



HKPS

Summer School  
“Trends in international taxation”  
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# Possible developments in tax arena

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**HRZZ**  
Hrvatska zaklada  
za znanost

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# Content

1. Tax structure and tax burden (EU vs. CEE vs. Croatia)
2. Developments in VAT
3. Developments in labor (PIT and Social contributions)
4. Developments in CIT
5. Developments in capital taxation
6. Conclusion

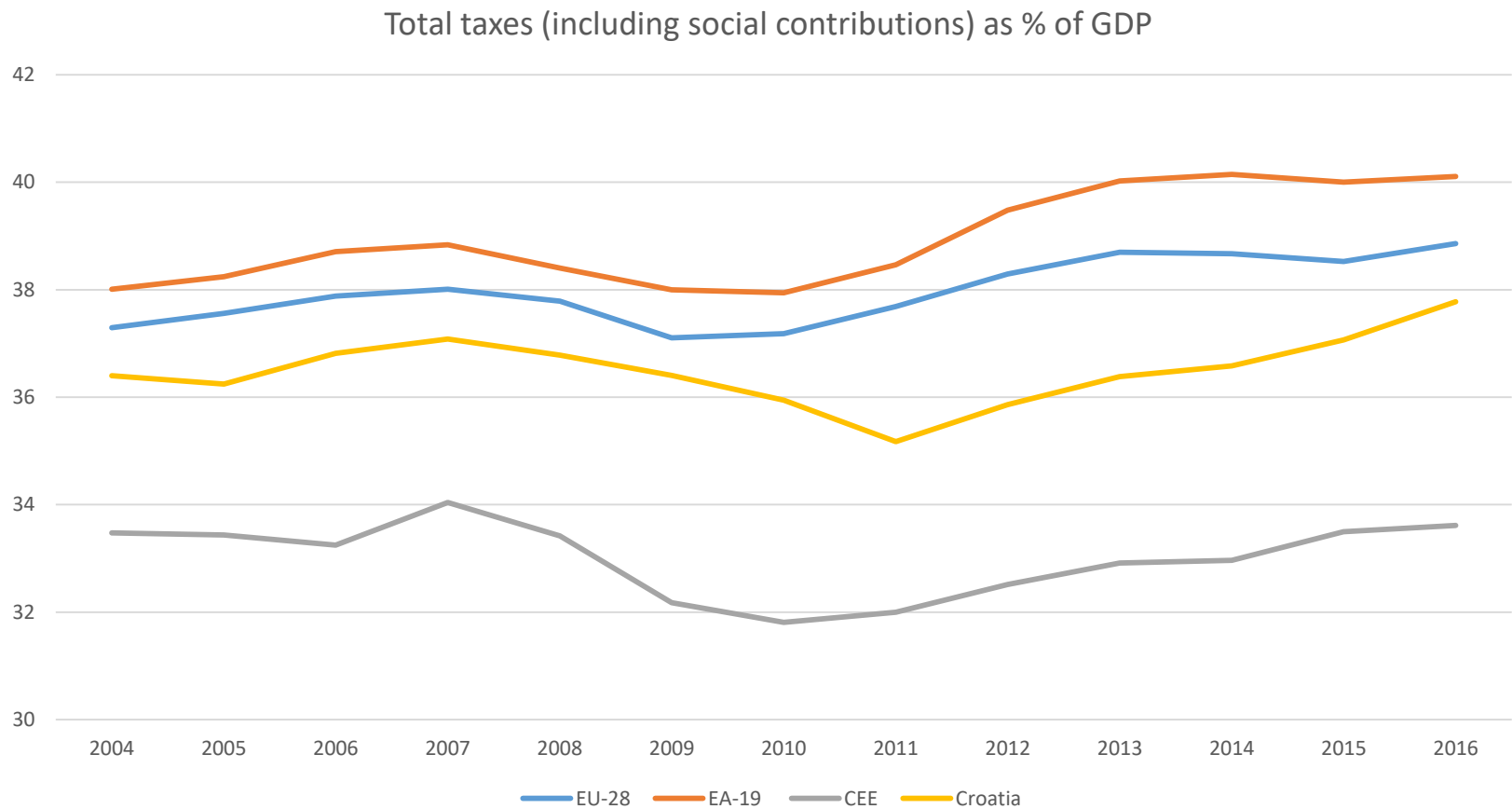
Workshop assignment: discussion questions and proposal of possible changes in tax system

# Tax structure and tax burden

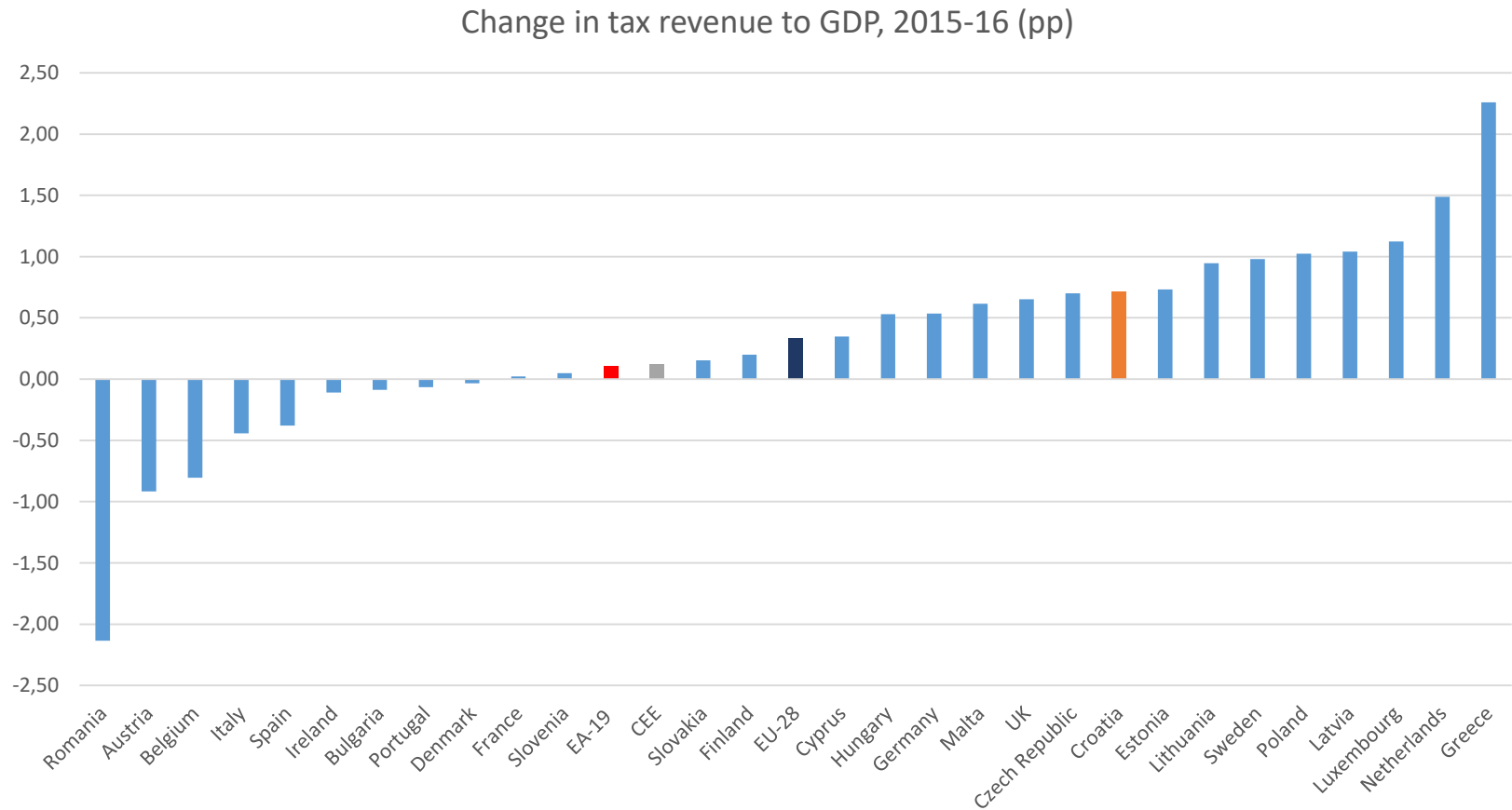
EU vs. CEE vs. Croatia

CEE: Bulgaria, Czech Republic, Croatia, Hungary,  
Poland, Romania, Slovenia, Slovakia

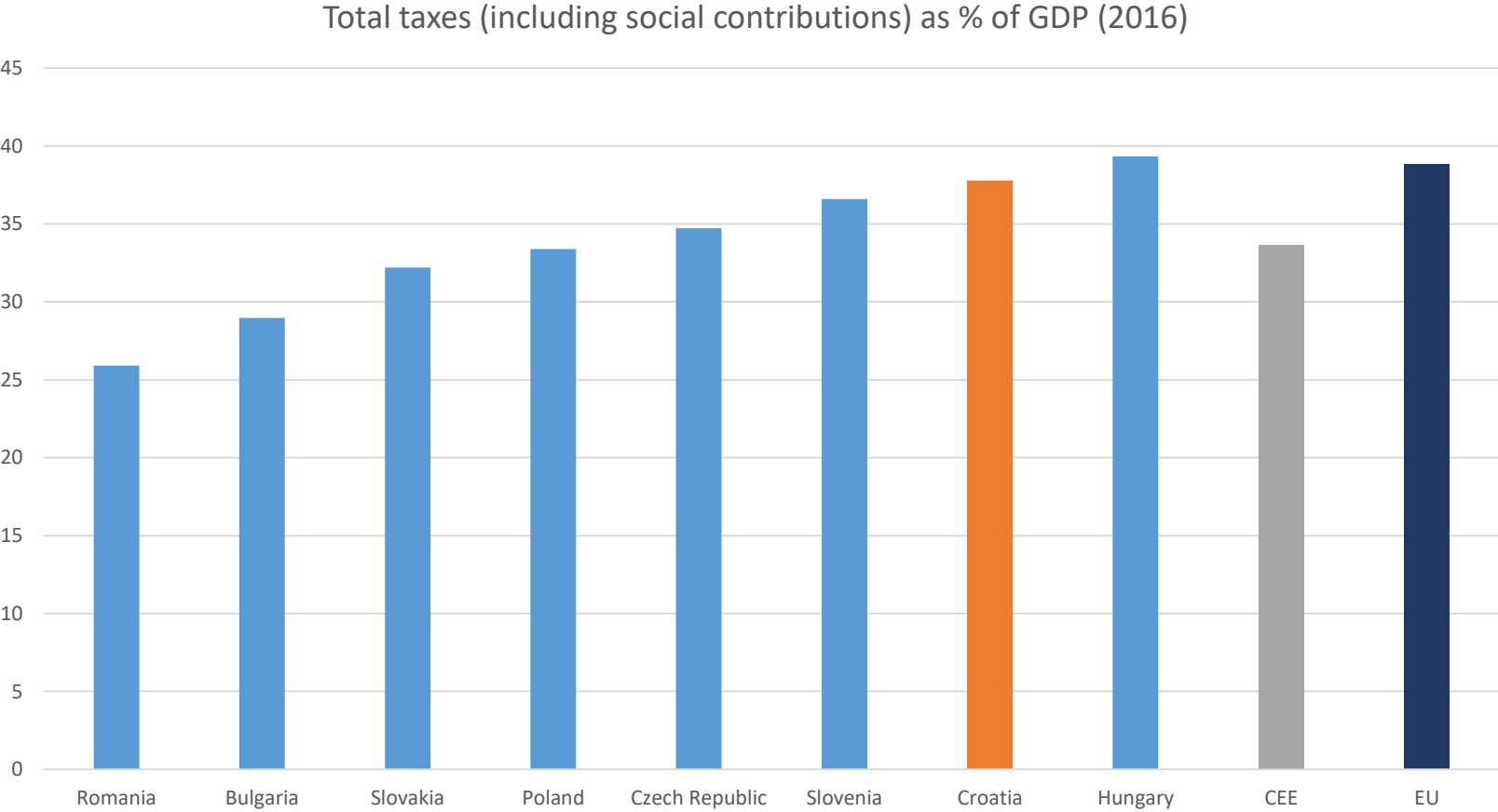
# Overall tax revenues in EU levelled off...



