

Comparative Insights of Fertility Transition in Romania and Moldova

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OBJECTIVES

- 1) The comparative analysis of fertility dynamics in Romania and Moldova regarding the transition of fertility from the traditional early model to the late one;
- 2) To examine fertility trends from a longitudinal perspective, focusing on changes in reproductive behavior at cohort levels 1960-1980;
- 3) To assess the degree of fertility postponement and recuperation, through indicators such as the postponement index, mean age at first birth, and cohort fertility among women who have completed their reproductive period.

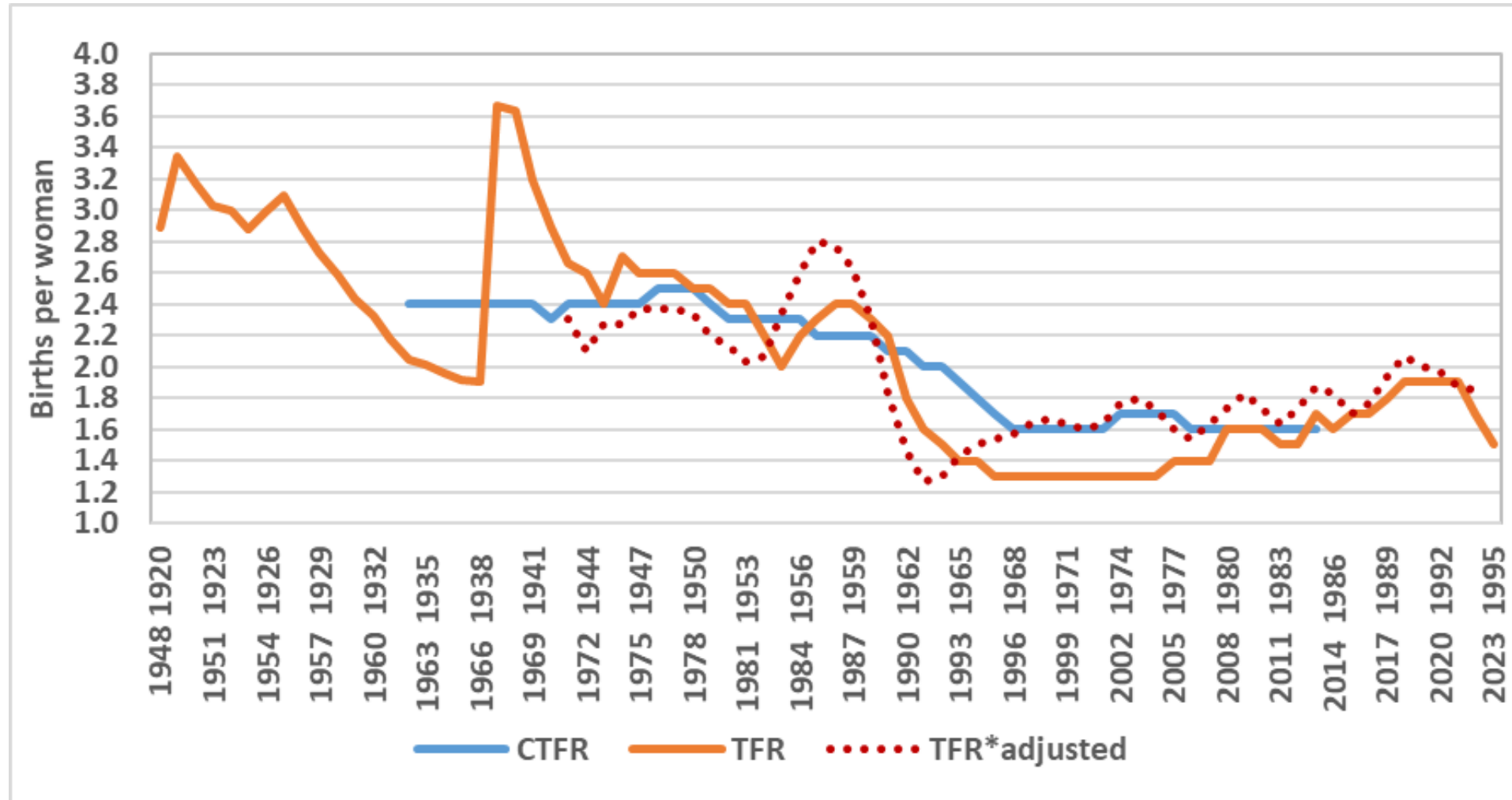
Theoretical framework

- *Fertility transition* marks the shift from high, natural fertility to low, controlled fertility, driven by modernization, healthcare, education, and gender equality. According to Demographic Transition Theory, fertility decline is part of broader socio-economic development.
- *The postponement and recuperation model (Sobotka)* highlights delayed childbearing past age 30 and the extent to which births are recovered later in life.
- This broad trend has been studied using the notions of fertility postponement (fertility decline across younger ages) and subsequent recuperation (a compensatory fertility increase at higher reproductive ages).

