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DISTRIBUTIONAL IMPACT ASSESSMENT OF RECENT CHANGES TO OLD-AGE PENSIONS, SOCIAL BENEFITS AND TAXES IN LITHUANIA

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What we do

We examine **the impact of recent changes to pensions, social benefits and direct taxes following the Covid-19 pandemic**, focusing on key distributional indicators:

- the at-risk-of-poverty rate (AROP),
- income inequality (S80/S20, Gini coefficient),
- and a nationally applied measure of absolute poverty (Navicke et al., 2019).

This is a follow-up to our 2021 study (Gabnyte et al., 2021).

This is an applied nowcasting study + distributional impact assessment (DIA).

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Some context

- **Post-Covid period**: improving employment, discontinued measures
- **High inflation**: HICP at 32.6% between 2021-2024
- **Rapid growth in wages**: annual growth in average wages of around 10%

- **Annual indexation** of old-age pensions and social benefits
- **Ad-hoc measures** due to high inflation
  - e.g. extra indexation, no asset tests for social assistance

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How we do it

- Microsimulation using EUROMOD (Sutherland & Figari, 2013)
- Data from the 2022 EU-SILC (reflects income situation of 2021)
- Policy rules and uprating factors applied to the data (Cizauskaite & Navicke, 2024)
- Nowcasting methodology (Navicke et al., 2013)
- Counterfactual assessment of policy effects (Paulus & Tasseva, 2017)

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RESULTS

- Median income, AROP
- National estimate of absolute poverty
- S80/S20, Gini

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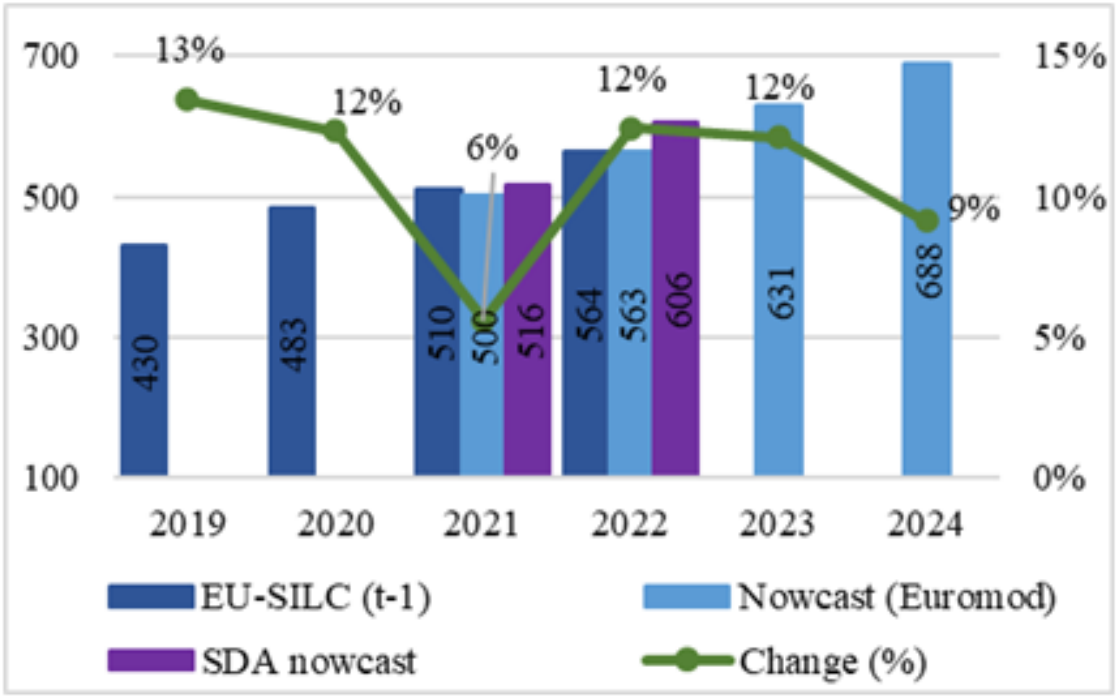

Fig. 1. At-risk-of-poverty threshold (EUR) and nowcast (%)*.
Source: authors' calculations based on EU-SILC and EUROMOD.
**Note:* estimates for the income year (t-1) are presented; SDA – State Data Agency.
Relative poverty threshold is calculated as 60% of median equivalized household disposable income.

