



UNDP



UN-DESA UN-ESCAP

# Financing strategies to achieve the MDGs in Latin America and the Caribbean

Rob Vos

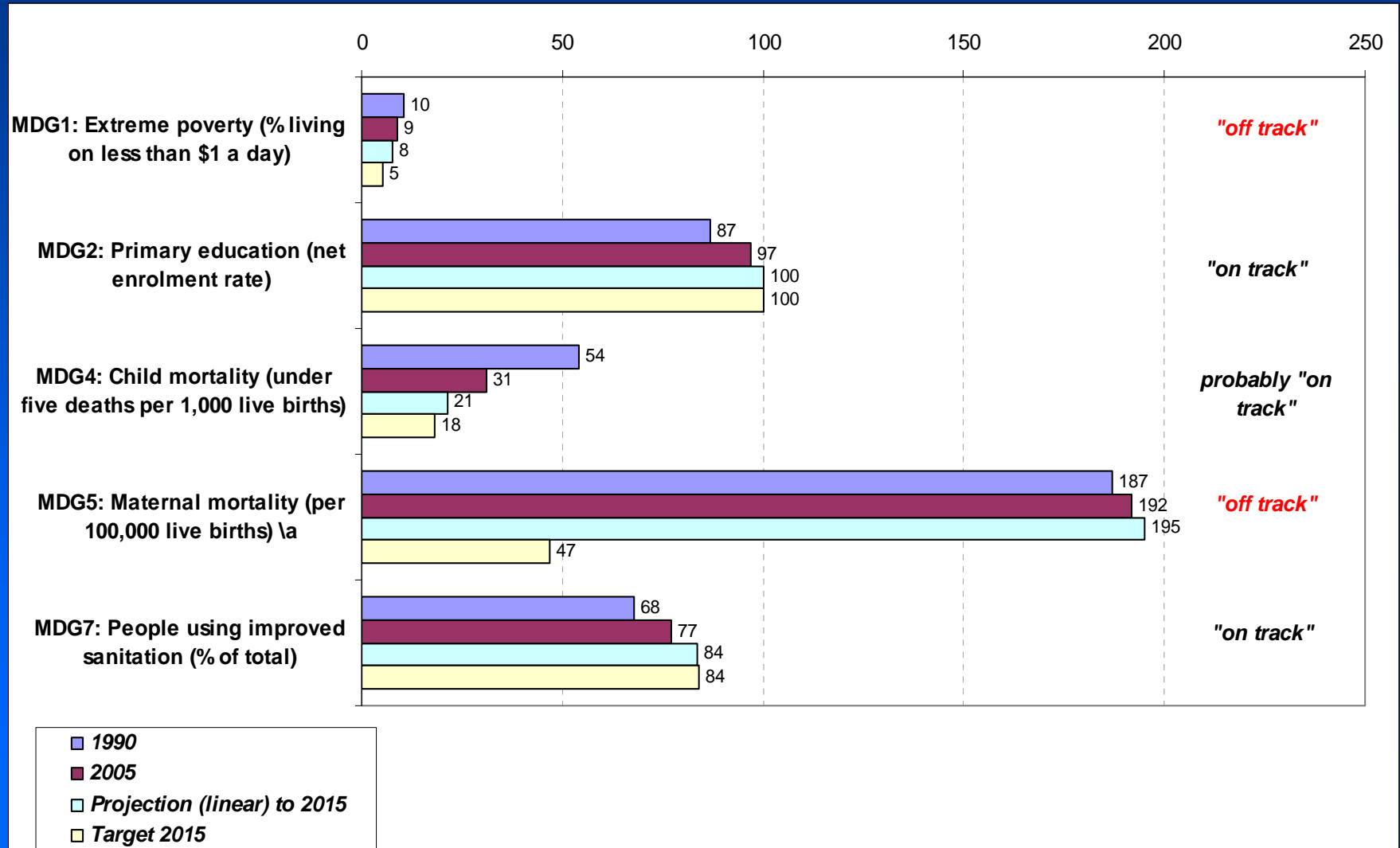
(UN-DESA/DPAD)

Presentation prepared for the inception and training workshop of the project "Assessing Development Strategies to Achieve the MDGs in Asia and the Pacific, Bangkok, 20-22 August, 2008.

# Introduction

- Is Latin America “on track” to achieve the MDGs?
- Can the MDGs be achieved through adjusted policies?
- How much additional public spending will be needed and how can this be financed?
- Which trade-offs need to be taken into account when identifying a preferred financing strategy?

# Is Latin America on track?



# Really now, is LAC “on track”?

- *The Millennium Development Goals Report 2007 (UN):*
  - LAC is **on track** to achieve
    - universal primary education,
    - reduced child mortality,
    - improved access to water and sanitation;
  - LAC is **off track** to achieve
    - poverty reduction,
    - reduced maternal mortality
- Problematic concept: linear projection
- Instead: model-based “business-as-usual” (BAU) scenario, taking into account economy-wide trade-offs and a continuation of current policies

# Some key questions regarding MDG strategies

- What does it take to achieve the MDGs?
  - What are MDG determinants?
  - How would MDG achievement influence other aspects of economic and social development?
- Do we know how much it will cost and can we afford achieving the goals?
- What policy options do we have in financing the MDG strategy? What are the trade offs when:
  - Scaling up aid or borrowing abroad?
  - Enhancing domestic resource mobilization?

# UN/DESA-UNDP-UN/ESCAP

## Public policies for MDGs project

### ■ **MAMS: Maquette for MDG Simulations.**

- Economy-wide (dynamic CGE) simulation model to analyze MDG strategies in different countries.
- Dynamic MDG module

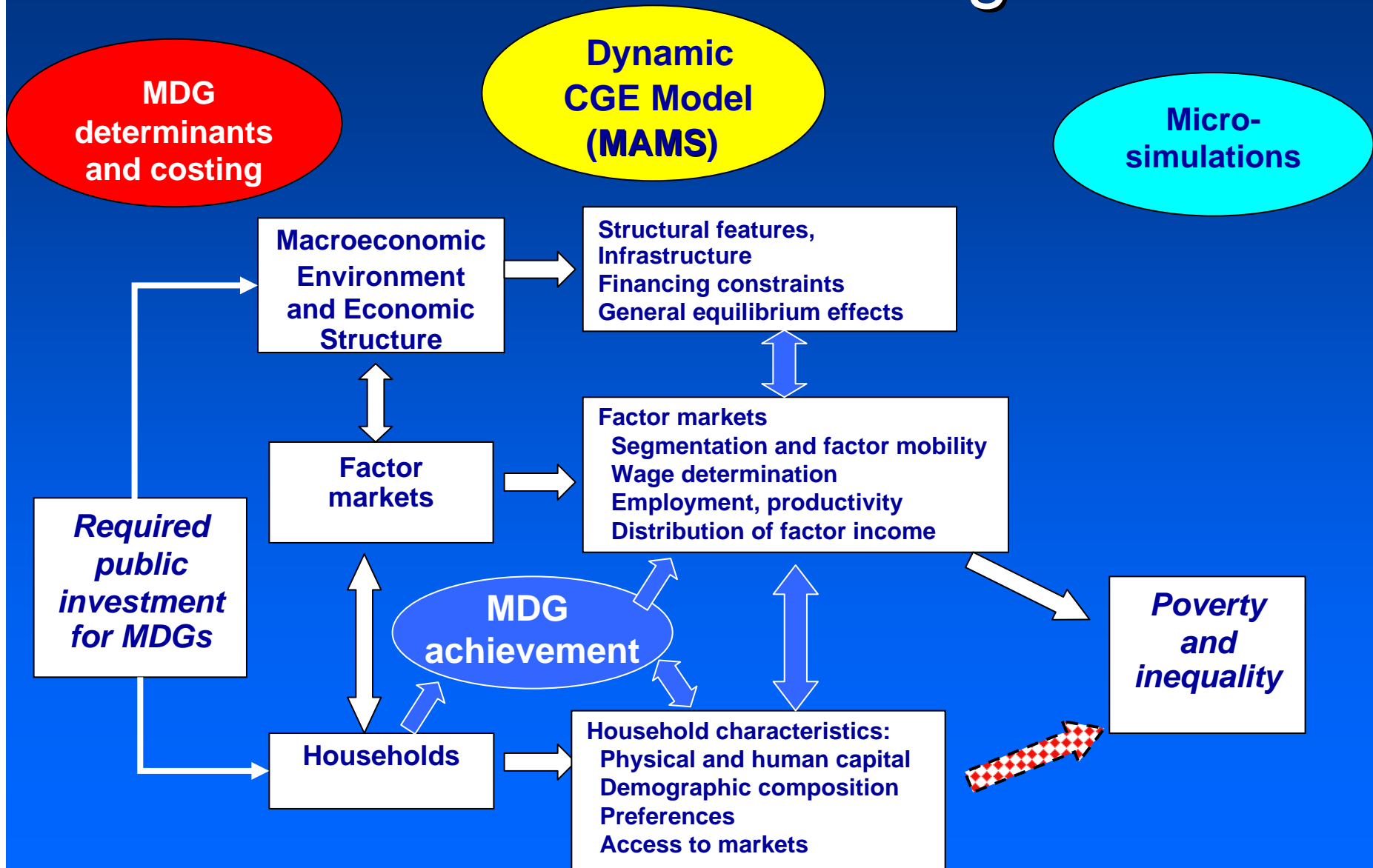
### ■ **Sector analysis of MDG determinants and of interventions** needed to achieve MDGs in education, health, water and sanitation

- Microeconomic analysis of determinants of access to schooling, infant mortality, etc.
- Costing exercise, considering household behaviour

