Summary Report on the NBB Listens Portal

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Introduction

The European Central Bank (ECB) launched a strategy review in January 2020. As part of this review, the ECB and the national central banks of the euro area have hosted listening events with the general public, civil society organisations, and academia. The aim is to let ideas and perspectives that were shared at these events feed into the strategy review, the outcome being presented on 8 July 2021 by ECB President Christine Lagarde and Vice-President Luis de Guindos.

The National Bank of Belgium (NBB) organised its online listening event on 22 January 2021, with participants from 28 civil society organisations representing the various layers of society. To complement this event with views from Belgian citizens, an online “NBB Listens portal” was set up, similar to the ECB’s initiative. Through the portal, citizens could answer thirteen open-ended questions and thereby share their views on four topics: “price stability”, “economic issues”, “other issues”, and “communication”. In the end, 751 citizens submitted 8459 valid text responses. These responses were classified into several categories for each question by combining human reading with text analysis tools.

This article discusses the responses to the four topics covered by the NBB Listens portal. Its main findings are the following:

1) Price stability:
   - Three-quarters of respondents find predictable inflation to be important. When asked whether they worry about too low or too high inflation, the largest share (35%) mentioned high inflation only.
   - Changes in the price level are mainly felt through changes in the purchasing power of wages and salaries, changes in investment behaviour, and a lower real (i.e., inflation-adjusted) return of savings.
   - More than half of the respondents (57%) signalled housing as a type of good for which they feel the effects of price changes the most.

2) Economic expectations and concerns:
   - When asked about their economic concerns, respondents saw the economic outlook as their primary concern, followed by their savings and pensions.

* I am very grateful to all respondents for their participation, Vincent Palau for excellent assistance, and Siria Angino (ECB) for a very useful discussion on text analysis at the start of the project. I also thank NBB colleagues Luc Aucremanne, Saif Ben Hadj, Jef Boeckx, Marjolein Deroose, Dennis Essers, Thomas Stragier, and Mario Vackier for helpful suggestions and comments.

As the author, I am responsible for the analysis of the survey data. Colleagues from the Communications Department and the Economics and Research Department set up the online portal and designed the survey. Contact: joris.wauters@nbb.be.

2 See https://www.nbb.be/nl/evenementen/nbb-luistert-event for an overview and summary reports in Dutch and French.
• About half of respondents had not experienced any negative (economic) impact from economic changes over the past ten years. However, when asked how low interest rates and monetary policy affect them generally, a large majority (62%) claimed to be negatively affected or concerned about the recent monetary policy measures.

3) Themes other than price stability:
• When asked about which other themes the NBB and ECB should pay attention to, close to half of the respondents opted for ‘climate change’.
• Climate change would mainly affect respondents by altering their daily lives, e.g., through changes in consumption habits or the more frequent occurrence of natural disasters. The second most prominent concern was higher costs, such as a higher tax burden.

4) Communicating with the public:
• Fifty-six per cent of respondents feel informed by or about the NBB (or ECB), and 60% report being familiar with NBB and ECB monetary policy speeches, press conferences and publications.
• When asked how the central banks could better explain economic issues and monetary policy decisions, a large percentage urged central banks to better explain themselves by addressing the public in simple language and using illustrative examples in their communication. Respondents suggested both traditional media (e.g., newspapers, radio, and TV) and digital media (e.g., social media, webinars, the website) as the main communication channels for reaching the public.

An important caveat is that the sample over-represents certain groups, such as senior Dutch-speaking male citizens. Therefore, it remains uncertain to what extent the findings in this report – both quantitative and qualitative – extend to the Belgian population.

This report is arranged as follows. Section 1 describes the design of the questionnaire and the method for analysing the results. In Section 2, the main characteristics of the respondents are described. Sections 3 to 6 each describe the results for the separate themes. Finally, Section 7 concludes.

1. Questionnaire design and method of analysis

To gauge public opinion regarding specific themes, the NBB opened an online listens portal. Through this website, citizens could respond in Dutch or French to thirteen open-ended questions. The portal was open between 22 October 2020 and 1 February 2021. It was advertised through an online campaign via the NBB website and NBB social media (LinkedIn and Twitter), and an extensive mailing campaign.

The portal was structured into four main domains: i) Price stability, ii) Economic expectations and concerns, iii) Themes other than price stability, and iv) Communication with the public. The first three topics each had three questions, while the fourth had four. Each topic was introduced with a short explanatory text, included below in the sections describing the results. The respondents could reply to the questions by entering text in designated boxes. (Multiple-choice options were not used.)

