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# **Implications of Slowing Growth for Global Poverty Reduction**

**David Laborde & Will Martin**

**Samarkand Conference**

**4 November 2016**



# Road Map

- Dramatic progress in poverty redn under the MDGs
  - Linked to more rapid economic growth in developing countries
  - Sustainable Development Goals (SDGs)-- eliminate poverty & hunger by 2030
- Global Economic Outlook has deteriorated since 2012
- Implications for eliminating global poverty & hunger?
  - Methodology
  - Results

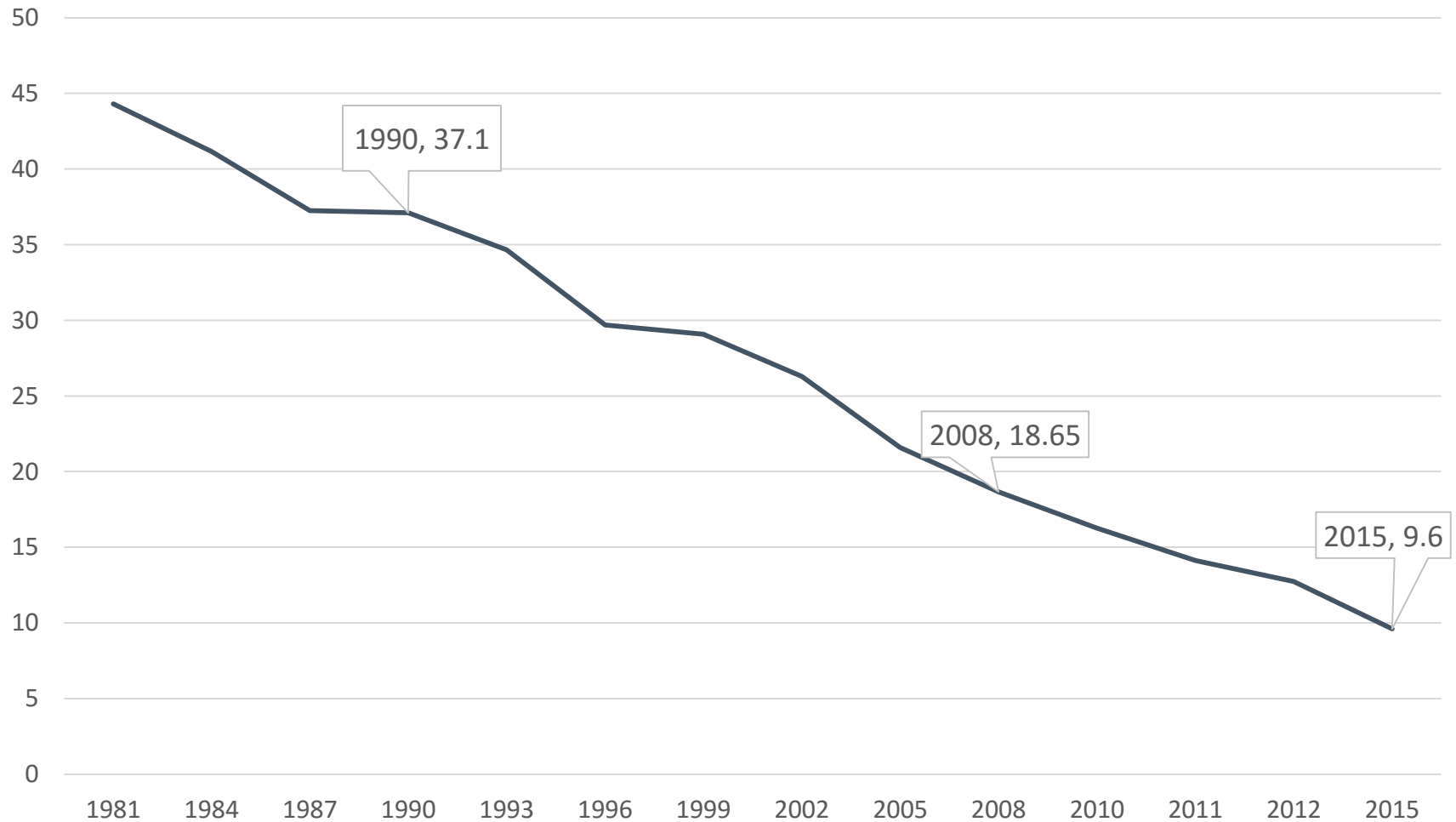
# Progress & Background



# MDGs & Sustainable Dev Goals

- MDG 1 set a target of halving the proportion of people under \$1/day (now \$1.90)
  - between 1990 & 2015
- This goal was very easily achieved
  - Essentially by 2008 – 7 years early
  - And the poverty headcount has since halved again
- Between 2012 & 2015, the SDGs were agreed
  - With a target of eliminating poverty by 2030

