



**WSI**

Institute of Economic and  
Social Research

The WSI is an institute of  
the Hans-Böckler-Stiftung

# DEMOGRAPHIC TRANSITIONS: THE ROLE OF THE LABOUR MARKET

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ETUI-ETUC Conference:  
The world(s) of work in transition

Panel 4 - Employment forecasts and the  
digital, green and demographic transitions

Brussels, 27 June 2018

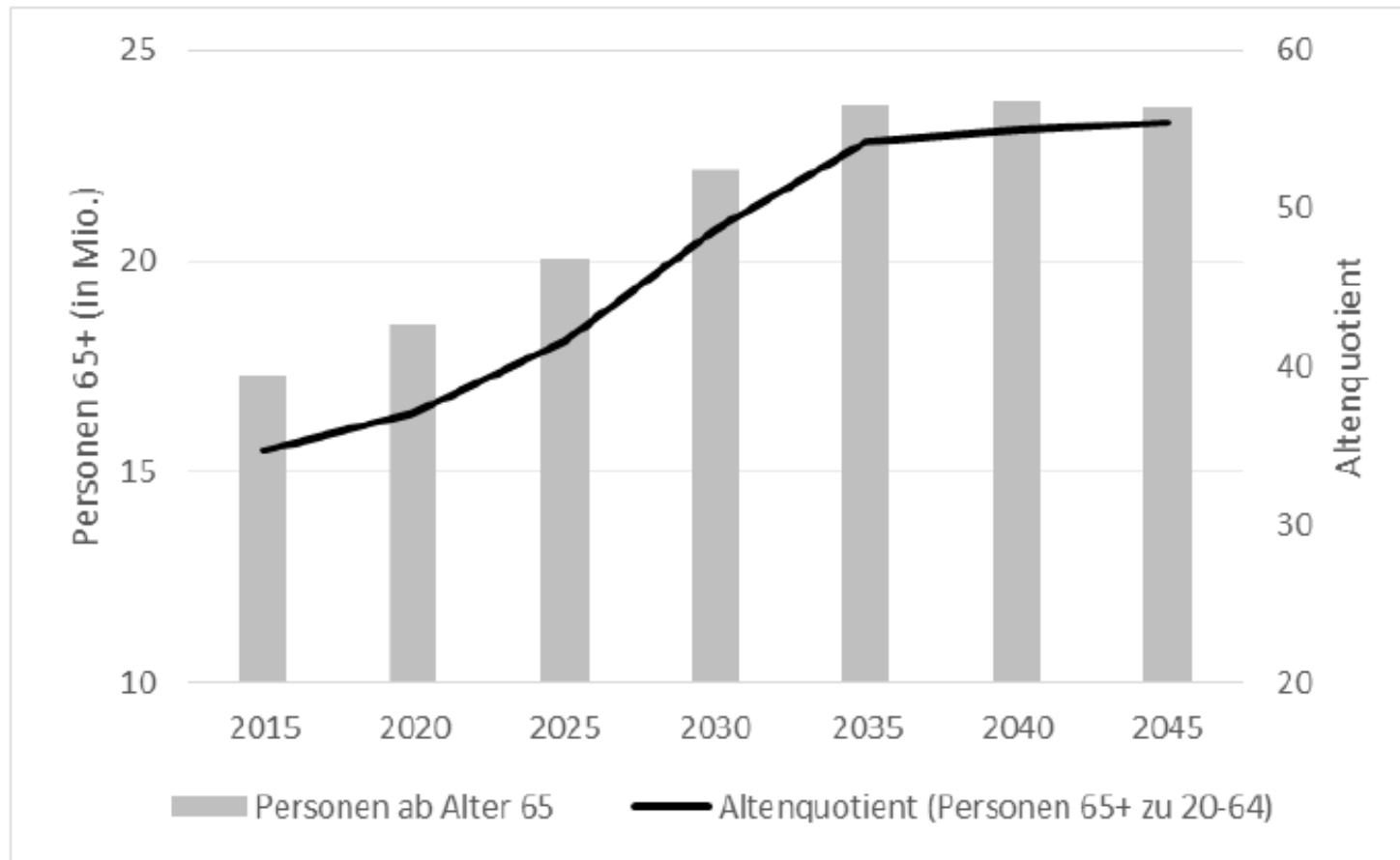
Dr. Florian Blank

# Introduction

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- Recurring debates in Germany on sustainability of social insurance systems, especially pension insurance: Sustainability is questioned due to demographic change
- Line of argument:  
More old persons + less young persons =  
more benefits (in sum) + less contributions/tax revenues (in sum)
- Solutions: lower benefits, higher contributions, higher pension age and/or more migration
- Is this all there is?

