

Macro Salon Session Notes

April 8, 2020

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For the *Israel: Opening Up After Inoculation* and *Brazil: Monetary Policy Outlook* sessions questions from our BNYM moderators are in **blue**. Answers from panelists are in **black**.

For the iFlow Green and ESGs session questions and answers are labeled according to speaker.

Israel: Opening Up After Inoculation

Panelist:

Michel Strawczynski, Director of Research Department, MPC member, Bank of Israel

Moderator:

Daniel Tenengauzer, Head of Markets Strategy, BNY Mellon

Vaccination in Israel was successful from the beginning with covid packages focusing on innovation, companies and unemployment. While debt has increased, the budget is sound, and things have not grown out of hand. However, one concern is political uncertainty with four rounds of elections.

The Health Story

- According to up dated numbers, the percent of people with the second dose is 52.2%. Israel is 2 to 3 months away from flock vaccination.
- Overall, Israel has been very successful with vaccinations. People 60+ are nearly 90% vaccinated, 20-39 are 70%, and 40-59 are 79%. The only age group that is lacking is 0-19 which is only 18% vaccinated.
- Looking at severe cases related to vaccinated status there is a small number of cases that come from people fully vaccinated and none of those people are on ventilators. However, among hospitalized persons the vast majority are non-vaccinated: 72% of severe cases and 83% in those under ventilation.

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- Contagion affected ages and groups differently. Contagion is much higher for young people who are less vaccinated and aware, as well as Ultra-Orthodox Jews.
- Elderly people who lived alone suffered more than those who lived with others. The worsening of health, economic, and mental state of elderlies due to the crisis is far less than the concern for covering expenses.

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Economic Impact:

• Comparing covid crisis to 2001-2003 crisis and 2008-2009 crisis: The 2008-2009 crisis in Israel was rather short because they didn't have a housing crisis like everyone else. The first one (2001-2003), was more difficult due to two shocks, 1) burst of high-tech bubble and 2) terrorist attacks. Covid overall had a larger economic impact than the other two crises. Unemployment has been significantly worse in 2020 compared to the other two crises. Inflation rate was negative by 0.7% in 2020.

Policy Issues:

- Study by Gourinchas in September 2020 found that if a government targets intervention towards at -risk firms the cost could be up to three times lower than using non-targeted policy. In other words, you shouldn't help zombie firms. However, in this crisis governments are the ones that decided about confinements and consequently they have a direct responsibility and impact on the effects of closing. Consequently, they had to choose implementing aid according to available tools which meant using tools that do not differentiate between loans to zombie firms and regular firms. In fact, many professional economists suggested that in such a crisis it is advisable to make mistakes toward helping firms to survive even if such tool is not available.
- In practice BOI gave long-term loans to banks with the condition of providing loans to small firms. As an Economic Adviser of the government, the Governor supported the increase in debt in order to finance budgetary expenses and aid, which in this instance it was necessary.
- Some steps taken by the BOI:
 - o Deferred loans of about NIS 10 billion
 - Reduced capital requirements and halted dividends
 - Liquidity of up to \$15 billion in FX market
 - Purchased NIS 50 billion of government bonds. Expanding the program by NIS 35 billion
 - Reduced interest rate to 0.1%
 - Supplied loans to banks at -0.1% rate contingent on providing credit to SMEs at a limited interest rate
 - Extended NIS 9 billion of loans to banks contingent on providing credits to SMEs
 - Declared \$30 billion intervention in foreign currency market in 2021 Giving certainty during a difficult period.
- The response of the BOI's policy relative to other central banks: They felt they had the necessary amount of intervention.
 - High in repo and FX swap.
 - Government bond intervention was relatively high. Other countries went much higher.
 - Credit, no excessive intervention compared to other countries
- While the BOI mainly helped small firms they also helped medium-large businesses. It was a new program that wasn't very large.
- Once the BOI had the first bond market invention the interest rate fell.