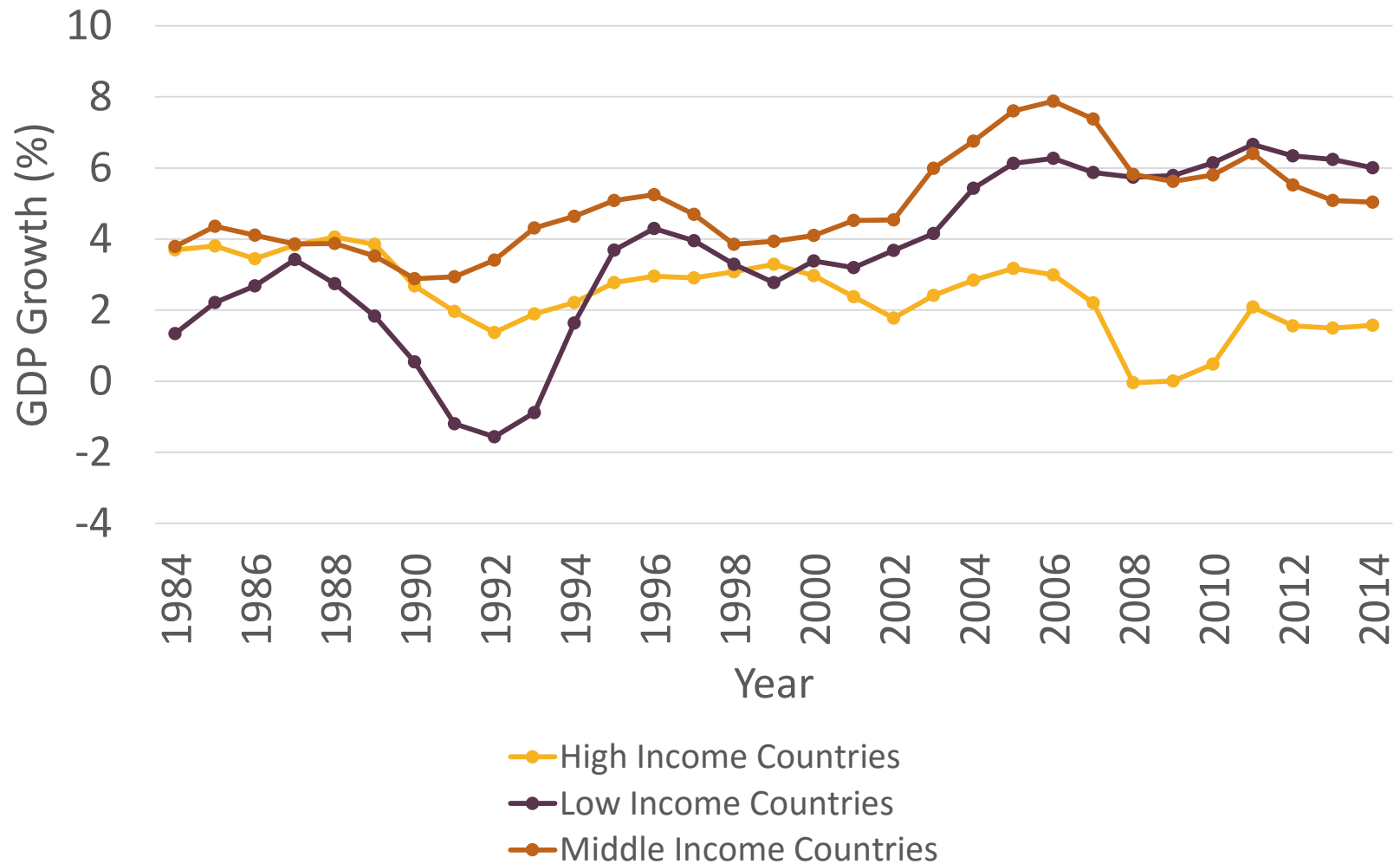
# Past Progress: Poverty Headcount %



# Regional Poverty Rates, %

Country	Year	Headcount
Armenia	2014	2.3
Azerbaijan	2008	0.5
Georgia	2014	9.8
Kazakhstan	2013	0.04