# Tax to GDP increases in 19 MS (6 CEE)

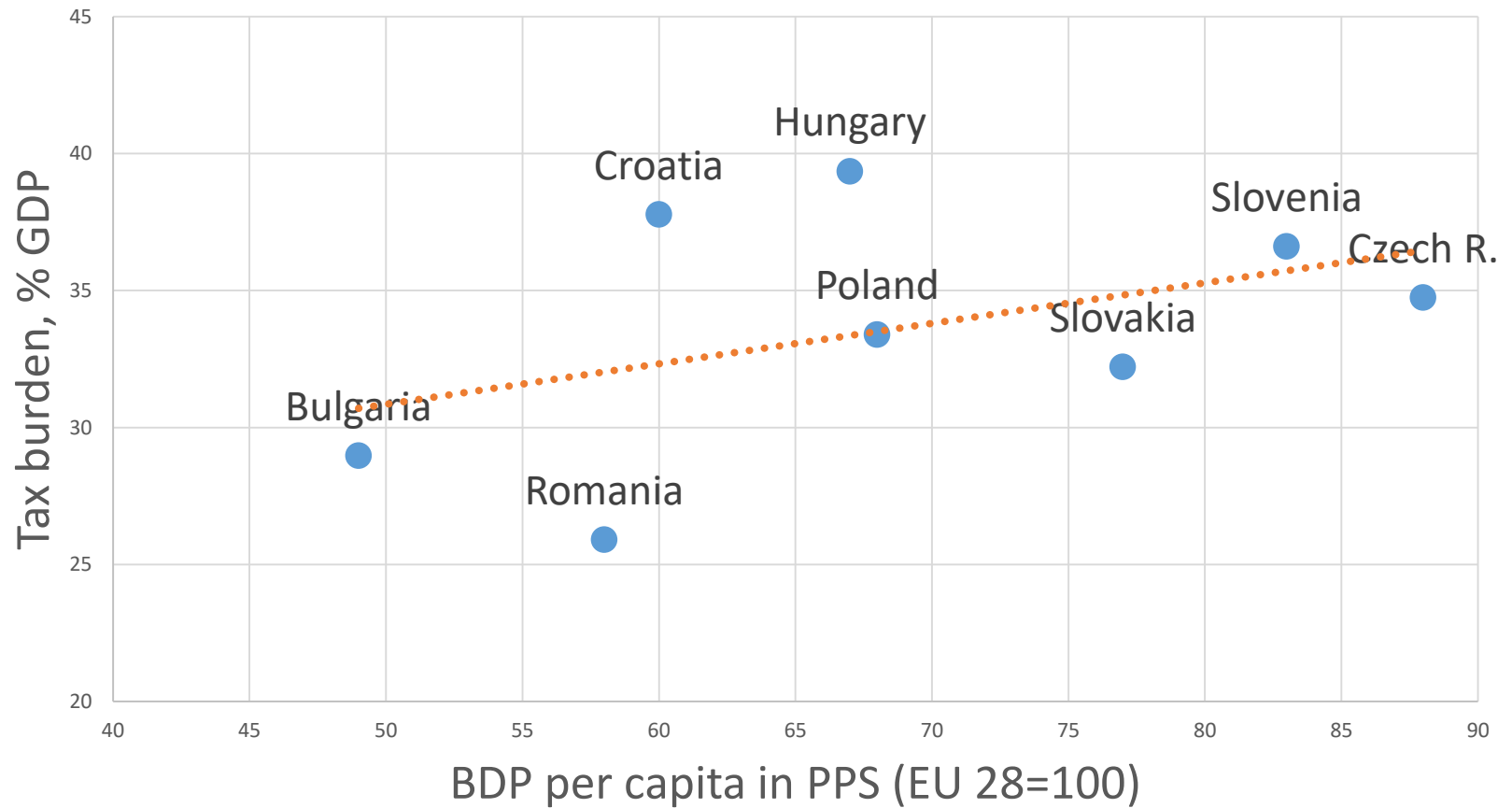


# CEE region below EU average, Croatia above CEE average



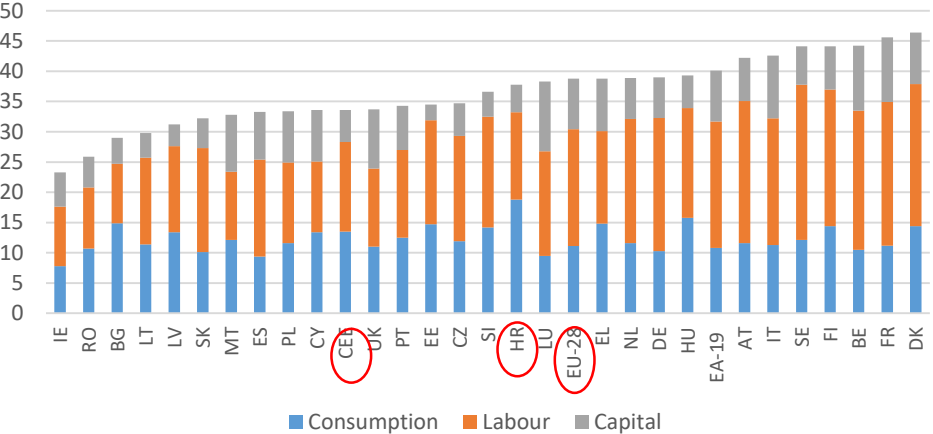
Source: European Commission (2018).

# Tax burden vs. Economic development

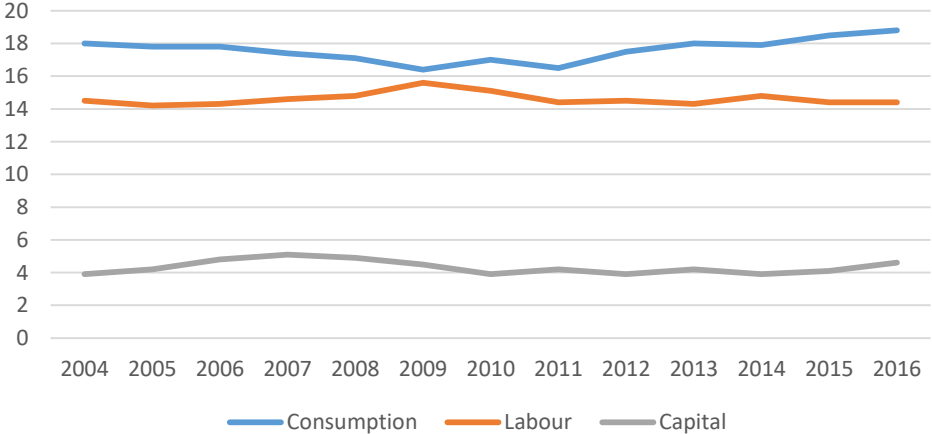


# Tax structure by economic functions variate a lot... consumption taxes dominate in Croatia

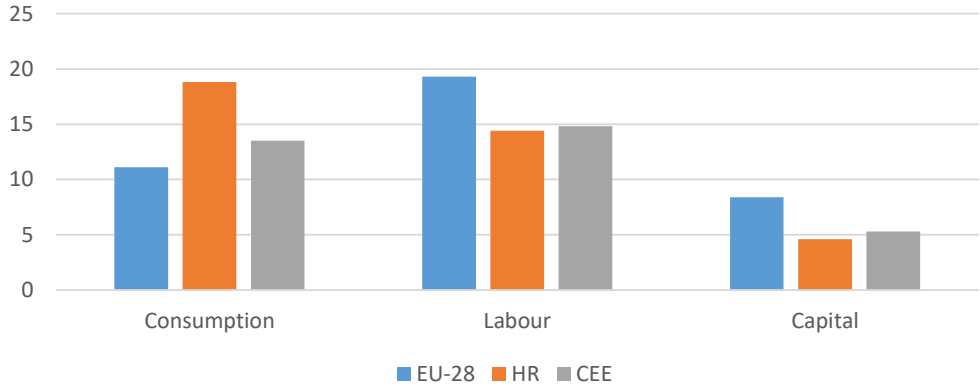
Structure of total taxation, % GDP (2016)



Tax structure in Croatia 2004-16, % GDP



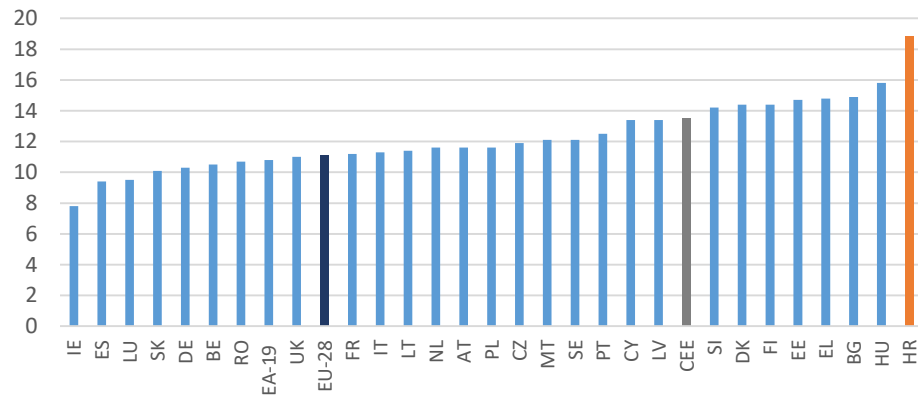
EU vs. Croatia vs. CEE (2016)