### ■ **Microsimulation methodology**

- Translate labour market outcomes of CGE simulations into impact on poverty and income distribution at household level using micro datasets

# Macro-micro linkages



# MDG determinants

- **What is needed to get all children in school and make them complete all grades?**
  - Build more school infrastructure?
  - Improve quality of other school inputs (teachers, textbook supplies)?
  - Increase access to school by improved household income and demand subsidies?
  - All of the above?
- **What is needed to reduce child mortality?**
  - Better nutrition?
  - Expansion of immunization programs?
  - Improving maternal-child health facilities?
  - Better education?
  - All of the above?
- **Are there synergies across the MDGs?**
- **What is the direct cost of interventions to achieve MDGs?**
- **Are there diminishing marginal returns to the inputs?**



# MAMS: Determinants of MDG outcomes

MDG	Service per capita or student	Consumption per capita	Wage incentives	Public infrastructure	Other MDGs
2-Primary schooling	X	X	X	X	4
4-Under-five mortality	X	X		X	7a,7b
5-Maternal mortality	X	X		X	7a,7b
7a-Water	X	X		X	
7b-Sanitation	X	X		X	

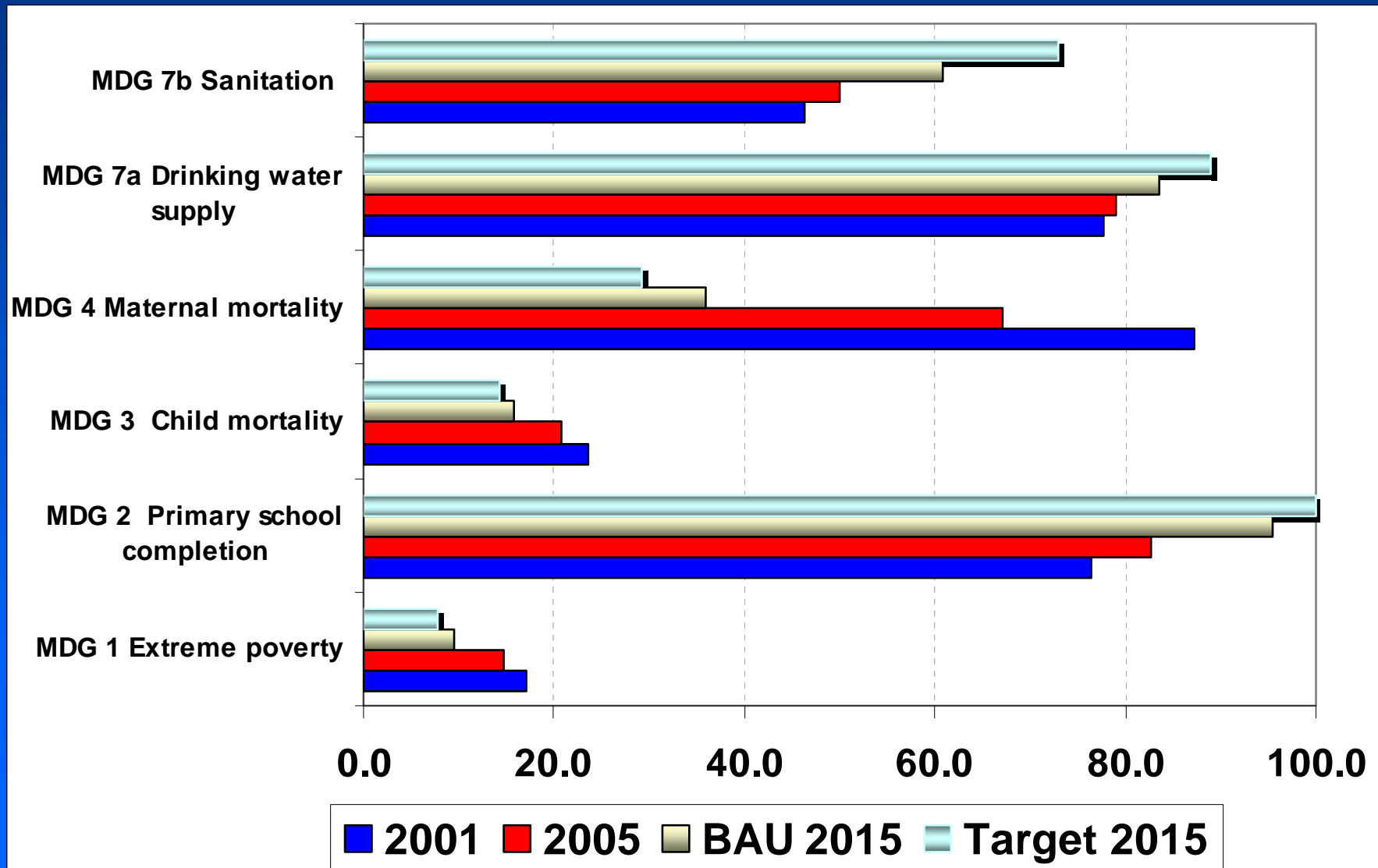
# Macroeconomic influences on cost estimates

- ❑ Synergies among MDGs: is achieving all MDGs simultaneously cheaper than pursuing them one by one?
- ❑ Complementary investment requirements, especially in infrastructure
- ❑ Macro analysis: economy-wide effects matter for the (relative) cost estimates (labour costs and constraints, prices, growth effects)

# MDG simulations

- BAU: projection without policy change
- MDG scenarios:
  - Optimize to reach MDGs
    - Each MDG separately
    - Simultaneously
  - Different financing strategies
    - Foreign aid
    - Foreign borrowing
    - Domestic borrowing
    - Tax increases

# Ecuador: Progress towards MDGs



# Is LAC “on track” under BAU?

	MDG 1	MDG 2	MDG 4	MDG 5	MDG 7a	MDG 7b
Argentina				--		
Bolivia				--		
Brazil	✓			--	✓	✓
Chile	✓	✓	✓	✓	✓	✓
Colombia	✓				✓	✓
Costa Rica		✓			✓	✓
Cuba		✓	✓	✓	✓	✓
Dominican Republic					✓	✓
Ecuador						
El Salvador						✓
Guatemala	✓					
Honduras						
Jamaica	✓					
Mexico	✓	✓			✓	✓
Nicaragua						
Paraguay						
Peru	✓			--		
Uruguay				--	✓	✓
LAC	✓				✓	✓

# Ecuador:

## Synergy among MDGs and effect on costs

(Required additional public spending on MDG services, % of GDP, difference from baseline)

		Additional annual cost per annum (AVERAGE 2005-2015)			
	Social spending in base year	<i>Only MDG2</i>	<i>Only MDGs 4&amp;5</i>	<i>Only MDG7</i>	<i>All MDGs</i>
<b>Primary Education</b>	<b>1.1</b>	<b>0.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.8</b>
- Current expenditures	1.0	0.7	0.0	0.0	0.7
- Investment	0.1	0.1	0.0	0.0	0.1
<b>Health</b>	<b>2.0</b>	<b>0.0</b>	<b>0.6</b>	<b>0.0</b>	<b>0.4</b>
- Current expenditures	1.6	0.0	0.3	0.0	0.2
- Investment	0.4	0.0	0.3	0.0	0.2
<b>Water and sanitation</b>	<b>0.3</b>	<b>0.0</b>	<b>0.1</b>	<b>0.3</b>	<b>0.3</b>
<b>Total</b>	<b>3.4</b>	<b>0.8</b>	<b>0.7</b>	<b>0.3</b>	<b>1.5</b>

1.8

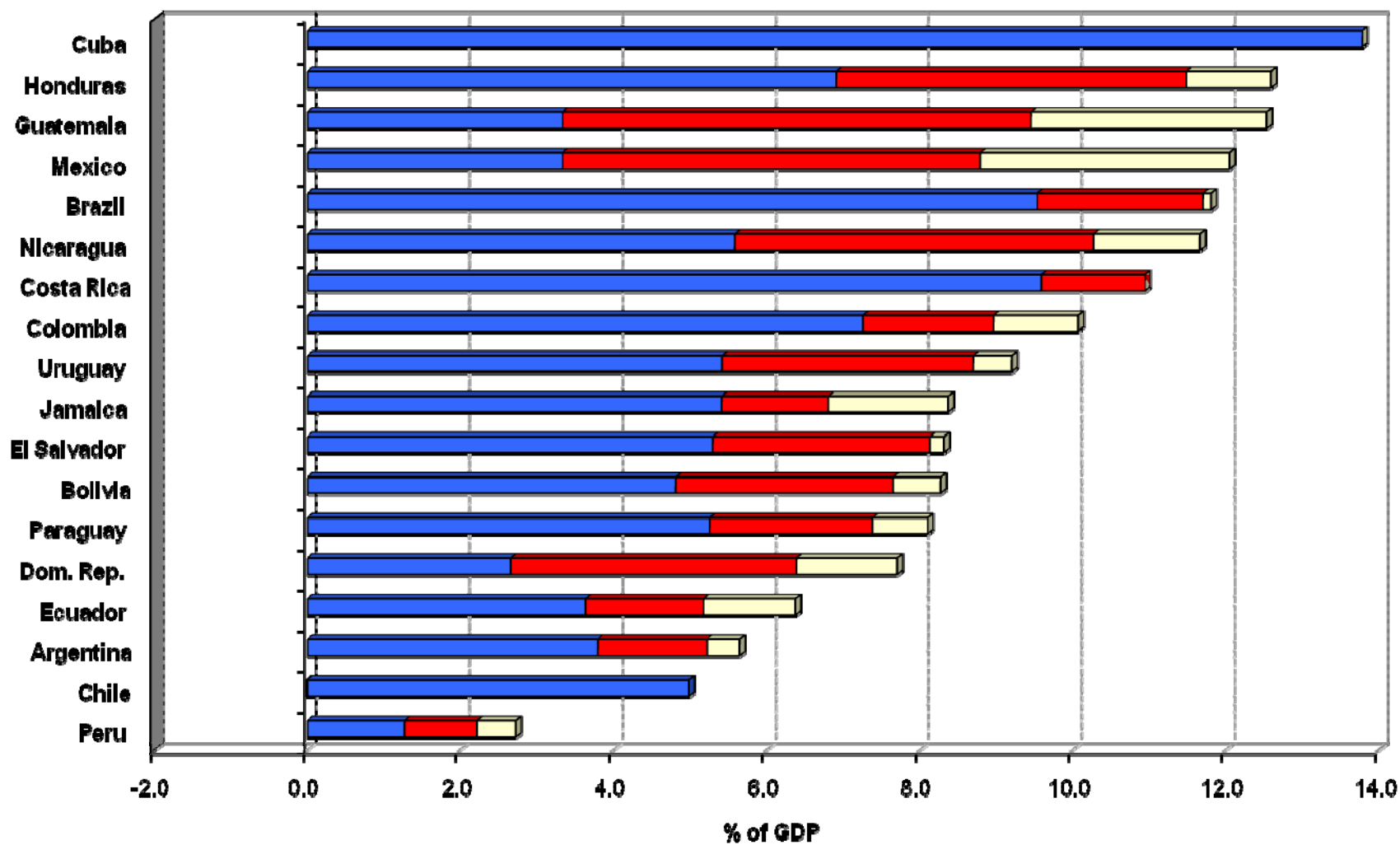
# ... but there are increasing marginal costs

