

FORECASTS OF EMPLOYMENT NEEDS IN THE CYPRUS ECONOMY

Data issues with small samples of Labour Force Survey



Investing in People!

Employment Forecasts

➤ Forecasts are provided for:

- Employment
- Expansion Demand
- Replacement Demand
- Total Demand

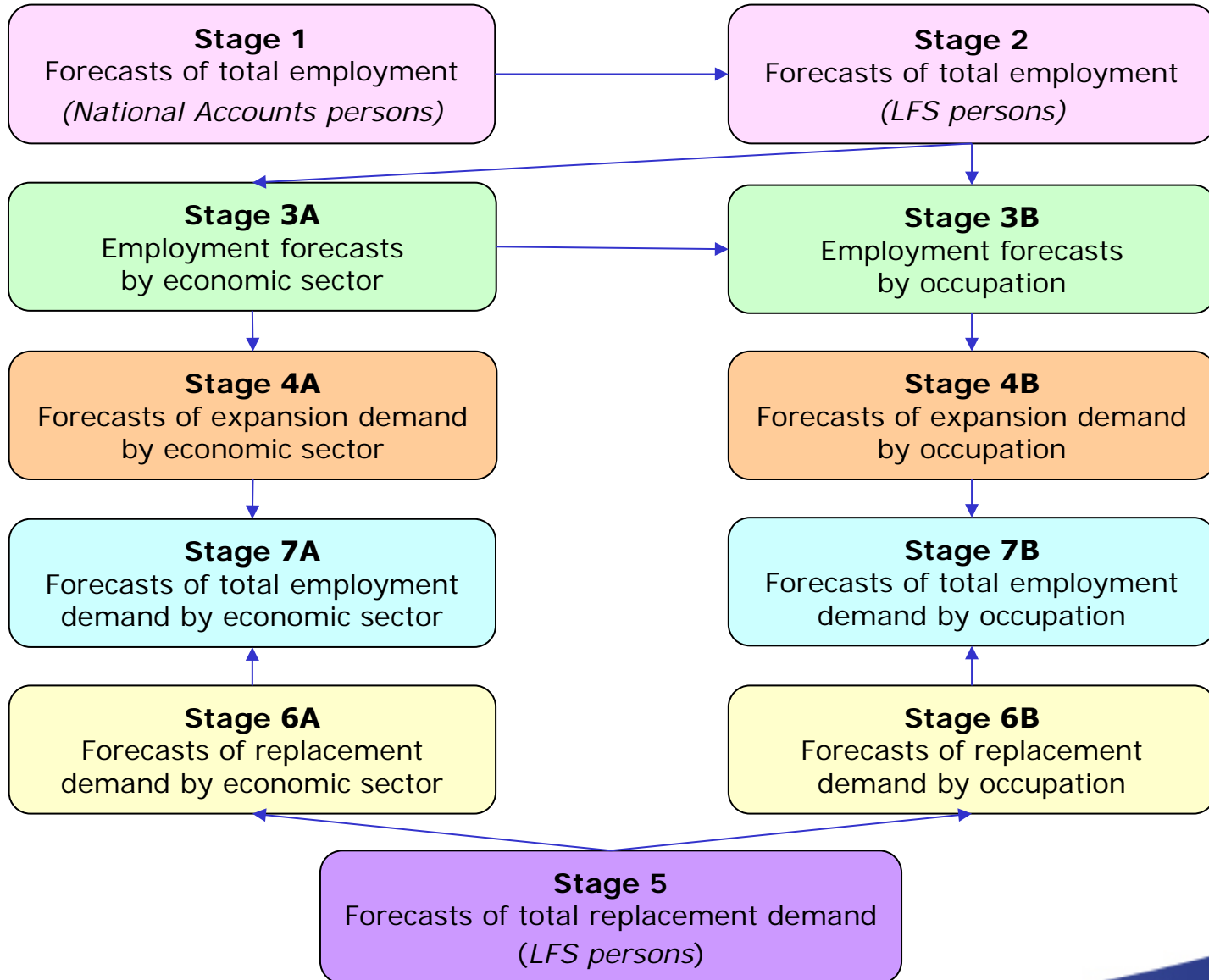
➤ Coverage:

- Whole spectrum of the Cyprus labour market
- 52 Sectors of Economic Activity
- 309 Occupations

Data Sources

1. Labour Force Survey (quarterly data)
2. National Accounts (annually data)
3. Census of Population (latest available is 2011)
4. European Commission and International Monetary Fund projections for Real GDP growth (annual)

Methodology



Data issues (1)

- Small sample size of Labour Force Survey
 - Although the percentage of the sample is the same in every country, there is a serious problem in small countries
 - The small sample size leads to empty cells in tables and to big fluctuations due to statistical reasons

- Structure of employment by 21 main economic sectors (1st level of analysis of NACE Rev.2) and 39 occupations (2nd level of analysis of ISCO-08)
 - Big fluctuations among the employment shares of occupations in each economic sector, especially in small economic sectors
 - The average for the period 2011-2014 was calculated giving bigger weight to the most recent years

Data issues (2)

- Employment forecasts by occupation at the 3rd and 4th level of analysis of ISCO-08
 - Unreliable data for employment by occupation at the 3rd level of analysis while data at the 4th level of analysis are only available from 2015 onwards
 - Census of Population 2011 was used to allocate the forecast employment to the occupations at the 3rd and 4th level of analysis

- Forecasts of replacement demand in economic sectors at the 2nd level of analysis of NACE Rev.2
 - Unreliable data for withdrawals from the labour market by economic sector at the 2nd level of analysis, especially in small economic sectors
 - Assumption that the replacement demand shares are identical to the employment shares of economic sectors at the 2nd level of analysis

Data issues (3)

- Forecasts of replacement demand in occupations at the 2nd, 3rd and 4th level of analysis of ISCO-08
 - Unreliable data for withdrawals from the labour market by occupation at the 2nd, 3rd and 4th level of analysis, especially in small occupational groups
 - Assumption that the replacement demand shares are identical to the employment shares of occupations at the 2nd, 3rd and 4th level of analysis

- Seasonality and Labour Force Survey
 - Big fluctuations in employment levels of some economic sectors due to seasonality, especially in the sectors of tourism and education
 - The average employment of the year (average of 4 quarters) was used to overcome the issue of seasonality

Concluding remarks

- It depends on each country's available data sources and their reliability how to treat the issues arising due to small samples of LFS
- Best solution though is to increase the samples of LFS so that data become more reliable and thus enabling the forecasts process to produce more accurate results

THANK YOU

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