# Demographic transition: A typical example

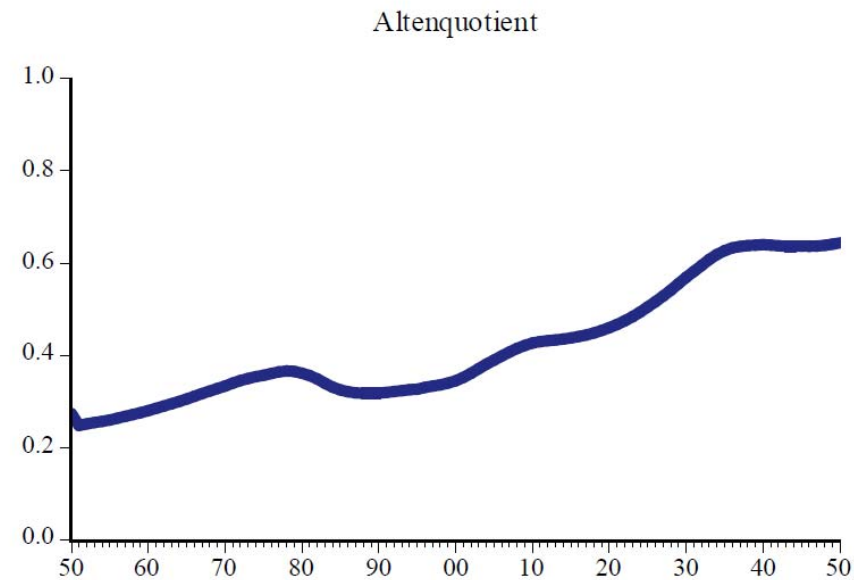


German Federal Ministry of Labour  
and Social Affairs (2016: 27)

# Demographic transition: Another example

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Abbildung 1: Alterung der Bevölkerung in Deutschland 1950 bis 2050



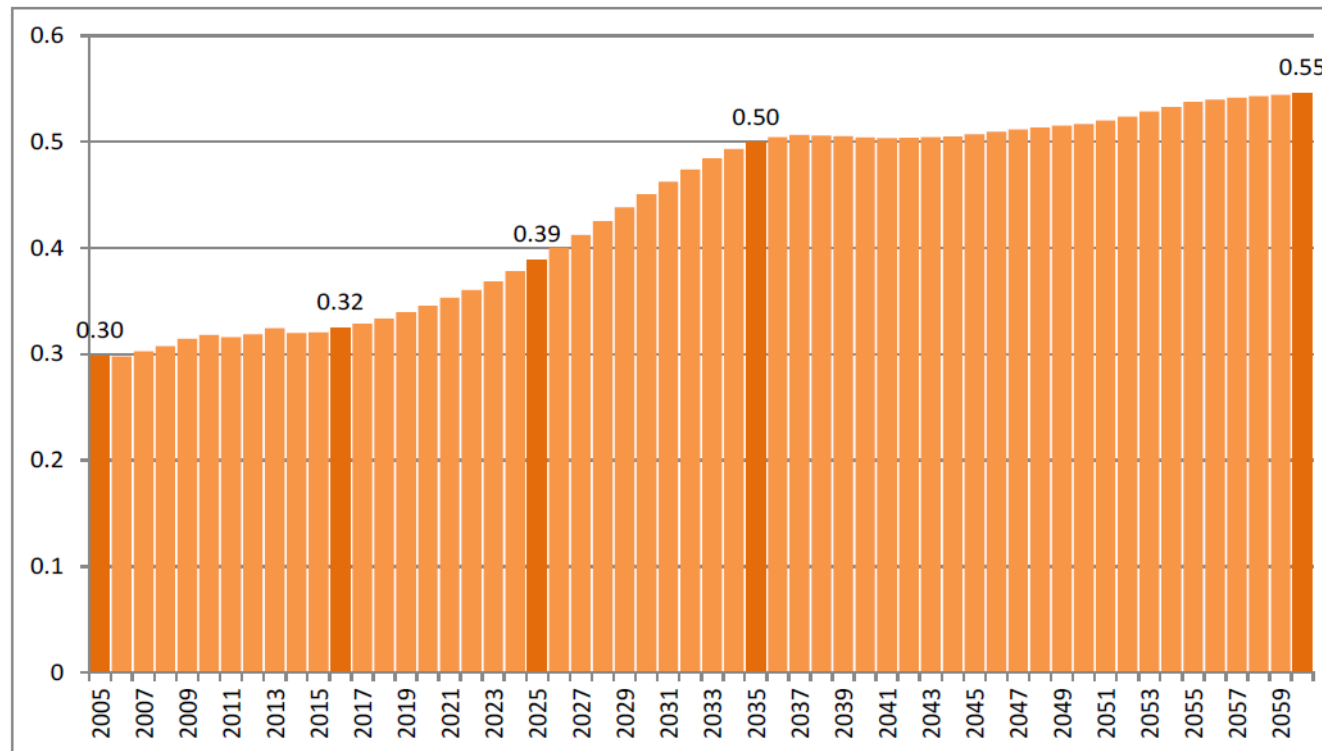
*Anmerkung:* Der Altenquotient ist der Quotient der über 65-Jährigen zu den 16 bis 65-Jährigen.