To facilitate interpretation, the responses were classified into several categories by combining human reading with text analysis tools. These tools entailed either a dictionary-based approach or supervised learning. Further methodological details are provided in the Annex. The questions from the NBB Listens portal, listed below, were very similar to those from the “ECB Listens Portal”. The analysis therefore mainly followed the ECB’s response categories, and similarly, the structure of the ECB report was used as a template for this article.

The responses were analysed question by question, the empty cells being removed at the start in each case. Hence, the reported percentages per question in each category are expressed relative to the total number of valid responses received for the question at hand. Only when a question has mutually exclusive response categories do these shares add up to 100%.

2. Respondent characteristics

The thirteen open-ended questions of the online NBB Listens portal received 8459 text responses from 751 respondents. It is important to stress that these respondents do not represent a random sample of the Belgian population. Indeed, some groups are over-represented, as 87% of the respondents are male, 61% are aged 55 and older (Table 1), and 76% are Dutch-speaking (vs. 24% French-speaking)\(^1\).

Table 1

<table>
<thead>
<tr>
<th>Age composition of the respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Count</td>
</tr>
<tr>
<td>Share (in %, rounded)</td>
</tr>
</tbody>
</table>

Source: NBB.

Correcting the skewed structure of the sample is not possible with re-sampling for two reasons. First, some age categories are too severely under-represented. For instance, the 13-18 years category contains only one individual, and this person would receive an unacceptably large weight under a re-weighting correction. Second, as the respondents were aware of the listens portal and voluntarily chose to participate, they might have distinct characteristics compared to other citizens. They could, for instance, have a stronger affinity for economic issues than the general population. If so, re-sampling would not solve such a “self-selection bias”. Therefore, while the results from the portal provide valuable insights into the public’s concerns, one cannot ascertain to what extent the findings in this report – both quantitative and qualitative – extend to the Belgian population.

The non-response rate for the questions was, on average, 13% and varied between 4% and 31% (see Annex).

3. First topic: price stability

Introductory text

As monetary policymakers, we are responsible for price stability. Indeed, the Treaty on the Functioning of the European Union states that price stability is our primary objective.

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\(^1\) By contrast, the Belgian population is about 49% male, around 32% are aged 55 and older, and close to 60% have Dutch as their mother tongue. See https://statbel.fgov.be/en/themes/population/structure-population and https://en.wikipedia.org/wiki/Languages_of_Belgium.
Price stability refers to the general level of prices; it means that the price of an imaginary basket of goods and services that a typical household buys does not fluctuate excessively. The Governing Council has defined price stability more concretely as an annual increase in consumer prices in the euro area of below, but close to, 2% over the medium term. Therefore, it wishes to avoid excessive price increases (inflation) as well as price falls (deflation), as these are detrimental to economic activity. On the other hand, low and stable inflation has many advantages; in a nutshell, it enables the economy to function smoothly.

**Price stability: Question 1**

- How do changes in the general price level affect you/your organisation/your members? How important is predictable inflation?

Here, many respondents replied to only one of the two embedded sub-questions. Therefore, each sub-question was considered separately, and the shares are reported after discarding the non-responses each time. Chart 1 shows the channels through which price level changes are believed to affect the respondents. Slightly less than half of the valid responses (47%) report that the main impact would be felt through changes in the purchasing power of wages and salaries, while changes in investment behaviour and a lower real (i.e., inflation-adjusted) return on savings form the second category (37%).

Around a quarter of respondents (27%) feel that changes in the price level have little to no impact on their life. Within this sub-group, several referred to the system of wage indexation in Belgium. According to one respondent, “Controlled inflation is acceptable as long as incomes (wages, pensions, alternative income, family allowances, etc.) are indexed as is the case in Belgium.” Also, many respondents wrote that if inflation is low and stable, it has no significant influence on them.

Next, less than 10% mentioned housing, for instance, regarding how inflation impacts long-term decisions like purchasing a family home. In the words of one respondent: “Predictable inflation is important to allow families to properly plan their capital building from the point of view of buying a house and other capital goods and pensions.”

The final and less frequently selected categories concern the lower purchasing power of pension income or an ambivalent stance.

**Chart 1**

How do changes in the general price level affect you?

Source: NBB.
Turning to the second sub-question, three-quarters of valid responses say that predictable inflation is important. As stated by one respondent, “[predictable inflation] gives businesses a stable monetary framework that benefits investment and indirectly also employment”. By contrast, 17% stated that predictable inflation is of little or no importance. (A residual 8% of responses were classified in an “Other” category.)

