

# LEVERAGING DEMOGRAPHIC CHANGE WITHIN COUNTRIES: POLICY PRIORITIES

GLOBAL MONITORING REPORT 2015/2016 -  
WHAT DOES IT MEAN FOR OPERATIONS?  
OCTOBER 29, 2015  
WASHINGTON DC



**WORLD BANK GROUP**

HANS LOFGREN

DEVELOPMENT PROSPECTS GROUP

# Introduction

- What are the implications of demography for policy and WBG operations in different countries?
- Entry point for demographic analysis:
  - the population age distribution, especially the working age share.
- Two kinds of demographic dividends (losses):
  - The first – DD1: growth gain facilitated by increasing population share in working age;
  - The second – DD2: high savings rates facilitated by large population share in working age.

# Introduction

- Essence of policies to reap DDs:
  - DD1: raise population share productively employed;
  - DD2: incentives to invest in human & physical capital.
- Countries are on a demographic continuum along which policy priorities gradually change.
- Presentation summarizes GMR policy analysis for countries at different demographic stages: Pre-dividend, early-dividend, late-dividend, and post-dividend.
- MAMS, a CGE model, is used to analyze one country at each stage – [www.worldbank.org/mams](http://www.worldbank.org/mams).

# Pre-dividend countries: Sparking demographic transition

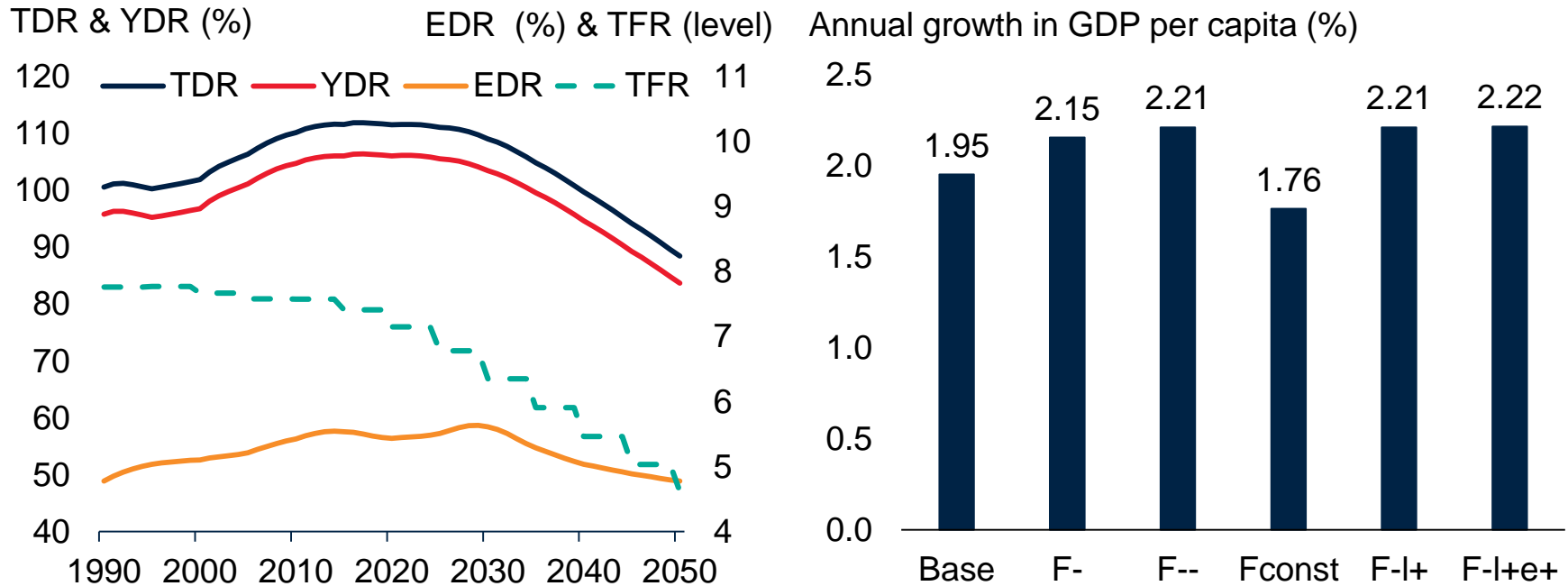
- Country characteristics:
  - Mostly LICs; 10% of world population;
  - Lagging human development (HD);
  - High youth dependency, fertility, and pop growth.
- Key issue:
  - Improve HD to reduce fertility and start to reap DD1.
- Policy priorities:
  - Basic services to improve maternal and child health;
  - Expand education without letting girls fall behind;
  - Empower women and provide access to RHS (reproductive health services).
- In GMR: Niger case study.