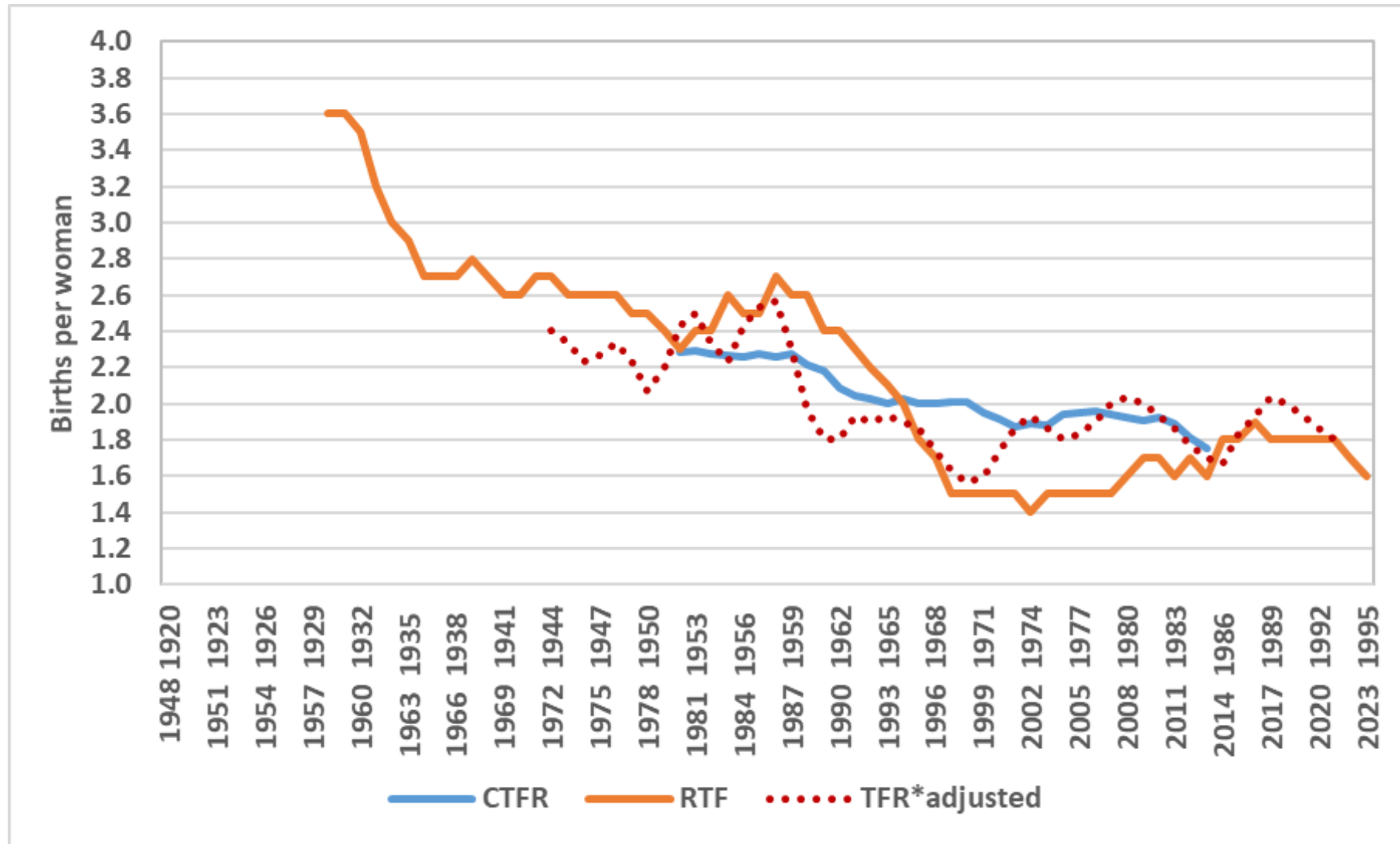
Methodology

- The study is based on a comparative analysis of vital statistics provided by the National Bureau of Statistics of the Republic of Moldova and the National Institute of Statistics of Romania, regarding the number of births and their distribution by the mother's age (in five-year intervals for Romania) and by birth order, for the period **1971–2023**.
- In order to explain the differences in recuperation attainment between cohorts and countries, we use the methods proposed by Sobotka, Zeman, Lesthaeghe and Frejka.
- **The benchmark cohort** is the first cohort to register a rise in the mean age at first birth sustained over at least five successive cohorts. This cohort serves as a country-specific reference for measuring deviations in fertility timing and quantum, offering a more objective standard than using a common reference across countries.
- In this study, we use as benchmark the 1960 cohort for Romania and 1970 for Moldova.