*Quellen:* Statistisches Bundesamt, eigene Berechnungen und Darstellung.

Holtemöller et al. 2018: 3

# Demographic transition: Just one more example

Abbildung 3: Anstieg des Altersquotienten 2005-2060



Quelle: Eigene Berechnung mit den gleichen Annahmen wie die 13. Bevölkerungsvorausberechnung des Statistischen Bundesamtes; Netto-Migration 200.000, Fertilität 1,5 und Lebenserwartung in 2060 84,77/88,8.

Börsch-Supan/Rausch 2018: 6

# Demographic change: What really matters

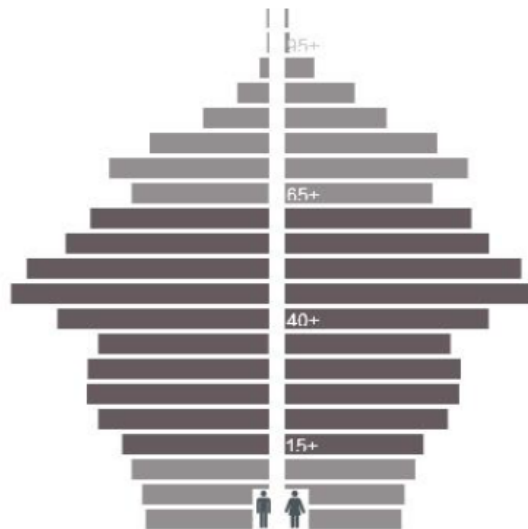
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1. With respect to social policy and social insurance systems, the central relation is not old/young but beneficiaries/contributors
  2. What is needed is an analysis of labour market performance and potential developments
  3. Starting point Germany 2013
    - Demographic dependency ratio: **32%**
    - Economic dependency ratio: **56%**
- In the following analysis: economically dependent persons = recipients of public transfers (pensions, unemployment benefits)

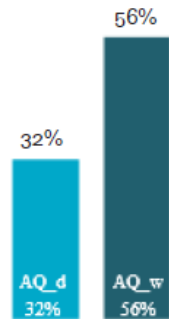
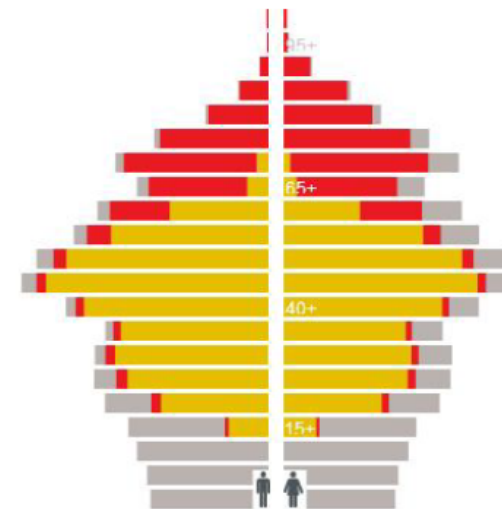
# Demographic change: What really matters

## Age structure and economic status 2013

2013 Germany  
Age structure



2013 Germany  
Age structure and economic status



Employed persons  
AQ\_d: demographic dependency ratio

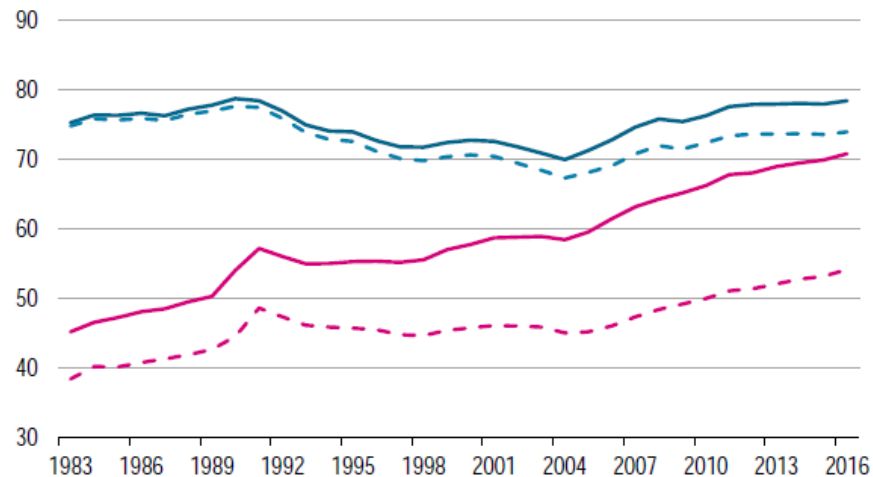
Retirees and unemployed  
AQ\_w: economic dependency ratio

Other

Quellen: The 2015 Ageing Report (EK); eigene Berechnungen.