Government Policy:

Unemployment:

- Main policy issue is with the labor market. Israel created a new definition of employment. Three groups: Unemployment rate, "On leave" (out of labor market with some government compensation), non-participation due to Covid-19. Every covid lockdown Israel saw a huge increase in "On leave workers." Out of the lockdown it goes down. The other two groups go up slowly, doesn't matter if economy is open or closed.
- Gender comparison: Huge reduction of women employees in the first lockdown. Women were sent home during the first lockdown. Afterwards more difficult to see discrimination.
- On leave workers" model: Not the German model which pays firms to allow the connection between worker and firm to continue. Israel sent "On leave workers" to go home, receive a salary that is lower than normal, and stay in touch with the firm; but typically, they do not go back. The advantage is that if you decide about many lockdowns because of contagion, the government is not wasting a subsidy for days that are not available; the disadvant age is that by not paying the whole salary the worker loses the attachment to the firm, and may not want to come back to the previous job especially in unskilled jobs. Question arises, when will they end the safety net? I According to the law if unemployment reaches 7.5 percent the government would end the safety net. Otherwise, it will end in June.
 - Result: Countries working with the German model saw loss of official employment and loss of GDP to be similar. In Israel, they saw a higher reduction in employment hours compared to loss of GDP. Other

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countries also have this characteristic (US, Canada, Portugal, Chile, Colombia). Can't say for certain that Israel approach was wrong.

Government Debt:

- Increase in deficit due to support to households, unemployed, budgetary expenses, direct management of pandemic health, and automatic stabilizers from taxation.
- Debt in Israel is high, but it helped that Israel's pre-crisis government debt was low compared to the OECD median. They started with about 60%.
- At the beginning of the crisis the main part of new debt was foreign debt.
- The BOI is proposing to boost long-term productivity, showing the Israeli government different options. If you go for debt it is easier for the increase in GDP, but debt grows which is problematic and consequently a dangerous way that may imply a wrong path. Financing with taxes provides a solid option, that avoids hitting dangerous levels of debt. Hopefully the new government will understand this message.

In the US if you hit a certain period of time and the firm isn't able to pay back for XYZ you have a contingency plan to help them and prevent them from going bankrupt. Does Israel have this?

- This wasn't the main part of the story for Israel. Firms that have problems before Covid were probably not getting the money, but don't have research to support this.
- It is a problem everywhere haunting everyone. Once this whole thing is done—what is the level of asset impairment and how will it be treated? We had an issue of zombie firms before the crisis because interest rates were so low. Hopefully inflation will help out.

Where do you see inflation in the next few months?

- Had some increase in the last few months. Inflation is coming back in housing and expecting 12-month inflation to get into the target after May. Overall, Inflation in 2020 is low and not sure it will come back very quickly.
- Some think inflation is going to go through the roof.

iFlow Green and ESGs

For this session questions and answers are labeled according to speaker.

Panelist:

Michael Hugman, Climate Finance Director, The Children's Fund Foundation

Moderators:

John Arabadjis, Head of Macro Strategy Product & Analytics, BNY Mellon Geoff Yu, Senior EMEA Markets Strategist, BNY Mellon

(Geoff Yu) Define nature finance:

• (Michael Hugman) Three elements: 1) narrow measure that builds off the climate space that is thinking about emissions that come from land use (more difficult to address in policy and investment); 2) preventing negative impacts from economic activity on our ecosystem and nature systems that themselves are critical for economic activity— i.e. global south; 3) actual active investment into positive outcomes—i.e. nature base solutions through carbon credit.

(Geoff Yu) As a foundation, when you are selecting programmes there is a rigorous framework and teams dedicated to Evidence, Measurement and Evaluation (EME). Evidently, programmes and projects seeking philanthropic support will need to think of ways to deliver on the relevant criteria. The same can be said for companies who seek investment in a manner which can satisfy a far more rigorous ESG screening process in the future. As such, what are companies going to do about this and more importantly, what do they need

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to be thinking ahead to? Your say on Climate initiative has taken a specific focus on climate transition plans, please talk specifically about that focus.

- (Michael Hugman) For a number of years there has been a push to have more disclosure on emissions and our carbon footprint. What is essential is actual transition plans for companies. Investors need to look at a scale across an entire portfolio and understand the transition planning that is being set out for each company.
- (Michael Hugman) The Say on Climate initiative looks at shareholder engagement to get companies to disclose their
 emissions and how they plan to manage them. It includes short- and medium-term targets (2023, 2025, 2030). These
 plans need to have a concreate business strategy, sales strategy, CapX, etc. The goal is to get companies to
 participate in this disclosure. Over the next 5 years people need to focus on the Say on Climate model and transition
 plans when constructing a portfolio and managing transition risk.