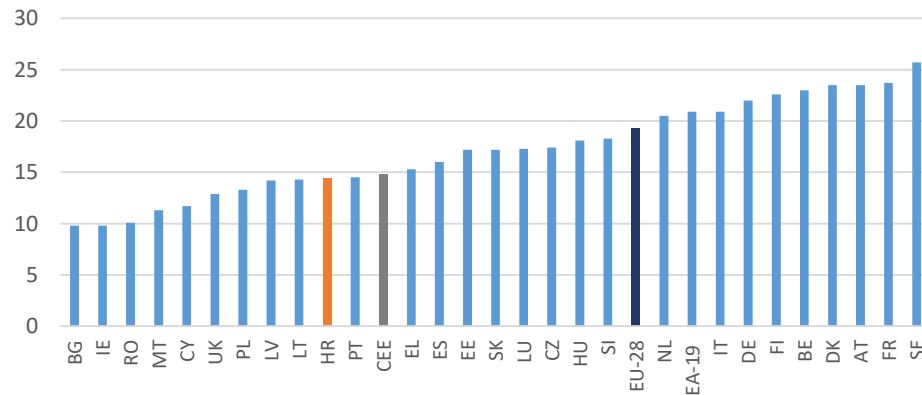
Source: European Commission (2018).

# Croatia is champion in taxing consumption, while taxing capital at low-level...

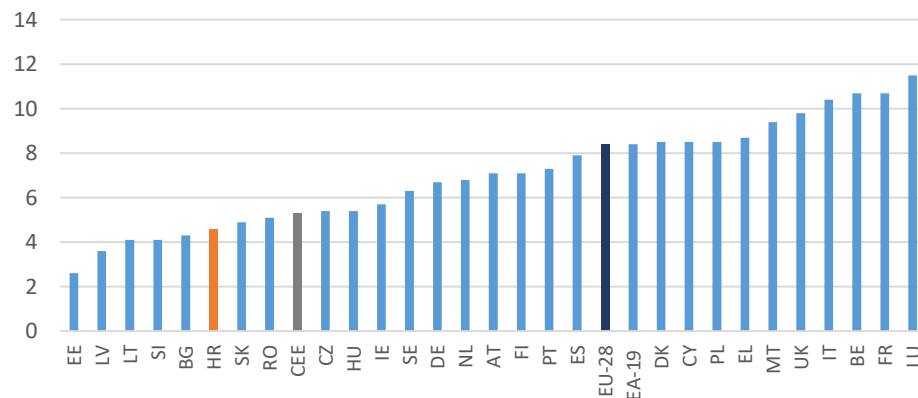
Consumption (% GDP, 2016)



Labour (% GDP, 2016)

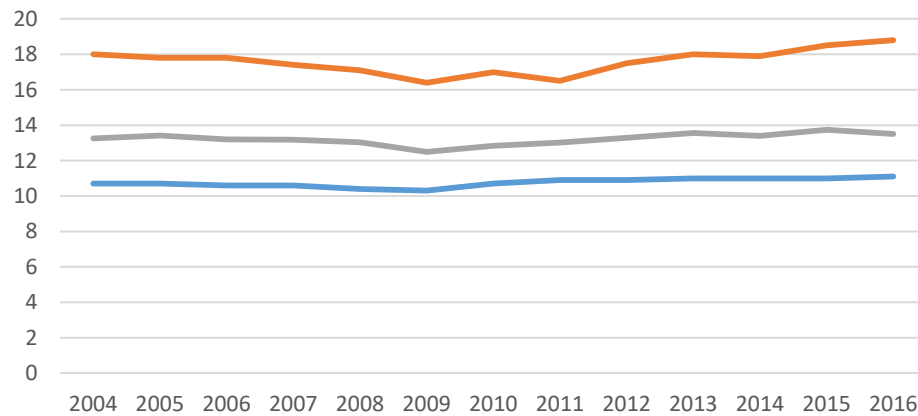


Capital (% GDP, 2016)

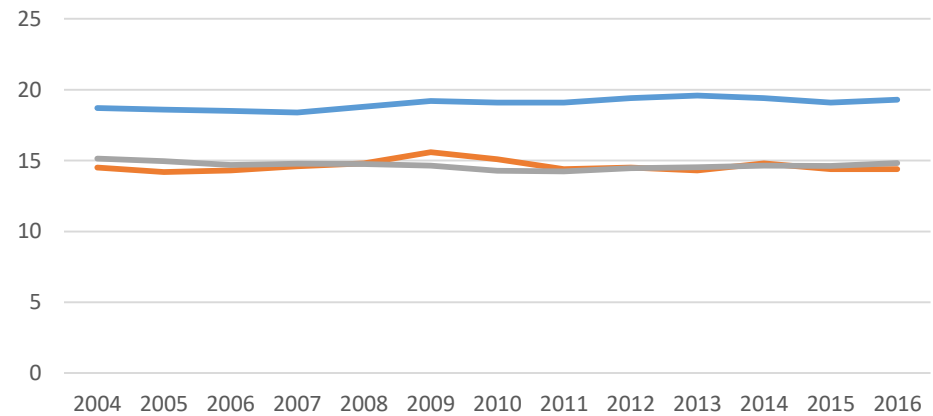


# Croatia and CCE countries have same trend although...

## Consumption

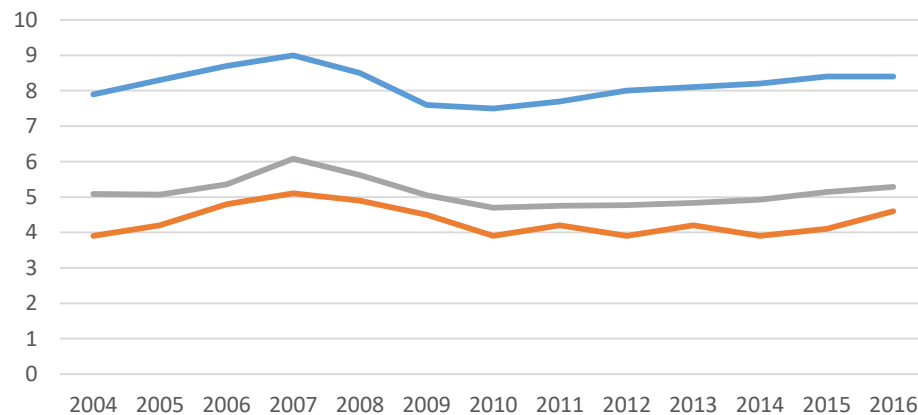


## Labour



— EU — HR — CEE

## Capital

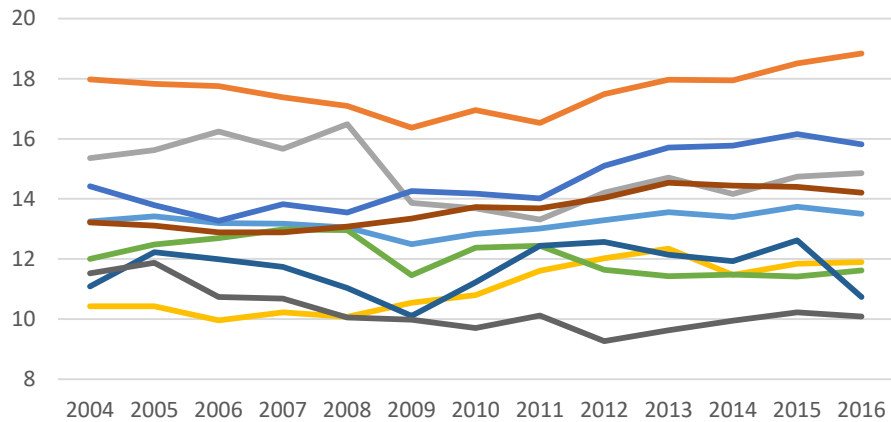


— EU — HR — CEE

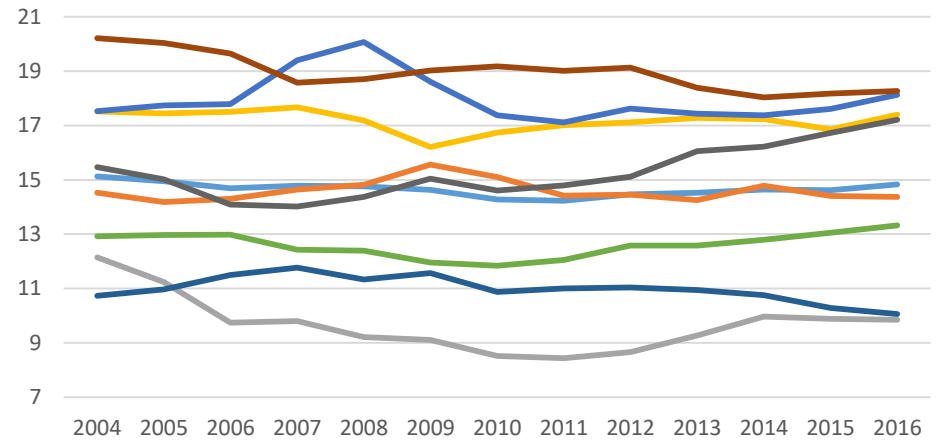
— EU — HR — CEE

# ...there are differences in level of taxation and developments between CEE countries

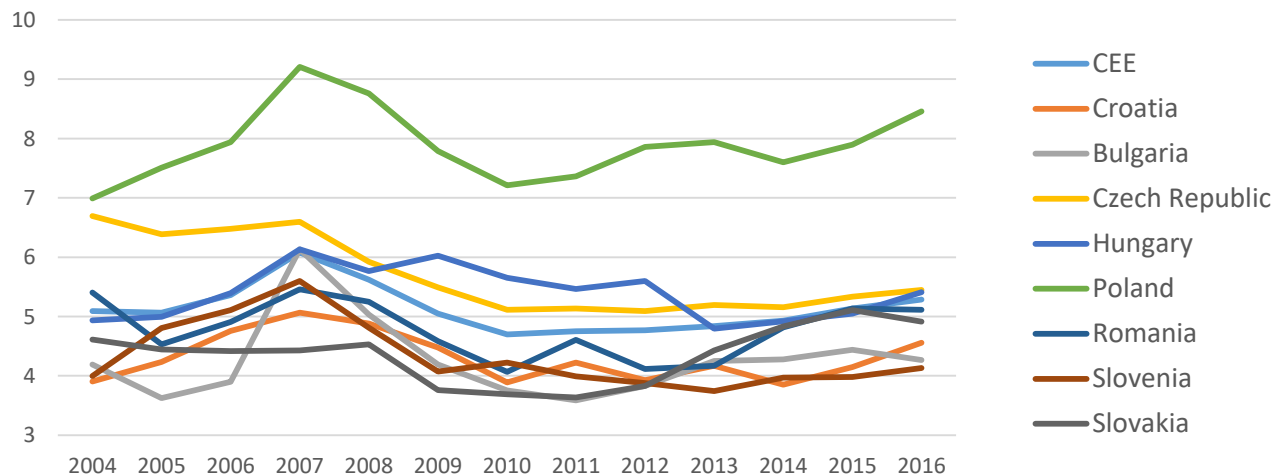
## Consumption



## Labour



## Capital



Source: European Commission (2018).