# Analysis of the labour market

**Employment ratio and employment ratio adjusted for working hours, m/f**  
(15-64-year olds, percent)



- Employment ratio (15-64), mem
- Employment ratio adjusted for working hours (15-64), men
- Employment ratio (15-64), mem
- Employment ratio adjusted for working hours (15-64), men

Quellen: Eurostat (LFS: lfsa\_pgaed, lfsa\_epgaed, lfsa\_ewhuna);  
eigene Berechnungen.



Groups with comparatively low labour market integration:

- Women
- Migrants
- Older employees



## What we did

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- Adjusted the LFS data
  - LFS treats persons with 1 hour/week paid employment as employed: overestimation of employment → adjustment (= 5.3 million persons)
  - Also: adjustment of unemployment (underemployment in a narrow sense)  
→ Potential of 7 million persons!
- Used a high-employment scenario (Sweden)
- Compared different projections of the demographic development (Eurostat)

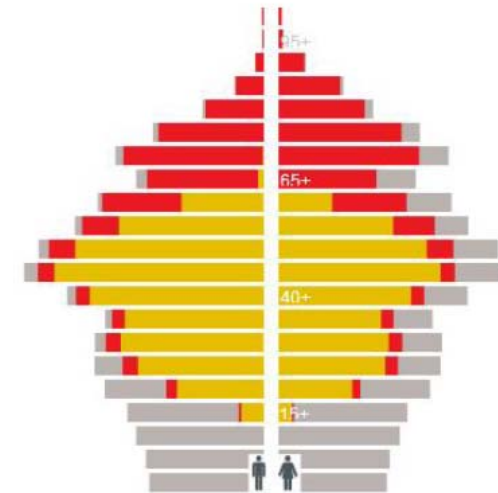
# Status quo: A more realistic picture

## Economic status 2013, LFS and adjustment

2013 Germany  
Economic status (LFS)



2013 Germany  
Economic status (adjusted data)



Employed persons  
AQ\_d: demographic dependency ratio

Retirees and unemployed (narrow/wider sense)  
AQ\_w: economic dependency ratio

Other

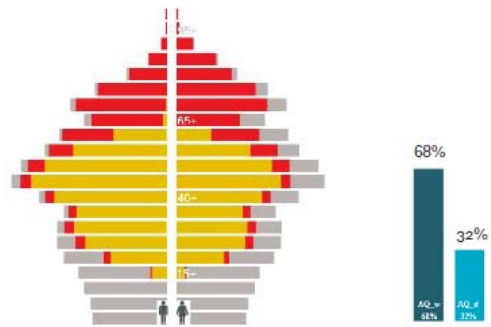
Quellen: The 2015 Ageing Report (EK); Sonderauswertungen der Bundesagentur für Arbeit (2017); eigene Berechnungen.



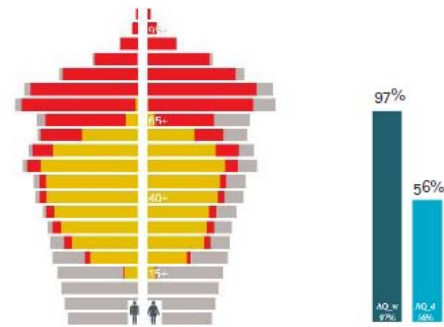
# Future development

## Ökonomischer Status: Standard Szenario 2040/60 (mit pessimistischer Bevölkerungsprognose, angepasste Daten)

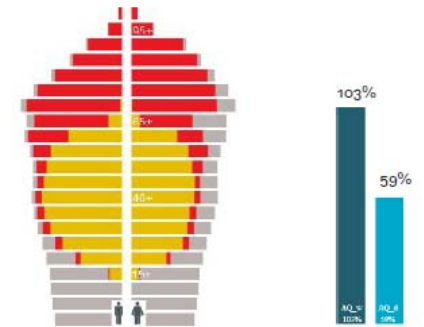
2013 Deutschland



2040 Deutschland



2060 Deutschland



Erwerbstätige  
AQ\_d: demografische Abhängigkeitsquote

Rentner, Rentnerinnen und Beschäftigungslose  
AQ\_w: ökonomische Abhängigkeitsquote