Kyrgyz Republic	2014	1.3
Russian Federation	2012	0.04
Tajikistan	2014	19.5
Turkmenistan	1998	42.3
Uzbekistan	2003	66.8

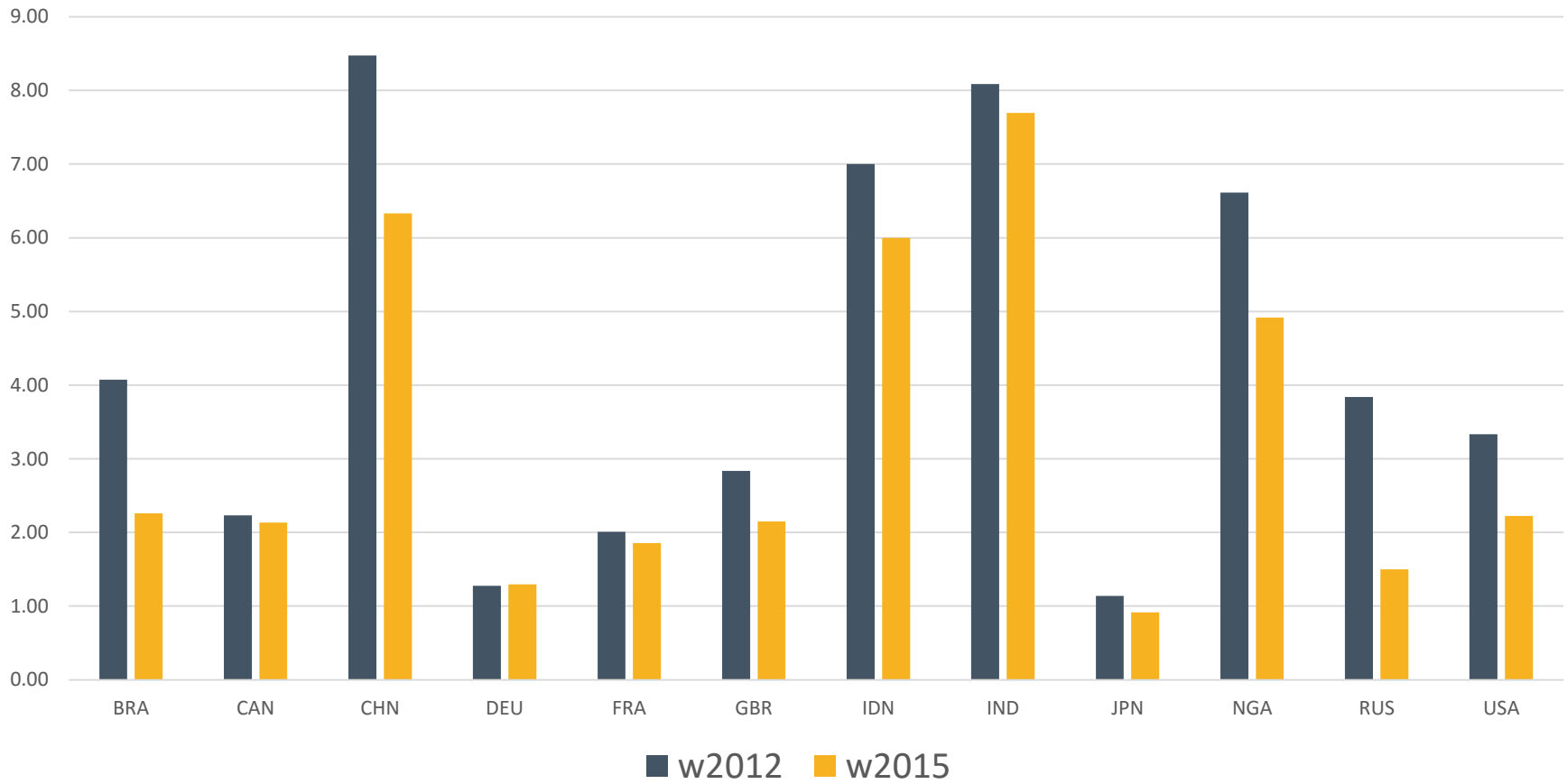
# Convergence since 1990— reversing 200 years of divergence