(Required additional public spending on MDG services, % of GDP, difference from baseline)

		Additional annual cost per annum (END OF PERIOD 2010-2015)			
	Social spending in base year	<i>Only MDG2</i>	<i>Only MDGs 4&amp;5</i>	<i>Only MDG7</i>	<i>All MDGs</i>
<b>Primary Education</b>	<b>1.1</b>	<b>1.2</b>	<b>0.0</b>	<b>0.0</b>	<b>1.1</b>
- Current expenditures	1.0	1.2	0.0	0.0	1.1
- Investment	0.1	0.0	0.0	0.0	0.0
<b>Health</b>	<b>2.0</b>	<b>0.0</b>	<b>1.6</b>	<b>0.0</b>	<b>1.0</b>
- Current expenditures	1.6	0.0	0.9	0.0	0.6
- Investment	0.4	0.0	0.7	0.0	0.4
<b>Water and sanitation</b>	<b>0.3</b>	<b>0.0</b>	<b>0.1</b>	<b>0.5</b>	<b>0.5</b>
<b>Total</b>	<b>3.4</b>	<b>1.2</b>	<b>1.7</b>	<b>0.5</b>	<b>2.7</b>

**3.4**

**Public spending requirements to reach the MDGs by 2015  
(annual, % of GDP)**



■ Base year MDG spending, ca. 2002

■ Average annual additional required spending till 2015

□ Incremental marginal spending, end period (2010-15)



# Ecuador: less “expensive” with foreign borrowing..... (*but not necessarily best financing strategy*)

---

	Average 2005-15 per year	Incremental costs	Synergy effect
Foreign borrowing	1.3	1.1	0.3
Domestic borrowing	1.4	1.2	0.3
Direct tax increase	1.5	1.2	0.2

# Latin America: MDG costing results

- Chile and Cuba meet MDGs 2-7 under BAU
- All other countries in this study could reach the 'non-poverty' MDGs through additional public spending of between 1 and 6 percent of GDP
- Important increasing marginal costs
- Not very high, yet significant synergy effects in most countries

# Financing strategies and MDG costing results

- Additional spending requirements are generally lower in the case of external finance - through aid or foreign borrowing – than in case of domestic resource mobilization
- Additional spending requirements are higher in the case of domestic finance - through borrowing or taxation - owing to crowding out effects and consumption compression

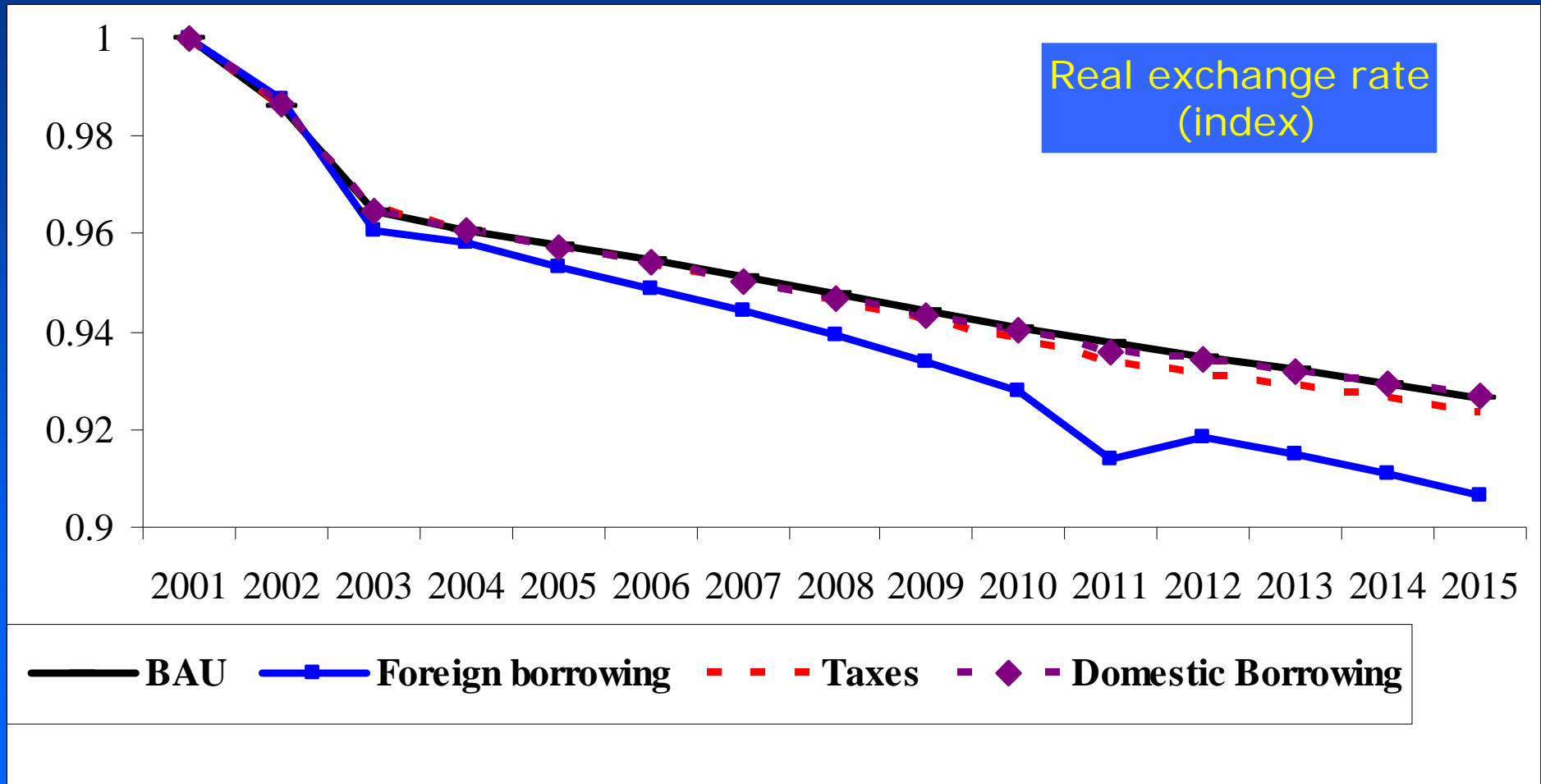
# What are realistic financing options?

- Required additional public spending is just one criterion for assessing desirability of a financing strategy
- Other criteria:
  - Sustainability
  - Macroeconomic trade-offs
  - Institutional constraints and political economy considerations
- Models only analyze pure (single-source) financing strategies, but mixed strategies may be preferable

