

# Detaxation: The Effect of labour costs on employment in Macedonia

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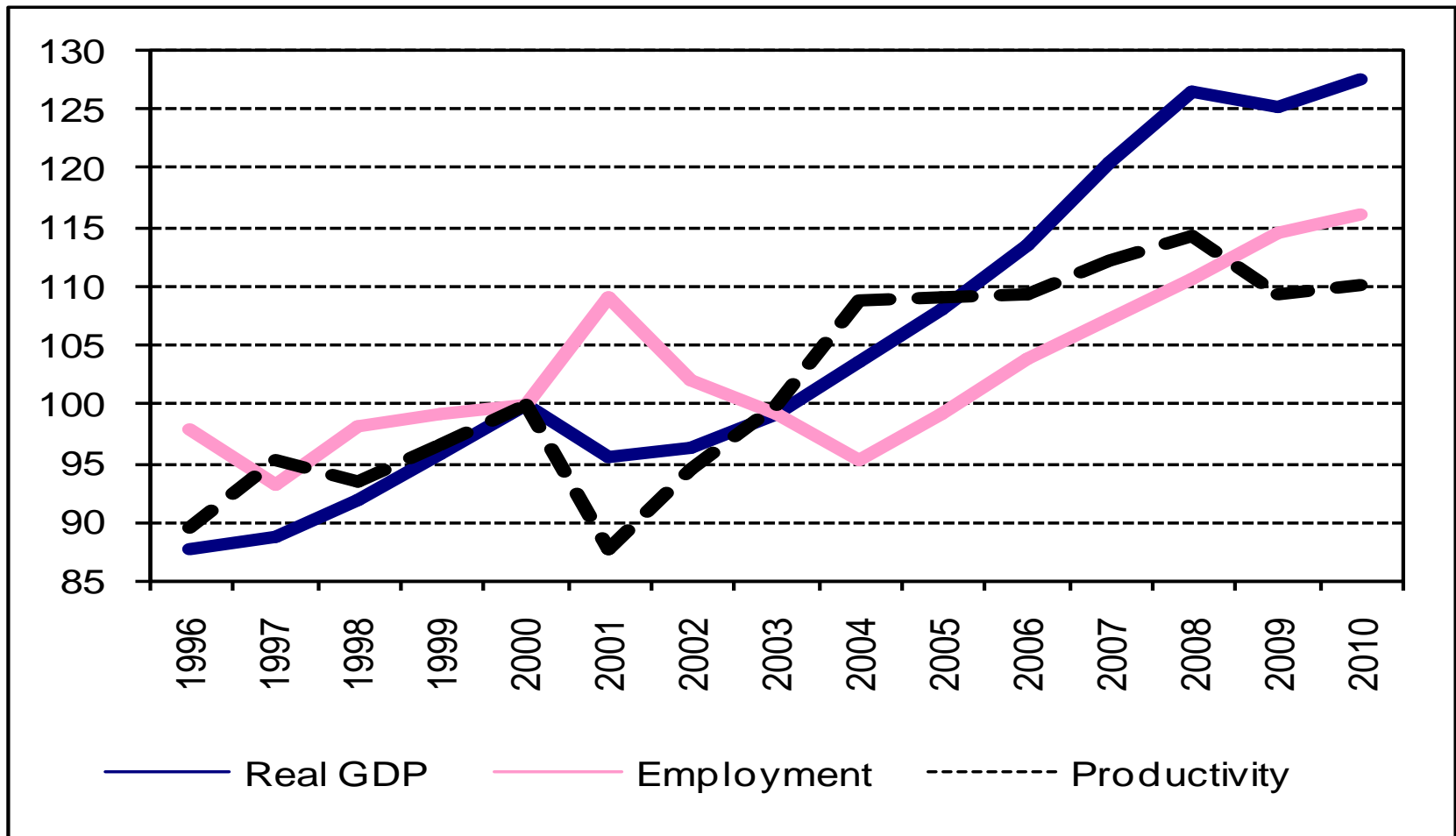
# Structure of presentation

- Motivation
- Macroeconomic performance
- Labour taxation
- Empirical model and methodology
- Results and discussion

# Motivation

- Overall economic and labour market performance
- Implemented tax reforms
  - Taxes
  - Social security contributions
  - Gross wage reform (minimum contribution base, liability, allowances, integrated collection of SSC and PIT)
- Evidence-based policy design

# Macroeconomic performance



# Comparative labour market perspective

	<b>Participation rate (%)</b>	<b>Employment rate (%)</b>	<b>Unemployment rate (%)</b>
Macedonia	64.2	43.5	32.0
EU-27	71.0	64.1	9.7
EU-15	72.4	65.4	9.6
Croatia	61.5	54.0	11.8
Turkey	51.9	46.3	10.7

Source: Eurostat database.

