

Length of Stay in Institutionalised Long-Term Care in Germany 1999-2007

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Mortality and Morbidity Trends in Germany and Eastern Europe

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Background

- While long-term care represents a form of disability (disability in activities of daily living - ADL), *institutionalised* LTC has a somewhat different meaning
- Institutionalised LTC means ADL-disability *plus* overstrained personal circumstances
- So don't simplify institutionalised long-term care as an epidemiological issue. Partly, it's a social one.

- In most cases the decision to enter a nursing home is not the individual's first choice
- Predictors: single household, low income, severity of care need, dementia ... (see SCHNEEKLOTH 2009)

- From a „welfare economics“ point of view ILTC is a highly expensive type of care
- Politicians, Economists, and Public Health professionals demand facts and figures about care utilisation

- The long-term care insurance was introduced in 1995 – covering at least 97% of the German population
- Its main feature: Eligibility exclusively depends on care need (= is independent of socioeconomic status, age ...)
- Eligibility is limited to long-standing conditions (at least 6 months), but includes people with shorter life span due to terminal illness

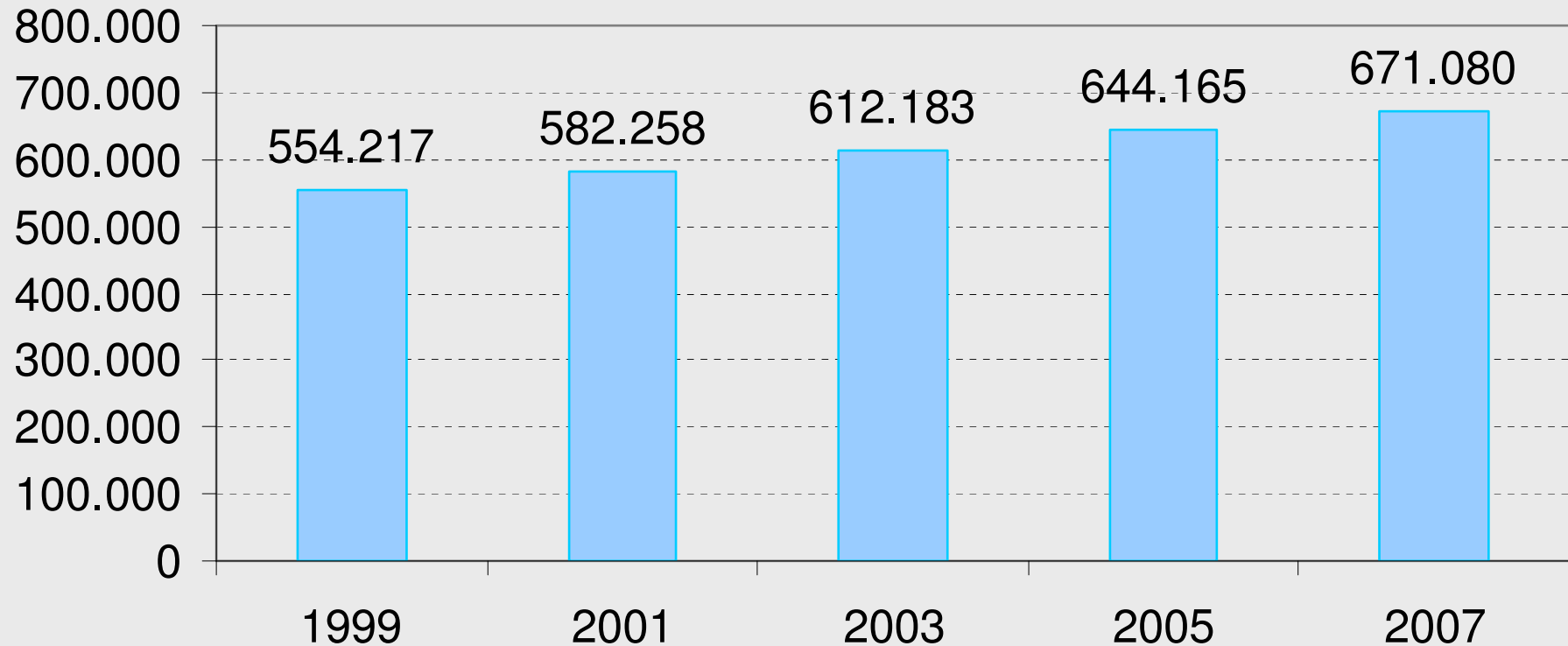
- Residents of nursing homes have been eligible for benefits from the long-term care insurance since 1996
- The long-term care insurance provides data suitable for monitoring purposes, which is what my paper deals with