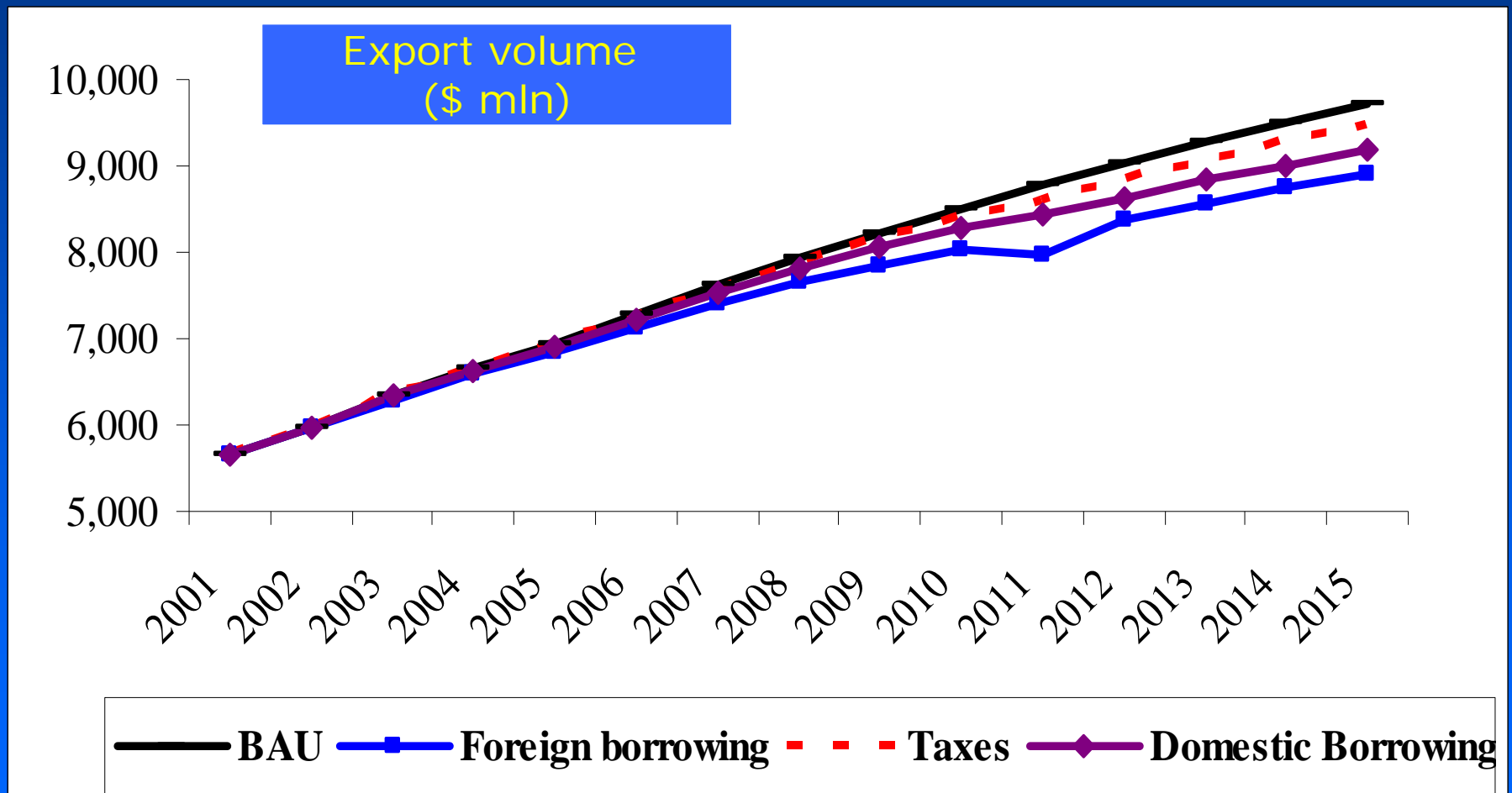
# Macroeconomic trade-offs

- More public spending could generate RER appreciation: Dutch disease effects?
- Crowding out of private investment because of increased public domestic borrowing
- Tax increase could affect real disposable household income
- Labour market adjustment: Skilled labour shortage? No labour shortage, but wage pressures?

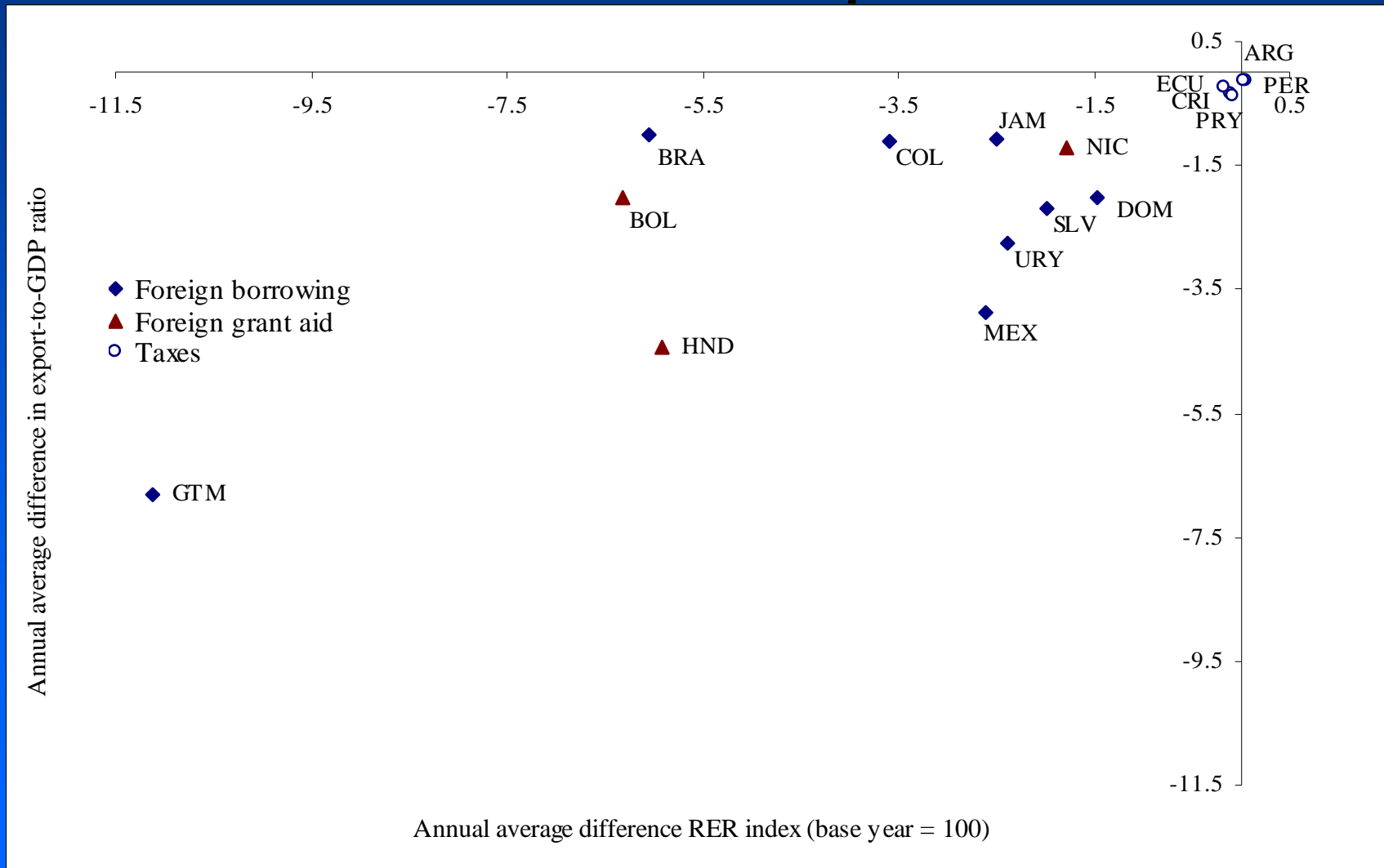
# Ecuador: strong RER appreciation with foreign borrowing