# Theoretical framework

## Taxes and economic growth

```
graph TD; A[Taxes and economic growth] --- B[Efficiency]; A --- C[Equity]; B --- B1[Market distortions]; B --- B2[Deadweight loss]; B --- B3[Incentives]; C --- C1[Economic inequality]; C --- C2[Redistribution];
```

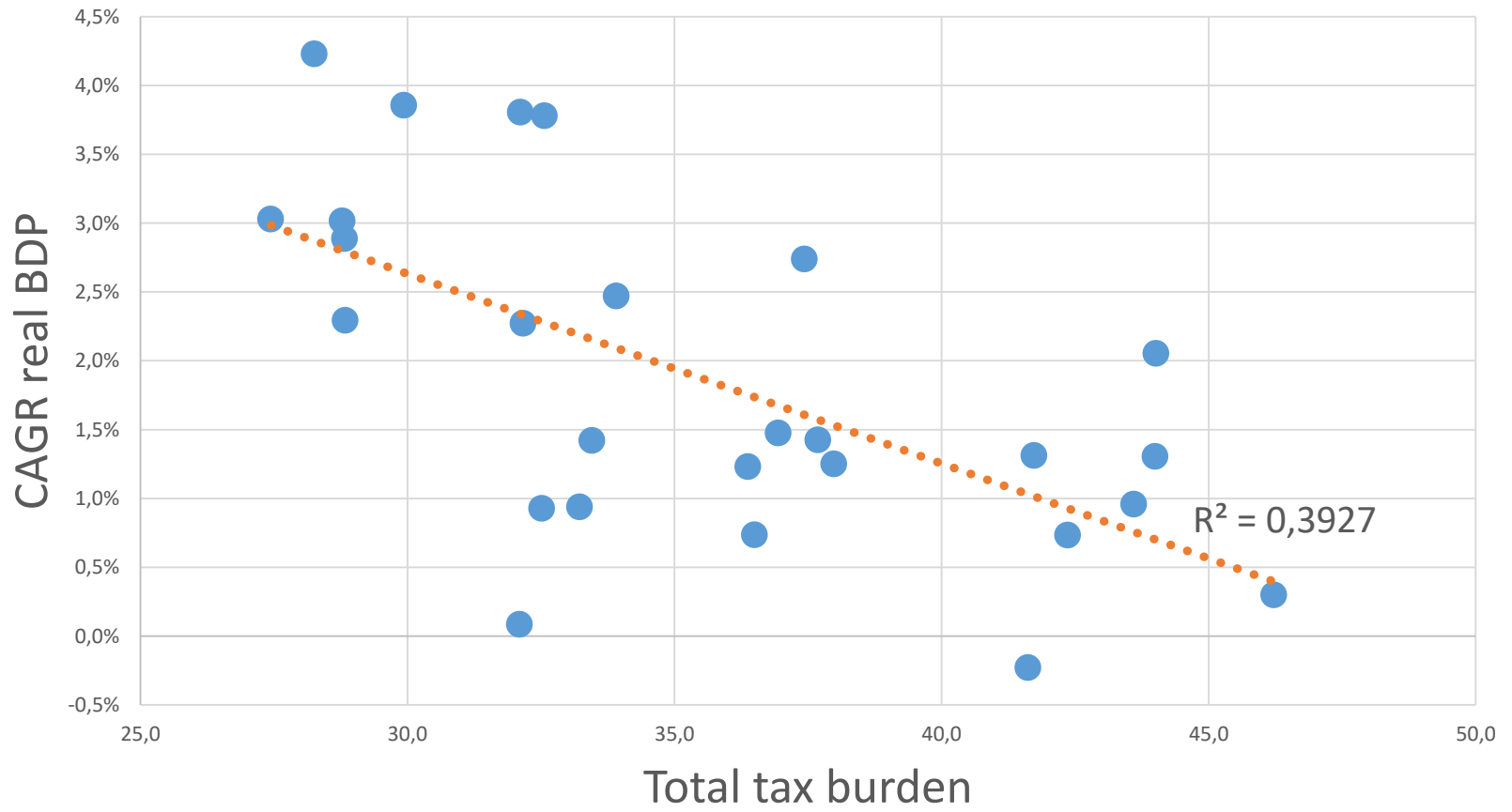
**Efficiency**

- Market distortions
- Deadweight loss
- Incentives

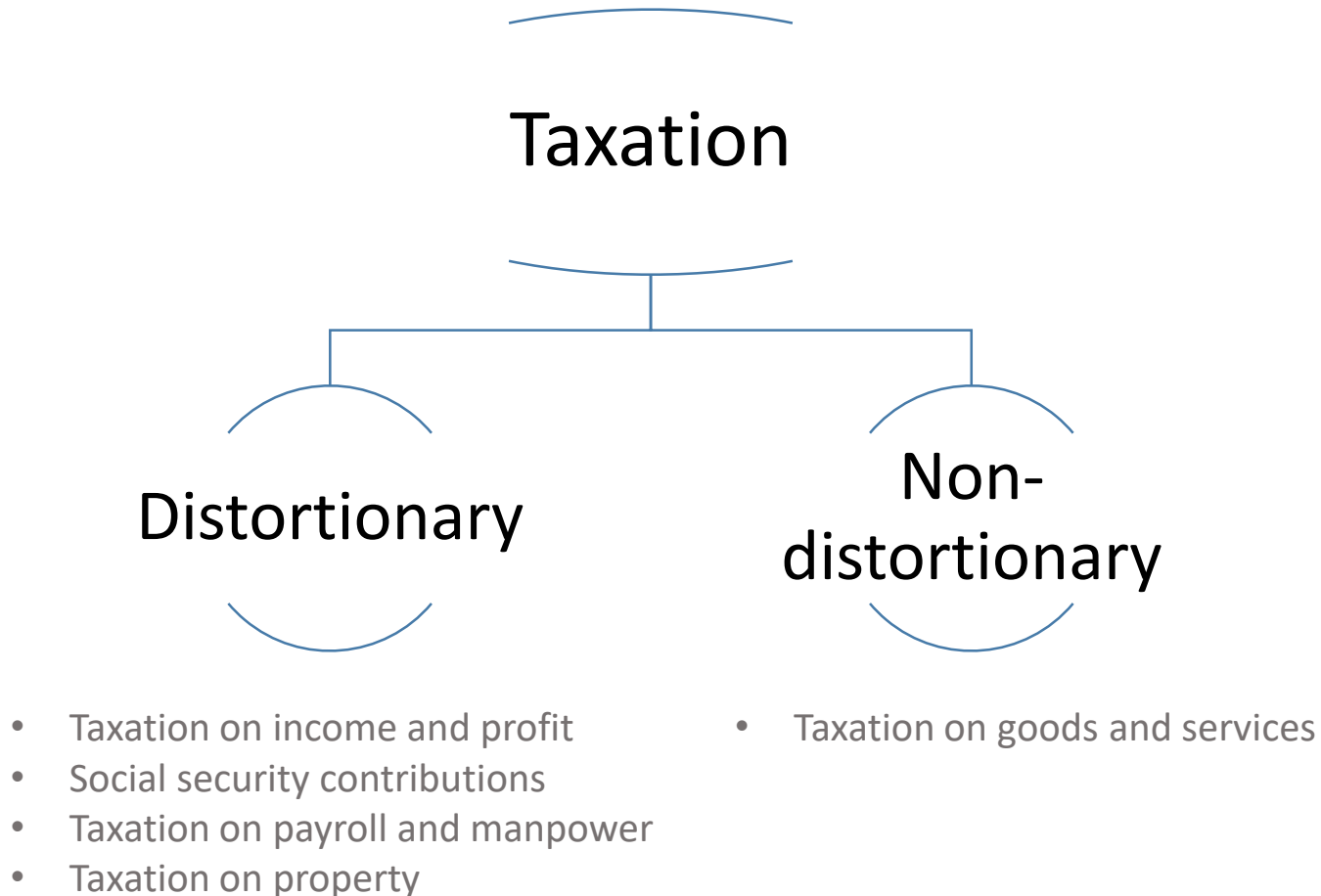
**Equity**

- Economic inequality
- Redistribution