Data

- Data source is the official Pflegestatistik
- Background: In 1999 the long-term care insurance became an issue of the official statistics. Every two years a report on benefit recipients is required by law.
- This data source offers a useful time series from 1999 to 2007. By 1999 introduction effects no longer influenced the data. The eligibility criteria were stable

- This paper refers to people in permanent ILTC (“vollstationäre Dauerpflege”; i.e. not to recipients of cash benefits, professional care at home nor to institutionalised day care, night care, short-time care)

Institutionalised long-term care "vollstationäre Dauerpflege"



Data source: Pflegestatistik

- The Pflegestatistik offers numbers of cases broken down by age, sex, region, severity, and type of care
- The data are available as aggregates or as microdata
- Unfortunately, it is a completely cross-sectional database

- No information about incidence of care need, duration, progression, remission or death
- The little longitudinal knowledge which exists comes from specific data sources like GEK insurance (see ROTHGANG/BORCHERT).

- The Socio-economic Panel Study SOEP (Unger, Ziegler/Doblhammer) does not fully answer the length-of-stay question. It applies other criteria to identify care need. SOEP excludes institutionalised persons

Methods

- There is one way to extract length-of-stay information from cross-sectional data: Sullivan's method to compute healthy life expectancy
- It splits up life expectancy into one part „in“ and one part „out of“ a certain condition.
- Life expectancy „in“ this condition works as a measure of time, a quasi length-of-stay (see SCHOLZ/SCHULZ 2008)

Procedure

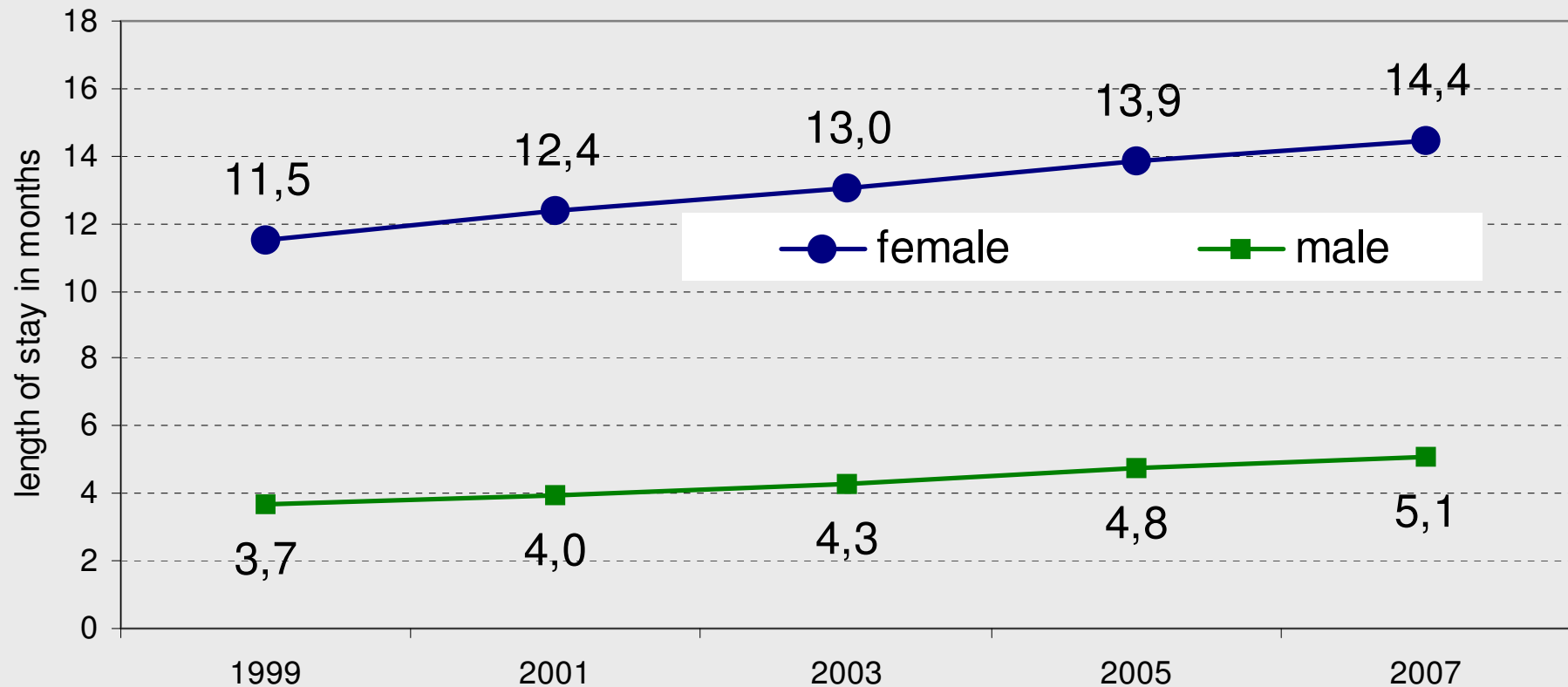
1. Calculate age-specific prevalence of ILTC
2. Combine prevalence with a life table
(* .xls) → Sullivan's method
3. The result is life expectancy „out of“ ILTC
4. $LE - (LE \text{ out of ILTC}) = \text{length-of-stay in ILTC}$