(Geoff Yu) How do you incentivize the asset owners to go to the companies and engage? How do you avoid greenwashing?

- (Michael Hugman) The Make My Money Matter initiative is about enabling retail investors. Some of the most dynamic organizations in the ESG space are the asset owners. Insurers are motivated because they face business risk around climate and nature -- have a huge liability structure that is related to the risks of climate and nature.
- (Michael Hugman) The Transition Pathways Initiative (TPI) is an NGO that assesses the effort that companies take on climate transition. This initiative was created by UK public asset owners to try and plug that gap. Over the next few years, we'll see asset owners pushing pension plans and insurers to put pressure on asset managers to disclose how they are delivering real world outcomes in the climate space. That means visibly engaging companies on filing shareholder resolutions, communicating publicly their feelings on transition plans, voting against directors, or disinvesting from a company's bonds.

(Geoff Yu) Carbon Disclosure Project (CDP)— has been around for 20 years and is now considered a leading standard of environmental reporting with comprehensive data and analytics not only on companies but also cities. This is just as relevant for share issues as municipal debt issues. How is CDP helping companies gain a competitive edge, improve shareholder engagement, and even generate 'alpha' in the process?

- (Michael Hugman) CDP has been a critical organization in creating and expanding the frontier of environmental
 reporting and standard. It focuses on environmental data only but will do more work in social over time. The
 organization helped create structured questionaries on disclosing emission data, climate planning, climate risk
 assessment. Served as the foundational for other sustainable reporting organizations. They also do questionaries on
 water risk and the forest component of land use.
- (Michael Hugman) Currently, 10,000 companies globally disclose to CDP on emissions—huge data set. Only 1,500 companies globally are disclosing a TCFD report. CDP is the principal data source to look at your portfolio from an emission perspective and many third-party data vendors will draw their original data from CDP—foundational layer. CDP also adds value by being a key partner of the Science Base Target Initiative—help set long term goals in line with the Paris Agreement. Recently, companies that set those goals did actually start to reduce emissions faster compared to sector peers.
- (Michael Hugman) To generate alpha: Looking at relative P/Es in the equities market you're starting to see an uplift. Ultimately, look at the pace of policy coming in (carbon taxes, bans on coal, etc) going to grow topline more dramatically. Alpha will get stronger.

(Geoff Yu) How long do you think it will take before measurable ESG scores will be fully integrated into asset allocation processes? For example, when and how do we get to the point where a CDP score has equal weight as (or greater weight than) as a P/E ratio, or a credit rating?

• (Michael Hugman) We're getting close in the pure carbon emissions space—in the next 18-24 months going to see an uplift in quality of data and disclosure including transition plans. Make data set more relevant and these factors will become more integral you're your financial models.

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(Michael Hugman) Will take a little longer for nature and other elements of ESG.

(Geoff Yu) Much of the work that is being done right now is to push for shareholder engagement and change the behaviour of investors. BNY Mellon is the world's largest custodian bank with a wealth of data on investment flows, through which we can perhaps seek to extrapolate changes in investor behaviour with respect to ESG. What are some of the general principles behind this process?

- (John Arabadjis) The underlying theme of this conversation is data—measuring and evaluating what firms and
 investors are doing. Many frameworks try to establish a set of rules to assess what's going on in terms of ESG
 footprints, and it is the most difficult part of sustainable investing.
- (John Arabadjis) At BNYM we have \$41 trillion assets under custody and administration, nearly 20% of the world. Therefore, we have an extremely valuable data set that we can marry to other sources of information. We look at ESG as another source of referential data, like P/E or market cap. How do we look at the world? We're take aggregate investor behavior and use it to understand what investors are doing, by asset class, region, sector, or ESG theme. Investors want to know what firms are doing with respect to wastewater, exposure to the #MeToo movement, scope 1, 2, 3 carbon emissions, etc. We take a step back measure how investors are reacting to what they've learned and observe how is capital being deployed against these topics. We are not a data vendor; rather, we want to understand how investor community behaves is light of these issues.