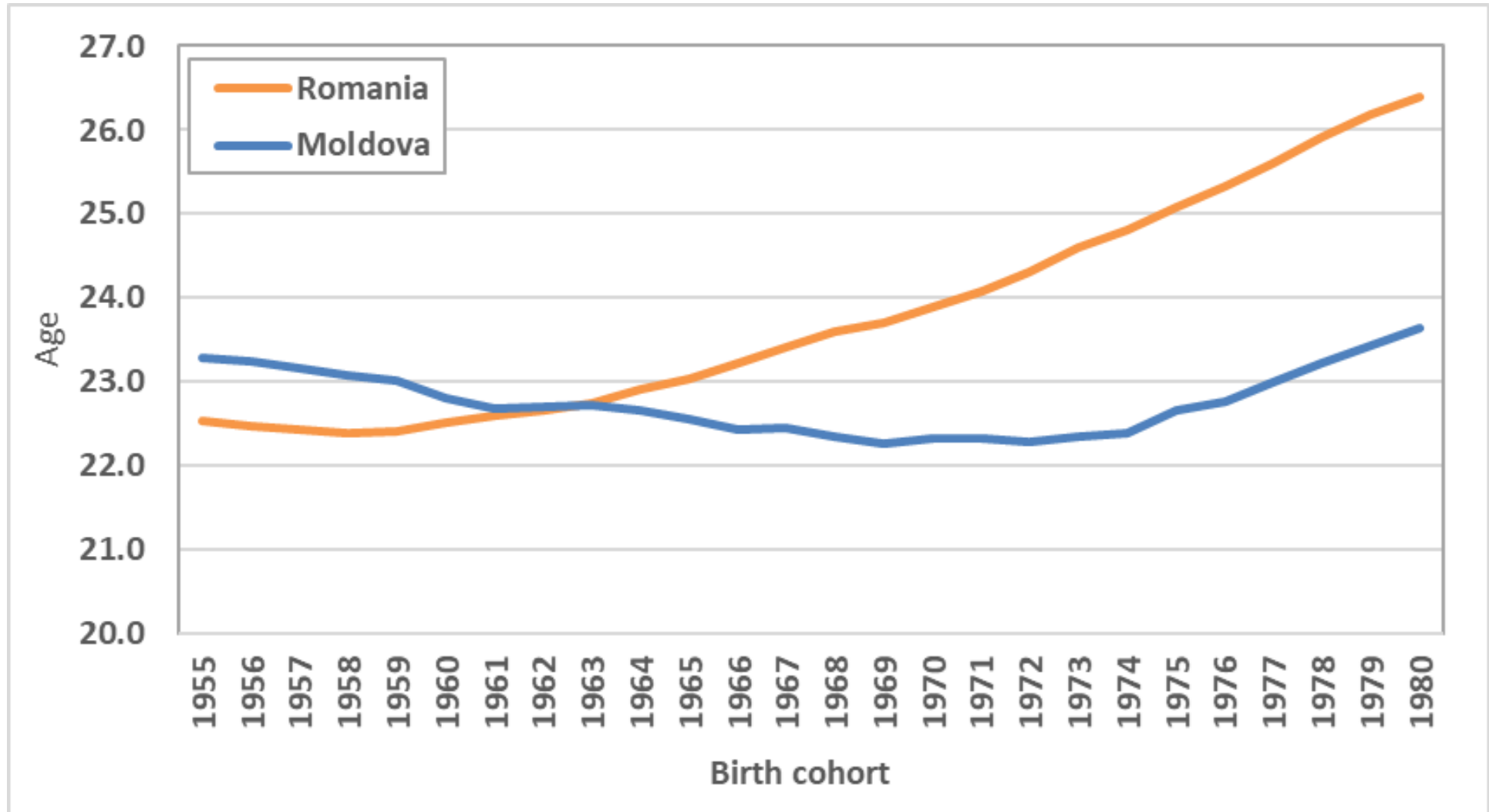
Period and Cohort Fertility Trends in Romania, 1948–2023: TFR, TFR_adjusted and CTFR



