connection also between the banking sector and the insurance sector. So, that's why it depends a lot on the development of the non-bank financial institution, and it's very uneven across countries, in particular in emerging markets. But indeed, the issue of resilience from an insurance perspective and what kind of products can also be put in place to help mitigate some of these risks is really important. So, thanks a lot for highlighting that and also, sometimes it makes it even more complex, but I think it's really important to understand that this cannot just be looked at from a narrow banking sector perspective, this connection with the rest is really, really important.

Thank you very much to the 231 participants connected. That's really, really excellent. Thank you also for already sending questions. We'll turn to them. We are going to go through them, but I see that Elsie wants to add something in addition to the question that I asked to her. So, first, your reaction, and then we'll go to the third round. Elsie, to you.

Elsie Addo Awadzi:

I just wanted to flag the issue about the insurance sector and the non-bank sector very quickly, because it's not only the issue of resilience of the insurance sector which is critical because they provide a safety net, a huge safety net, for managing these risks nationally, and in some cases regionally and all of that. But there's also a lot of interconnectedness in some of our countries between the banking sector, the insurance sector, and the capital markets. To the extent that the risks are, say in the insurance sector and not well-managed at that level, it can very quickly snowball or spill back to the banking system because you might have groups that have insurance firms and banking operations, et cetera, or there are other channels of interconnectedness in our countries. So, it's actually very helpful where there are multiple regulators and supervisory authorities, that there's a coordinating mechanism for the financial system's resilience from a climate financial risk perspective.

We, in Ghana, have a Financial Stability Council that has all of the various financial sector regulators there with the Ministry of Finance, looking at some of these risks across the financial system broadly. But if you operate in a system that doesn't have such coordinating mechanisms, it becomes a bit of a weakness, and it's got to be carefully managed so that these risks across the system are managed carefully. Thanks.

Jean Pesme:

Yeah, thank you, Elsie, I very much agree with you. I mean, every country should have this kind of financial stability systemic council, I mean that's now an expectation. I'm not sure that all of them look at it also through the climate risk lens, but more the classic concept of stability. So, thank you for flagging that because indeed there is a real issue of that combination. So, that's one angle.

The other angle, and you were mentioning the agri-sector earlier, is that sometimes, the customer, when they don't have insurance from an agri-perspective, then also that resists a credit trustiness issue from the banking sector. That's also another element in terms of the credit profile of some of the customer in the agri-sector.

So, let's go to the third one, which is a bit more forward-looking. So, Elsie, let's start with you. Is there anything based on your experience today, in terms of management and supervision of climate-related risks, where more guidance is needed or where you see an obvious gap? In that case, what could it be and how could it be addressed not just through Basel, but also you mentioned a wide range of players, NGFS, the development partners, et cetera. What do you see as something on which the international community needs to focus a little more?

Elsie Addo Awadzi:

Well yes, thank you so much. I mean there's a lot of work that has already been done, as you say, and that peer learning that's occurring at the level of all of these networks, I think it's really to be applauded. There are gaps at the national level, particularly for emerging economies and developing economies. This is where I believe that we can get the help of regional development banks, we can get the World Bank and others looking at. This, for example, has to do with the scenario analysis, how do you help? It may be that across, at least at the regional level, it may be easy to formulate some standard type scenarios. Globally, maybe a little bit more challenging, but at the regional level at least. I can foresee how help could be forthcoming in that area. And so, I implore all of the partners available to see how we can support at that level.

Also, like I said, often even if the financial sector regulators are ready, or maybe the central banks as banking sector regulators and not even sometimes completely responsible for the financial system, you find that there are other authorities that are critical in the nations that are not ready. How do we get them all ready? I think the COPs, the COP28, the COP29, and I'm looking at Shahin now for Azerbaijan, they're helping to bring together all the major policy makers that have something to do with this. But I think we need more traction, and we need more urgency at that level because a lot of what we need to make our work successful depends on how quickly in the various countries they're able to do the work, all the national authorities. I feel like sometimes the push is coming from the banking sector regulators, because we know what the obvious implications are for banks' balance sheets and for stability of the financial system. But the rest of the ecosystem feels, "Well, we're working on it, we can take our time."