# Ecuador: Lower export growth under MDG strategy

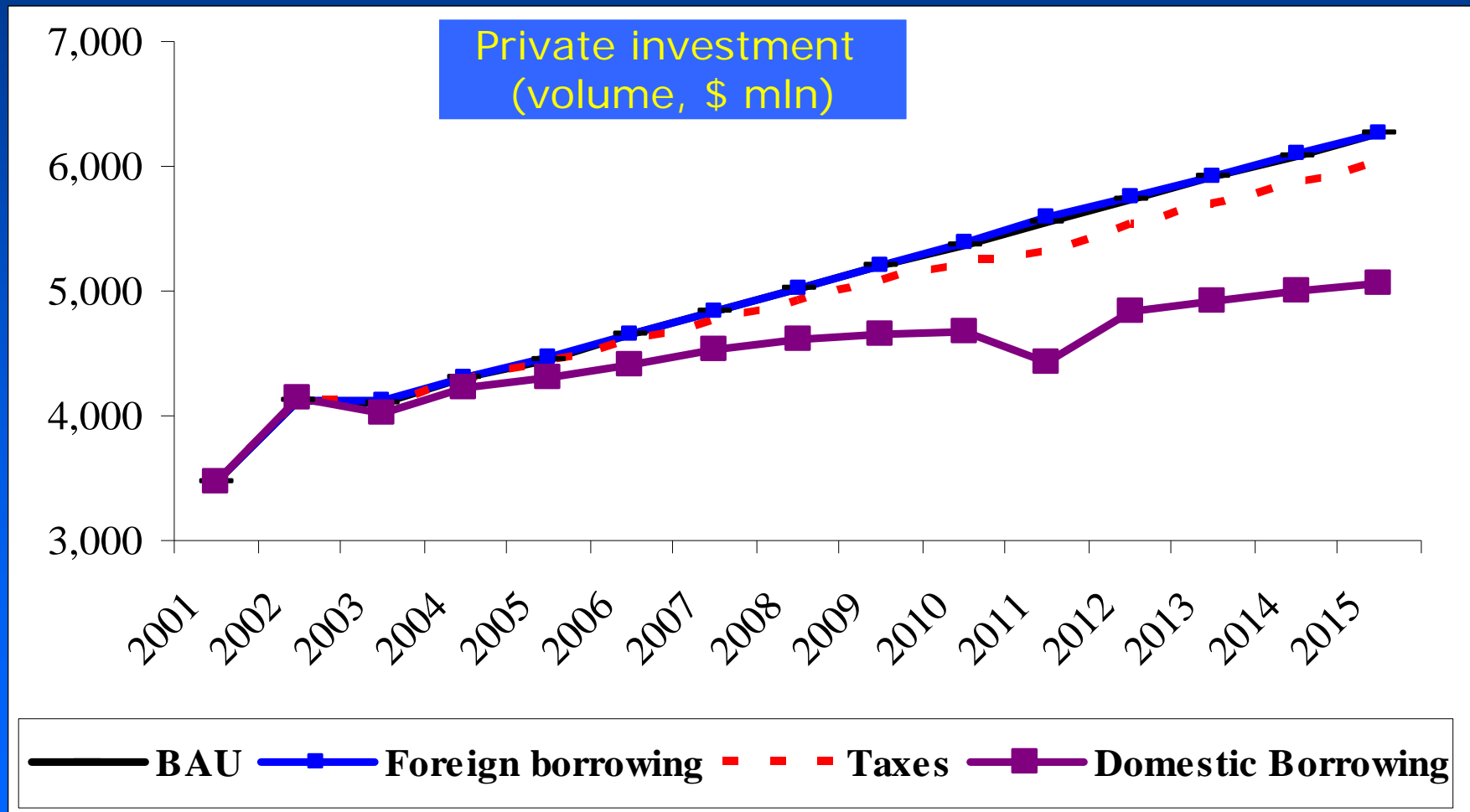


# LAC: MDG financing and erosion of exports

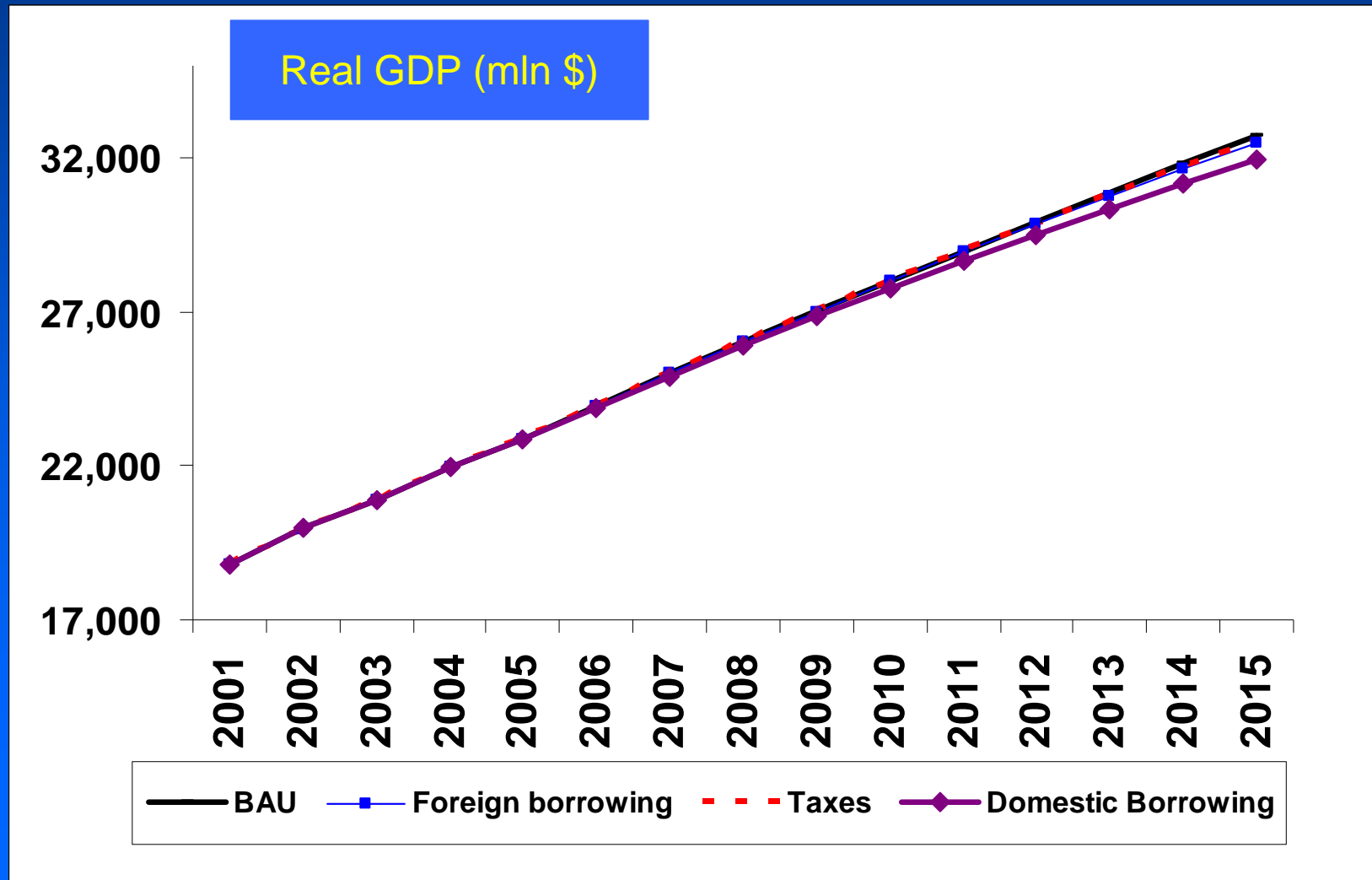




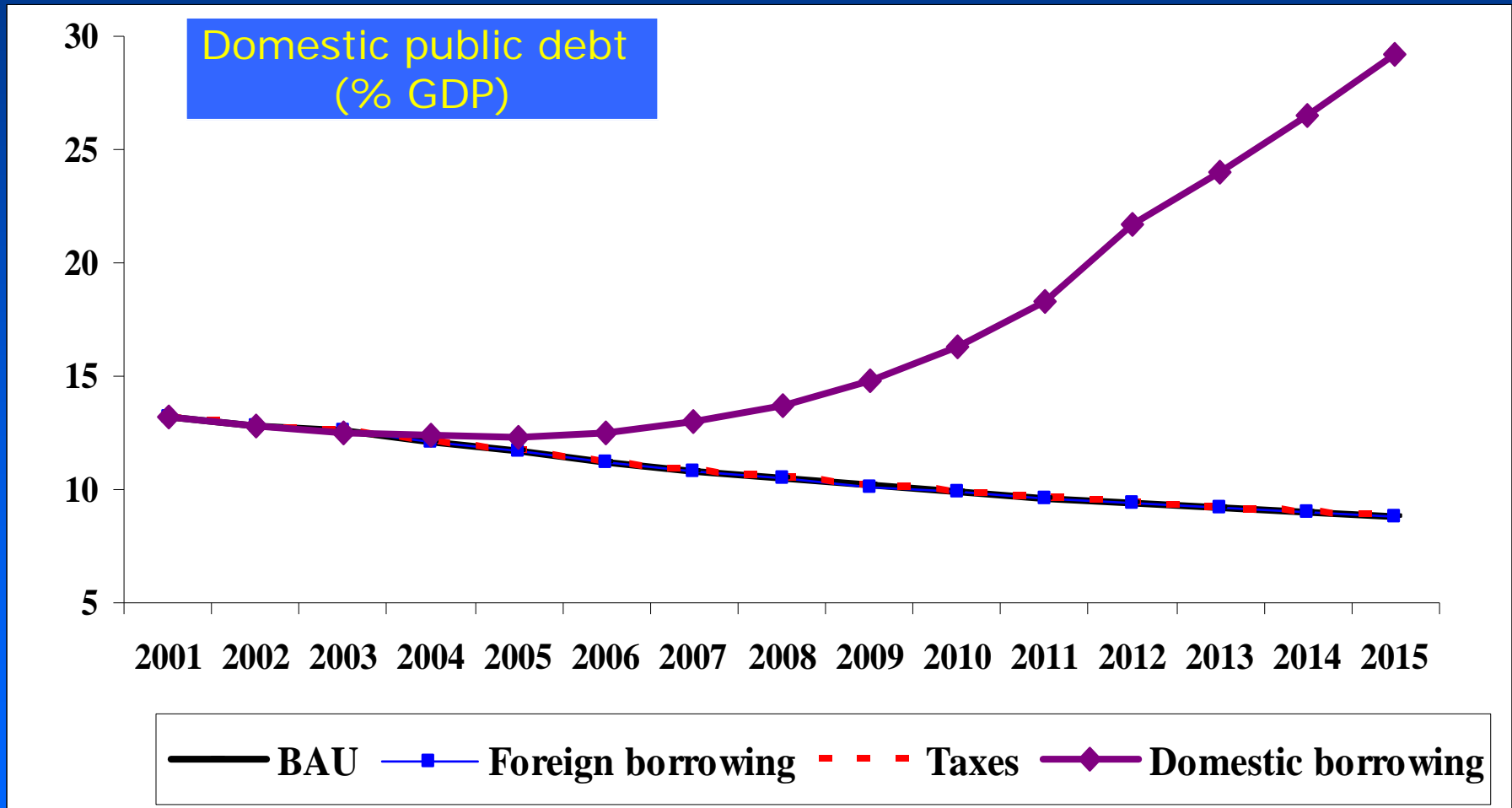
# Ecuador: crowding out of private investment strongest under domestic borrowing scenario