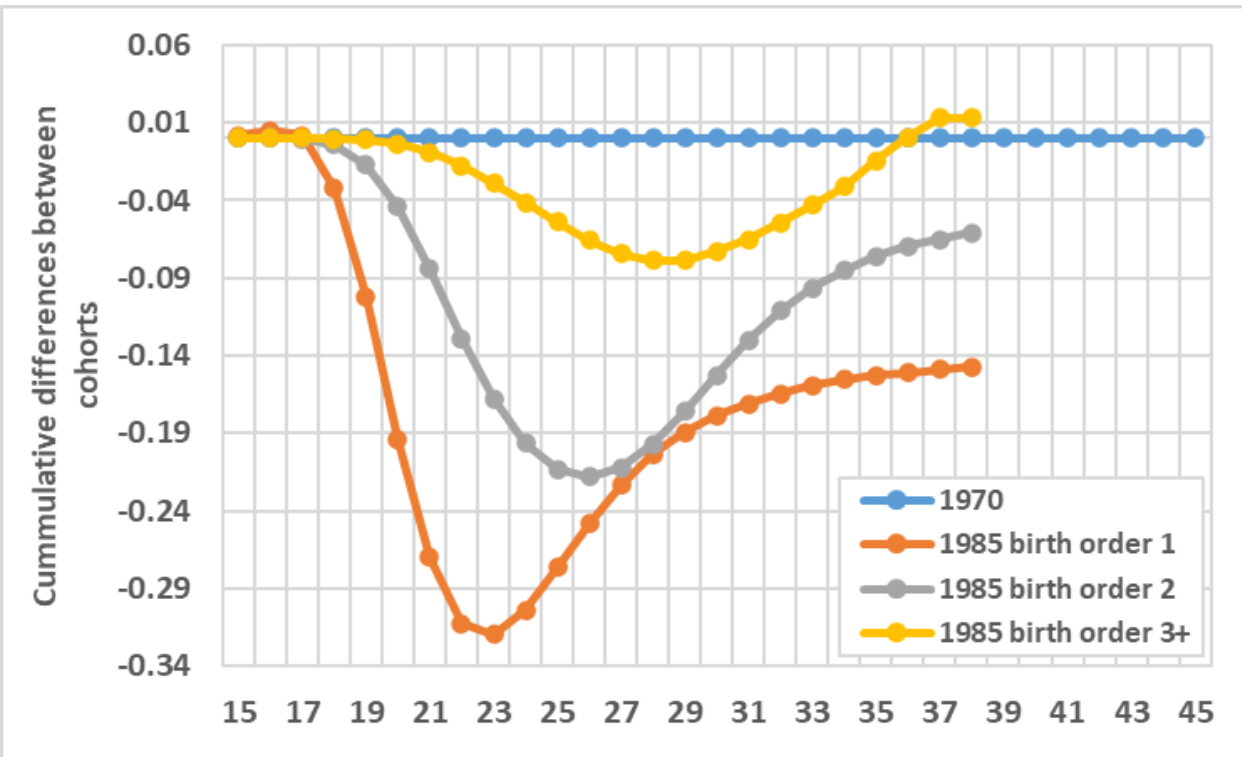
Period and Cohort Fertility Trends in Moldova, 1957–2023: TFR, TFR_adjusted and CTFR