- The median moved in line with the increase in average wages in Lithuania
  - The effect of discontinued Covid-19 measures is visible in 2021
- EUROMOD-based nowcast perform well compared to the SDA-based estimates
  - The latter are based on econometric regression-based techniques, rather than microsimulation of policy rules

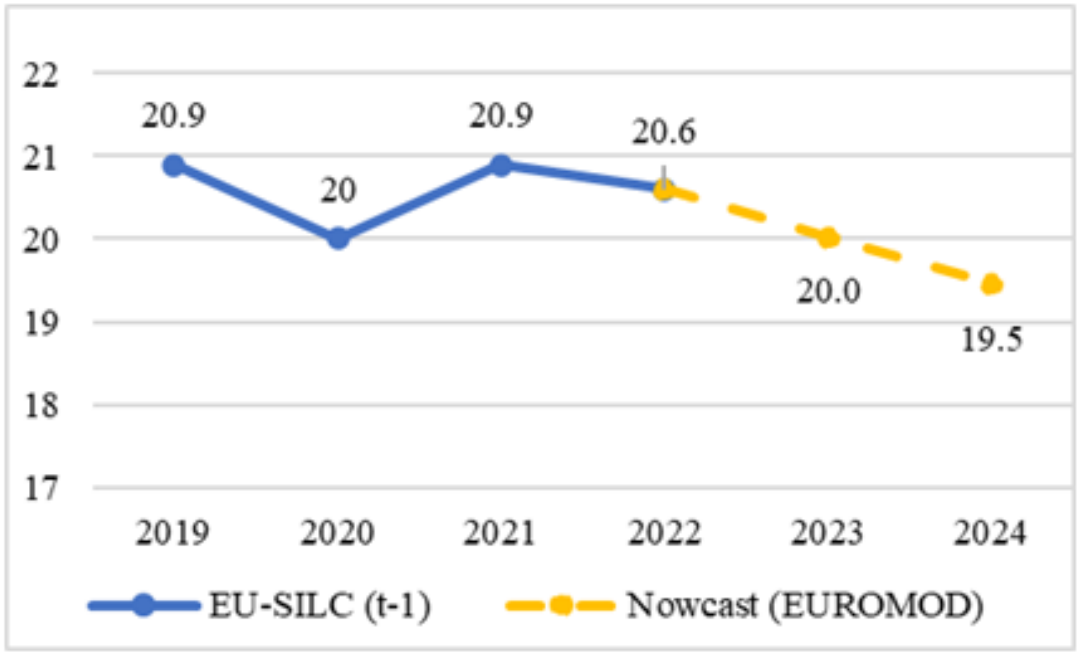

Fig. 2. Relative at-risk-of-poverty rate and nowcast, %*.
Source: authors' calculations based on EU-SILC and EUROMOD.
Note: estimates for the income year (t-1) are presented.

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- Note:
The standard errors of AROP are around 0.5 p.p. for the total Lithuanian population (OSP, 2023). Higher for sub-groups.