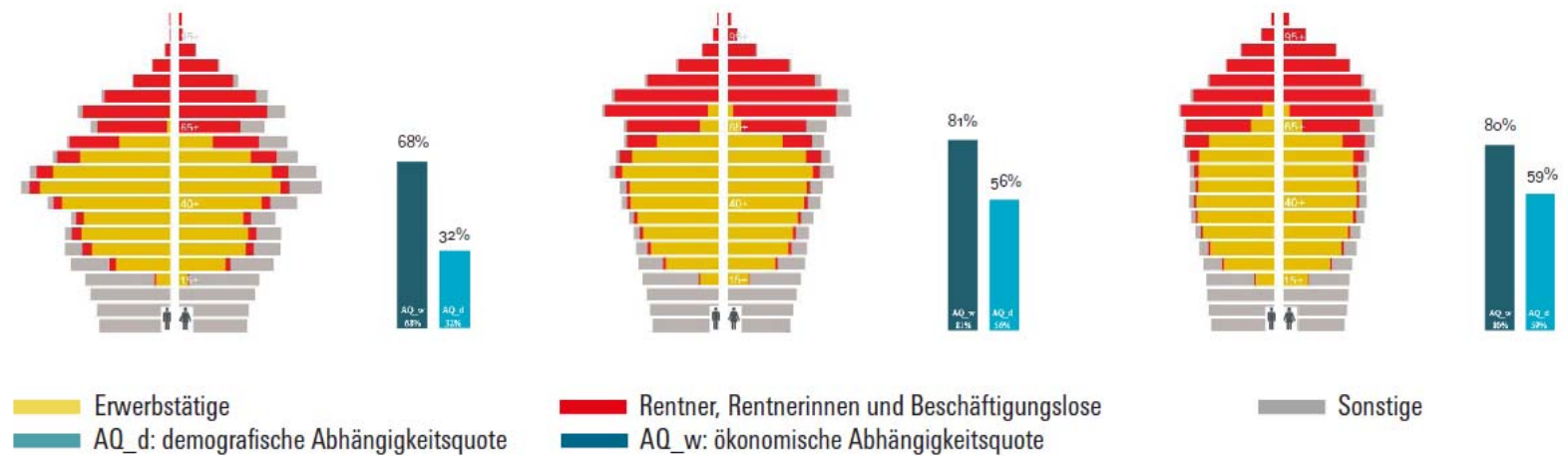
Sonstige

Quellen: The 2015 Ageing Report (EK); Sonderauswertungen der Bundesagentur für Arbeit (2017); eigene Berechnungen.



# What if?

Ökonomischer Status: High Employment Szenario 2040/60 (mit pessimistischer Bevölkerungsprognose, angepasste Daten)  
 2013 Deutschland      2040 Deutschland      2060 Deutschland



Quellen: The 2015 Ageing Report (EK); Sonderauswertungen der Bundesagentur für Arbeit (2017); eigene Berechnungen.



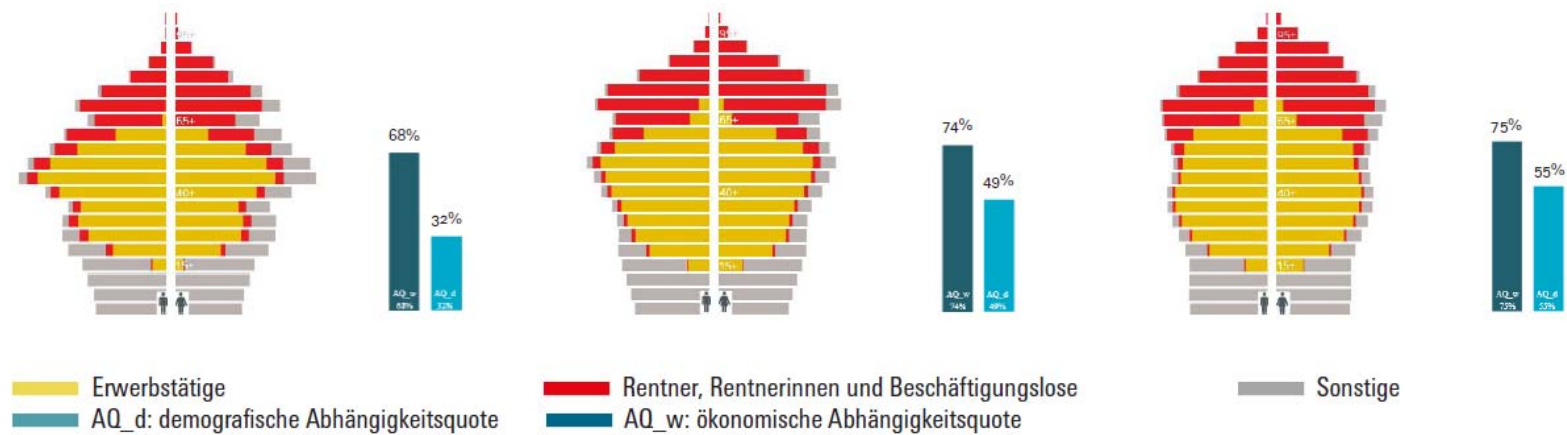
# What if?