Mean Age at first Birth among women born between 1955 and 1980



Cumulative differences by birth order between the cohorts of women born in 1985 compared to the reference cohort of 1970, Moldova, children per woman

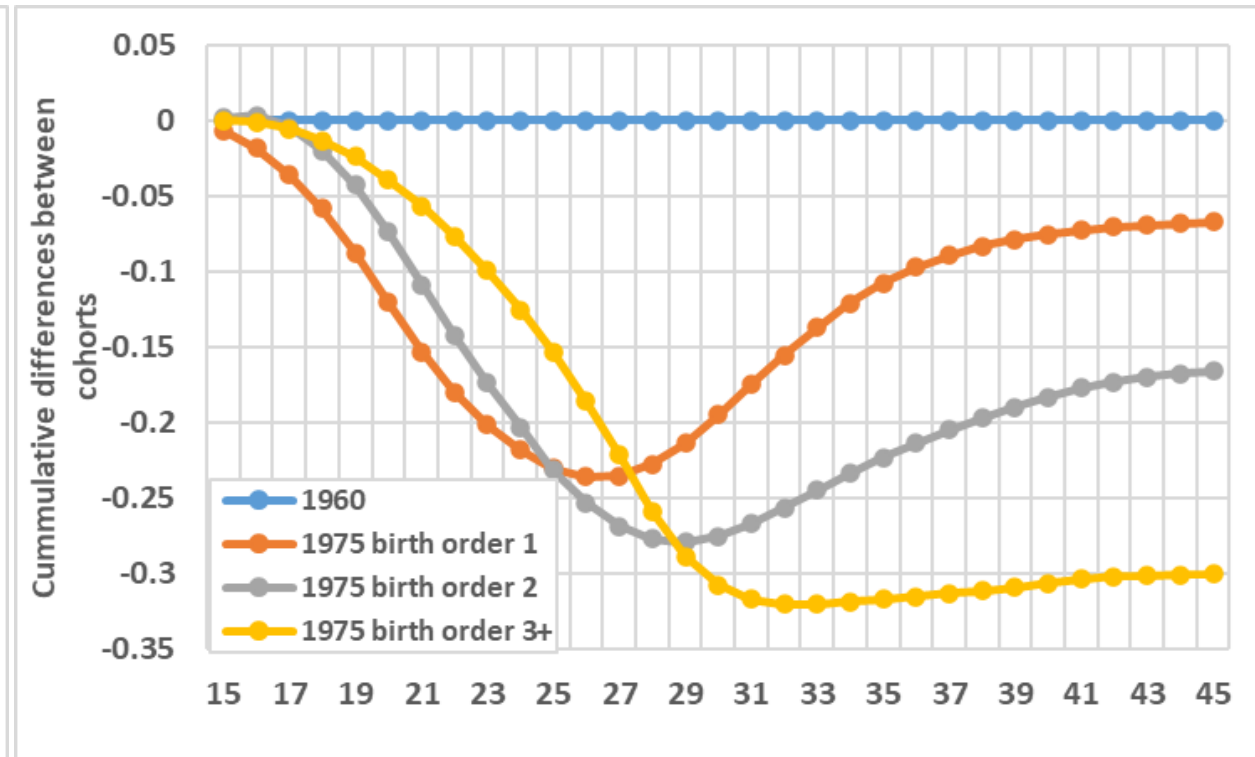


Birth Order 1 Maximum postponement (22–23): **-0.32** , Final difference: **-0.13**, indicating a recuperation of **+0.19** children , **RI1=59%**

Birth Order 2 Maximum postponement (26–27): **-0.21**, Final difference: **-0.06**, suggesting a recuperation of **+0.15** children , **RI2 =71%**

Birth Order 3+ Moderate early postponement **-0.07**, followed by full and even overcompensated recuperation **By age 37+**, the cumulative fertility difference turns positive **(+0.01)** **Indicates complete recovery** and slight increase in third and higher-order births

Cumulative differences by birth order between the cohorts of women born in 1975 compared to the reference cohort of 1960, Romania, children per woman