So, how do we get a lot more pressure and urgency for all the other actors to do what they need to do very quickly, so that we can get the baseline to be able to do our work and all of the institutional arrangements in place to do our work?

Jean Pesme:

Thank you very much, Elsie. Let me use that opportunity for one additional comment. What we see in our work is that balancing between thinking about risk, which is the job of the supervisor, but there is also the whole discussion on mobilizing private capital to finance, the climate-related investments, and a lot of expectations but also sometimes pressure on the supervisors. We just published a document, it's called Finance and Prosperity 2024, and we have a chapter on that including what the flows are, and there is significant concern on the flows but also the instruments that can be used and some have proven to work, but on a lot of them, there is a big question mark. So, that's also part of the debate on what's available for the supervisor. Not all of that can be done by the supervisor. Some, of it must be done by other public authorities, so it's quite important also to keep that in mind.

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> **Shahin Mahmudzade**
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> Central Bank of the Republic of Azerbaijan

Shahin, the last question of the round is for you. How can supervisors build capacity in supervising climate-related financial risks with that traditional mandate but also that complexity of getting to climate? This is about the capacity of the supervisor, but also the capacity of the financial institution. What's your view on that? What's working well and what are the needs?

Shahin Mahmudzade:

Thank you. First of all, I would like to add on to the question asked to Elsie. Actually, I want to share our experience about the electric cars that I mentioned before. We increased the loan-to-value, and the government decreased the customs tax for electric cars, and it worked well. So now, we realize that lots of the proportion of electric cars that's coming to the country is increasing sharply. This is, for us, the proof that when the fiscal policy and the macroprudential policy work together, we can achieve something. Otherwise, if there is not any demand, if there is no push from the government to increase the demand for the green instruments, the supervisors alone cannot achieve anything. So, it should be the collective approach and some measurements from both the government side and from the financial sector side. So, our work is just to prepare the financing for the demand, not creating the demand. That's the main point that I would like to highlight. Otherwise, without carbon taxes et cetera, I don't think we can achieve so much in this field.

Regarding your question about building capacity, I would say it's a learning process. We understand that we cannot supervise everything in this field perfectly in the first few years, and we understand that there is no magic stick that can change everything in one day, but there can be some enablers which can smoothen the process. In our view, the first enabler is working closely with the international associations. By the way, we are part of the Sustainable Finance and Banking Network (SBFN) community, which helps us a lot in closing the deficiencies with peer-to-peer learning or transferring know-how. Of course, it's a community of emerging countries, but still, by helping each other, I think we can achieve a lot because it's not the only problem of one country; the risk can spread from one country to other country, mainly in the fiscal risk or through the trade communities, our trade activities.

The second one that we realized that we are lacking is using technological solutions within part of our SupTechs. We think that increasing this know-how, or transferring know-how from developed countries is essential for building capacity, mainly in the supervision side. Also, we are working with more consultants for developing capacity of the supervisor staff. Without labor force, everything will go on the paper. While just developing the taxonomy, in the first stage, it was around 300 pages, and my first impression was that even if we develop the best taxonomy in the world, and still, we don't have any green loans or gain financial instruments, it's not going to work. So, your regulation and your supervision should be aligned with the capacity for the financial sector. Otherwise, it'll go on the paper, and you will have to say, "Okay, technically, I did my job."

But I don't think our job is just to make good supervision choices or good regulation choices. I think there is market failure in this field, and the main job of the regulators, or in our case we are both regulators and supervisors, that's why I mention also the regulators. Our job is to create the environment when there is market failure, and we should intervene and bring all the parties together, which also I said is a learning process and it takes a lot of time to accept this, let's say. To make it sustainable for 15, 20, 50 years, we include this topic in our financial programs, and we will have some discussions with Minister of Education and hope we'll succeed to bring these topics to the university curriculums and to make it more sustainable. We see this as one of the essential enablers for our community and for our financial sector.