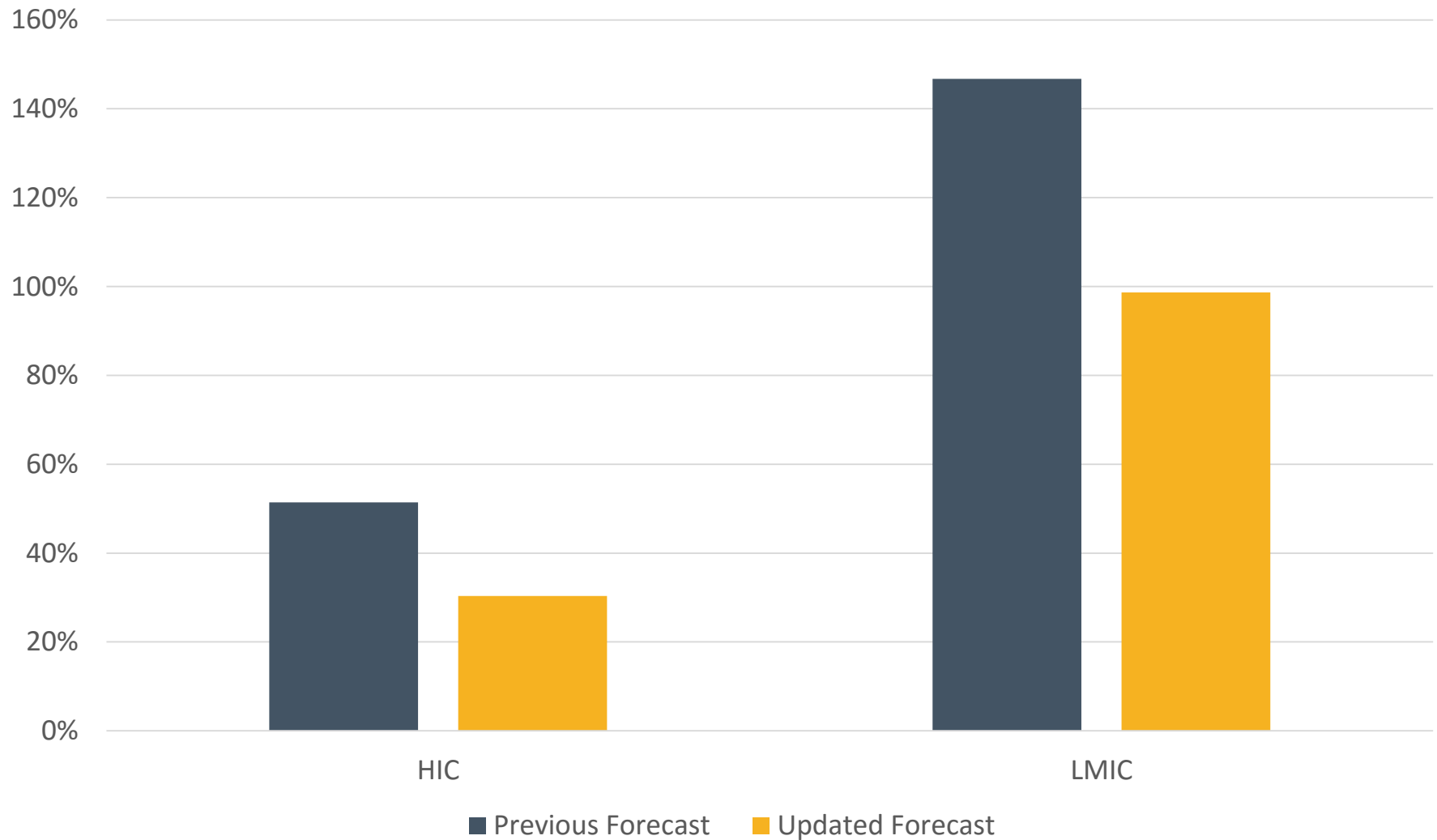


# The Deteriorating Global Outlook

# Comparing 2012 & 2015 GDP growth projections to 2017



# Growth in Per Capita GDP, 2012-30,%



# Methodology



# Analytical framework

- ❑ Macro scenarios based on IMF WEO forecasts:
- ❑ Use MIRAGRODEP model to track implications for prices & wages
- ❑ Household survey models for 285,000 households to capture impacts

# Scenarios & implementation

	Scenario 0	Scenario 1	Scenario 2
<b>GDP- (HIC, Russia, Brazil, China)</b>	2012 forecast	2015 forecasts	2015 forecast
<b>GDP Others</b>	2012 forecast	2015 forecasts	2015 forecasts
<b>Savings rate</b>	Unchanged	China: 50% to 40% by 2020, 40% to 35% by 2030. Oil exporters stabilize consumption	As in Scenario 1
<b>Current Account Balance</b>	Unchanged	Surplus Redn in China Strong Surplus Redn in oil exporters	As in scenario 1
<b>Remittances</b>	As % of source ctry unskilled wages	% of source ctry unskilled wages	% of source ctry unskilled wages
<b>Natural Resource endowments</b>	Unchanged	Calibrated for Gulf ctries, US, Russia, Australia, China to target oil, gas, coal prices	As in scenario 1

# MIRAGRODEP framework

- ❑ Global dynamic CGE model
- ❑ Distinguishes private & government households
  - ❑ Extended to include international remittances
- ❑ Major drivers
  - ❑ Total Factor productivity
  - ❑ Terms of trade, including changes in mineral prices
  - ❑ Saving rates
  - ❑ Current account imbalances
  - ❑ Remittances



# Household modelling

- ❑ Based on processed, harmonized household surveys
- ❑ Detailed consumption patterns: price effects
- ❑ Different income sources:
  - ❑ Business sales (production patterns, price effects, productivity effects)
  - ❑ Wages (price effects, fixed per capita endowments)
  - ❑ Other factor incomes (price & quantity effects thru accumulation)
  - ❑ Remittances (value changes)
- ❑ Scale up results from 76% of the world's poor to all using kmeans clusters



# Household framework

$$W = \pi(p, w, \tau) - e(p, w, u)$$

- ▶  $W$  is household real income
- ▶  $e$  is cost of expenditure
- ▶  $\pi$  is profit from household business
- ▶  $p$  is commodity prices
- ▶  $w$  is factor prices
- ▶  $\tau$  is productivity level