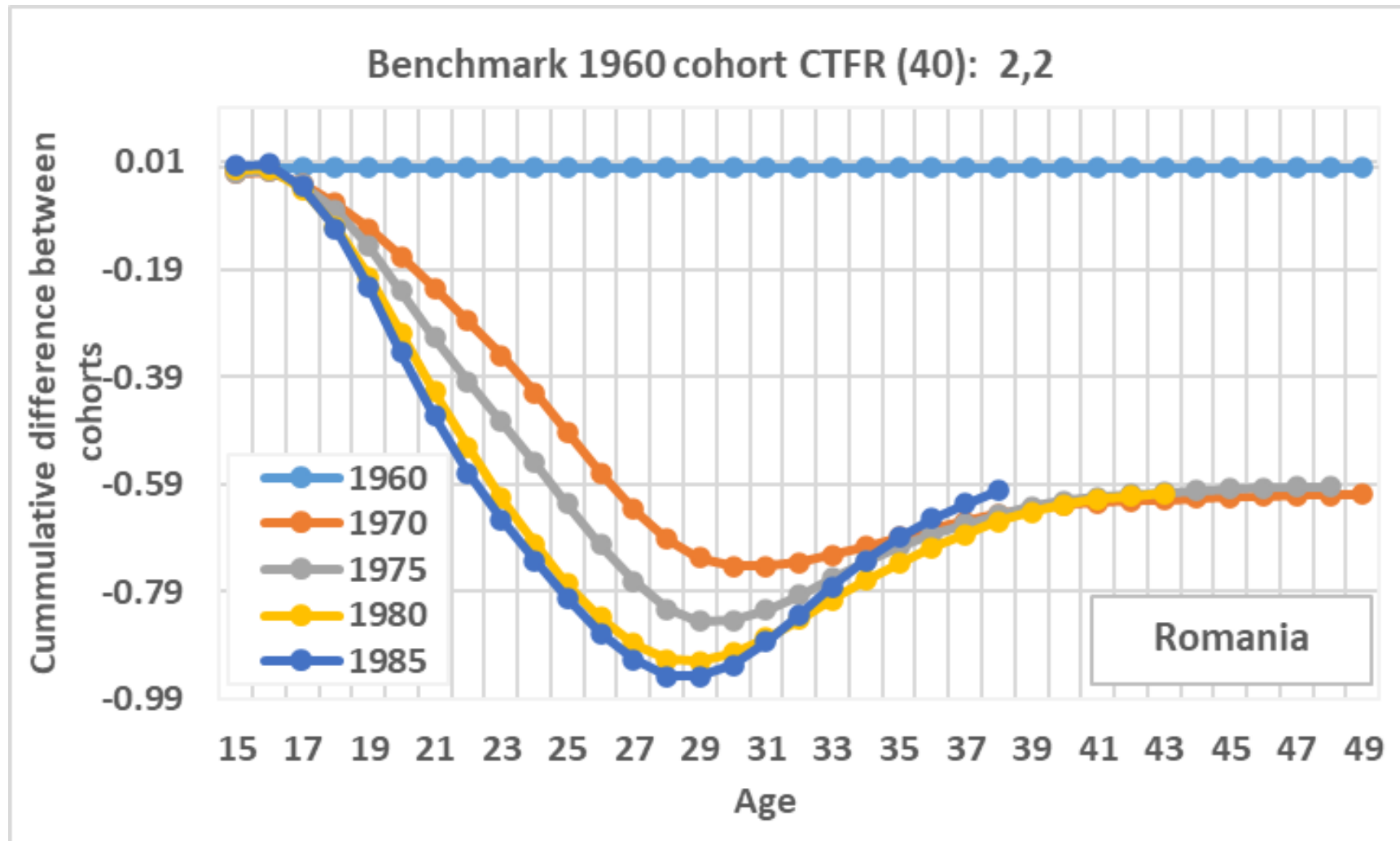


Birth Order 1 Maximum postponement (23 years): **-0.26**, Final difference (45): **-0.06**, meaning a recuperation of **+0.20** children, **RI1=77%**