## Ökonomischer Status: High Employment Szenario 2040/60 (mit optimistischerer Bevölkerungsprognose, angepasste Daten)

2013 Deutschland

2040 Deutschland

2060 Deutschland



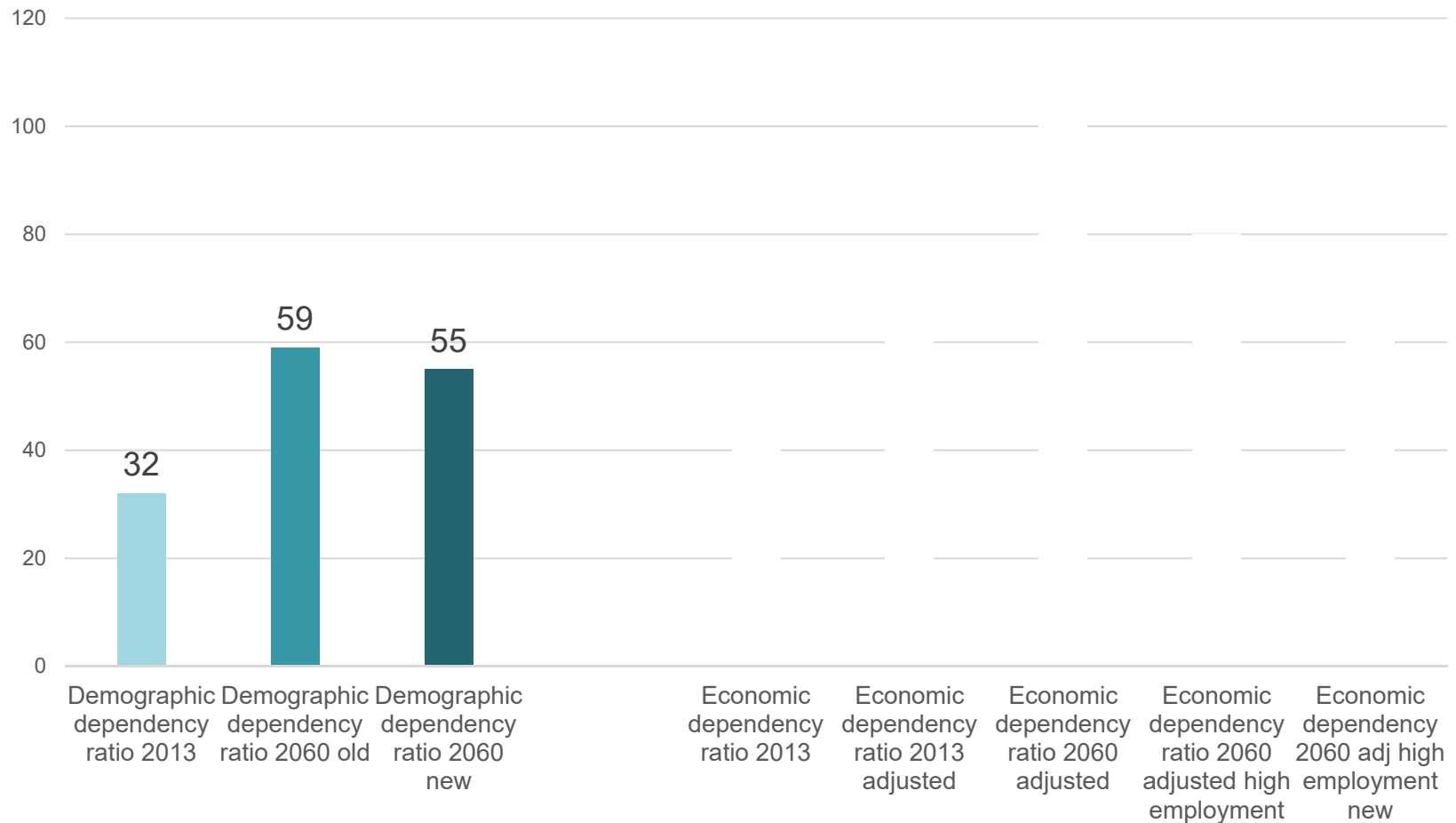
Quellen: Eurostat 2017; The 2015 Ageing Report (EK); Sonderauswertungen der Bundesagentur für Arbeit (2017); eigene Berechnungen.