# 1st order impacts of change in $\tau$

$$dW = \pi_{\tau} \Delta \tau$$

Direct impact on  
profit

Net sales\* $\Delta$ price

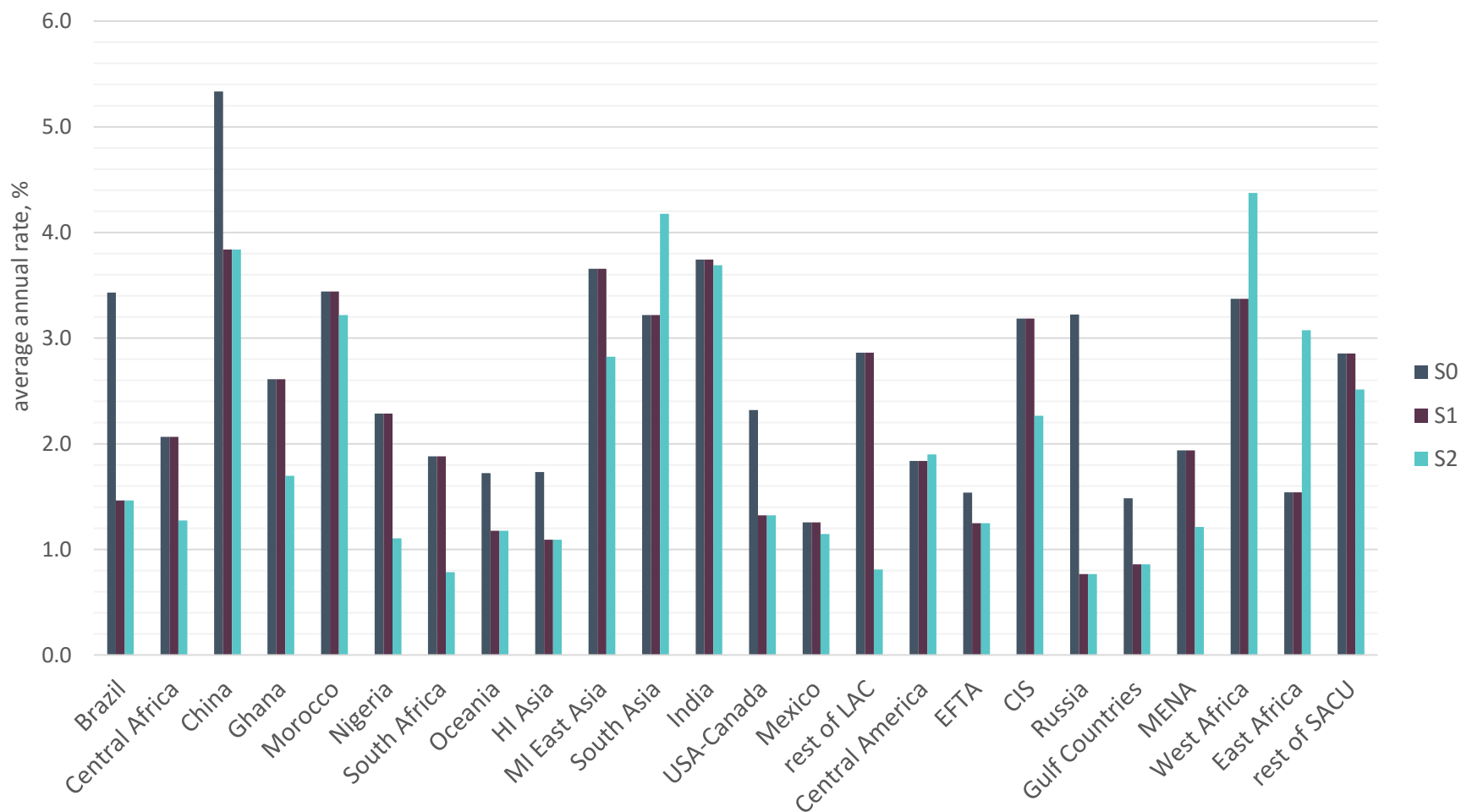
$$+ (\pi_p - e_p) \Delta p$$

Net Labor  
Sales\*wage  
change

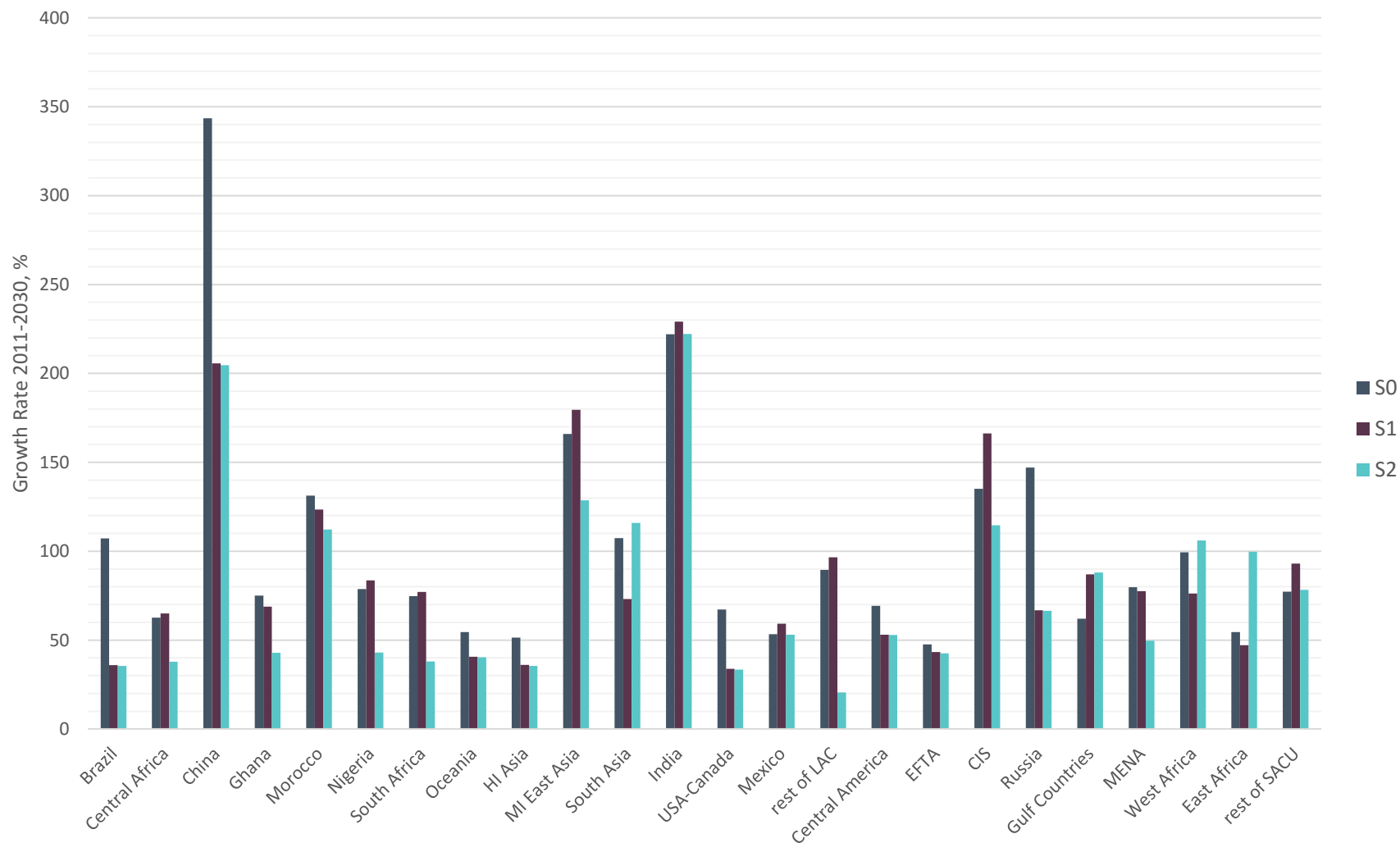
$$+ (e_w - \pi_w) \Delta w$$

# Results

# Average TFP growth rate 2012-30



# Real Unskilled Wages 2012-30, %

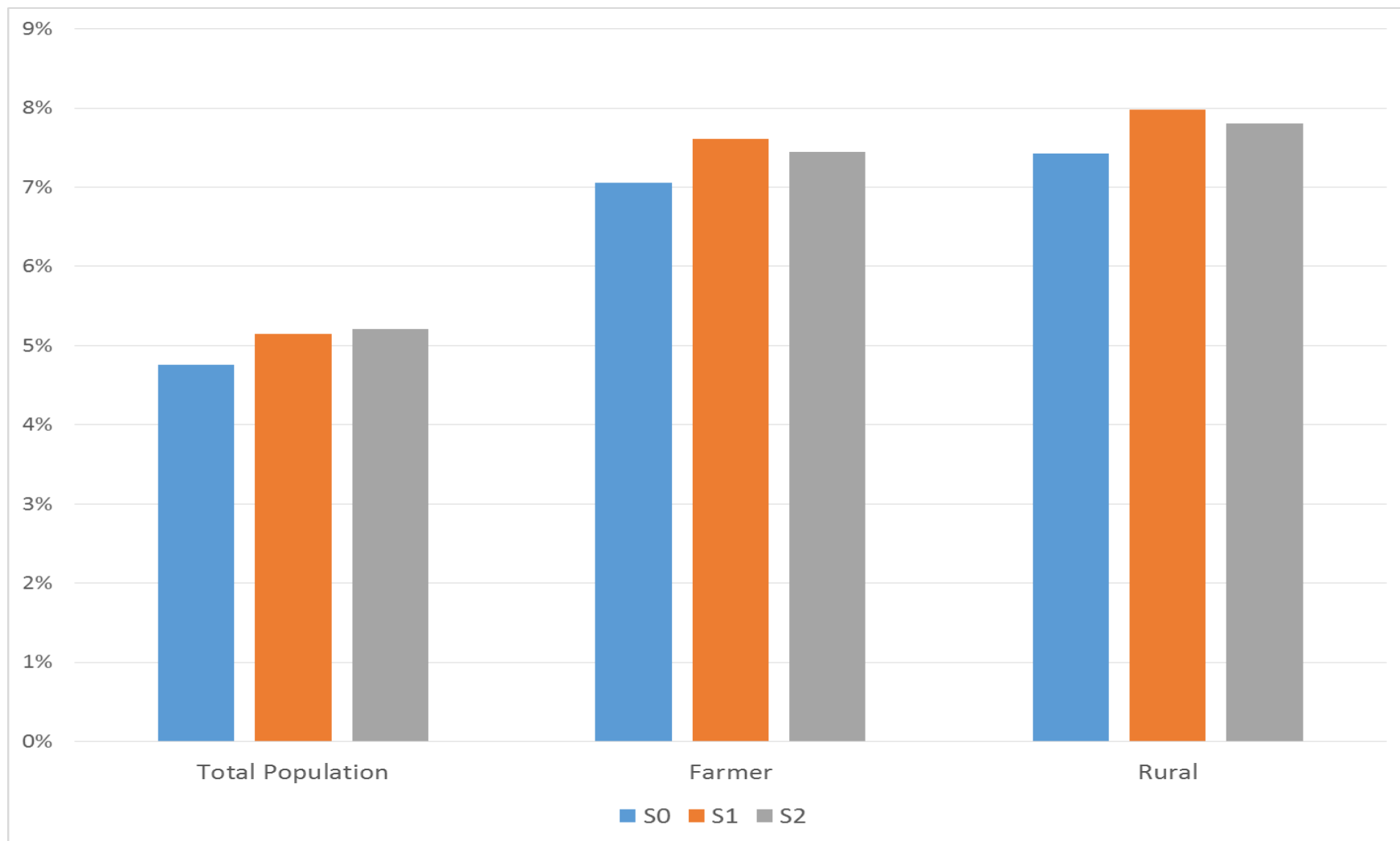


# Real Prices in 2030 vs Baseline, %

	S1	S2
<b>World Agric Prices</b>		
<b>Oilseeds</b>	4.81	6.32
<b>Processed Food</b>	1.97	2.67
<b>Wheat</b>	3.75	4.00
<b>Sugar</b>	5.36	5.89
<b>Dairy</b>	1.51	1.79
<b>Non Agricultural World Prices</b>		