# Pre-dividend countries:

## Niger – simulations for 2015-2050

- High TFR  $\approx 7$ , incl. high FR for women 15-19 years old (FR1519).
- Non-base scenarios:
  - F- and F--: FR1519 gradually/immediately falls to 0;
  - Fconst: no decline in FR1519;
  - l+: +10 %-age point labor-force participation rate (LFP) for women delaying marriage;
  - e+: +10 %-age point share completing of 9 grades among women with delayed marriage.
- Impact of non-base scenarios: GDP per-capita growth affected by  $\Delta$ FR1519; little macro impact from  $\Delta$ LFP or higher education – in practice, changes come together.
- Policies: RHS; education (CCT to stay in school?);

# Pre-dividend countries: Niger



Base = benchmark (no change), F- = gradual elimination of 15-19 year fertility, F-- = immediate elimination of 15-19 year fertility, Fconst = constant 15-19 year fertility (2015 rate), F-l+ = F- plus increased labor force participation, F-l+e+ = F-l+ plus increased education.

# Early-dividend countries: Accelerating job creation

- Country characteristics:
  - LICs and MICs; 45% of world population;
  - Strong past declines in TFR;
  - Rapid increase of population share in working-age.
- Key issues:
  - Create productive jobs to continue reaping DD1;
  - Create institutions needed to start reaping DD2.
- Policy priorities:
  - Investment in human capital, including vocational and technical training;
  - Boost labor market mobility and female labor force entry;
  - Strengthen conditions conducive to savings and job creation (public services, business climate, ...).
- In GMR: Ethiopia case study.

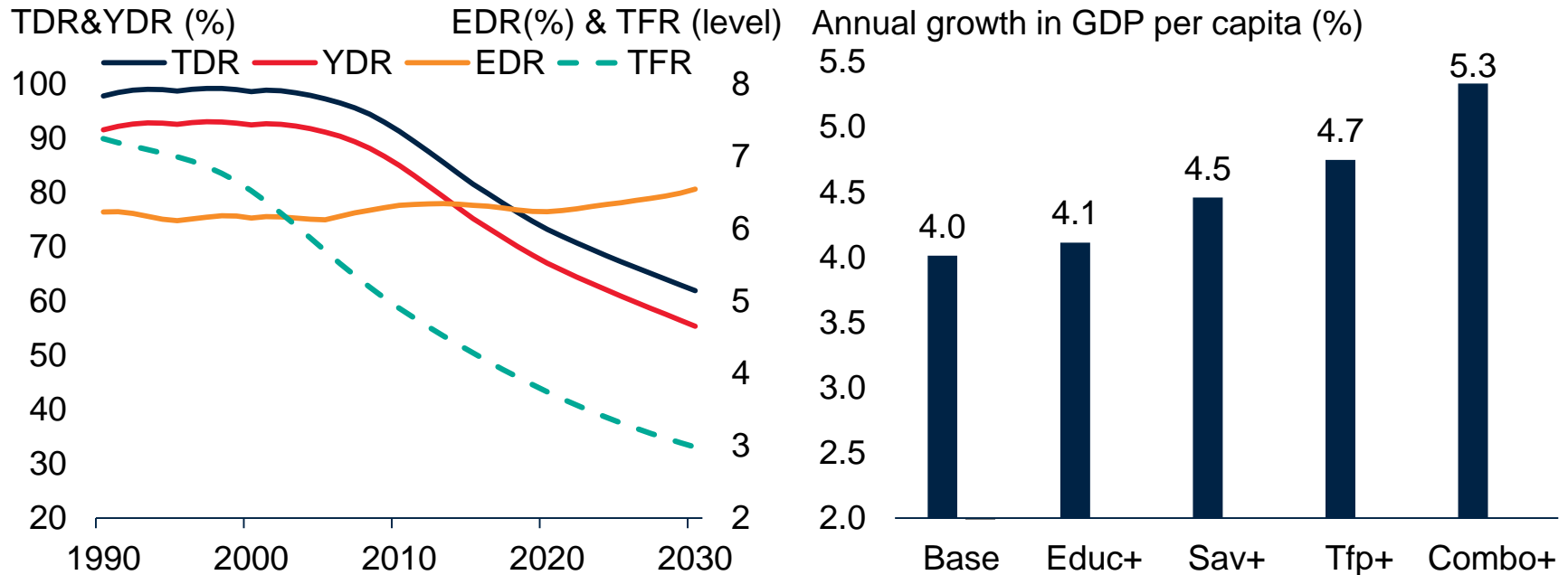
# Early-dividend countries:

## Ethiopia – simulations for 2015-2030

- Since 2000, strong TFR and TDR declines and strong GDP growth.
- Non-base scenarios
  - Educ+: fast-track education improvement (IIASA scenario);
  - Sav+: private savings rate increase closes gap;
  - Tfp+: 0.5% annual TFP growth increase;
  - Combo: Educ+/Sav+/Tfp+.
- Impact of non-base scenarios: Similar GDP per cap gains from Sav+ and Tfp+; small impact of Educ+.
- Policies: business climate; financial sector .