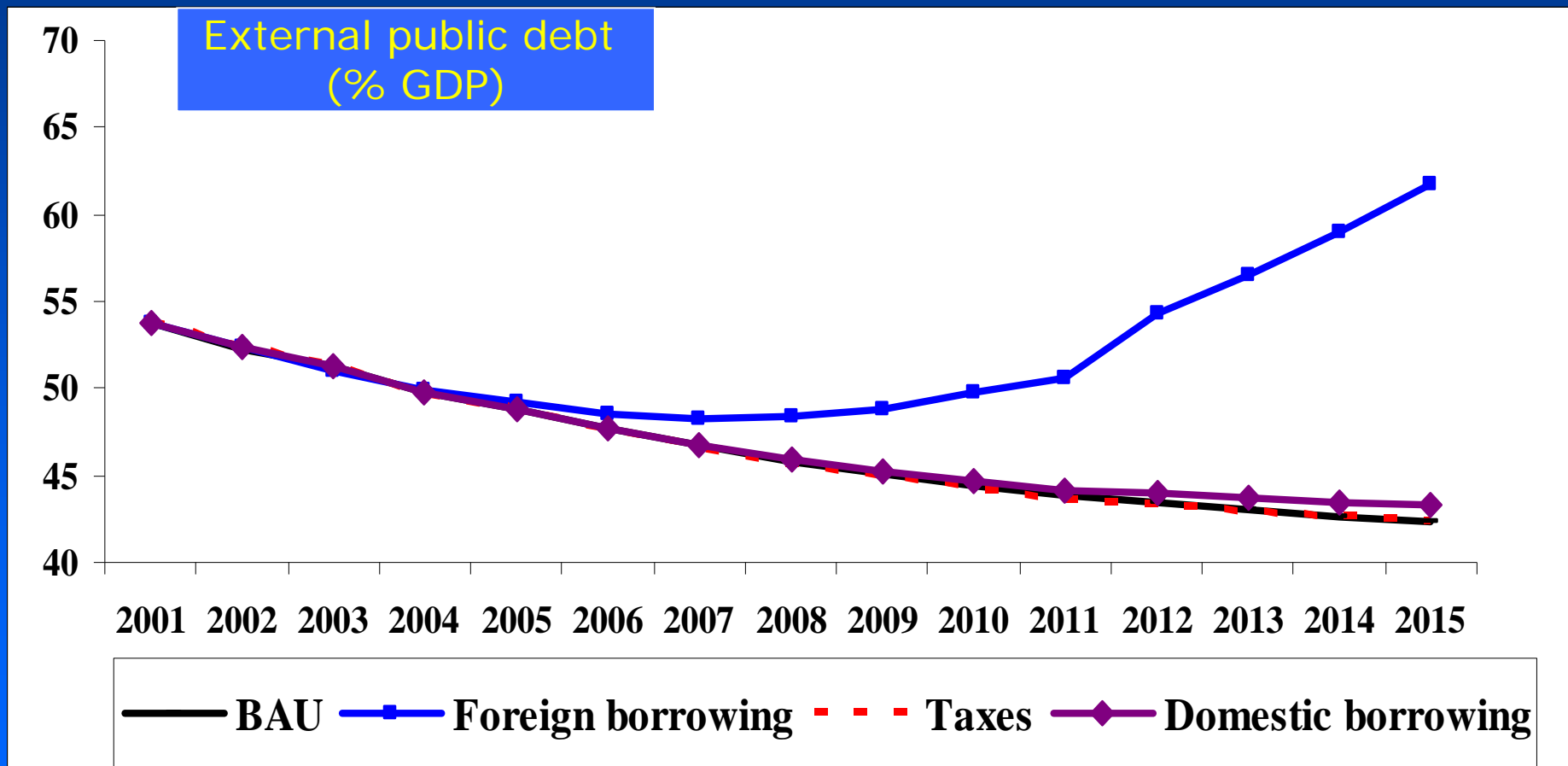
# Ecuador: also GDP growth less under domestic borrowing scenario



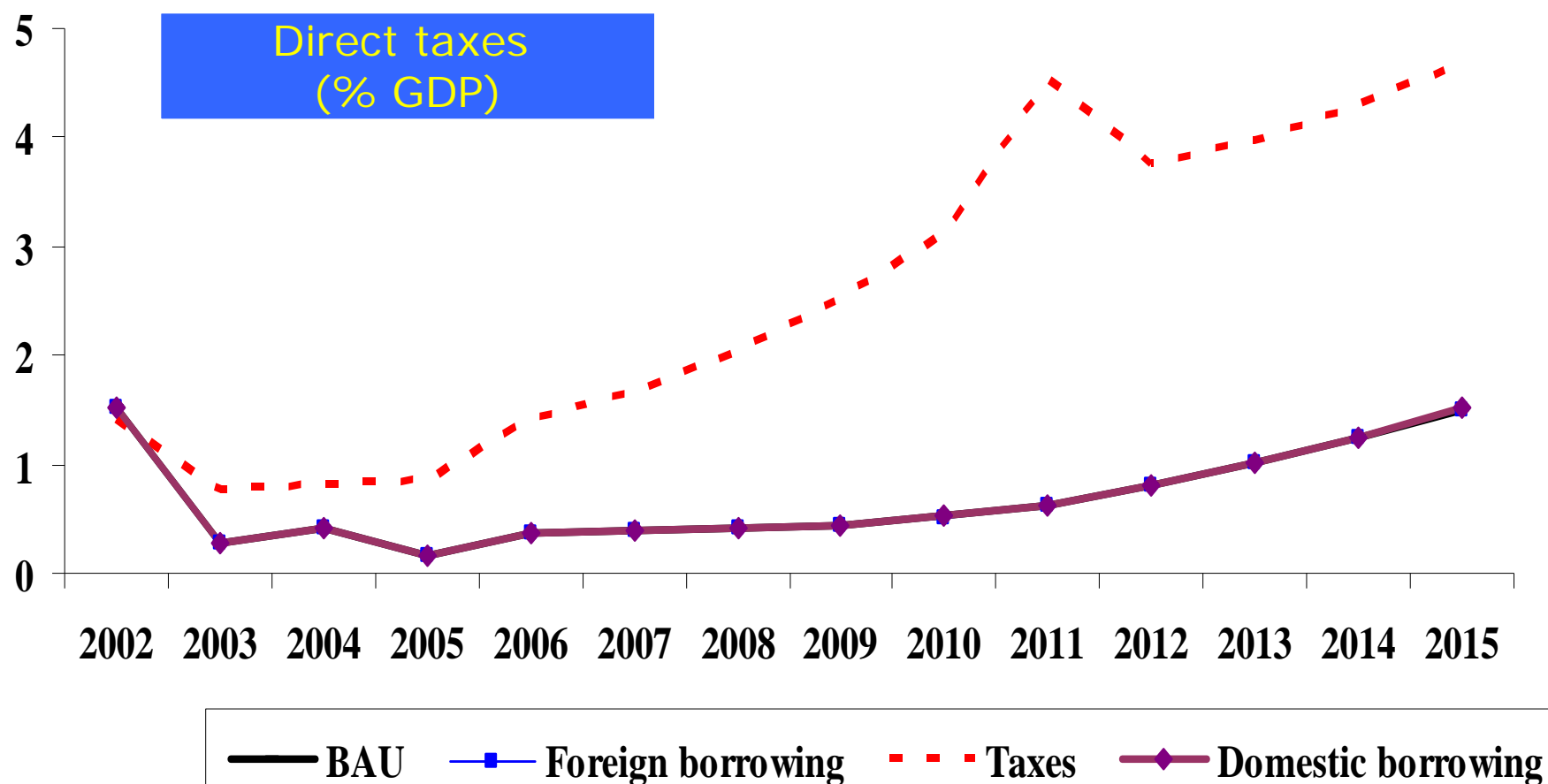
.... but domestic debt would increase to unsustainable levels