**Price stability: Question 2**

- Are you worried about too low or too high inflation?

The largest share of respondents (35%) reports feeling worried about high inflation only (Chart 2). Several respondents connect their concern with recent years’ expansionary monetary policy measures and the generally high government debt levels. For example, one respondent mentions, “I am very concerned about a very high rate of inflation in the future, as a result of the unbridled support measures and money creation in the last ten years.”

One-quarter of respondents are concerned about both high and low inflation. Some respondents highlight that deflation is also undesirable, e.g., because it makes it more difficult for governments to repay their debt. With a share of about 20%, a third category reports not being worried about high or low inflation at all. Only 12% worry solely about low inflation, and the remaining 8% had no opinion or responded off-topic.

**Chart 2**

Are you worried about too low or too high inflation?

![Price stability: Question 2 chart](source: NBB)

**Price stability: Question 3**

- For which types of goods and services do you feel the effects of price changes the most? Which goods and services should be included in the consumption basket that determines the inflation rate? For example, how important do you think the rising cost of housing is?

With a share of 57%, most respondents signalled housing (i.e., purchase prices and rent) as a vital category for which they feel the effects of price changes (Chart 3). Some respondents referred to the large share that housing costs represent in household budgets. Others saw high house prices as a problem for non-owners, such as young or poor households: “Housing is very important and is becoming more and more expensive. For the younger generation, the purchase of a home is no longer self-evident.” By contrast, of the respondents
that did not fall into this category, several claim that they don’t feel the effect of rising house prices because they are homeowners: “Since we own our own home, the rising housing costs are not our main concern.”

Some way behind, the next-ranked categories are “Utilities” (e.g., costs of heating, water, and electricity) and “Daily expenses” (or groceries) for items such as food (39%). They are followed by expenses for (non-) durable consumption goods or services (34%) and “Transportation costs” such as petrol (about 20%). Other categories such as “Healthcare” and expenses related to “Taxation/Public services” were mentioned by about 10% of respondents, while categories such as “Leisure”, “Finance”, and “Education” even less frequently.

### Chart 3

For which types of goods and services do you feel the effects of price changes the most?

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimated % share of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing/Real estate</td>
<td>60</td>
</tr>
<tr>
<td>Utilities</td>
<td>40</td>
</tr>
<tr>
<td>Groceries/Daily expenses</td>
<td>30</td>
</tr>
<tr>
<td>Consumption goods or services</td>
<td>30</td>
</tr>
<tr>
<td>Transportation costs</td>
<td>20</td>
</tr>
<tr>
<td>Healthcare</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
<tr>
<td>Taxation/Public services</td>
<td>5</td>
</tr>
<tr>
<td>Leisure</td>
<td>5</td>
</tr>
<tr>
<td>Finance</td>
<td>5</td>
</tr>
<tr>
<td>Education</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: NBB.

### 4. Second topic: economic expectations and concerns

**Introductory text**

Monetary policymakers have no direct influence on rising and falling prices. To achieve price stability, we use instruments that indirectly affect inflation. The main instrument is policy interest rates. They act as the accelerator and brake pedal of economic activity and inflation. For example, an increase in interest rates will curb a heated economy with too high inflation. A higher interest rate makes it more expensive to borrow money, so consumers and businesses spend less. As a result, economic activity slows down, and prices rise less rapidly. On the other hand, a decrease in interest rates will stimulate an economy in which growth has cooled and inflation is too low. A lower interest rate makes it cheaper to borrow money, so more is bought and invested. As a result, economic activity picks up, and prices and wages rise. In a context of persistently low inflation and negative policy rates, the ECB has in recent years also used other exceptional instruments to support economic activity and consequently inflation. One example is asset purchases. These exceptional instruments also operate according to the principle of braking and acceleration.

*By pursuing price stability, we also support economic growth and prosperity in the euro area. More than that, it is probably the best way for monetary policy to contribute to people’s welfare.*
The reasoning outlined here reflects our frame of mind: you may see it differently. To make our monetary policy as effective as possible, we therefore want to get a better idea of your economic concerns and the impact of our policy on your life.

Economic expectations: Question 1

- What economic concerns are you/your organisation and your members facing?

With a share of just over 40%, the “Economic outlook” is the respondents’ main concern (Chart 4). This category includes worries about a slow recovery from the Covid crisis, weak growth and structural problems, and the emergence of future crises. For example, one respondent writes: “Partly because of covid 19, our economy is ruined and cannot be restored.”