Jean Pesme:

Excellent. Thanks to the two of you and thanks a lot to the audience because we have lots of questions. I'm not sure we are going to be able to address all of them. Thanks, Demet, for multitasking at the same time and attending to the questions in the bank. So, let's start with a very specific but very important question which is can you give a few more examples of specific risks that you see in your jurisdiction to make that a little more concrete? So, what are you particularly looking at in Ghana and in Azerbaijan in terms of climate-related risk so that we ground this discussion a little bit? So maybe let's start with Shahin and I'll come to you, Elsie. Shahin?

Shahin Mahmudzade:

Which risk we mentioned? There are physical risks, transition risks, and let's say liability risk, but maybe more micro-risks. In Azerbaijan, probably it's different in Ghana, but in Baku, the capital, it is incorporating around 40% of the economy. If you look to the loan distribution geographically, we see that Baku region and the outside of Baku, is cooperating around 67% of the loans, which means we are not so susceptible to the physical risk due to the geographical location and weather conditions in Baku. We are concerned more about the regions, which means the small and medium-sized enterprises (SMEs) are more vulnerable in Azerbaijan. But if we look through the financial stability point of view, the physical risk is not much of a priority, I will say, compared to the transition risk. So, why is transition risk important?

We are focusing now on the transition risk to prepare our financial sector for the new reality, and at least from private sector, how to direct them to more green fields in order to compensate for the losses from the oil sector in the non-oil sector.

Shahin Mahmudzade

Central Bank of the Republic of Azerbaijan

I want to mention the economic conjecture of Azerbaijan. We are an oil-rich country, 80% of our exports are coming from oil, and around 40% to 45% of GDP is comprised of oil GDP. So, it means the transition is more important for us. The more the country is going to use more green technologies or make the economies greener, the less there will be demand for the oil. It means tomorrow is late for a transition for our economy from oil to further diversify our economy. We are focusing now on the transition risk to prepare our financial sector for the new reality, and at least from private sector, how to direct them to more green fields in order to compensate for the losses from the oil sector in the non-oil sector.

Jean Pesme:

Thank you very much, Shahin. So, Elsie to you, and you have a fan club online, so congratulations to you. So, specific types of risk in Ghana, which one are you the most worried about?

Elsie Addo Awadzi:

Okay, I think we're worried about both. On the physical risk we see it already playing out in some very extreme weather patterns. As we speak, we've had a drought up north for a while, and it's been very disturbing and it has implications on agriculture, implications on other sectors. We see this playing out through general macroeconomic indicators. Sometimes food price hikes, embedded in general prices at some point, sometimes even unemployment, sometimes migration from these parts of the economy where you have droughts or floods and et cetera, and sometimes the rebuilding efforts also have an implication for the fiscal. You see that from that channel. All of these already have implications back for the banks because it affects the ability of their customers to keep up with their loans and et cetera. Then, you have the direct physical risk where perhaps a bank has lent to a farmer, and then as a result of extreme weather patterns, that farmer is unable to pay back their loan. So, that's a more direct impact as well. So, you see these playing out already.

Then you have also the transition risks where, as a resource-based economy with oil and gas, mining of all sorts of minerals, forestry, you see that it is getting more difficult for investors to fund the continued production from these sectors. And so, you're beginning to see assets sometimes being abandoned, or not being exploited in the same manner in which they've been exploited in the past. All of these are funded by banks and so you can see what this means for migration of loans and et cetera.

All of these are playing out, although we envisage that in the not-so-distant future, if nothing is done, this could be much worse. If you don't have the banks already beginning to incorporate these in their risk management practices, as well as in their disclosures, then you're going to wake up and "oops, okay, we have all sorts of risks already playing out" without the necessary prudential norms having been observed. So, if its additional loan losses coming up, how have these been provisioned for in a way that is not traditionally done?

And so, this is where we're coming from, to say these are not different risks. These are all risks which are a bit different from what we're used to traditionally, but in fact they affect the same indicators that we're concerned about, whether it is micro-level indicators for the industry or for any specific bank. In Ghana, we reckon that all the key sectors of our economy are at risk. Therefore, when we launched ESG principles, we wanted banks to already apply them to five key sectors of our economy: these are agriculture, forestry, construction, oil and gas, and mining. So, we wanted them already as far back as 2016 to start thinking of how these sectors were at risk, and we're seeing that those risks are evolving very fast.