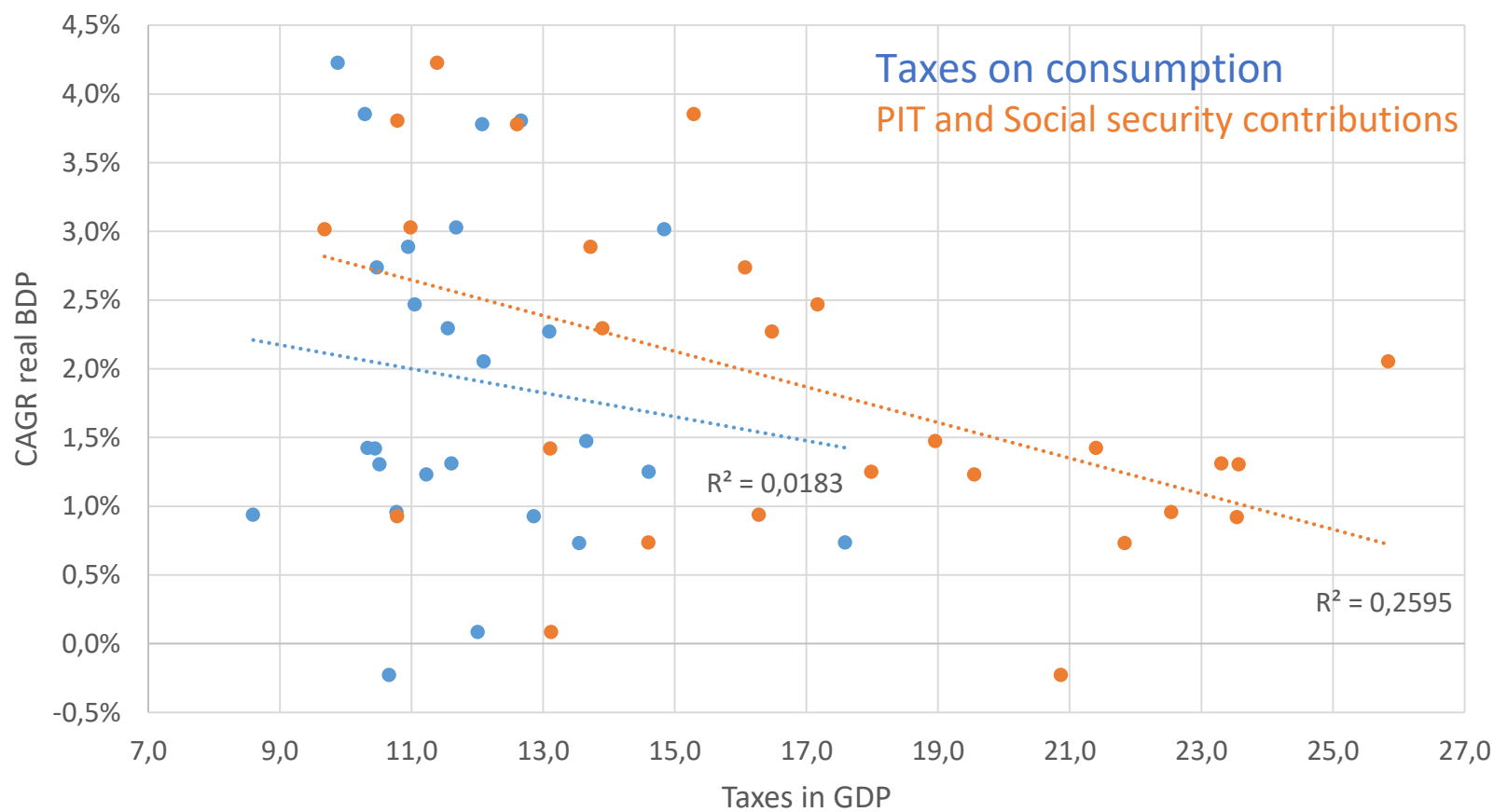
# Relation between tax burden and economic growth is clear



# Different aspect of efficiency (empirical literature)



# „Light” empirical testing (EU)

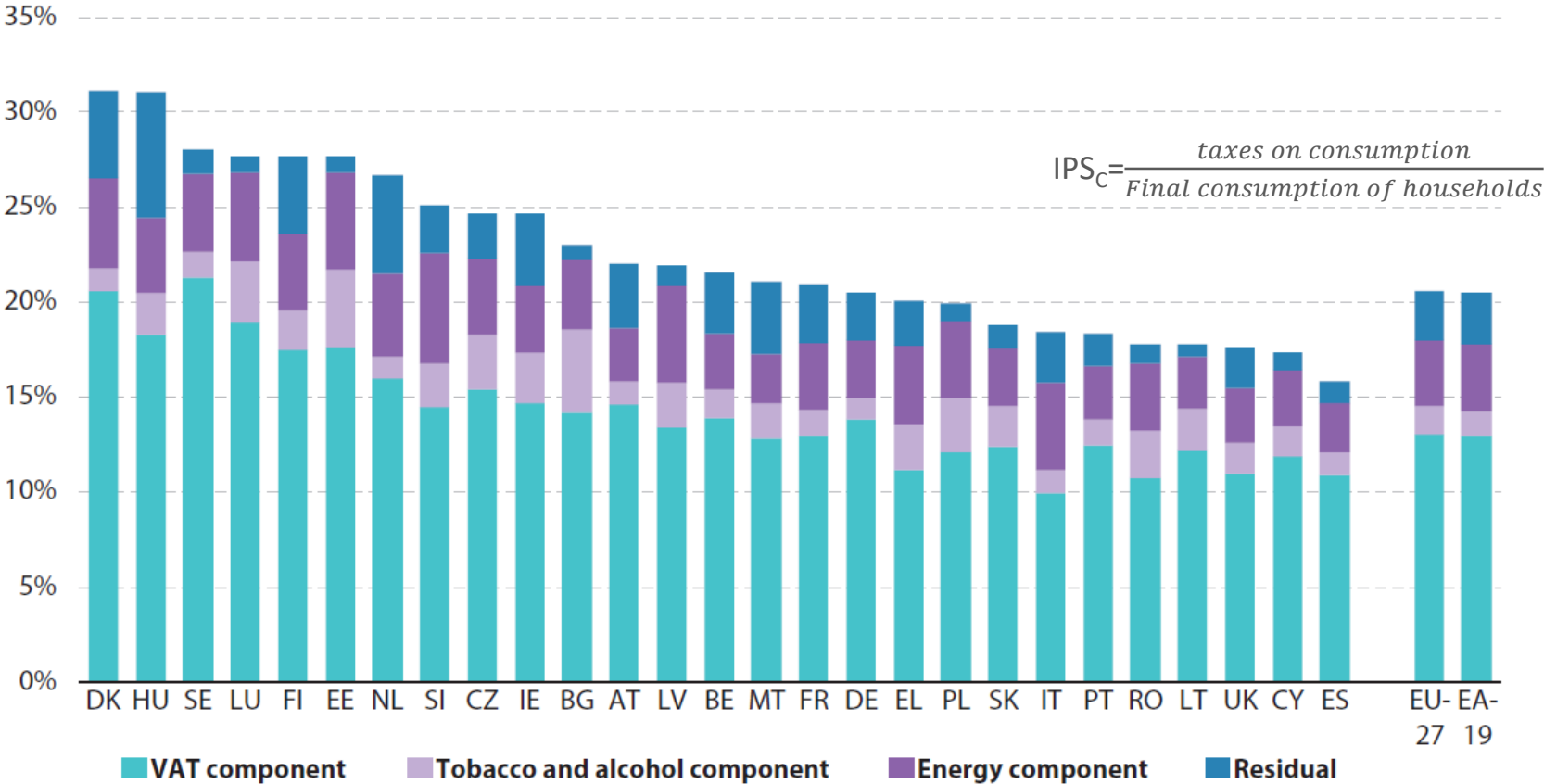


# Developments in VAT

EU trends in consumption taxation and Croatian perspective

# Domination of VAT among consumption taxes...Croatia among highest?

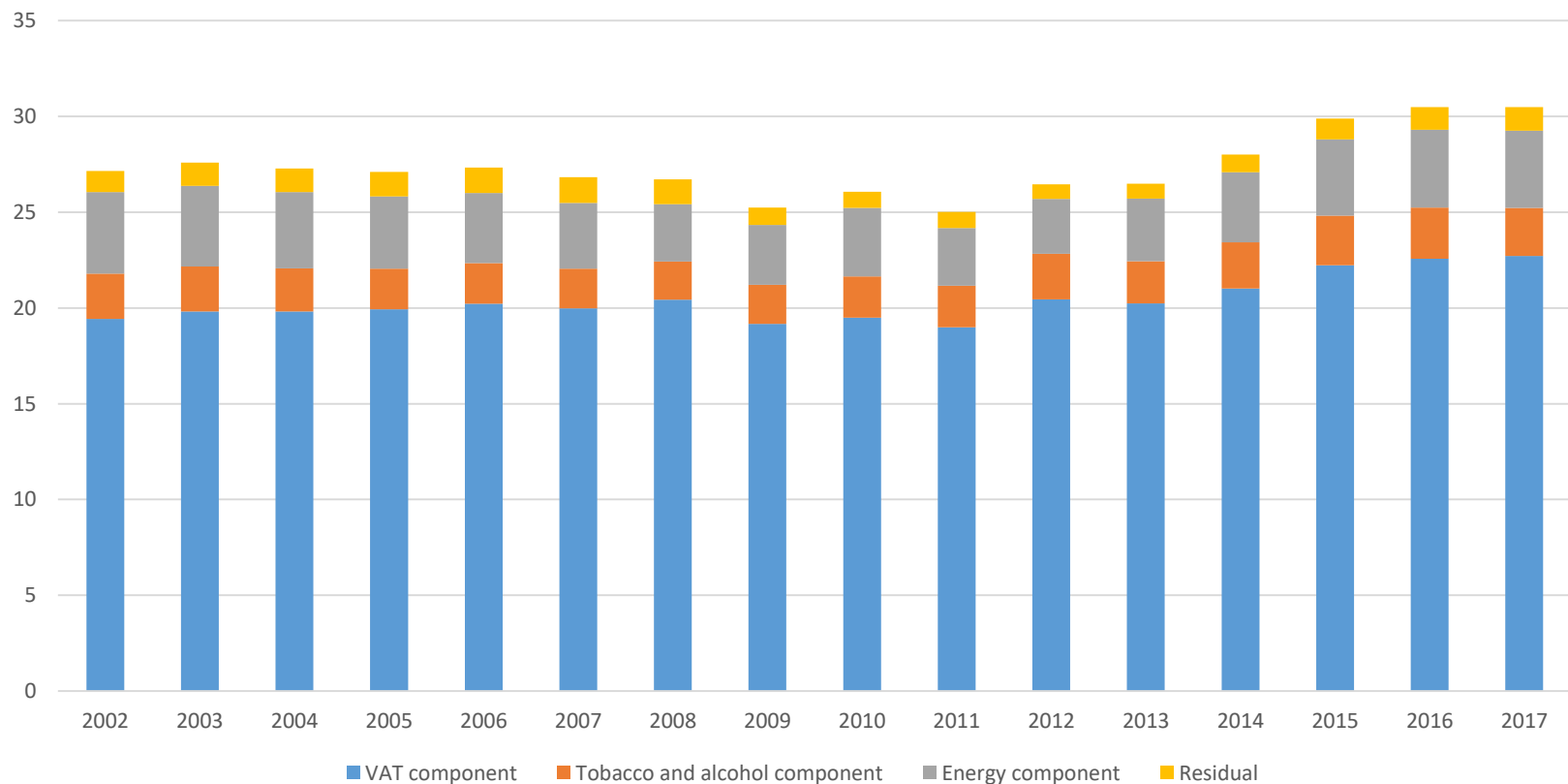
Decomposition of the ITR on consumption 2016