The second most common concern of respondents relates to “Savings and pensions” (30%). Respondents in this category often criticise the central bank’s low (or negative) interest rate policies. For one thing, they see the loss of income from their savings as detrimental. As one respondent puts it, “How can you guarantee your income during retirement?” For another, a few respondents even see low interest rates leading people to save more rather than less. According to one respondent, “a (too) low interest rate, or negative interest rate, creates uncertainty for the future, causing consumers, fearing future deficits, to save even more rather than spend the money. Thus, too low interest rates, in fact, have the opposite effect of what the policy wants.”

Close to a quarter of respondents are concerned about “Fiscal policy”. Several respondents believe that higher taxes will be necessary for the future due to public spending during the Covid pandemic, and some ask themselves if public debt levels are sustainable (“How are we ever going to reduce the debt mountain?”).

“Cost of living” is the fourth most frequent concern, at a rate of one in five. This group refers to the risk of losing purchasing power in the future due to a rising cost of living. Some see their purchasing power at risk due to ample money creation by central banks that could drive up future inflation.

The following five categories were less prominent for respondents. Around 12% reported concerns about “Employment”, in part due to higher unemployment because of the pandemic. A more detailed breakdown showed that this category’s share was highest for those in the 25-34 age bracket (18%) and showed a downward trend for older age groups.

Chart 4

What economic concerns are you facing?

Source: NBB.
Next, 9% of respondents claim to have either no worries or refer to other concerns. The same percentage of respondents cite “Social issues” such as inequality and poverty. Finally, 6% refer to climate change and sustainability, and 2% to EU-related concerns.

**Economic expectations: Question 2**

- How have changes in the economy over the past ten years affected your life/that of your members? For example, in finding work. And more recently, how has the current economic crisis due to the corona pandemic affected your life/the life of your members?

This question’s responses were analysed with a focus on the economic impact on the respondents’ lives. Many respondents find that the Covid pandemic did not affect them materially but worsened their mental state due to a lack of social interaction. For example, one respondent writes, “The Covid-19 health crisis did not affect me too badly because my wife and I were able to continue working (telework) and kept our income. On the other hand, the social and psychological impact has been seriously underestimated.” With this distinction in mind, 51% of respondents fall into the “Positive or unchanged” impact category. One person reports: “No impact, I’m lucky to still have my job.”, while another writes, “There’s no influence. I can live with the Corona measures for another two years.”

By contrast, the share of respondents in the “Negative” category is 27%. Several from this group report on the negative impact of the pandemic on relatives. According to one respondent, “Lack of prospects in the cultural sector affects my loved ones”, while another writes “Family members find it harder to find work than before the crisis.”

Finally, 22% of respondents are in an “other” category who either don’t know (“as a pensioner, I find it difficult to answer”) or made general statements about economic policy and the pandemic.

**Economic expectations: Question 3**

- How do low interest rates and monetary policy, in general, affect you/your organisation/your members and the economy as a whole? For example, how do they affect your decisions regarding consumption, saving, borrowing, investing? Are you/your organisation/your members concerned about the exceptional monetary measures we have taken in recent years to support economic activity and inflation?

With a share of 62%, a large majority of respondents claimed to be negatively affected or concerned by the recent monetary policy measures (Chart 5). Low interest rates were frequently mentioned, for instance, regarding a lower return on savings. For example, a respondent states, “Yes, for me, this is a major concern. Low interest rates impoverish people – especially for larger purchases that require longer saving periods. Dreams become more difficult to realise.” Respondents also stated that the low interest rates incite risk-taking: “Due to low inflation, I have to make more risky investments to get a reasonable return.” Again, a few respondents mentioned that low interest rates prompted them to save more instead of less. As one respondent puts it, “The lower the interest rate, the less I will consume because the more I have to save for my old age.”

Next, about one in five respondents felt that the measures had a positive or negligible impact on their lives or were unconcerned (19%). Several respondents saw the advantages of low interest rates for borrowing to finance investments or acquire real estate. For example, one respondent from age group 25-34 writes, “The low interest rate makes it easier for many people in my age group to acquire property.” Some respondents also view changes in their investment portfolio from a positive angle compared to the previous group: “I am not worried. I rather see it as an opportunity. For example, I no longer save on savings accounts and invest entirely in investment funds.”

About 13% of respondents fall into the “Other” category who either didn’t know or made general statements. Finally, 6% of respondents had ambivalent views.
5. Third topic: themes other than price stability

**Introductory text**

As monetary policymakers, our main task is to maintain price stability in the euro area. When that task is accomplished, we also have the task of supporting the general economic policies of the European Union. Sustainable economic growth, free competition, full employment, social progress and the protection and improvement of the quality of the environment are important objectives in the general economic policies of the European Union.