# Also external borrowing strategy would raise debt to unsustainable levels



# Ecuador: direct tax burden would have to increase from 1.5 a 4.6 % of GDP



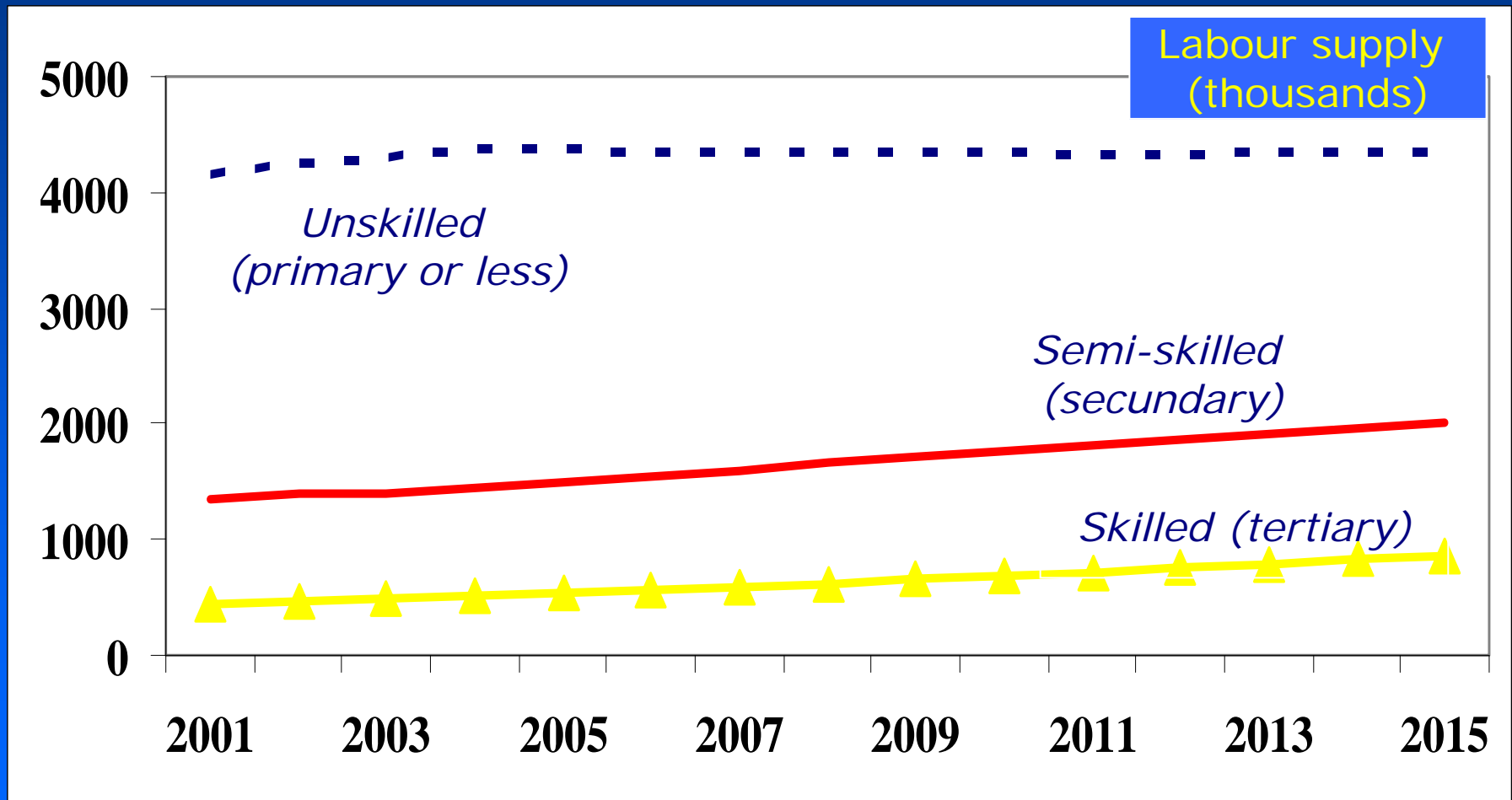
# LAC: “Feasible” financing options

	Foreign aid	Tax increase	Tax increase combined with foreign aid	Tax increase combined with foreign borrowing	Tax increase with public expenditure reform and other
Argentina		✓			
Bolivia	✓				
Brazil		✓			
Colombia					✓
Costa Rica		✓✓		✓	
Dominican R				✓	
Ecuador		✓			
El Salvador					✓
Honduras			✓		
Jamaica					✓
Guatemala					✓
Mexico					✓
Nicaragua			✓		
Paraguay		✓			
Peru		✓✓		✓	
Uruguay					✓

# Trade-offs and MDG 1

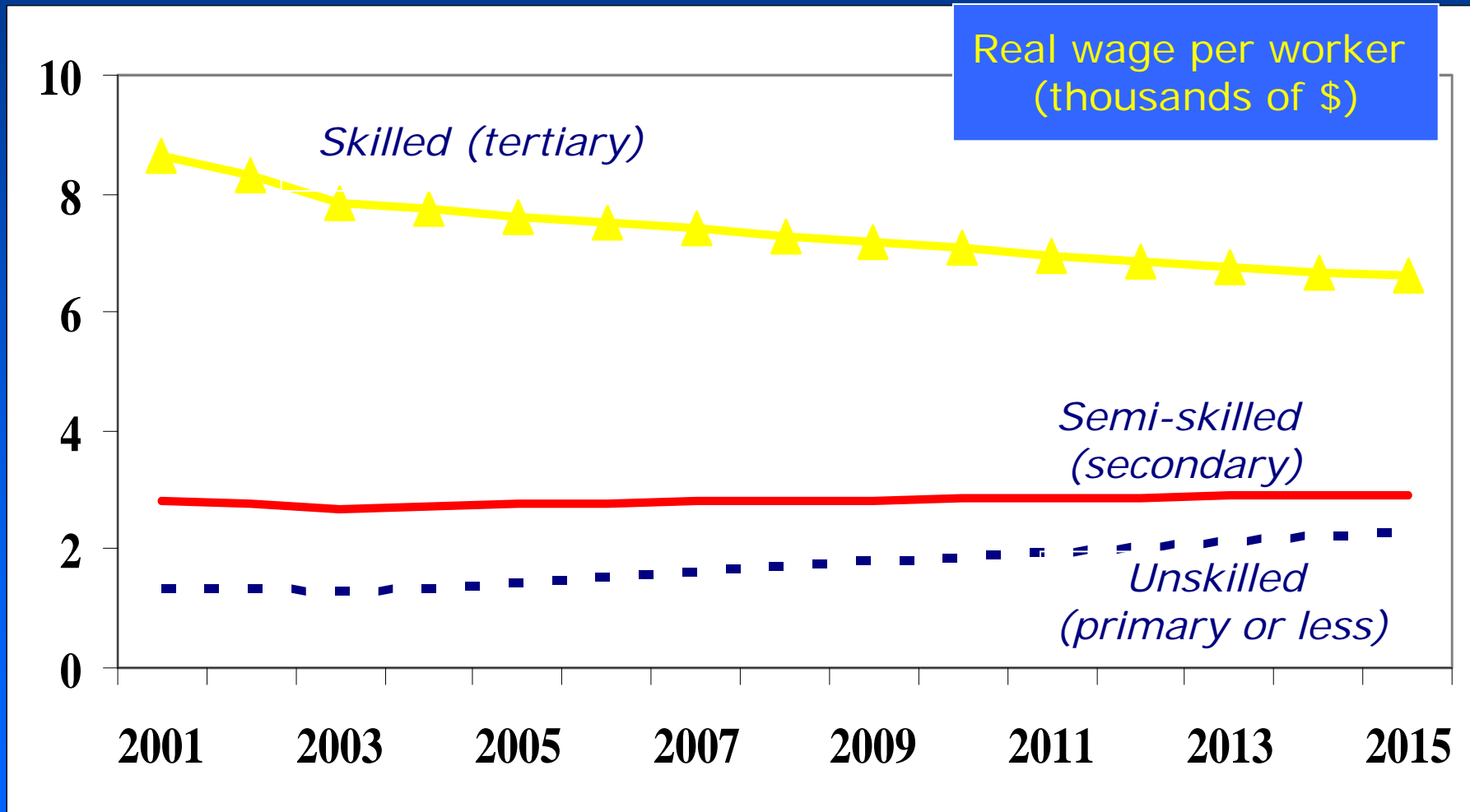
- MAMS does not provide for an explicit MDG-1 strategy
- Changes in extreme poverty are modelled as results of the other MDG strategies and related trade-offs, in combination with microsimulation methodology using CGE outcomes for labour market and labour supply composition