	2022 (Official statistics)	*Changes between 2022-2023 (nowcast)*	*Changes between 2023-2024 (nowcast)*
Total population	20.6	-0.6	-0.6
Children (0-17)	17.0	-0.3	-0.6
Working-age population (18-64)	16.6	-0.4	-0.3
Old-age population (65+)	36.1	-1.3	-1.3

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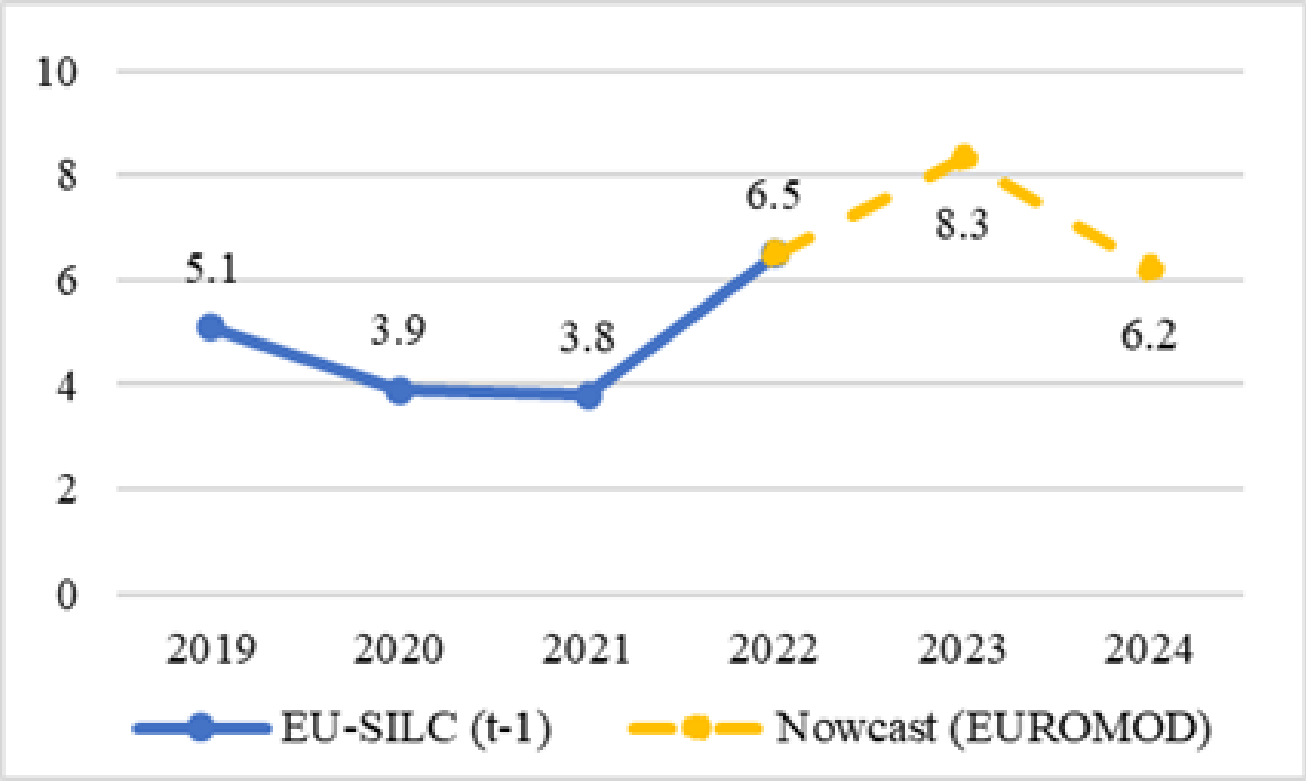

Fig. 3. Absolute poverty rate and nowcast, %*.

Source: authors' calculations based on EU-SILC and EUROMOD.

**Note:* estimates for the income year (t-1) are presented.

- Estimated based on a cost of the food basket and an Engel coefficient for other needs derived from HBS for those consuming at ±15% of the food costs (see Navicke et al., 2019).
- Highlights the effect of the rising costs / inflation on poverty.
- People aged 65+ were the most vulnerable, with around ± 5 p.p. change in this indicator between 2022-2024.