# What can happen?

## Dependency ratios 2013-2060

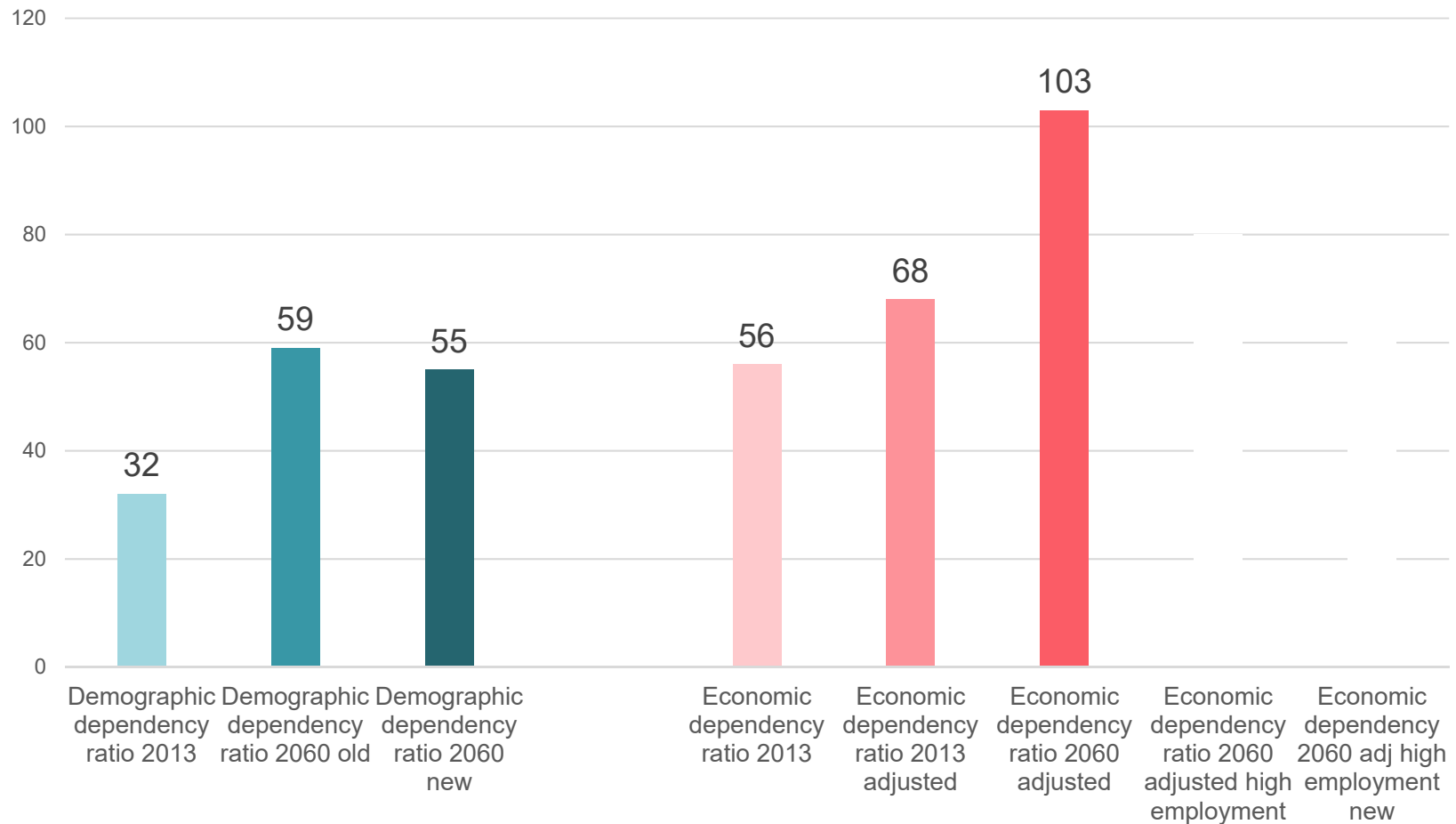
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# What can happen?