(Geoff Yu) Is there a place for predictive behaviour that we are seeing in terms of flows? Do you see any value in that? For example, if we see flows that aren't going towards sustainable investment can we call that out and engage with underlying asset owners?

- (John Arabadjis) *iFlow:* We are tracking \$41 trillion AUCA and distil that information into measures to understand where capital is flowing in the global financial system. Over the past year, we've been rebuilding our iFlow product-actively working on the equity and fixed income products. (We released new FX products in 2020.)
- (John Arabadjis) One part of that effort is tracking flows by sector or region. Using that information, you can see if companies are buying exposure to greenhouse gases, or other ESG themes. By marrying aggregate investor behaviour data to ESG referential data we can see where investors are placing their money, and eventually how investors are positioned in the market. Are institutions exposed to firms with poor corporate governance, or are they moving away from fossil fuel-intensive sectors? Understanding the positioning and current behaviour of one's peers is valuable intelligence for investors.

iFlow Green:

- (Geoff Yu) One of the indicators we have created is iFlow Green which uses flow data to establish if there are movements between flows and direction of ESG indicators. For example, we built an indicator combining rainfall emissions and temperature change for each individual country. We then looked at that iFlow data set for that same country to see flows into FX and EQ. We found that FX flows tend to chase growth—there is a correlation between emissions rising and economic growth. Clear break before and after financial crisis especially in EM. Flows that go into EQ market seem to be shying away from countries which are experiencing adverse change in climate change.
- (Geoff Yu) Social and Governance flows: See a divergence, flows tend to ignore the change but reward the absolute. Have flows that go into countries that are already performing strongly in S and G, but countries that are improving S and G have no correlating flows. For example, within G10 if you focus on women in the labour force and focus on absolute you would put portfolio in Scandinavian countries and avoid Japan—due to the absolute, no delta in the price. During the period of Abenomics in Japan, the female labour market participation improved-- so if you went overweight Japan and underweight Scandinavian and rewarded the improvers the portfolio would generate more alpha.

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(John Arabadjis) What is your take on the different sleeves of pressure on the investment community? Imagine there are three buckets, impact of regulations and exposure requirements, voluntary corporate exposures, and active shareholder engagement. Which is having the greatest impact of those three? How do you think that will be different in 5-10 years?

• (Michael Hugman) The foundations have generally been you start with voluntary arrangement (i.e, CDP or TDFC) from companies that are leaders in sectors where ESG have material impact and it bleeds into long term performance of these assets—structure P/E uplift or spread compression. That voluntary element starts to give you an edge that naturally leads into the second bucket, more activism and thinking more about a business model that incorporates these features into analysis of individual assets. As people engage more with the data (not just handle it) that leads to a natural progression into the third bucket for policy makers and regulators who typically try to avoid radical new frameworks in markets. They look to shift from the voluntary transition plans for it to become baseline expectations of investors. This give policymakers the confidence that this shift won't be disruptive, but rather constructive. Strong examples are the UK and New Zealand. Overall sequence: voluntary disclosure → activism via multiple investors → regulatory change

(John Arabadjis) What do you say when someone thinks investment in ESG strategy will dimmish returns due to the opportunity set being more limited when building one's portfolio?

- (Michael Hugman) There are a lot of index products being created allowing for more options. Focusing on leadership
 rather than sector inclusions you are more likely to develop sustainable alpha. In the process of broadening
 opportunity set.
- (Michael Hugman) Just because you have a product that is passive in terms of weighting, doesn't mean it can't be active in terms of engagement. Specific inclusion approach—retain exposure to absolute market but drop laggers. This model could become more prominent in the next few years.

(Geoff Yu) You mentioned climate leaders, correlation between climate leaders and hunting for alpha. How do you weight the hunt for alpha and risk communication when optimizing your risk for return and other investment goals?

(Michael Hugman) In climate space, those two things are synonymized. There is clear climate winners ie the auto sector being very prominent. It was pretty obvious governments were going to implement stricter regulations and US manufactures were slow to get position for that and now have transition risk—downside risk you could mitigate. Looking into shares in Telsa or Volkswagen rather than laggers you have same analysis to help you with risk mitigation and gives you access to the upside. Stable alpha to be generated. Physical risk is different.