# High unemployment - factors

- Weak initial position
- Low growth rate and job creation
- High tax wedge (labour costs)

# Labour taxation (1)

- Tax wedge between labour costs and net wage
- (De)Motivation for:
  - 1) employing workers – for employers; and for
  - 2) job (search) – for working-age population.
- Grey economy and distorted relative prices

# Comparison of tax wedge

% of AW		50%	67%	100%	167%
Country	year				
Macedonia	2006	44.3	39.2	40.2	41.0
	2007	41.2	37.8	38.6	39.2
	2008	40.7	36.8	37.5	38.0
Serbia	2007	37.6	38.4	39.2	39.7
Albania	2006	34.1	27.9	28.9	29.8
Croatia	2008		38.1	40.1	44.4
Slovenia	2007		40.0	44.0	50.0
EU-27	2008		37.0	40.6	45.1
EU-15	2008		38.1	42.4	47.6
EU-12	2008		35.6	38.5	42.0
"Excess" tax wedge Macedonia/EU-12 (2008)			1.2	-1.0	-4.0



## Labour taxation (2)

- Reduction of taxation can increase employment
- The effect on employment depends on the:
  - tax incidence;
  - elasticity of labour supply and demand.

# Labour taxation – empirical studies

- Estimation of:
  - 1) demand elasticity, and
  - 2) pass-through effect - percentage decline in labour costs resulting from a 1 p.p. reduction of labour taxes
- Elasticity of demand: -0.2 to -0.4 (World Bank); Behar (2009), -0.24 in EU-10; Western Balkan, -0.21 (World Bank)
- Pass-through effect: relatively low
- The estimates are unreliable and unexpected

# Empirical model

- Model of labour demand
- $E_t = \alpha + \beta_1 \ln W_t + \beta_2 \text{PIT}_t + \beta_3 \text{SC}_t + \beta_4 \ln \Pi_t + \beta_5 \text{PT}_t + \varepsilon_t$ 
  - Separated tax wedge from SC and from PIT;
  - Control variable for introduction of the gross wage reform in 2009, which is assumed to have contributed to a reduction of the informal economy in the country.

## Method and data

- **Data: quarterly data for the period 1998:Q1-2010:Q3**
  - LFS from SSO (interpolation of employment before 2004);
  - Wages from SSO;
  - Operating surplus of firms is calculated as residual;
  - Fiscal variables from MF.
- **Used seasonal adjustment**
- **Vector error correction method/model**
  - All series are integrated of order one;
  - One cointegrating vector identified.

# Results and discussion (1)

		Speed of adjustment	Constant	$\beta_1$ $\ln W_t$	$\beta_2$ $PIT_t$	$\beta_3$ $SC_t$	$\beta_4$ $\ln P_t$	$\beta_5$ $PT_t$	$\beta_6$ (Gross wage)	$\beta_6$ (Post-conflict)
Long-run vector	(1)	-0.042	244.326***	-0.337***	-3.017***	-0.959**	0.228***	1.524***	-	-
	(2)	0.063	247.136***	-0.339***	0.553	-3.067***	0.185***	2.743***	9.784***	-
	(3)	-0.188***	217.879***	-0.335***	-1.809***	-1.412***	0.195***	1.200***	-	-0.241***
	(4)	-0.100	144.755***	-0.222***	0.126	-1.821***	0.150***	1.962***	6.665***	0.099
	(5)	-0.100	148.235***	-0.229***	-	-1.786***	0.153***	1.947***	6.749***	0.080
	(6)	-0.100	145.843***	-0.224***	-	-1.815***	0.151***	1.959***	6.701***	-

## Results and discussion (2)

- In high-unemployment environment, firms “consume” part of tax reduction (labour market institutions);
- Productivity of firms (net operating surplus) has positive effect on employment (0.15-0.23 p.p.)
- Rejected assumption for positive effect on employment from the introduction of the flat tax

## Results and discussion (3)

- The reform of the social contributions had positive effect on employment (0.9-3.1 p.p.)
  - Dominance of low-productivity jobs (high elasticity of demand)
  - Lower employment level (non-monotonic effect)
- The new concept of gross wage had positive impact on employment (informal economy and improved tax collection)

## Conclusion

- Results suggest that social contributions are important burden for employment;
- Contrary to this, the effect of tax wedge with PIT is insignificant;
- The gross wage reform caused transition from informal to formal employment and hence is likely to have reduced the informal economy in the country.
- The reform was fiscal-neutral (even) on the short-run
- Additional work



Thank you for the attention!

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