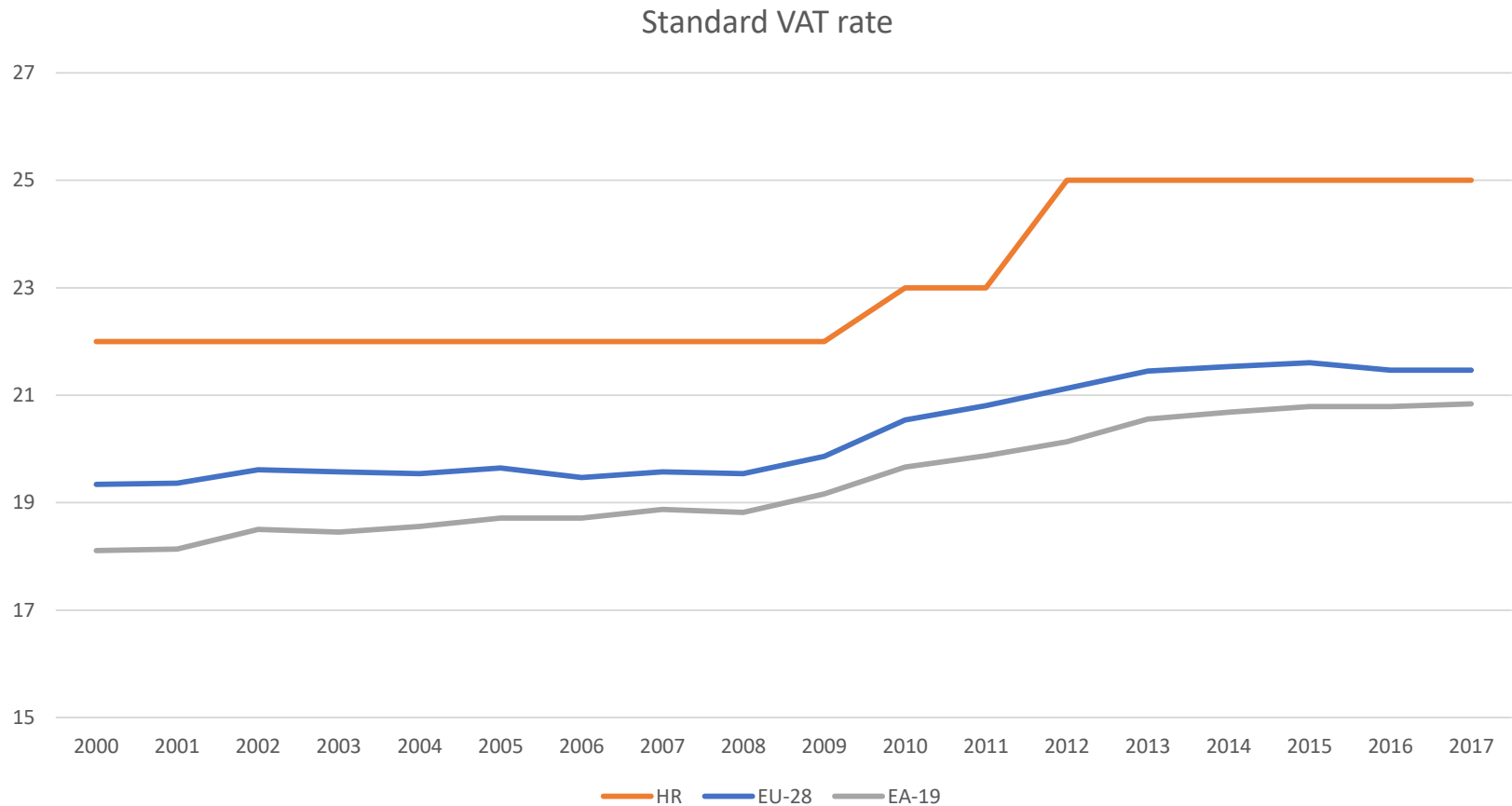
Source: European Commission (2018).

# In Croatia higher pressure in VAT burden than other consumption taxes (ITR)

Decomposition of the ITR on consumption (Croatia)

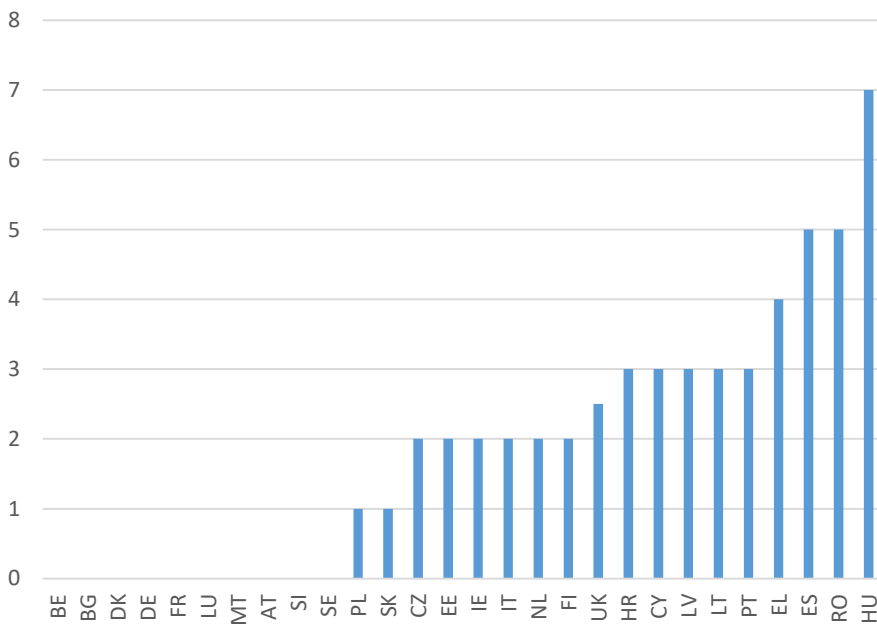


# Standard VAT rate in Croatia above EU average... stability of average VAT standard rate in EU after crisis

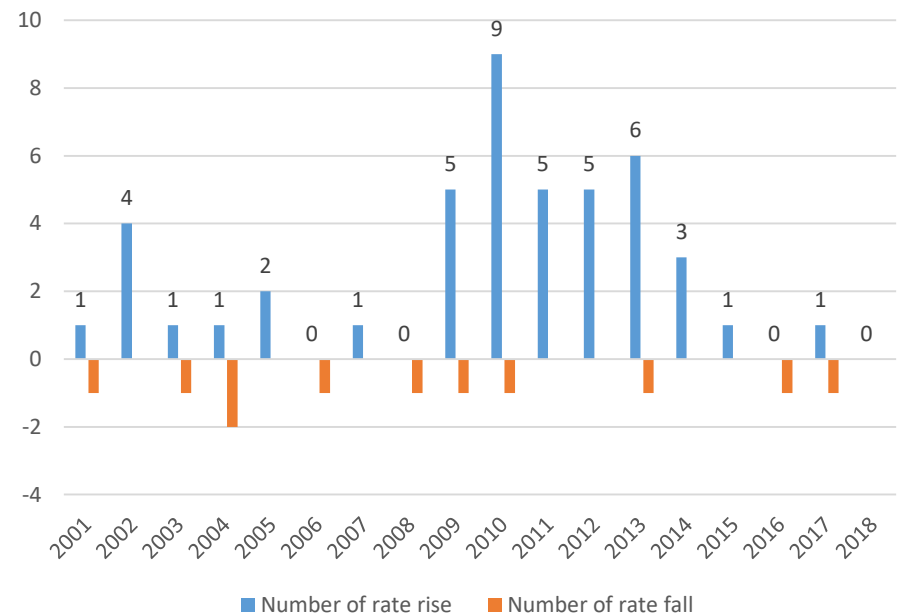


# Frequent changes and rise of VAT standard rates during crisis period

VAT standard rates change (% points 2008-13)