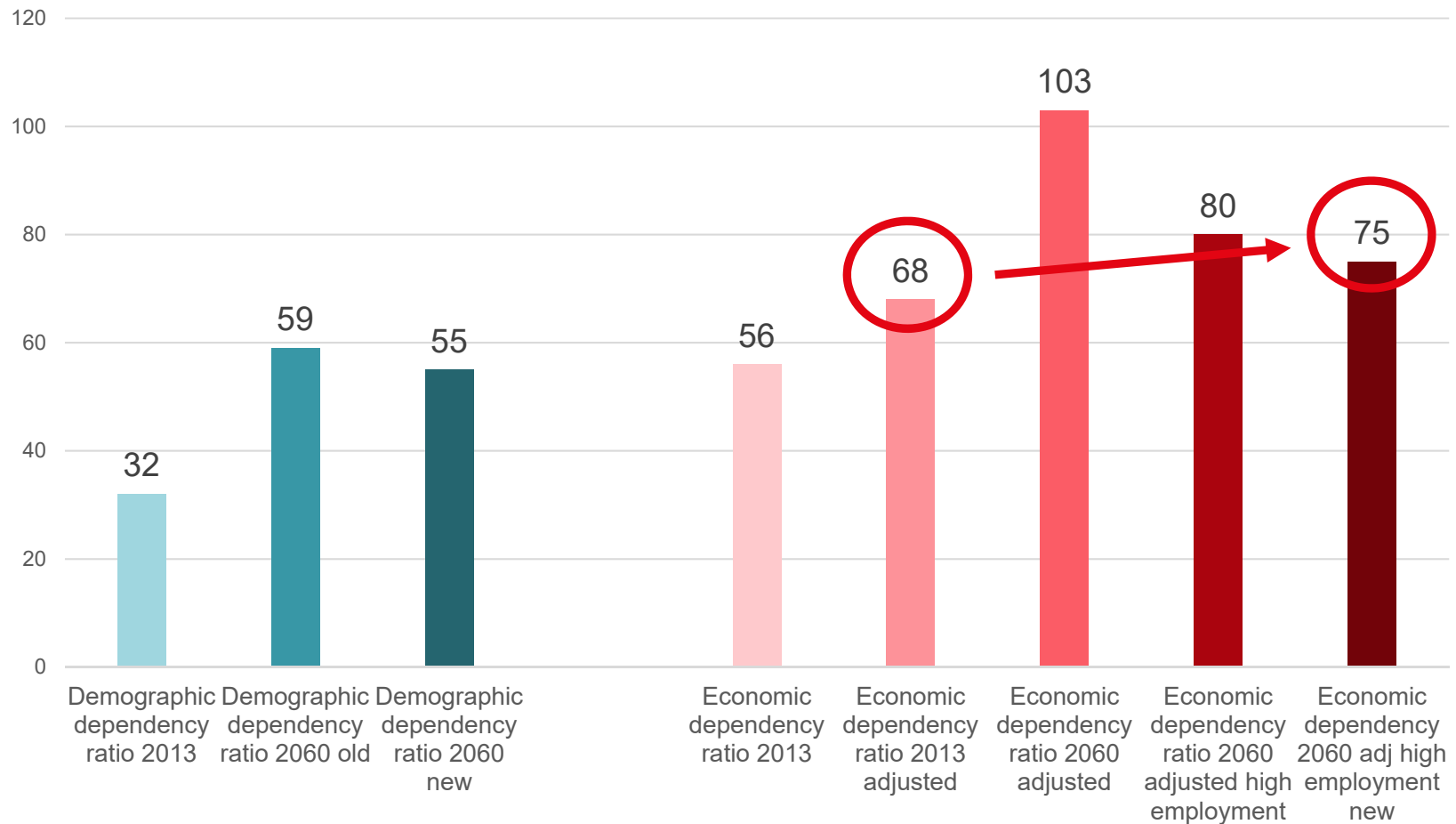
## Dependency ratios 2013-2060

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# What can happen?

## Dependency ratios 2013-2060

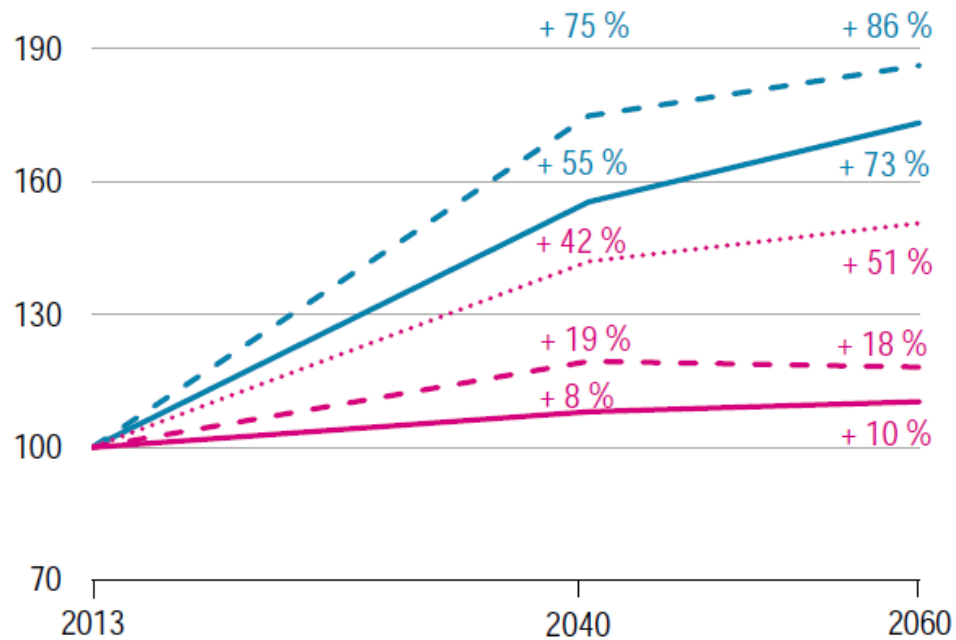




# What can happen?

## Dependency ratios 2013-2060

**Demographic vs economic dependency ratios**  
2040/2060 compared to 2013



- Demographic dependency ratio (pessimistic demographic projection)
- Demographic dependency ratio (optimistic demographic projection)
- ..... Economic dependency ratio standard scenario (pessimistic demographic projection)
- - - Economic dependency ratio high employment scenario (pessimistic demographic projection)
- Economic dependency ratio high employment scenario (optimistic demographic projection)

Quellen: Eurostat 2018a; The 2015 Ageing Report (EK); Sonderauswertungen der Bundesagentur für Arbeit (2017); eigene Berechnungen.



# Consequences

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- If analyses of demographic change are reduced to changes of demographic dependency ratios alone the solution is often an increase of the retirement age
- But: Economic dependency ratios are more relevant for policy-making and help to understand the most important option for politics: labour market policies!
- Demographic change can be dealt with if high labour market participation can be achieved – demographic transitions are not a force of nature but a political project!

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# THANKS!

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