Session 5 Macro Tools Demo and Hands-On Exercises

JobStructure Tools

Demo

Online Access to Tools
JobStructure Tools

1. JobStructure Main Tool
   - **Contributions to Growth**: decomposes per capita output growth into four components contributions of productivity growth, employment growth, labor force growth, and change in working age population.
   - **Contributions by Sector**: calculates different sectors' contributions to aggregate productivity and employment growth.
   - **Projection Consistency**: helps the user make growth projections and analyze the consistency of such projections.
   - **Country Comparison**: lets the user choose 6 countries to compare.

2. JobStructure Demography Tool
   - **Trends in Demography**: combines WDI data for value added and employment with UN population projections
   - **Projection Consistency**: helps the user make growth projections and analyze the consistency of such projections.
   - **Country Comparison**: lets the user choose 6 countries to compare.

3. JobStructure Context Tool
   - **This tool compiles comparative policy indicators from multiple sources for a range of macro, doing business and labor regulations data.** It was designed to complement the Jobs Diagnostics tools with relative policy performance, in order to facilitate the search for possible constraints to better jobs outcomes.
   - **Time Series and Benchmarking**: View time series data for a selected country from multiple databases – and compare to 5 different countries (benchmarking)
JobStructure Main Tool – Excel File


• Purpose & Version

• Data (WDI and UN)

• Step-by-Step
  • video demonstration
JobStructure Main Tool – Equations

• Aggregate Growth Decomposition
  • Per capita value added (y=Y/N); Productivity (w=Y/E); Employment rate (e=E/L); Labor Force Participation rate (p=L/A); Working Age Population share (a=A/N)

\[
\frac{Y}{N} = \frac{Y}{E} * \frac{E}{L} * \frac{L}{A} * \frac{A}{N}
\]

\[
\Delta y = \Delta y^w + \Delta y^e + \Delta y^p + \Delta y^a
\]

• Changes in productivity by sector i (w=Y/E)

\[
\Delta w = \sum_{i=1}^{n} (w_{t1}^i - w_{t0}^i) * \theta_{t0}^i + \sum_{i=1}^{n} (\theta_{t1}^i - \theta_{t0}^i) * w_{t0}^i + \sum_{i=1}^{n} (w_{t1}^i - w_{t0}^i) * (\theta_{t1}^i - \theta_{t0}^i)
\]

“within-setor” + “static reallocation” + “dynamic reallocation”

\[\theta = \text{share of employment; } t0 - t1 = \text{growth period.}\]

• Changes in employment rate by sector i (e=E/L).

\[
\Delta e = \sum_{i=1}^{n} \Delta e^i
\]
JobStructure Main Tool – Drivers of Structural Change

- Aggregate Growth Decomposition

- Changes in productivity by sector...

... and more
JobStructure Demography – Excel File


- Purpose & Version

- Data (WDI and UN)

- Step-by-Step
  - video demonstration
JobStructure Context – Excel File


• Purpose & Version

• Multiple Data Sources

• Step-by-Step
  • video demonstration
JobStructure Context – Benchmarking & Time Series

- Benchmark over time and against other countries
  - WDI, ILOSTAT, “Doing Business”, Labor Market Regulation (LMR), Governance Indicators

- Time series
  - WDI, ILOSTAT

Doing Business Indicators - Nepal
Distance to Frontier. 100=Best Practice
(Database Methodology)

- 2014 (DB15)
- 2019 MRV (DB17-19)

**Ratio of minimum wage to value added per worker - 2019**

- MYS
- LAO
- IDN-2
- IDN-1
- IND-1
- PAK-2
- PAK-1
- NPL
- IND-2

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**Benchmark Wage**
Type of Employment

- Paid Employees (MRV yr)
- Self-employed employers (MRV yr)
- Self-employed unpaid family workers (MRV yr)
- Other self-employed (MRV yr)

**Population Growth**

- Population growth
- Urban population growth (MRV yr)
- Population, total (MRV: 2018)

**Population, total**

- NPL (2018)
- IND (2018)
- PAK (2018)
- IDN (2018)
- LAO (2018)
- MYS (2018)

**Urban population growth**

- Female
- Male

**Population growth**

- Female
- Male

**Population, total**

- Male

**Percentage of female employment or % of male employment**

- Female
- Male

**Doing Business Indicators - Nepal**

- Distance to Frontier. 100=Best Practice
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**Population, total**

- Male

**Urban population growth**

- Female
- Male