# Ecuador: MDG strategy increases supply of skilled labour

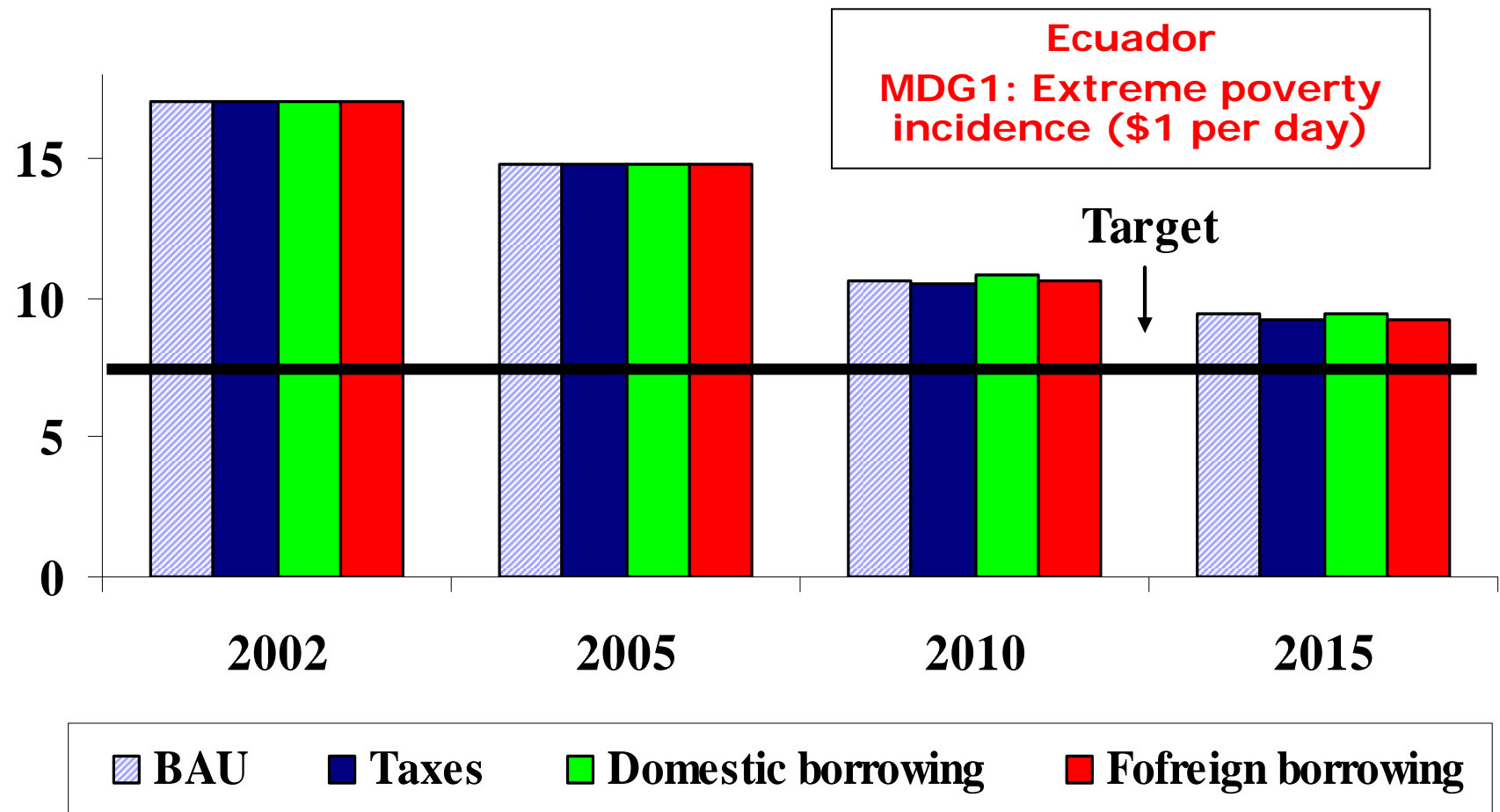




# Ecuador: falling wage gaps



....but not good enough to meet  
poverty reduction target

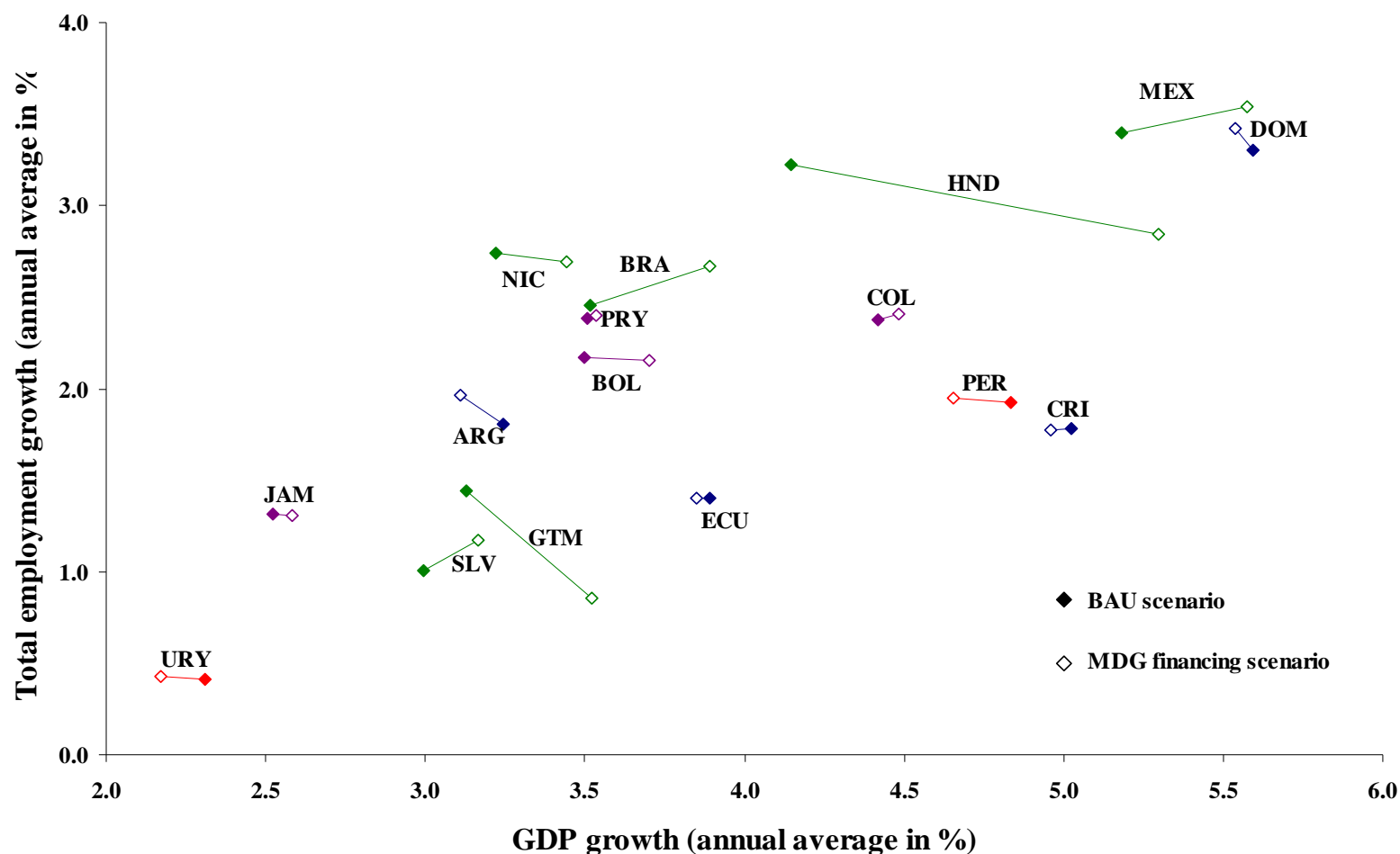


# LAC: mixed results for MDG1

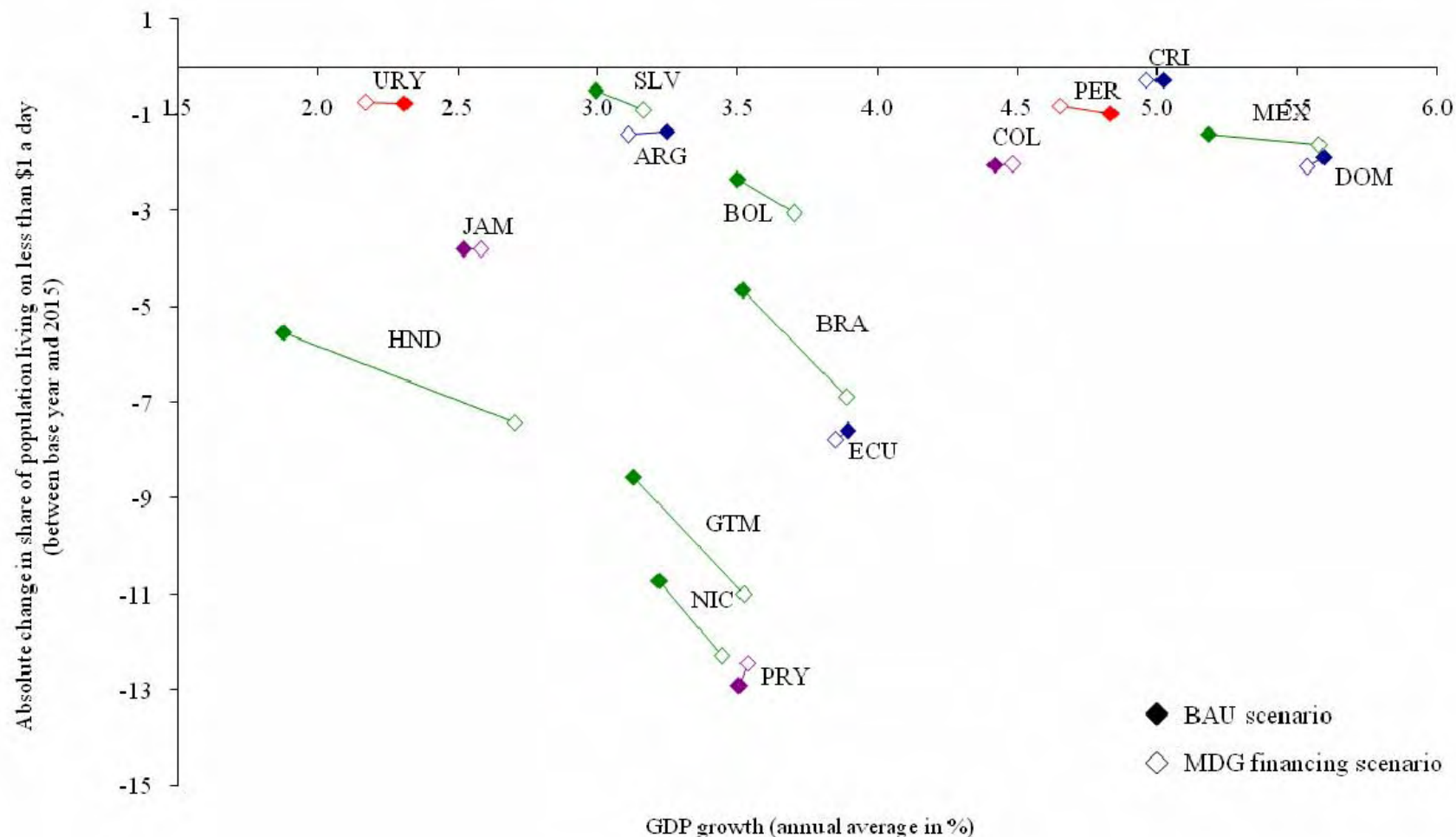
## ■ Main results:

- 7 countries reach MDG 1 under BAU, and 8 under the MDG scenario (incl. Honduras)
- Progress in poverty reduction is mostly explained by average income and employment growth both under BAU and MDG scenarios
- High income inequality remains an obstacle to increased poverty reduction in LAC

# MDG strategy does not necessarily strengthen employment-output nexus



# Investments towards MDGs 2-7 do not necessarily accelerate progress towards MDG 1



# Conclusions and recommendations

- **Affordable**: the cost of reaching MDGs is not prohibitive, but most LAC countries need extra efforts to achieve the goals (BAU not good enough)
- **Tax and spend**: analysis of macroeconomic trade-offs suggest tax reform should be at centre of financing strategy (though mixed financing may be best in most cases)
- **Efficiency increases in social spending**: MAMS assumes effective allocation to reach goals, but in practice space to improve efficiency in public spending to create more fiscal space

# Conclusions and recommendations

- **Socially responsible macroeconomic policies:** broad perspective on macro policies beyond stabilization and inflation targeting: growth, adequate social spending, employment growth and inter-temporal objective of human development
- **Structural adjustment:** need to generate more productive employment and reduce inequality: MDG strategy per se insufficient to meet poverty reduction target

# Caveats

- MAMS gives stylized picture of economy. Results are sensitive to model assumptions and parameter estimates
- Always imperfect instrument, but provides integrated and consistent picture
  - Better costing instrument
  - Improved identification of “on track” vs “off track”
  - Link macroeconomic and social policies
- Need to avoid its use as “black box”, but see as instrument to help policy dialogue