I do hope that that's a good explanation. We could spend a lot more time.

Jean Pesme:

No, no, this is a very good point, we are trying to get this grounded and someone made a comment on litigation risk and there is actually a very interesting paper from NGFS on litigation risk. So, for those interested in that, I recommend having a look.

So, I'm going to combine several questions into one, which by then becomes a bit complex. It's the prioritization and hierarchy of mandates and function. So, the first mandate of a supervisor is about core stability, risk. Climate comes to that, so what's the relationship between climate and the stability risk? You've began to answer a little bit of that, I have Ghana in mind, having worked a little bit on the financial stability challenges in Ghana. At the moment, how do you prioritize that? But then we also have a lot of comments on something which is really important, which is financial inclusion, access to finance, in particular for SMEs. Because on one hand, as you said, Elsie, earlier, the average SMEs, they're very exposed so they become a higher risk. At the same time, you want to avoid the so-called unintended consequence where the push on the climate leads to less access to finance.

So again, very concretely at the national level, how do you bring this together, but also how do you help on this risk assessment? Because it's really important also to run it even without enough data. So, how do you do that concretely and what are the challenges? So, Elsie, maybe let's start with you, and come with you, Shahin, and Shahin, you may have seen questions from the chat on the role of the institutions in Azerbaijan in terms who's leading the risk assessment, what's available to help inform investment decisions. So, maybe you want to capture that when I come to you. So, Elsie, let's start with you.

Elsie Addo Awadzi:

Sure. This is, of course a very important question, but I think that if the supervisory authority also happens to be a central bank, then it's even more complex because then you're starting with your primary mandate of price stability, and sometimes you see some tensions. From the financial stability mandate, as you say, you want to start with regulation and then supervision. You're supervising to mitigate the risks to safety and soundness of an institution, and then ultimately, the stability of the banking system or the financial system. There is no prescription as to what risks you should keep in mind. I think as supervisors of the banking system, most of us have adopted a risk-based approach, and if you're adopting a risk-based approach, you don't have a finite list of risks. The first order of business is to keep your eyes wide and identify all the risks which are playing out or which could be playing out.

I think as supervisors of the banking system, most of us have adopted a risk-based approach, and if you're adopting a risk-based approach, you don't have a finite list of risks. The first order of business is to keep your eyes wide and identify all the risks which are playing out or which could be playing out.

Elsie Addo Awadzi

Bank of Ghana

One key test of a good supervisor is that you are able to anticipate risks and are you able to get the regulated institutions to begin to think about how they manage those risks, all towards the same goal of promoting safety and soundness and financial stability. It really isn't a different matter, it's a matter of new emerging risks and being able to understand those risks, measure those risks, understand how they're evolving, how they're transmitting, and therefore what tools are available to mitigate them.

So, I think it's the same thing. How we have organized ourselves at the Bank of Ghana is that within our supervision department, we have set up a dedicated desk called the Climate and Sustainability Office and with a team of staff there. Their work is really to do this on a full-time basis. At the larger supervision level, they're dealing with bread-and-butter issues right now like the impact of a government debt restructuring, which started two years ago and now we're dealing with a Eurobond restructuring. They're dealing with that; they're dealing with rising credit risks as a result of a macroeconomic crisis from 2020 and the lagged effect thereof. So, they're dealing with the bread-and-butter everyday stuff. But within that department is also a group that is dedicated to understanding what this imagined risk is. And then, helping to formulate the right policies, the right regulation, and even supporting the examinations team as to what new tools to put in place to measure and track these risks.

And so, we feel that this is all part of what we're required to do, and the litigation risk issue you talked about, if you read the NGFS paper, I mean the failure of central banks or regulators to actually anticipate that this is a risk and to begin to address it is a risk, it's a legal risk that you're seeing some central banks being sued for. And so, we're taking this very seriously as part of our core mandate of promoting financial stability. Thank you.