(Geoff Yu) What kind of ESG data should central banks be following? How about green bond based-QE?

- (Michael Hugman) Over time central banks will need to work more explicitly with governments to reach goals. Market neutrality is a fig leaf—market doesn't reflect real economy well. For a central bank to say the best way to stimulate an economy is through QE, is to reward oil makers for excessive leverage in terms of paying their dividends through debt is a bit of nonsense. Therefore, there will be more pressure on central bank to have QE programs that reflect the real economy. Which means not skewing their stimulus from large issues of debt.
- (Michael Hugman) Green bonds are extremely valuable for funding specific assets that are net zero aligned. The bigger journey we need to go on as an economy is the transition journey. Going to get emergence of powerful transition bonds anchored around the transition plan that entities have—shareholder engagement to get companies to disclose transition plans. Will see central banks relying on these more in the future.

(Geoff Yu) How do you see the great lockdown as a catalyst/disruptor to the ESG space? Do you see a clear trend change as a result of the great lockdown from an ESG investment perspective?

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(Michael Hugman) The dip in emissions around lockdowns is irrelevant and demonstrates how dependent our
economy still is on emissions. Ultimately it is a huge structural issue that clearly policy maker and investors are
focusing on. It has accelerated people's willingness to engage in ESG which is a good thing but is has only taken a
small step in the right direction. A lot more work needs to be done.

Brazil: Monetary Policy Outlook

This meeting was open to the press.

Panelist:

Fabio Kanczuk, Director of Economic Policy, Banco Central do Brazil

Moderator:

Daniel Tenengauzer, Head of Markets Strategy, BNY Mellon

Brazil Monetary Outlook

- Monetary policy thoughts have evolved since the middle of last year when the Selic rate was lowered 2.00% and the central bank started forward guidance. This was when Brazil was facing the toughest part of the pandemic and economic growth was expected to plunge -7.00% while inflation was expected to come in under the target floor at 1.5% or lower. Looking into 2021, there needed to be some sort of stimulus to bring inflation closer to the target of 3.75% +/- 1pp. Median long term inflation (2022) was still at target of 3.5% but the distribution of forecasts was skewed to lower numbers, meaning analysts were expecting it to be impossible to actually hit that target.
- Forward guidance was a commitment that, as time evolved and new information was released, fell because of fiscal impossibilities. There were a few shocks that caused inflation to rise: (1) idiosyncratic shocks like the cost of food (rice) and energy, and (2) imported inflations or commodities in the local currency. The Brazilian index of commodities is +66% from March 2020 to March 2021. A large chunk of this was commodities in USD and BRL. There is very low correlation to monetary policy and the surge in this index.
- In hindsight, there were some areas that the central bank succeeded and others that needed improvement. Services and inflation were successful throughout the pandemic. Commodities did okay. Industrial prices, on the other hand, was a misstep. Industrial prices increased more than expected potentially because the output gap was smaller than expected. On top of that, emergency transfers and supply chain disruptions pushed the prices of industrial goods (like appliances) higher. Now that there have been multiple waves, the pandemic is no longer 'unprecedented' and mistakes from the first round must be corrected.
- 2020 growth was -4.00% versus the expected -7.00%. Q4 and data in January / February was much better than expected. The question at hand is what will happen to growth and demand in the coming year? The initial thought was that currently, aggregate savings are huge while consumption is low. When emergency transfers unwind there will be a lot of savings and a surge in consumption. However, if the aggregate data is broken into two groups of the rich and poor, there is a significantly different outcome. The rich are not receiving transfers but are saving their money. The poor are getting transfers and immediately spending it. When the transfers unwind, the poor will go without savings to spend and the rich will have savings but won't spend. Even though in aggregate there was savings, at the end of the stimulus payments, there will be a fiscal slump.
- Looking at the data from Q4 and the beginning of this year it seems that the labor market is much better than expected. It would make sense that as the labor market improves, fears would relax, and precautionary savings will be consumed.