# Early-dividend countries: Ethiopia



Base = benchmark (no change), Educ+ = improved education, Sav+ = higher savings, Tfp+ = higher total factor productivity, Combo+ = combination of all three.

# Late-dividend countries: Sustaining productivity growth

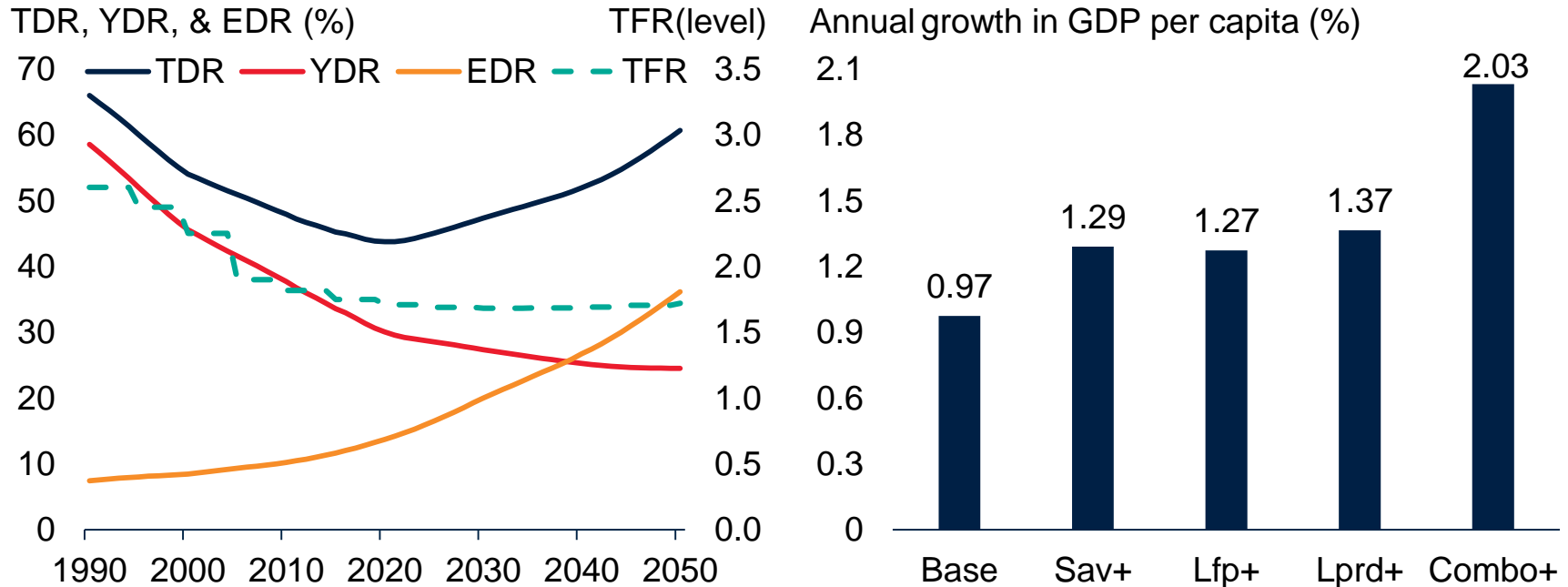
- Country characteristics:
  - MICs and HICs; 35% of world population;
  - Large but declining population share in working age.
- Key issues:
  - Save and invest to reap DD2;
  - Reforms that address current and future aging.
- Policy priorities:
  - Continue savings mobilization;
  - Raise higher labor-force participation for both sexes;
  - Design effective and sustainable systems for welfare and HD, also considering future aging.
- In GMR: Brazil case study.

# Late-dividend countries:

## Brazil – simulations for 2015-2050

- TDR will increase 2020+; TFR is stabilizing well below replacement rate.
- Non-base scenarios:
  - Sav+: private savings rate increase closes gap;
  - Lfp+: incr. labor force participation (women, elderly);
  - Lprd+: +0.5% annual labor productivity growth;
  - Combo: Sav+/Lfp+/Lprd+.
- Impact of non-base scenarios: Similar GDP per cap gains from Sav+, Lfp+, and Lprd+.
- Policies: financial sector; work incentives; business climate; (public pension financing).