Jean Pesme:

So, has Shahin disappeared, or did he turn off his camera? Shahin, are you connected? Okay, so while we wait for Shahin to come back, Elsie, maybe a couple of words on financial inclusion, which is a different mandate, and you have that issue of care. How do you deal with that issue in particular when it comes to SMEs? What are you doing as a supervisor?

Elsie Addo Awadzi:

> We stress the need for banks not to just look at the well-established businesses. We stress the need, still being prudent in lending and all of that, but to think of how they customize their lending products to SMEs and to marginalized groups.
>
> **Elsie Addo Awadzi**
>
> Bank of Ghana

Absolutely. So, that is something that's so dear to my heart and I particularly don't see it as a separate mandate, but just for completeness, the Bank of Ghana's mandate includes also support, and I'm reading now, "... supporting the general economic policy of government, and promoting economic growth and development and the effective and efficient operation of the banking and credit system." So, it's not a definite financial inclusion objective, but if you think of what we're trying to achieve as a monetary authority, or as a regulator of the banking system, and an authority that has oversight of the payment system, we understand the importance of ensuring that our informal sector is fully formalized.

It's important to us that the banking system thinks of itself not as a provider of credit to those that are already strong and the large enterprises, but also a sector that needs to grow itself. The banking system itself, if it wants to grow and stay resilient, it must see that it makes business sense to ensure that it's creating a pipeline of clients and consumers that need access to finance at every, level so that they can carry out their own economic activities. And so, we stress the need for banks not to just look at the well-established businesses. We stress the need, still being prudent in lending and all of that, but to think of how they customize their lending products to SMEs and to marginalized groups.

Now when it comes to climate-related financial risk, we have the view that the whole transition to a greener economy would help also to manage these risks request funding. And so, we expect that as banks lend to sectors of economy that have a big impact in terms of the outcomes that we're looking at, they're more conscious about how they lend. Is the lending going to support more of the activities that what would complicate these risks or would help to mitigate these risks? Number one. We don't think banks should just lend because they need to lend, but in lending, how do you make decisions that are helping to promote a greener economy so that ultimately the climate-related risks are mitigated anyway? It's really doing that skillfully, ensuring that those economic agents that require funding to be able to help with a just transition and an orderly transition to a greener economy are getting the right kinds of financing they need. Of course, if they're able to carry that financing, we expect the banks to do that work. Thanks.

Jean Pesme:

Excellent. Shahin, thank you. Welcome back, Shahin. We were worried we completely lost you. Let's turn to you now on that question on bringing together the different mandates or role of central bank and supervisor and if there is tension between classic stability, climate-related risk, and financial inclusion.

Shahin Mahmudzade:

Thank you very much. First of all, sorry I had internet issues, that's why it dropped me. To be honest, I don't see any conflict between these two mandates. This is one of the risks and it affects directly through other risks, and that's why I don't see any conflict of interest from the regulatory point of view. It is one of the emerging risks and one important risk. That's why we are separating this and focusing more on this, because the transition mechanisms are really complex compared to other emerging risks, which pushes us to focus more on the issue. But I don't see it as separate from other risk management. As I said before, we are conducting this stress testing project with the World Bank, and we see this as a part of the stress testing framework, and we are going to make it mandatory for ICAAP and ILAAP for the banks in order to incorporate those risks into their internal capital and equity planning.

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Central Bank of the Republic of Azerbaijan

Jean Pesme:

So, we have four minutes left. I'm going to turn to each of you. So, I want to come back to the scenario and the scenario you're using, which I think, I mean that's a question raised but a very important point. What do you use to be able to do that? So, a quick answer on that and then any experience that is really fundamental that you want to share with your peers in terms of climate-related risk and financial stability? So, let's start with Shahin. One minute 30 seconds, then I'll turn to Elsie and then I will close.