**Other themes: Questions 1 and 2**

- **Question 1**: Do you think the NBB and ECB should pay more or less attention to these other issues? Which ones deserve more attention and why? For instance, do you think monetary policy has a role to play in combating climate change?
- **Question 2**: Are there any issues not mentioned above that you think the NBB and ECB should take into account in their joint monetary policy?

The two questions are related, yet the second question had a high non-response rate of 30%. Of its valid responses, 16% were simply “no”, and the categories from question one were often selected. Therefore, the discussion focuses on the first question only.

The first ranked category is “Climate change”, for which a substantial 48% of respondents affirmed that the NBB or ECB should pay (more) attention (Chart 6). Several respondents seemed very concerned about this issue. For example, one reply was, “Everything must be done in the fight against climate change!”

A caveat is that the estimated share for this category could be biased up or downward. On the one hand, about 6% of respondents wrote a simple affirmation (e.g., “Yes”) and were classified in the “Yes, unspecified” category since it’s unclear to which part of the question they responded. If they replied to the last part on climate change – even though it was included as an example – then the share is under-estimated. On the other
hand, the last part of the question may have nudged respondents towards “Climate change”, thereby creating an upward bias.

In contrast with respondents from the first ranked category, 21% of respondents feel that the central bank should focus on its core task of maintaining price stability. For example, one respondent writes, “The ECB should not support economic policies. They are not democratically elected for this.”

The following three categories all have shares close to 18%, namely “Economic growth and employment”, “Social inclusion” (referring to inequality, redistribution, etc.), and an “Other” category that captures respondents who don’t have an opinion or who express general remarks or scepticism. A respondent from the last category wrote: “Climate change affects the whole globe. The monetary policy of the NBB and ECB will always fall short here.”

Finally, issues related to the EU and Savings (e.g., low interest rates) were infrequently mentioned.

Chart 6
Do you think the NBB and ECB should pay more or less attention to these other issues?

Source: NBB.

Other themes: Question 3

- How will climate change affect you/your organisation/your members, and the economy?

With a share of 35%, respondents mainly envisaged climate change impacting their daily lives or those of future generations (Chart 7). They noted several ways in which an impact could be felt, one being necessary changes in consumption habits. For example, a respondent writes: “The corona crisis has made some of us realise it. We can live a comfortable life with a lot less luxury. Consuming less will only benefit our planet.” Others mentioned the more frequent occurrence of natural disasters or general changes in the climate: “Climate change is causing warmer weather in our regions. In the longer term, this may also have effects on storms/heatwaves and flooding.”

1 Two arguments support the notion of an upward bias. First, there’s a similarity with the third question from topic one on price stability. The final part of the question referred to housing as an example, and the first ranked response category (i.e., housing) also had a remarkably larger share. Second, when asked about their economic concerns, a relatively small share was found for the category “Climate change” in the first question of topic two on “Economic expectations”. 

\[\text{Chart 6}\]

**Do you think the NBB and ECB should pay more or less attention to these other issues?**

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**Source:** NBB.
Next, close to one out of four respondents mentioned higher costs, e.g. “More expensive energy, more expensive transport.” This group also mentioned higher taxes as a necessity to finance climate-related policies.

Fifteen per cent reported either not having an answer or gave more general statements (e.g., “This theme does not fall within the competence of the ECB and therefore this question is superfluous.”). Around 15% acknowledged that climate change would have an impact, but without specifying how (e.g., “that’s clear... doesn’t need an extra explanation”).

The following two categories concern the impact of the “Energy transition” (14%) and the impact on the economy in general (13%). The former entails additional investment and other policies regarding climate change. According to one respondent, “Climate change will require a lot of additional investment. As a private individual, I will have to invest in insulation, energy transition...”. Concerning the latter, some respondents mentioned that climate change brings both positive and negative economic effects. For example, one respondent writes: “In itself, “change” or, in this case, “preventing change” is good for an economy as it brings new businesses and products. If we are too late and the doom scenarios of flooding due to too high water levels happen, this will, of course, be detrimental to the economy.”

A smaller group of 12% of respondents mentioned that climate change would have little or no impact on them. Within this group, some indicate that this is because they have already adapted their lifestyle (e.g., “None, I already consume ‘green’.”), while others don’t see climate change as a problem or deny its existence (e.g., “What climate change?”).