y-o-y changes in standard VAT rates

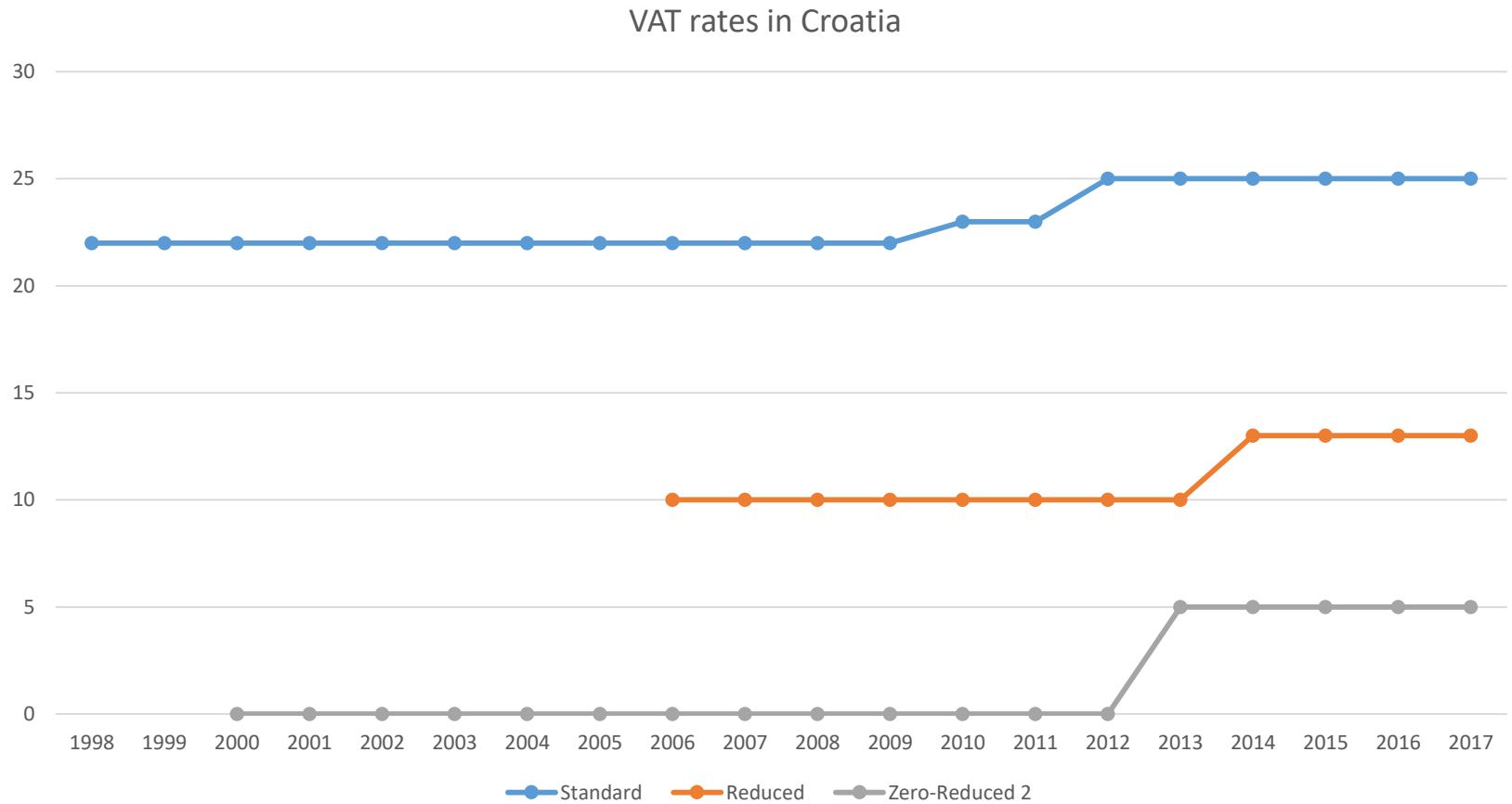


# VAT rates in EU (January 1, 2018.)

Member State	Super Reduced	Reduced	Standard rate	Parking rate	Zero rate
Belgium		6 / 12	21	12	Yes
Denmark			25		Yes
Germany		7	19		
Finland		10 / 14	24		Yes
France	2,1	5,5 / 10	20		
Greece		6 / 13	24		
Ireland	4,8	9 / 13,5	23	13,5	Yes
Italy	4	5 / 10	22		
Luxembourg	3	8	17	14	
Netherlands		6	21		
Austria		10 / 13	20	13	
Portugal		6 / 13	23	13	
Sweden		6 / 12	25		Yes
Spain	4	10	21		
UK		5	20		Yes
Czech R.		10 / 15	21		
Estonia		9	20		
Cyprus		5 / 9	19		
Latvia		12	21		
Lithuania		5 / 9	21		
Hungary		5 / 18	27		
Malta		5 / 7	18		Yes
Poland		5 / 8	23		
Slovenia		9,5	22		
Slovakia		10	20		
Bulgaria		9	20		
Romania		5 / 9	19		
Croatia		5 / 13	25		

Source: European Commission (2018).

# Reduced rates development in Croatia like in EU

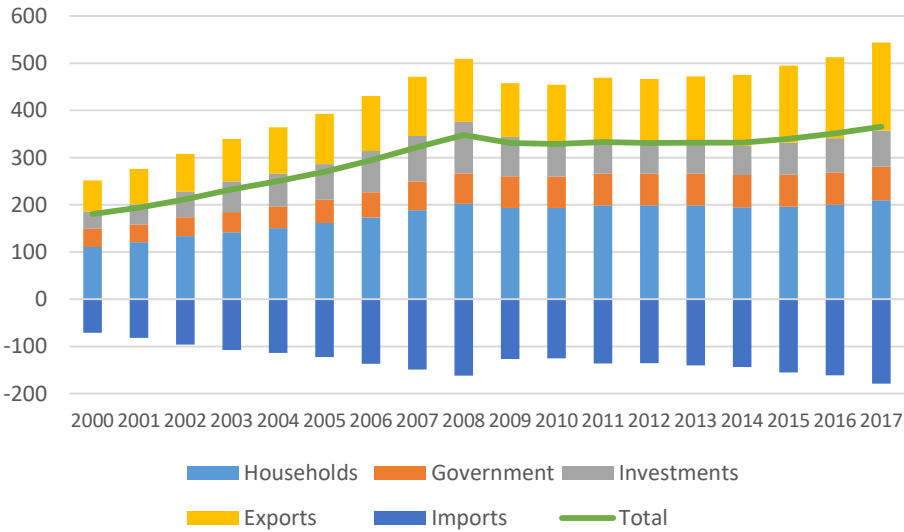


# Developments

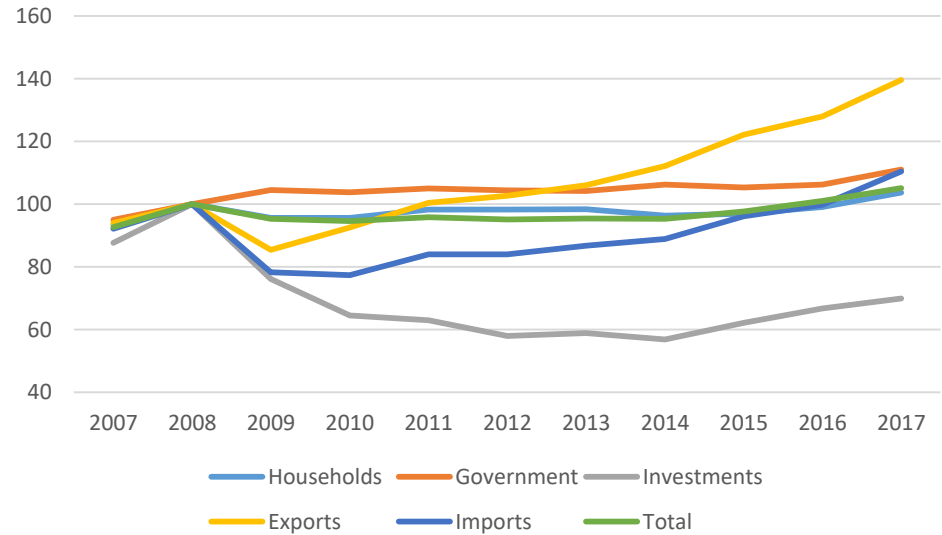
- 1998 – introduction
  - Focused on EU and general tax reform from 1994
  - Single rate 22%
  - Threshold 85.000 HRK
- 1999 (September)
  - Zero rate (milk, bread, books...)
  - 2000 – scientific journals
- 2006
  - 10% Reduced rate for several tourist services
  - Newspapers in 2007
- 2009
  - Standard rate 23%
- 2012
  - Standard rate 25%
- 2013
  - Zero rate to 5% reduced rate (EU) and some changes in 10% rate
  - Threshold 230.000 HRK
- 2014
  - Form 10% to 13%
- 2017
  - Changes in reduces rates
  - Threshold 300.000HRK from 2018

# VAT is the most important revenue in Croatia...and cyclicly dependant (Tax base vs. Tax revenue)

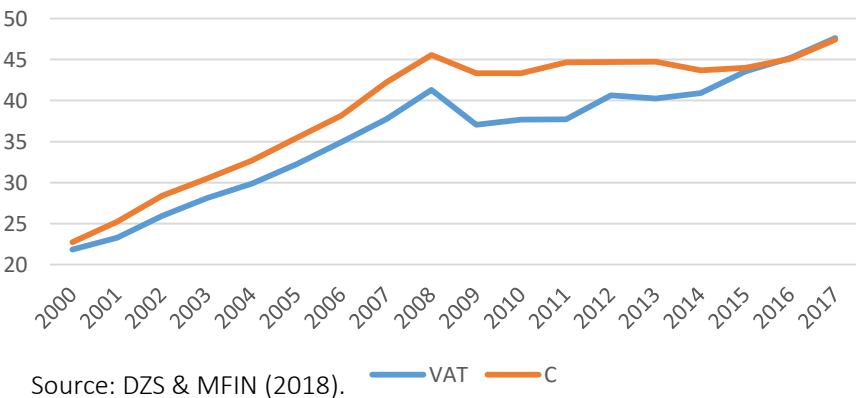
GDP (expenditure approach, nominal)



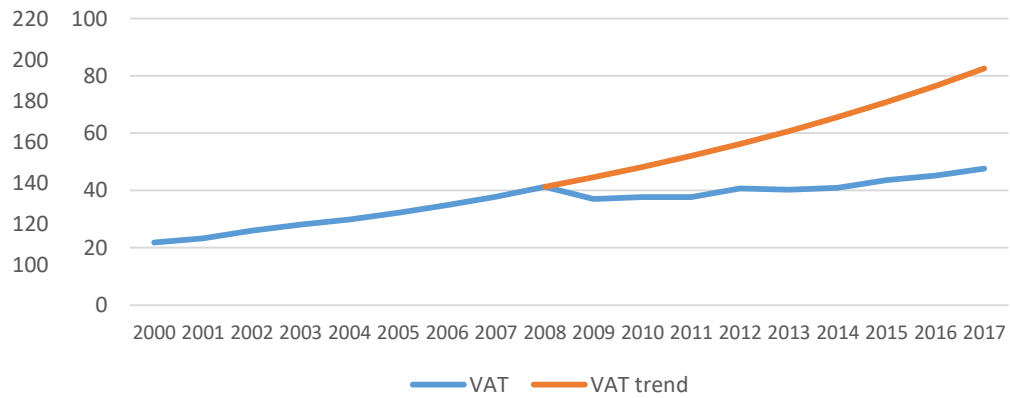
GDP (expenditure approach, 2008=100)