# Late-dividend countries: Brazil



Base = benchmark (no change), Sav+ = higher savings, Tfp+ = higher total factor productivity, Lprd+ = higher labor productivity, Combo+ = combination of all three.

# Post-dividend countries: Adapting to aging

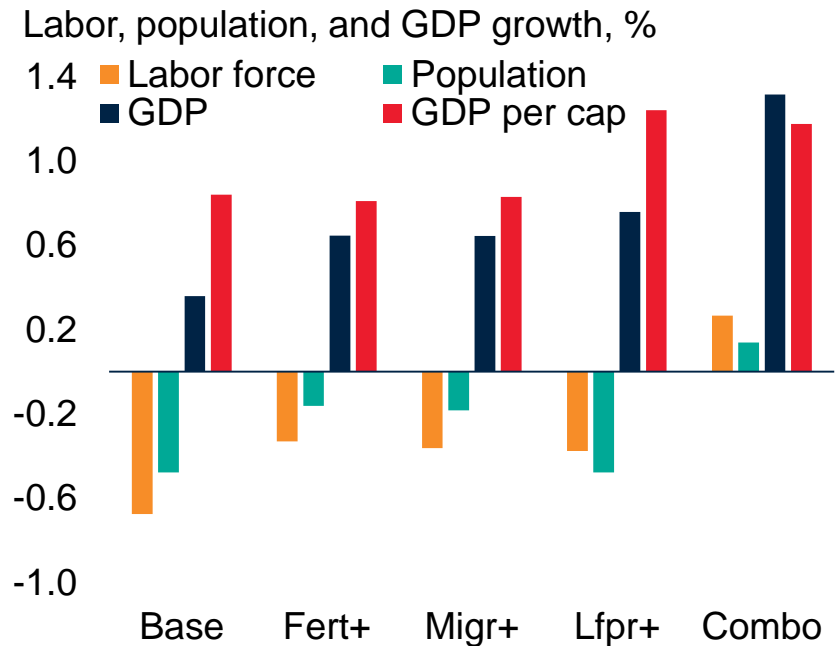
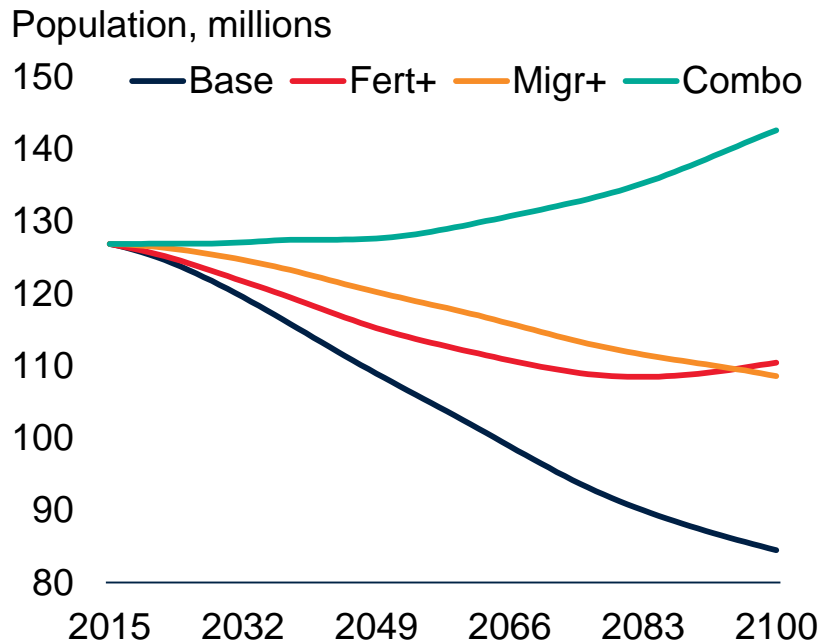
- Country characteristics:
  - Mostly HICs; 10% of world population;
  - Continued shrinking of population share in working age.
- Key issues:
  - Counter demographic losses to raise welfare in spite of changes in age composition.
- Policy priorities:
  - Complete reform of welfare systems for sustainability, protection of the vulnerable, and encouragement of work;
  - Raise labor force participation and productivity (incl. female and elderly participation incentives; lifelong learning).
  - Encourage a fertility rebound, inter alia by making it easier for men and women to combine work and child rearing.
- In GMR: Japan case study.