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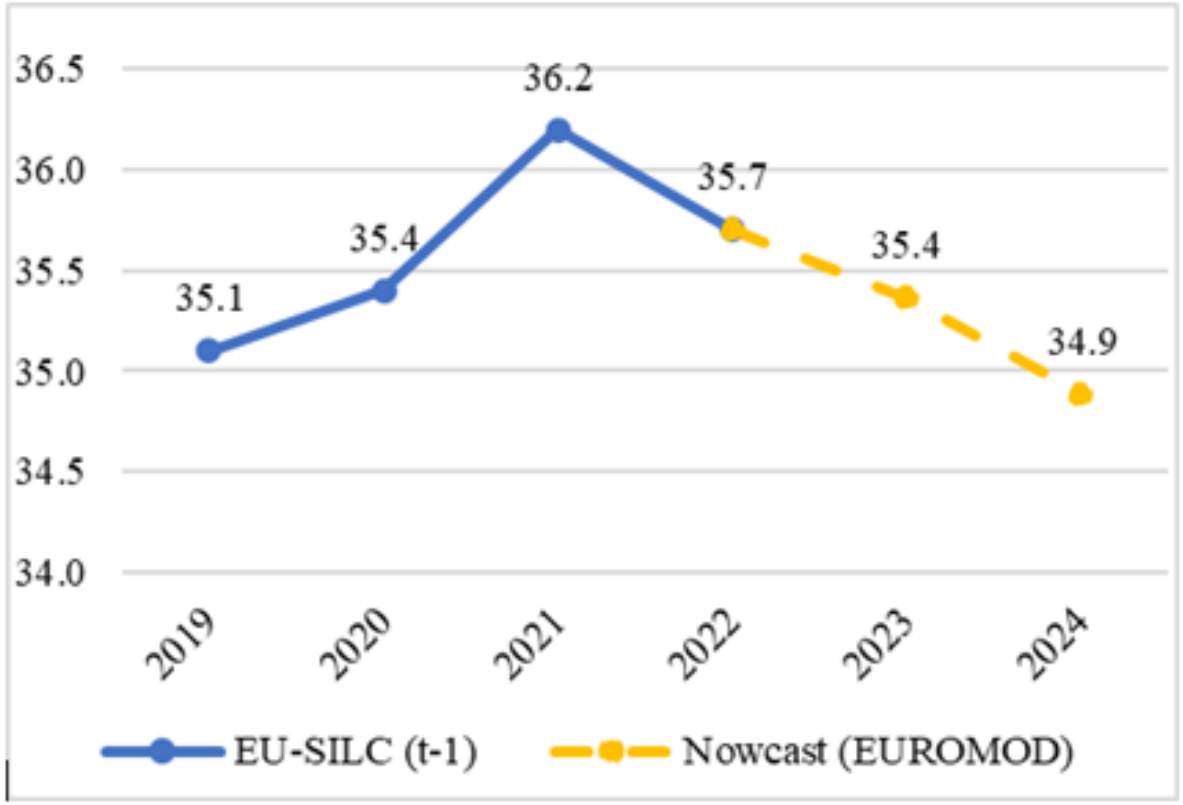


Fig. 4. Gini coefficient and nowcast in Lithuania*.
Source: authors' calculations based on EU-SILC and EUROMOD.