**Chart 7**

*How will climate change affect you and the economy?*

<table>
<thead>
<tr>
<th>Impact on daily life</th>
<th>Higher costs</th>
<th>Don’t know/Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**6. Fourth topic: communicating with the public**

*Introductory text*

We know that understanding monetary policy helps people make decisions about consuming, saving, investing, and borrowing. We would like to know how well we manage to explain what we do and why, but also how we can do it better.
Communication: Question 1

- To what extent do you feel well informed by the NBB and the ECB? (For example, about our recent measures in response to the corona crisis.)

Fifty-six per cent of respondents affirmed that they felt informed by or about the NBB (or ECB). Several respondents mentioned that they were indirectly informed via the press (e.g., “The newspapers do their job well, that’s enough for me for this information.”), while others appreciated the direct communication efforts from the NBB (e.g., “I appreciate the recent webinars very much.”) or wrote that they were informed through their professional occupation.

By contrast, 30 % of respondents wrote that they did not feel informed. Respondents in this category lament the lack of direct communication and find that the information is not tailored to the general public. As one respondent puts it: “I feel completely uninformed unless I am very consciously looking for it. The info is not easy to find, not in an attractive format and difficult to read for people without a doctorate in economics.” Another respondent writes, “The communication of the NBB and the ECB must be strengthened, simplified and accessible to a greater number.” Some respondents urged the NBB to communicate with the public via social media (“To reach people today, you have to go through social networks. I personally see nothing on Facebook, for example.”).

Finally, 14 % of respondents were classified in the residual “Other” category. Several people in this group made general statements about the broader population lacking economic knowledge or interest in the material. For example, one respondent writes, “People who are interested and/or have received economic training are well informed by the NBB and the ECB, but I fear for the vast majority of the population.” while another notes, “I think you overestimate to what extent the average citizen is aware of the activities of the NBB and the ECB (and considers it important to know).”

Communication: Question 2

- Are you familiar with the NBB and ECB monetary policy speeches, press conferences and publications?

As shown in Chart 8, most respondents (60 %) affirmed that they are familiar with the NBB and ECB main communication outlets through either direct or indirect communication (e.g., “I hear a lot on TV and radio.”). In a separate third-ranked category, an additional 12 % of respondents mentioned feeling familiar, but only to a limited extent (e.g., “Sporadically. It is too remote from ordinary people.”).

About one in four respondents (26 %), by contrast, report feeling unfamiliar. Several respondents – also among those in the first category – mention the difficulty in understanding the material: “I know they exist, but it’s usually Chinese to me…”, or “These publications are usually written in a jargon that cannot be readily understood.”

For both the current and previous question, the share of respondents feeling well-informed was higher for the Dutch-speaking respondents than their French-speaking counterparts (e.g., 64 % vs 49 % chose “Yes” in question 2)¹. These differences could be due to the composition of the sample, such as relatively more economists in the Dutch-speaking group. However, we lack the data to verify this hypothesis. For both questions, the share of respondents feeling informed showed a hump-shaped pattern across age categories, in the sense that the shares peaked for age groups 35-44 or 45-54, and then declined for older or younger age groups.

¹ For the first question, the shares of those feeling informed are 60 % and 44 % for, respectively, Dutch- and French-speaking respondents. For both questions, the differences are statistically significant at the 1 % level in a comparison of proportions test and remain so in a multinomial logit regression with age and gender as control variables.
Communication: Questions 3 and 4

- **Question 3**: How could the NBB and the ECB better explain the benefits of price stability and the risks of too high or too low inflation?
- **Question 4**: What could we do to increase your understanding of our policy decisions and their impact on you?

The response shares for both questions are shown in Chart 9. The first four response categories concern strategies for enhancing communication: “Explaining” more clearly, “Engaging” (e.g., more outreach), more attention to “Being transparent”, and “Educating” the public, for instance, through presentations in schools.

For both questions, “Explaining” was top-ranked of the first four response categories. These respondents urged the central bank(s) to address the general public in simple language and use illustrative examples in their communication. As one respondent puts it: “Practical examples, and especially explaining the advantages/disadvantages for daily life or average wages. Most people do not think in abstract economic models.”

The second-ranked category was “Engaging”. On average, one in five respondents called for more communication and interaction with the public. A few of those respondents welcomed the NBB listens portal in this regard: “By engaging in discussion and listening. This survey is a great example of how it should be.”

To a lesser extent (shares below 8%), respondents called for more transparency – also expressed as honesty or openness – in communication by central banks.

Finally, respectively 14% and 6% of respondents selected “Educating” for both questions. Several suggested that central bankers could raise financial literacy through visits to schools or by providing training: “Financial education movements regularly organise training courses, in which NBB representatives could take part.”