# Post-dividend countries:

## Japan – simulations for 2015-2100

- High elderly pop share; very low TFR; pop decline.
- Non-base scenarios:
  - Fert+: TFR increase to replacement rate 2016-2035;
  - Lfp+: LFP increase (women & elderly) 2016-2035;
  - Migr+: +200' immigrants 2016-2035; later decline;
  - Combo: Fert+/lfp+/Migr+.
- Impact of non-base scenarios: Fert+ and Migr+ raise GDP and reverse population decline; Lfp+ also raises GDP per cap.
- Policies: facilitate child care for working parents; other work incentives; incentives for immigrants.

# Post-dividend countries: Japan



Base = benchmark (no change), Fert+ = increased fertility rate, Migr+ = increased immigration, Lfpr+ = increased labor force participation, Combo = combination of the three.

# Concluding remarks

- Demographic change offers opportunities for the poor and the bottom 40%, since
  - they have reaped less of the DDs than the top 60%;
  - labor, their main asset, is becoming more scarce.
- Need for long-run, multi-sector, macro-micro perspective, to design policies that maximize demographic dividends:
  - It takes time for demographic policies to produce their full impacts, and for behavior and institutions to change;
  - There are important links across sectors: health, education, fertility, work, production, trade, ...
- The analytical strength of the WBG and its distance from national political constraints make it well-placed to design projects and advocate policies based on such a perspective.



---

Thank You!

# Global Monitoring Report 2015/2015

[www.worldbank.org/gmr](http://www.worldbank.org/gmr)

Questions or comments?

Hans Lofgren ([hlofgren@worldbank.org](mailto:hlofgren@worldbank.org))

# Annex

---

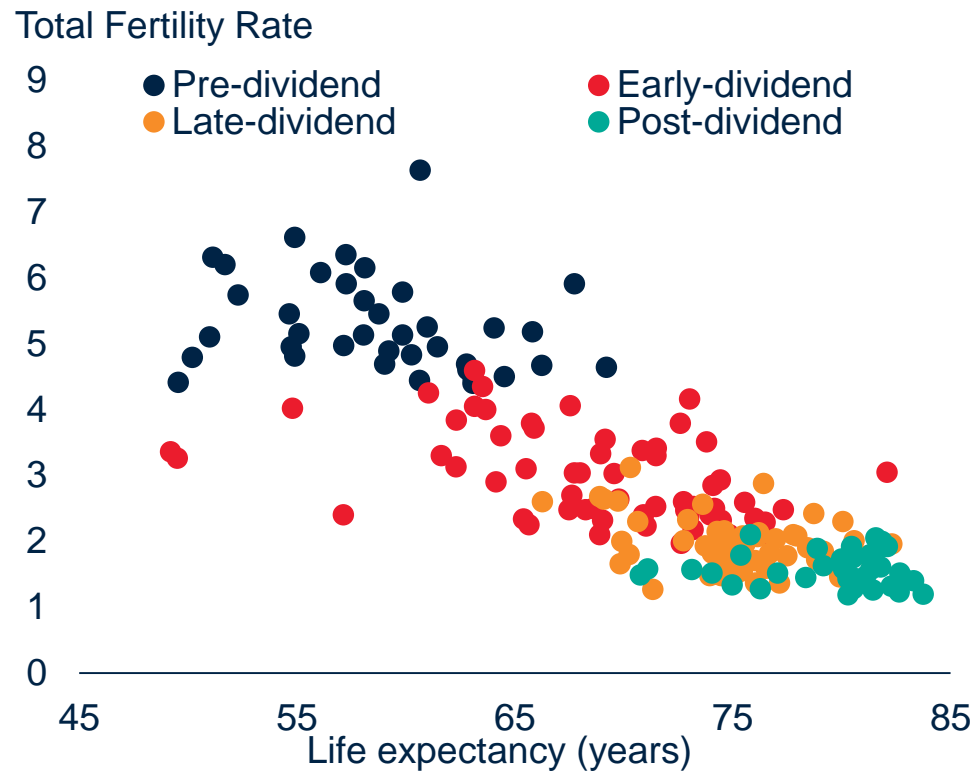
# Table: Defining a demographic typology

## Criteria for the demographic typology:

Growth of Working-age Population Share, 2015-30	Total Fertility Rate, 1985		Total Fertility Rate, 2015	
	< 2.1	≥ 2.1	< 4	≥ 4
≤ 0	Post-dividend	Late-dividend		
> 0			Early-dividend	Pre-dividend

*Note:* The working-age population is defined as the share of the population aged between 15 and 64 years. Total fertility rate is the average number of births per woman in her lifetime.

Figure:  
Countries by life expectancy, fertility, and demographic type



# Figure: World map – countries classified by demographic type