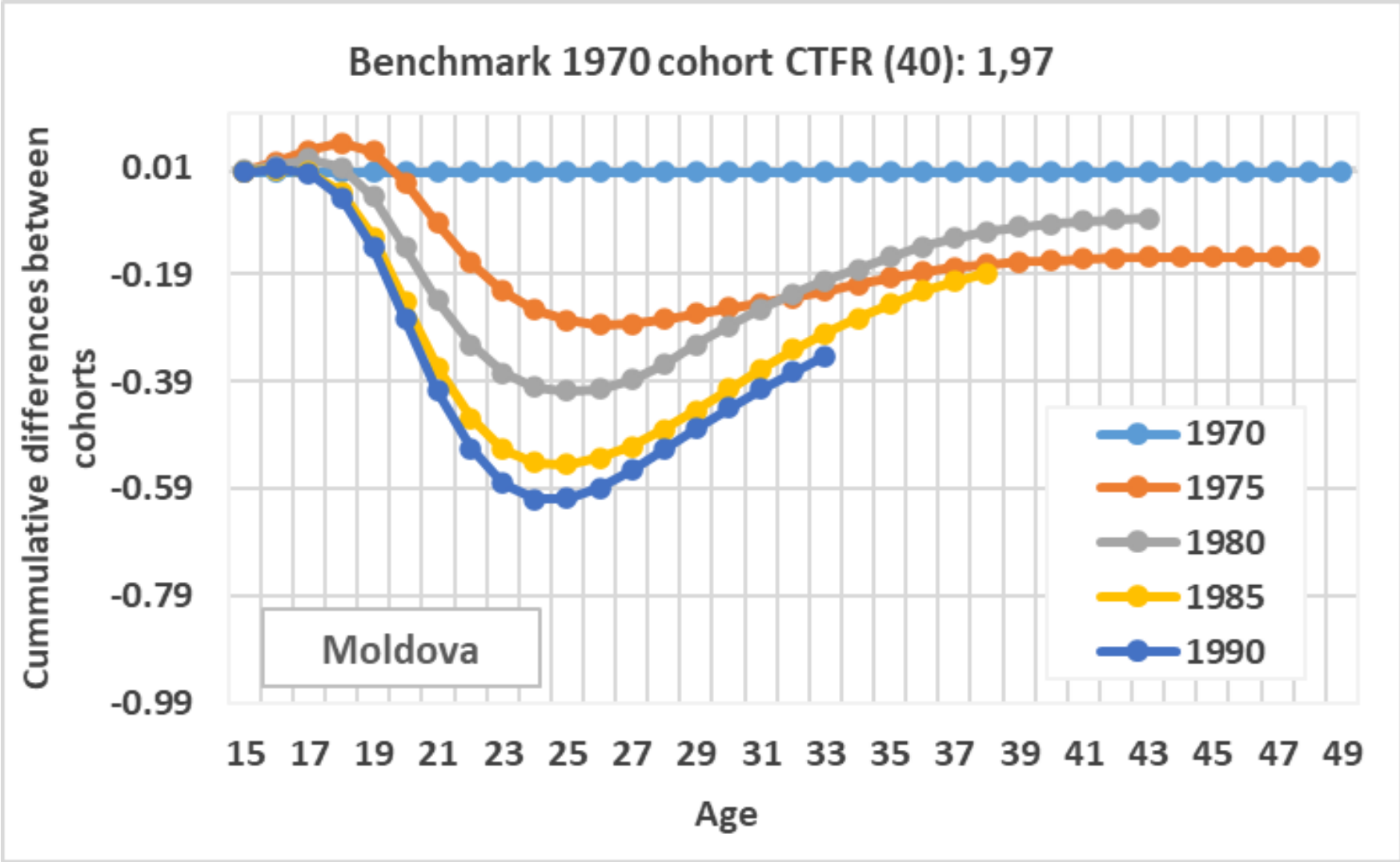
Birth Order 2 Maximum postponement (27 years): **-0.25**, Final difference: **-0.12**, indicating a recuperation of **+0.13** children, **RI2=52%**, **reflecting a partial recovery of second births**

Birth Order 3+ Maximum postponement (26 years) : **-0.31**, Final difference: **-0.30**, implying negligible recuperation (**+0.01**), **RI3=3%**, **showing virtually no recovery in higher-order births**

Differences in cumulative age-specific fertility rates, reference cohort 1960, Romania



Differences in cumulative age-specific fertility rates, reference cohort 1970, Moldova



Conclusions

1. Romania and Moldova follow different trajectories of the fertility transition, with Romania experiencing an earlier and more intense restructuring of reproductive behaviours (beginning with the 1960 cohort), while Moldova enters the postponed fertility regime later (with the 1970 cohort) and progresses more slowly.
2. In both countries, cohort patterns reveal a marked decline in fertility at younger ages and a shift of the fertility peak toward ages 25–30, confirming the emergence of a postponed fertility regime.
3. The observed differences reflect the influence of distinct socio-economic contexts and family policy frameworks, including the demographic legacy of the socialist period, the pace of post-1990 reforms, and the institutional support available to families in each country.

Conclusions

1. In Romania, recuperation is visible almost exclusively for the first two birth orders and remains partial; in Moldova, recuperation occurs across all birth orders, indicating a more pronounced reproductive pattern among larger families.
2. The comparative evidence underscores the importance of parity-specific analyses and highlights the need for country-tailored demographic policies that reflect the unique social and reproductive contexts of each population.
3. Fertility transition in both countries reflects not only demographic dynamics but also significant social transformations, emphasizing the need for public policies tailored to the specific demographic patterns of each country.

Fertility in Romania and Moldova: Exploring the Dynamics, Determinants and Policy Impact (FERM) 2024-2026

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Thank you for your attention!