(See Excel sheets via reves.net)

Results

- In terms of LE at birth, every woman in Germany 2007 experiences 14 months in institutionalised long-term care, every man 5 months
- Women stay 9 months longer than men. Since 1999 this gap has not narrowed.
- Since 1999 the length of stay has steadily increased.

Length of stay in institutionalised long-term care in Germany (as a component of LE at birth)



Data source: Pflegestatistik, Bevölkerungsstatistik

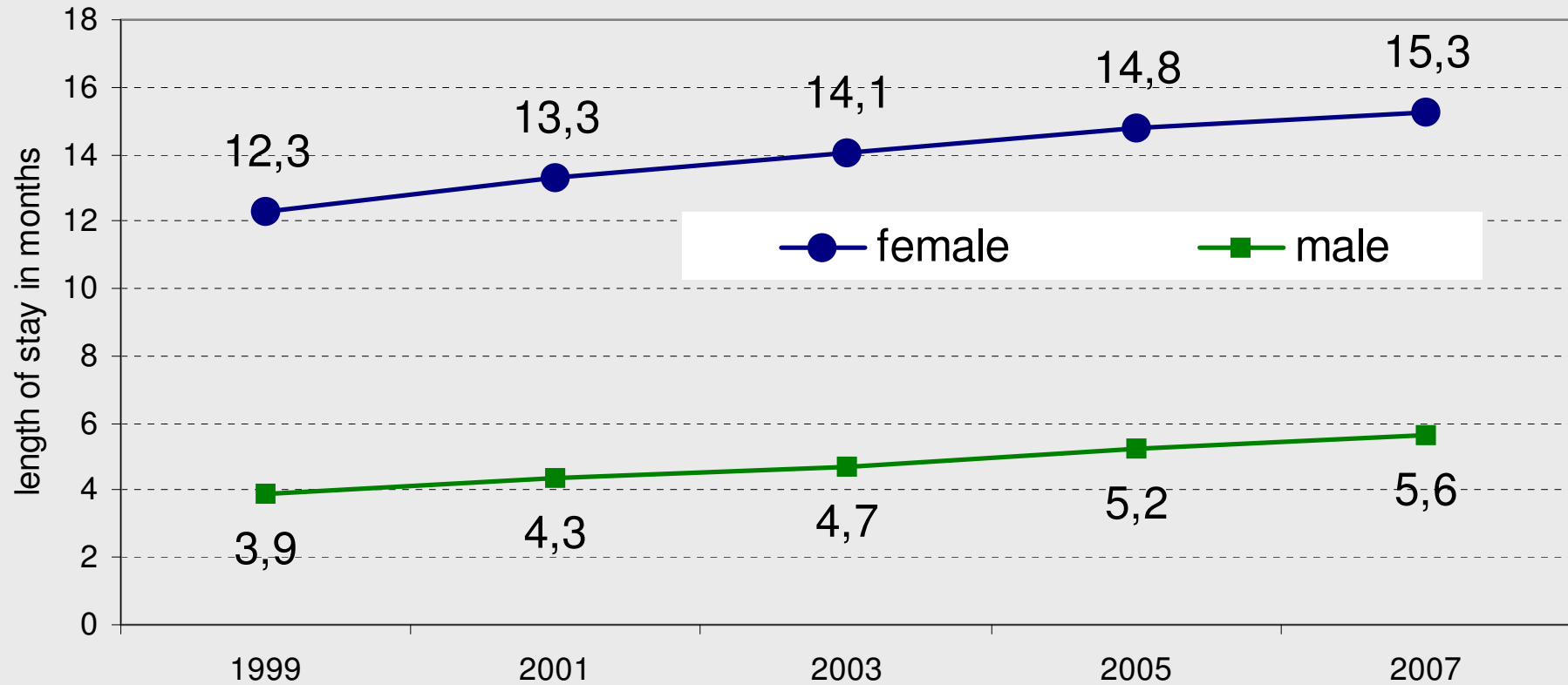
Method: Sullivan

Calculations based on xls-spreadsheets by Scholz/Annuß

Data provision through research data centres

Values for 2007 are preliminary (to be fixed in December 09)

Length of stay in institutionalised long-term care (as a component of conditional LE at age 60)



Data source: Pflegestatistik, Bevölkerungsstatistik

Method: Sullivan

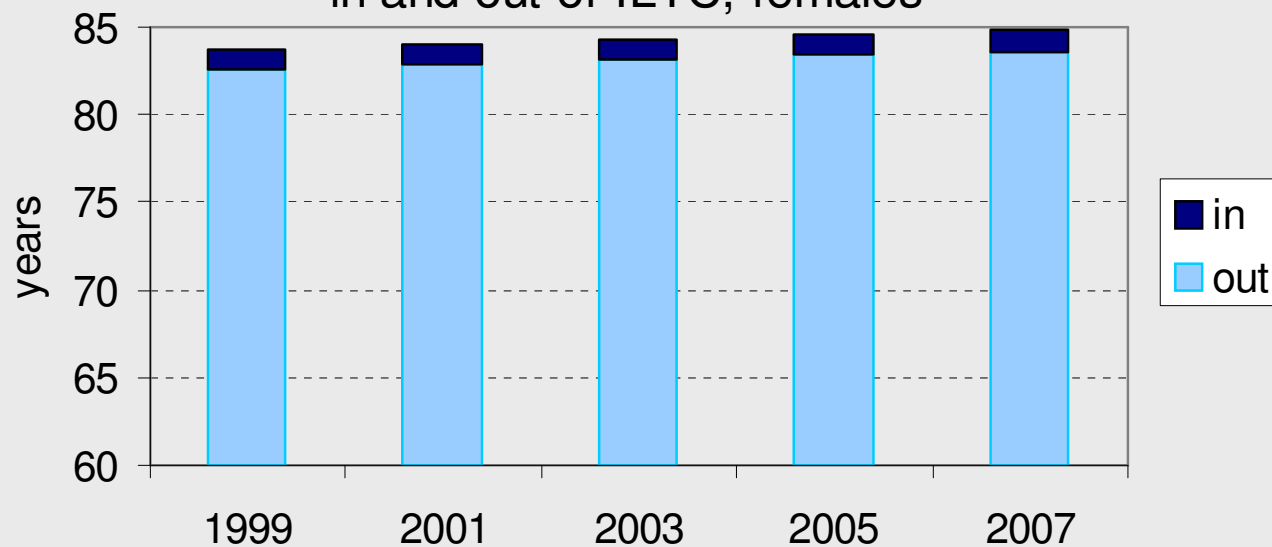
Calculations based on xls-spreadsheets by REVES