Shahin Mahmudzade:

As a scenario, we haven't conducted yet, as I said before, we are working on it, but we think that the scenario should be plausible for positive physical risk and the transition risk. For transition risks, we have some global patterns that we see, and we understand which sectors are going to be more affected within the country, it's mainly the oil sector and which is comprising around 40%, and due to the efficiency fund of flows among the economic sectors, it's not only about 40%, almost all sectors have so much interconnection; agriculture and construction are really interconnected with the oil sector. So, for true funds to flow, we want to assess the whole impact, and this impact plus some sort of standard deviation, more impact, will be our scenarios for stress testing.

And for the physical part, we are looking to the earthquake. It's not part of the climate risk, but also, when the earthquake happened, we did this: we looked to history. What was the most shocks within the history of Azerbaijan? Probably, we are going to do the same formulating of scenarios for the climate risk field, we are going to look to the floods, droughts, how the water level is going to change, and what was the main weather conditions in the past, let's say 120 years, and that of course will not have enough data but we are also working with an organization called Azercosmos. They have also the huge data sets, and through collaboration with the other governmental agencies, we will come up with some scenarios and the impacts to both the institutional level and also in the segmental level through SMEs, and the corporates and the regions, also to the economic sectors.

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>
> **Jean Pesme**
> World Bank

That's our reasoning, but as I said, it's the new topic in Azerbaijan and we don't have that much of a track record to say that we did this, and that's our result.

Jean Pesme:

But sharing your experience as you're going through that, I think that would be of interest to a lot of countries. Elsie, to you.

Elsie Addo Awadzi:

Just very quickly, like I said, we're still working on that. We have a baseline study on climate currently going on with the help of the French Development Agency and based on that, we hope to work out some scenarios. But it should be pretty easy because we have some real time occurrences that we should be able to prepare scenarios around. But it's early days yet, I should say.

Jean Pesme:

Excellent, thank you very much. I think everybody is learning, emerging markets and advanced economies alike, and that's where the community of practices and experience sharing across countries, jurisdictions and regulators is so important. A lot of that is happening, and I think it's both super interesting, what's going on, and very challenging, but also, it's not perfect, but sometimes going with second best is also where to push the envelope. That's why we also want to conclude by thanking the Toronto Centre because this is exactly what these panels are about, which is to showcase experiences of jurisdiction. So, two very different countries in that respect. So, thank you very much, Shahin and Elsie, for having taken the time and sharing your experience. This is not the end of the story; a lot is going on, so I think we'll continue to do that. Elsie, I see you want to say a final word, so I'll turn to you before concluding.

Elsie Addo Awadzi:

I know it's time, but just to say that I think we're used to thinking of the climate problem as a problem, but I like to think of the opportunities that it presents to us as well. The opportunity not only for supervisors but for other authorities working together to promote more resilient economies, more resilient financial systems. In Ghana, we're hoping that it also broadens and deepens our financial system. Already, we're talking about green bonds and developing a market for green bonds, developing a market for our banks to tap into global green funds, so that we can hopefully fund some of the investments that are required to deal with some long-standing development challenges that we've had. If you think of it that way, then it also gives us impetus to think of all the tools we can put in place to make this not a crisis, but to make this turn the opportunities into something that's lasting for economies and our financial systems. Thanks.

Jean Pesme:

Thank you very much, Elsie. I'm sure that Shahin would have the same story, what he said earlier about changing the whole economy. That is all-dependent and moving it to something very different is both a challenge, but also a huge opportunity with major implications on the country, the jobs, et cetera. So again, supervisors are thinking risks, so sometimes risks we come with a negative, but there is a positive there and a lot of opportunities. So, thank you very much, Elsie, for finding that.

We are beyond time, so I'm going to get in serious trouble with the Toronto Centre. This is the start of a discussion. Let's also watch very carefully what's happening at COP29 and thank you very much to Azerbaijan for hosting. A lot will be said about finance in that context, very relevant to the discussion. So, stay tuned with the Toronto Centre and what's happening on the global agenda. Thank you very much, Shahin and Elsie, for sharing your experience and the Toronto Centre for organizing. All of this will be made available, so more to come. Please also pass the message and disseminate because we are all working together on this endeavor. Thank you very much everybody.

Shahin Mahmudzade:

Thank you.

Jean Pesme:

Stay tuned and talk soon. Bye-bye.