The following three response categories together make up a second group: the channels through which the central banks should communicate. With shares of 16% and 22% for both questions, the overall main response category is communication through “Traditional media”, such as newspapers, radio, TV, and the like.
Next, 18% of respondents suggest using digital media to reach a broad audience. Respondents mentioned using intuitive (YouTube) videos and disseminating information via digital means, such as social media, webinars, and the website. Across age categories, the share of “digital media” was highest for the younger cohorts.

Finally, less than 10% of respondents referred to “Other media” channels, such as newsletters via e-mail or other regular reports.

**Chart 9**

**Question 3: How could the NBB and the ECB better explain the benefits of price stability and the risks of too high or too low inflation?**

**Question 4: What could we do to increase your understanding of our policy decisions and their impact on you?**

Around a quarter of respondents were assigned to a residual third group (“Don’t know/Other”). Some respondents in this mixed group did not have an answer or were content with the current communication strategy (e.g., “I think you’re doing well! And thank you.”). Several other respondents in this group saw a lack of financial education in school (or a general lack of interest) as a more fundamental reason why the public is uninformed. In their view, central banks might not necessarily be best placed to solve this issue. According to one respondent, “I think that both institutions are doing enough. The wider demand for more economic and financial literacy must be answered by the Ministers of Education.”
Conclusion

Analysis summary

This article reports on the main findings from the “NBB Listens portal”, an online questionnaire for Belgian citizens that was part of the strategy review undertaken by the ECB and the national central banks of the Eurosystem. The open-ended responses were classified by combining human reading with text analysis tools.

Respondents mostly find predictable inflation to be important. When asked whether they worry about too low or too high inflation, the largest share mentioned high inflation only. Respondents mainly feel changes in the price level through changes in the purchasing power of wages and salaries and the real return on their savings. Housing was the most frequently mentioned type of good for which price changes are felt the most.

The economic outlook was given as the main economic concern of respondents, followed by their savings and pensions. About half of respondents had not experienced any negative impact from economic changes over the past ten years. However, when asked how low interest rates and monetary policy affect them in general, a large majority (62 %) claimed to be negatively affected or concerned by the recent monetary policy measures.

When asked about which other themes the NBB and ECB should pay attention to, almost half of the respondents opted for ‘climate change’. Climate change would mainly affect respondents by altering their daily lives (changing consumption habits, natural disasters, etc.). The second commonest theme was higher costs, such as a higher tax burden.

Fifty-six per cent of respondents feel informed by or about the NBB (or ECB), and 60 % report being familiar with NBB and ECB monetary policy speeches, press conferences and publications. However, a large percentage urged the central banks to better explain themselves by addressing the public in simple language and using illustrative examples in their communication. To reach a wide audience, respondents suggested using both traditional and digital media channels.

Comparison with related surveys

Overall, the above findings echo the qualitative conclusions of the NBB’s online listening event with civil society organisations. For instance, these organisations also saw climate change as a priority consideration for monetary policy, and they also advocated more accessible communication.

By contrast, the organisations appeared relatively more positive in their assessment of the recent monetary policy measures. The deployment of stimulus measures in response to the Covid-19 crisis was generally seen as benign, as the measures preserved firms’ access to credit. In addition, the organisations suggested developing and monitoring indicators that measure the heterogeneous impact of monetary policy (e.g., inflation indices that differ by household type).

The above findings are also similar to those from the ECB Listens Portal. Again, the impact of housing-related costs and climate change were found to be important, and most respondents felt they had been negatively affected by low interest rates and monetary policy.

However, the ECB listens portal respondents mostly thought that changing economic conditions had a negative impact on their situation over the last decade. Moreover, when asked about how climate change would affect them, they opted primarily for the impact on the economy and the financial system.

1 The ECB Listens Portal was closed around the time that the Belgian one opened. Belgian citizens make up the fourth most prevalent group in their survey (share of about 7.5 %).
**Link with the outcome of the strategy review**

The outcome of the strategy review, presented by the ECB on 8 July 2021 (while this report was being written), addresses several concerns that emerge from the analysis of the responses. First, the Governing Council recognised that “the inclusion of the costs related to owner-occupied housing in the HICP would better represent the inflation rate that is relevant for households.” Since this inclusion entails a multi-year project, inflation measures that include initial estimates of owner-occupied housing costs would meanwhile be considered by the Governing Council in its monetary policy assessments.

Second, the Governing Council has decided on a comprehensive action plan to further incorporate climate change considerations in its monetary policy assessments and the design of the monetary policy operational framework.