Data provision through research data centres

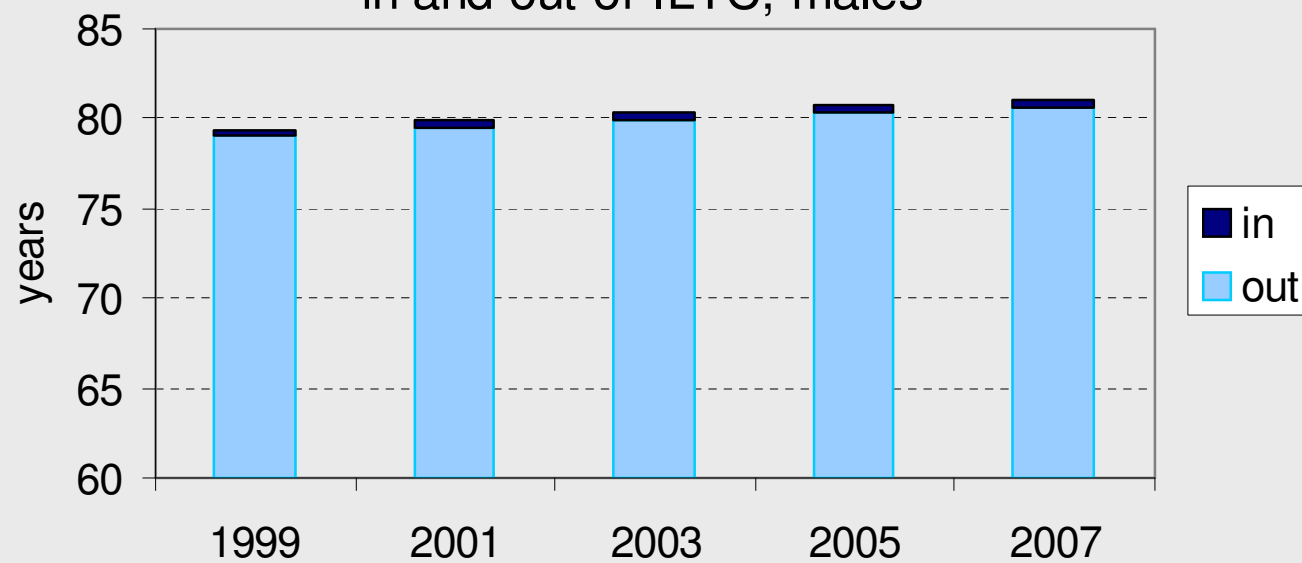
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- Still, ILTC is a small part of overall LE at birth (women: less than 2%, men: less than 1%). However, ILTC's share of overall LE has steadily increased 1999-2007
- The same at age 60: ILTC is a relatively small part of overall LE (women: 5%, men: 2%); steady increase

Conditional life expectancy at age 60
in and out of ILTC, females



Conditional life expectancy at age 60
in and out of ILTC, males



If we suppose that ILTC is the end-stage of life we can conclude:

- From 1999 to 2007 the onset of ILTC was delayed by 15 months (woman) and 25 months (men)

LE in and out of ILTC (years)

Age 0		1999	2007
LE	female	80,93	82,44
	male	74,92	77,15
LE in ILTC	female	0,96	1,20
	male	0,31	0,43
LE out of ILTC	female	79,97	81,24
	male	74,62	76,72

Age 60		1999	2007
LE	female	23,66	24,82
	male	19,39	21,11
LE in ILTC	female	1,03	1,27
	male	0,33	0,47
LE out of ILTC	female	22,63	23,54
	male	19,06	20,64

Data source: Pflegestatistik, Bevölkerungsstatistik
 Method: Sullivan

Calculations based on xls-spreadsheets by Scholz/Annuß and REVES
 Data provision through research data centres (FDZ des Bundes und der Länder)
 Values for 2007 are preliminary (to be fixed in December 09)

Limitations

- The care insurance does not cover 100% of the population. Therefore the reference to population statistics is not perfectly adequate
- The population statistics overtaxes the (old male) population and underrates the mortality. The accuracy of LE calculations is affected.

- Care recipients in other institutions than nursing homes (namely 72.000 people in facilities run by disability services*) are not included
- Long-term care refers to long-standing and/or terminal conditions. These data are (at least partly) left-censored

* Einrichtungen der Behindertenhilfe

Discussion

- The main findings of this paper – limited as they are – seem to contradict SVR 2009
- (SVR - Sachverständigenrat zur Begutachtung der Entwicklung im Gesundheitswesen - is a group of health system experts. Their biennial reports enjoy high appreciation.)

The SVR put forward the following ideas about ILTC:

- The mean length of stay seems to decrease. (Nevertheless an increasing ILTC demand is expected in the future)
- Nursing homes are becoming places where people die rather than places where people live. Nowadays people leave hospitals to die in nursing homes

Increase? Decrease?

- The puzzle is incomplete
- The approaches are very different. SVR looks on the persons in ILTC, but this paper looks on all people
- The SVR do not explain data and method, they tell experts' opinions

- We need better data, ideally: routine data in longitudinal design
- A length of stay information from cross-sectional data is generally dubious.
(Wrong idea: to ask at one point of time „How long have you been here“ and calculate the average length of stay then. This mean will be distorted.)

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*Forschungsdatenzentren der Statistischen Ämter des Bundes und der Länder

Thank you for your attention

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