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Questions

Earlier in the day, we had a session with the Bank of Israel, which recommended that if there is a lockdown to spend money otherwise the economic scarring on the other side is too large. In Brazil, there is a similar story but with an element of fiscal dominance. The BCB tightening its policy a touch earlier than originally hoped on top of fiscal transfers. Is fiscal already crowding out monetary policy in Brazil?

- Brazil is different than Israel. Over the last few decades Brazil has been asking for more expenditure. Congress is simply reflecting societal preferences for more expenditure. In Israel, cutting expenses is celebrated. This difference in preference will reflect on optimal fiscal and monetary policy.
- What is the optimal fiscal policy? There is none. Society through congress will decide the best fiscal policy. The central bank is mandated to respond to inflation as its main priority, although fiscal risks are always considered.
- How does the BCB react to the possible eventual risk of fiscal dominance? Looking at econometrics over the time
 period of 2002, it doesn't seem clear that there was actual fiscal dominance. The surprise hike in interest rates implied
 a decrease in expected inflation as a normal economy would. If Brazil was ever to face fiscal dominance it would take
 a long time to actually realize. Ultimately, the central bank cannot think or anticipate the fiscal problem into the
 monetary one. Inflation always comes first.

Regarding the "partial cycle" indication that COPOM gave at the last meeting, could you elaborate why the Selic rate needs to be below the neutral level with the output gap closing in 2022?

- Forward guidance from last year is not a firm commitment to anything. Policy will change freely and is constantly reoptimizing. The market should look at forward guidance instead as a signal as to how the central bank expects things to evolve.
- If you were to run an exercise of an increase in the Selic rate by one movement to the neutral rate, the real neutral rate would be 3.00% and assuming inflation of 3.5%, the Selic rate would be 6.00-6.50%. but you have to hike the rate in increments, which would cause inflation to be too low in the relevant horizon. It looks like partial normalization but could turn into full normalization. It's also possible new shocks could cause rate cuts. This is constantly evolving.
- By running a simple Taylor rule it is clear to see many parts of the economy are far from equilibrium and there is no way to justify full normalization.

What's the most important risk that can make the CB speed up the pace of hikes - inflation expectations or fiscal policy?

- Central bank modeling starts with inflation expectations and is considered the basic scenario.
- There is an alternative scenario that assumes neutral rates and higher inflation. If there is fiscal stress, it may increase the probability of the alternate scenario. It all depends on the intensity of certain situations.

What kind of surprise/dynamics would justify the BCB accelerating the pace of partial normalization? A worse fiscal outlook would be enough?

• In the central bank's central scenario, more money equals more demand. However, the fiscal alternative scenario is related mainly to the debt sustainability. It's not a question of efficiency of expenditure or productivity and how those measure is good or bad, but more about what happens to debt to GDP ratio.

One key problem we see going forward is scarring. The Brazilian economy will need to move further into services with retraining. Is the "labor gap" relevant for the BCB normalization? Will the central bank need to tolerate higher inflation longer because there will be inflationary pressures in some parts while others are repressed?

- The central bank tries to use every metric and variable at its disposal to determine inflation expectations. Employment is taken into consideration, but it does not currently seem to be a top variable to forecast inflation.
- Regarding scarring in the economy, this recession was extremely deep but short. Therefore, there shouldn't be high unemployment for an extended time or a hysteresis over the labor market.

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The main economic scarring would come from the collapse of firms and their ability to produce. This is something
Brazil was concerned about and increased policies to support credit. However, firms do not seem to be collapsing in
the way that was feared. Even the toughest parts of the economy (hotels and restaurants) are bouncing back.

Did any of the things discussed change now that CB independence law was approved? How could it change things going forward?

- The central bank has always had a lot of freedom to do the best it possibly could. There won't be a clear change.
- Although there may not be any distinct changes in the short term, the institutional framework will change, and terms of
 different directors/changeover times will be clearer. There are now restrictions on how often the President can move
 the board around to prevent turnover around the election.

The BCB is very clear on its forecasts and general clarity. Are there any changes in mind that could take place over the next couple years or will the framework remain roughly the same?

 In terms of transparency and communication, the central bank has become increasingly transparent. It is possible to keep going in this direction. There is no intention of changing the transparency of our communication in the next few years.

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