Third, traditional monetary policy communication channels will be complemented with more accessible communication geared towards the wider public to ensure “public understanding of and trust in the actions of the ECB.” In addition, the Governing Council intends to make outreach events a structural feature of the Eurosystem’s interaction with the public. In this vein, the NBB plans to launch a blog and continue the webinars and the media presence of its governor and experts.

**Caveats**

In closing, I highlight two caveats in this analysis and offer suggestions for future surveys. The first caveat is that the sample over-represents specific sub-populations, such as senior Dutch-speaking male citizens. To better represent the Belgian population as a whole, a survey based on random population sampling could be considered. Moreover, the sophisticated economic reasoning in many responses suggests that many respondents are financially literate. Therefore, it could be insightful to ask respondents for their occupation and level of education or financial literacy. This information could, for example, potentially explain diverging views on whether central banks communicate adequately with the public.

Second, the phrasing of a couple of questions may have nudged responses in a particular direction. Notably, two questions in this survey refer to housing or climate change as examples, as these topics would a priori be focal points of the strategy review. Future surveys should pay attention to whether the question’s formulation matters, e.g., by wording the question in two (or more) slightly different ways. Alternatively, multiple-choice response categories could complement (optional) open-ended responses.
Annex

Text analysis approach

In the data preparation stage, all Dutch and French responses were translated to English using the European Commission’s eTranslation tool\(^1\) and spell-checked. Other checks were also necessary to ensure, for example, that a space was present after a full stop, or that empty or identical submissions were removed, etc.

The responses were classified by combining human reading with quantitative text analysis using RStudio software and the R package Quanteda (Benoit et al., 2018; Welbers et al., 2017)\(^2\). The questions were analysed one by one using one of two methods. If multiple response categories could be selected for a question, a “dictionary-based approach” was used. In the first stage, this method requires the analyst to pre-define relevant keywords or expressions for each response category. Relevant keywords were partly selected based on statistics of the most frequently occurring words in the responses to the question (in the form of unigrams, bigrams, etc., and after discarding stopwords). In the following stage, the software reports which responses contained words that matched the pre-defined keywords of the categories. All responses that were unmatched with any category were manually classified. (These responses typically belonged to the “Other” category.)

For questions where only one response category was allowed (i.e., mutually exclusive categories), a combination of manual classification and “supervised learning” was applied. As a first check, duplicate responses were highlighted, and the responses were alphabetically sorted, so that clusters of the same responses (e.g., “Yes”) were visually spotted and manually classified\(^3\). The subsequent first stage of supervised learning consisted in manually classifying a large set of consecutive responses (e.g., the first 300 observations), after which machine learning models were used to predict the remaining responses. The predictive models considered were Naïve Bayes, LASSO, Support Vector Machines, and Random Forests. When applicable, their hyperparameters were tuned using cross-validation. The block of pre-classified responses was divided into a training sample and a test sample. The former served to train the predictive models, while the latter was used for out-of-sample predictive tests. The most accurate model was chosen for the predictions if this model provided non-zero predictions for all categories. For this dataset, Naïve Bayes and Support Vector Machines typically performed best. (The manually classified responses from the initial stage were not overwritten by the model-based predictions.) As an extension, experiments were done where information on the characteristics of the respondents (i.e., age, gender, and language) was included in the predictive models. However, the predictive accuracy did not improve in general by including this data.

Following the recommendations of Grimmer and Stewart (2013), care was taken to validate the output from the quantitative text analysis by the human reading of a large batch of responses and their predicted categories. Moreover, for the questions that were processed with supervised learning, the response category shares were compared with and without the model predictions to check if the estimated shares changed remarkably – while also considering the estimated confidence intervals.

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\(^1\) [https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eTranslation](https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eTranslation).

\(^2\) See [https://www.rstudio.com/](https://www.rstudio.com/) and [https://tutorials.quanteda.io/](https://tutorials.quanteda.io/).

\(^3\) The second question in the Fourth “Communication” topic consisted of about 60% duplicate responses and was, therefore, fully manually classified.
Non-response rates

The non-response rate for the questions averaged 13%. While for most questions the share was below 10%, it reached about 30% for the second question in the third topic on “Other themes” and was also relatively high for the last two questions in the fourth topic on “Communication”.

Table 2
Non-response rates per question
(in %)

<table>
<thead>
<tr>
<th>Share</th>
<th>Price stability</th>
<th>Expectations and concerns</th>
<th>Other themes</th>
<th>Communication with the public</th>
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<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q1</td>
</tr>
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<td>4</td>
<td>6</td>
<td>8</td>
<td>11</td>
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</table>

Source: NBB.
Bibliography