<b>Energy</b>	-26.96	-24.36
<b>Minerals</b>	-9.30	-8.20
<b>Capital Goods</b>	1.65	1.79
<b>Aggregate World Prices</b>		
<b>Agriculture</b>	2.39	3.19
<b>Manufacturing</b>	0.77	1.16
<b>Services</b>	0.82	1.00
<b>Extraction</b>	-22.34	-20.04

# Global Poverty Headcount under S0, S1, S2

\$1.90, a day, 2011 PPP



# Key findings

Updated 2030  
Extreme poverty  
rate projection:

5.2%

vs

4.8%

38 million  
people will not  
leave extreme  
poverty  
compared to  
previous  
projections

Average extreme  
poverty rate in  
rural areas will be  
7.5% rather than  
7.1%



# Why so small impact on overall poverty?

- Poverty reduction is very robust
  - Given the large decline in growth
- Many countries reach very low poverty rates
- Higher growth in some vulnerable economies
- But many countries— especially in Africa— still have sizeable poverty rates
  - Business as usual does not get us to zero poverty

# Conclusions

- The growth slowdown is likely to reduce the rate of poverty reduction to 2030
  - Leaves us far from SDG1 goal of eliminating poverty
    - Although the change from the baseline is surprisingly small
- Poverty rates remain high in a few countries
  - And higher in rural than in urban areas
  - Pointing to a need for targeted poverty reduction measures

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