**Note:* estimates for the income year (t-1) are presented.

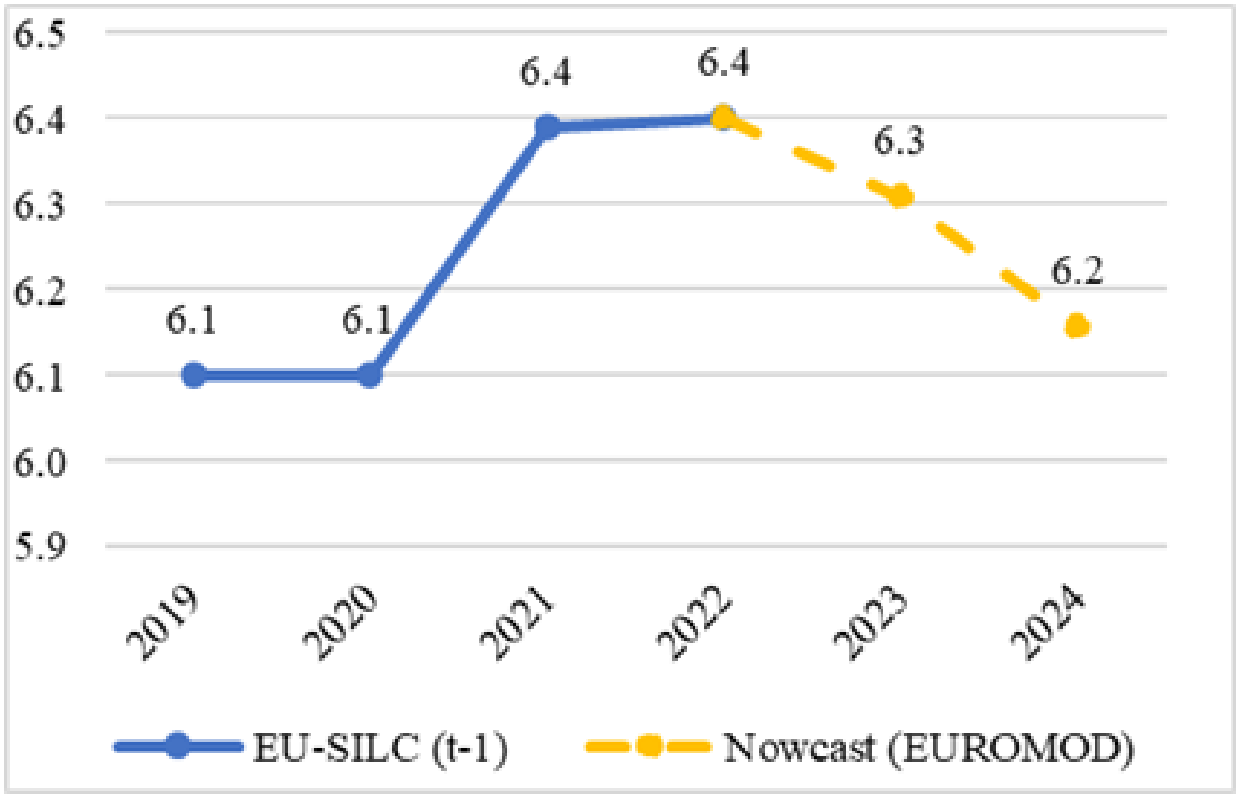


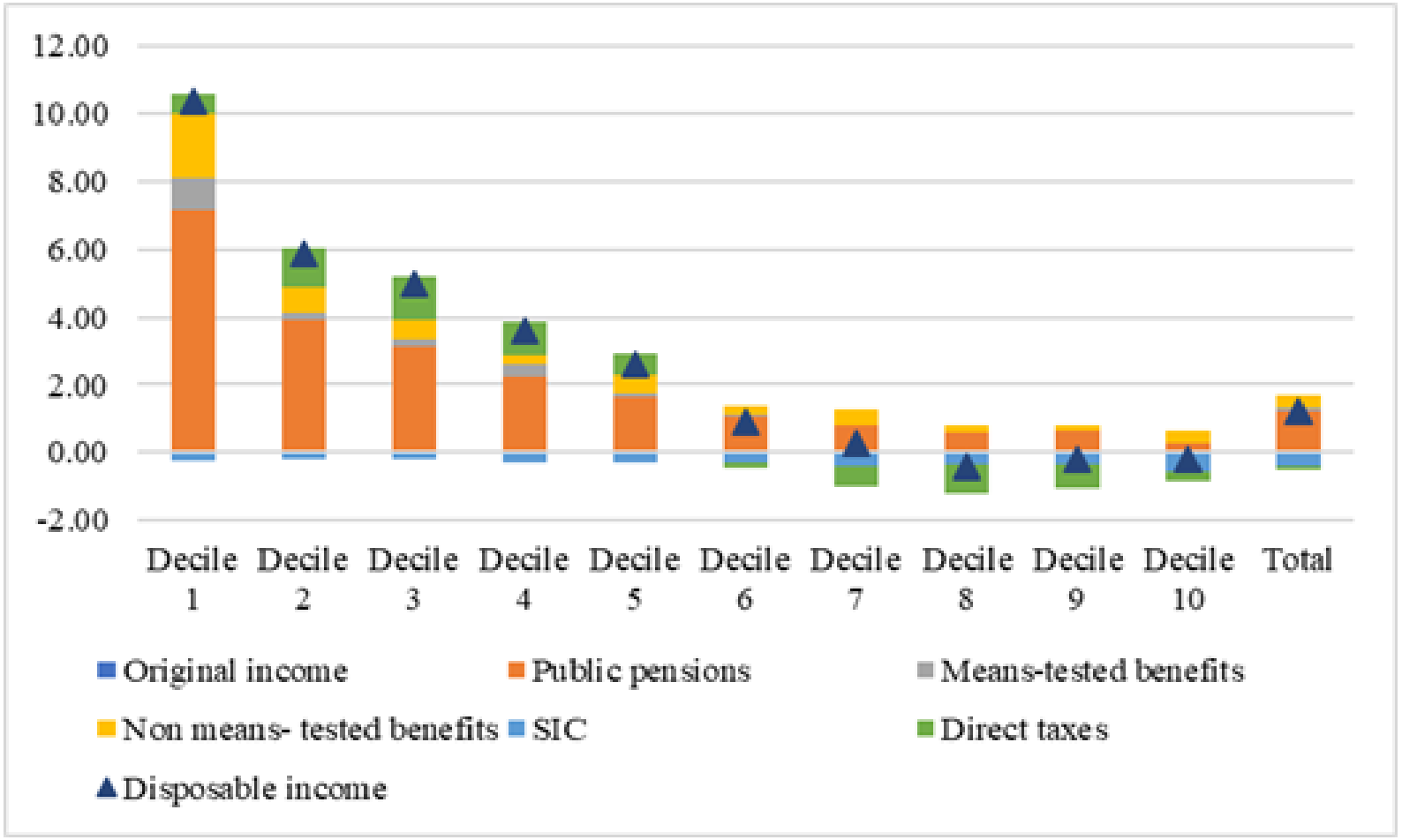
Fig. 5. S80/S20 coefficient and nowcast in Lithuania.
Source: authors' calculations based on EU-SILC and EUROMOD.

**Note:* estimates for the income year (t-1) are presented.

- Despite the nowcasted decrease, Gini and S80/S20 in Lithuania will still significantly exceed the EU average.

RESULTS

- Policy effects
- Counterfactual analysis of policy effects using EUROMOD (see e.g. Paulus & Tasseva, 2017).
- CPI for policy effects btw 2021-2024 = 1.326



- Major role of (ad-hoc) indexation of old-age pensions
- Relatively small impact of changes to taxation, SIC, other benefits
- Progressive overall distributional effects

Fig. 6. The policy effects in 2021 - 2024 for Lithuania in mean (equivalized) household disposable income by income component and income decile group, %*.

Source: authors' calculations based on EU-SILC and EUROMOD.

**Note:* SIC - social insurance contributions, CPI for policy effects between 2021-2024 = 1.326.

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Conclusions

1. Results indicate a consistent decline in AROP and income inequality in Lithuania between 2021 and 2024, primarily due to ad-hoc and regular indexation in old-age pensions, rather than changes in direct taxes, social insurance contributions or other social benefits.
2. However, adjustments in pensions, other cash benefits, taxes and social insurance contributions only partially mitigated the effects of high inflation. As a result, the absolute poverty rate is estimated to exceed its 2021 levels by 2-4 p.p. between 2022 and 2024.
3. In 2023-2024, the AROP, Gini coefficient and S80/S20 are nowcasted to decrease and approach the level of 2020. However, relative poperty and income inequality in Lithuania are still likely to exceed the EU average.

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Questions?

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