Consumption vs. VAT

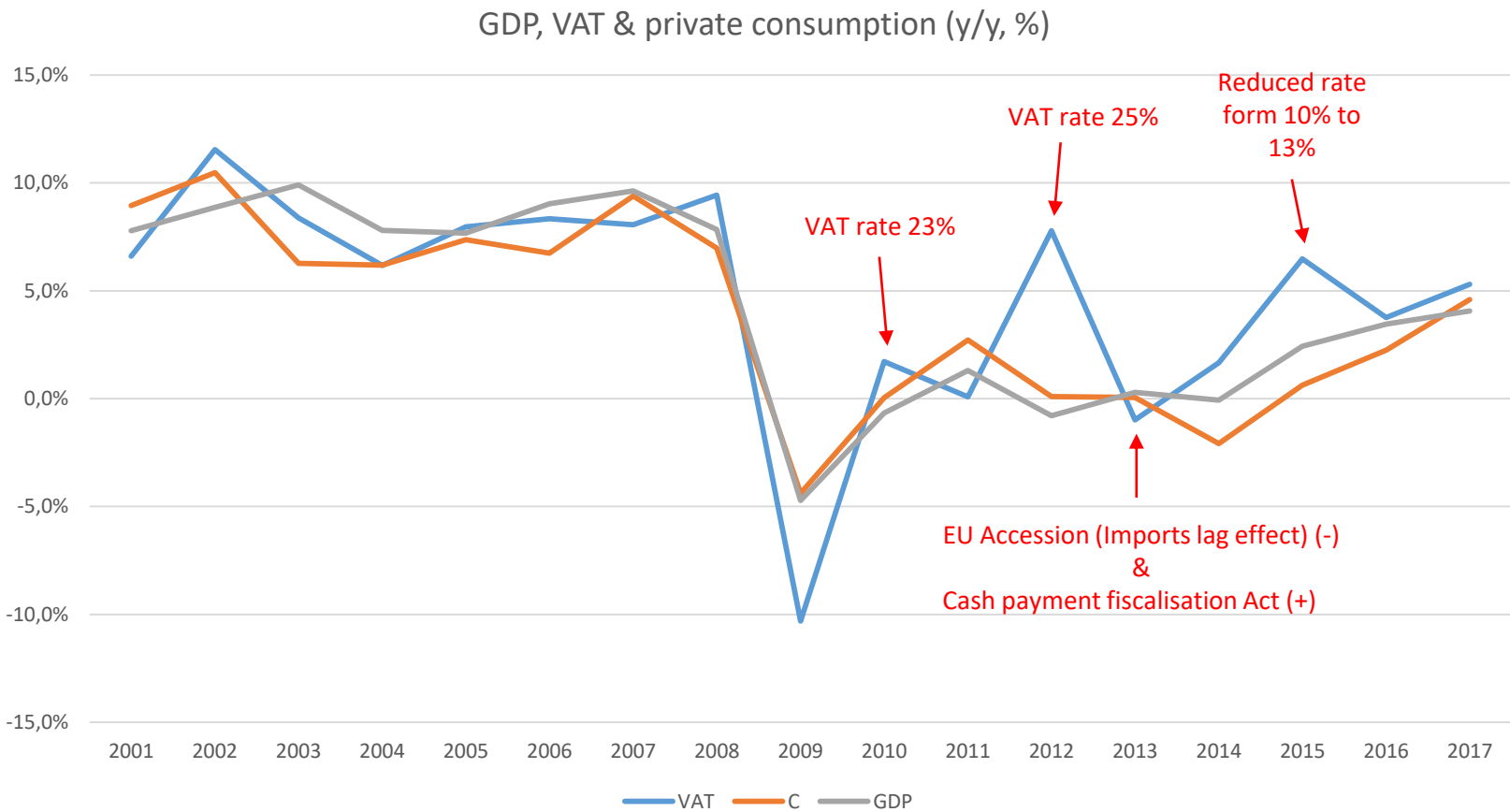


VAT vs. trend



Source: DZS & MFIN (2018).

# Beside tax base (consumption), tax rates are also relevant...and other determinants



# Efficiency of VAT is also key determinant...

- Changes in **VAT revenue** can be attributed to:
  - a) changes in the share of **consumption** in GDP,
  - b) changes in the **VAT rates**,
  - c) changes in the **C-efficiency ratio (CER)**

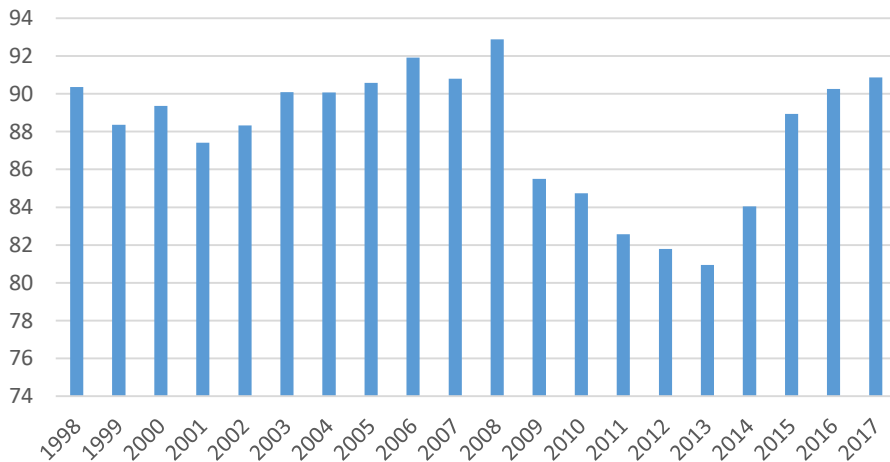
## **C-efficiency ratio**

$$CER = \frac{R}{FC * r} * 100$$

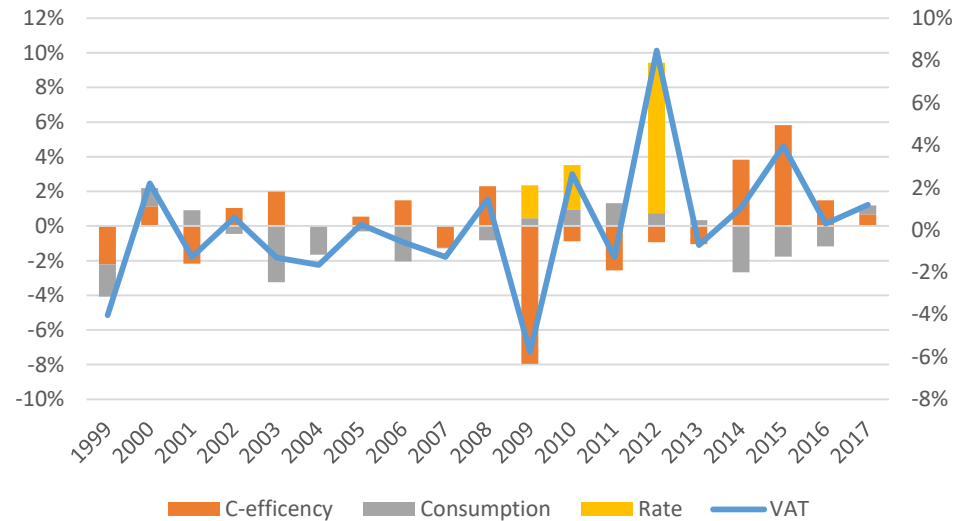
- R - total amount of VAT revenues,
- FC - final household consumption
- r - standard VAT rate

# Croatia have high level of VAT efficiency... efficiency is decreasing during crisis

C-efficiency



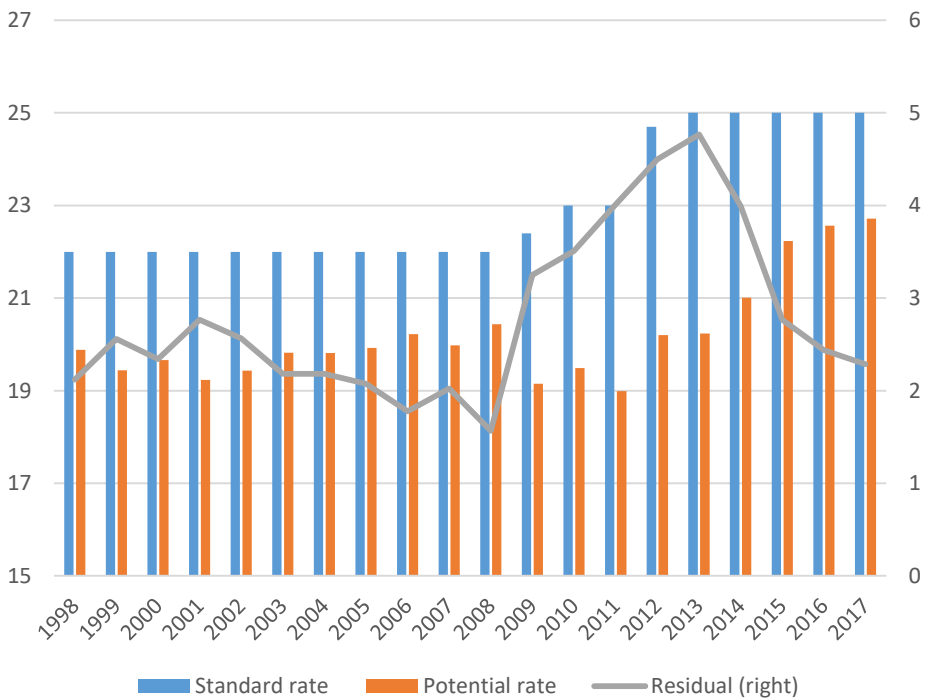
Decomposition of VAT revenue changes (in %)



- efficiency increase increase in 2014 (revenues are increasing faster than consumption)
- High VAT rate and „Fiscalisation” (positive effects)
- But reduced rates and exemptions (negative effects)
- Consumption trends (mostly neutral)

# Fiscal effects of VAT... reducing standard rate or/and aborting reduced rates?

Potential VAT rate



Lost VAT revenues (billion HRK)



# VAT threshold & Exemptions

- Small Entrepreneurs (**VAT threshold**)
  - Threshold HRK 300.000 HRK (40.000 EUR)
    - Before 2018 it was 230.000 HRK (over 30.000 EUR)
    - Before 2013 it was 85,000 HRK (over 11.000 EUR)
  - desires to increase tax revenue vs. reduce administration and compliance costs, and minimize the distortions
- Standard VAT issues following **supplies of public interest**:
  - postal services,
  - medical diagnostics, medical care etc.,
  - supply of services and goods related to social welfare,
  - supply of services and goods related to the protection of children and youth,
  - education services,
  - engagement of staff by religious or spiritual institutions
  - Etc.

# Reduced VAT rates (simplified)

Reduced rate of 5%	Reduced rate of 13%
<ul style="list-style-type: none"> <li>a) all kinds of baked bread,</li> <li>b) all kinds of milk,</li> <li>c) books,</li> <li>d) medicines (determined by the Croatian Institute for Health Insurance),</li> <li>e) Surgical implants (pacemakers, artificial joints, stents etc.),</li> <li>f) Cinema tickets,</li> <li>g) Daily newspapers (on paper),</li> <li>h) Scientific journals.</li> </ul>	<ul style="list-style-type: none"> <li>a) Tourist services (services of accommodation, agency commission for these services etc.),</li> <li>b) Other daily and periodic newspapers and magazines,</li> <li>c) edible oil and grease,</li> <li>d) children seats and baby food,</li> <li>e) water supply (utilities).</li> <li>f) Concert tickets,</li> <li>g) electrical energy,</li> <li>h) public service of collecting waste</li> <li>i) Caskets and coffins,</li> <li>j) Seedling and seeds.</li> </ul>
<p><b>Changes 2008-17</b></p>	<p><b>Changes 2008-17</b></p>
<p>2013 – increase from 0% to 5% (Croatian accession to the EU)</p> <p>2013 – broaden for (g) (before 10%)</p>	<p>2012 – broaden for oil, baby food etc.</p> <p>2013 – broaden for catering services, and narrowed for newspapers (only periodicals)</p> <p>2014 – increase form 10% to 13%</p> <p>2017 – abortion of reduced rate for catering services, and broaden for children seats, caskets, seeds etc.</p>

According to Annex III of VAT Directive 2006/112/EC

# Discussion question?

- Should Croatia **reduce** standard VAT rate?
  - When?
  - How much?
- Should Croatia **aboard/introduce** (some) reduced rates?
  - When?
  - Which products? (for example: fresh meat)

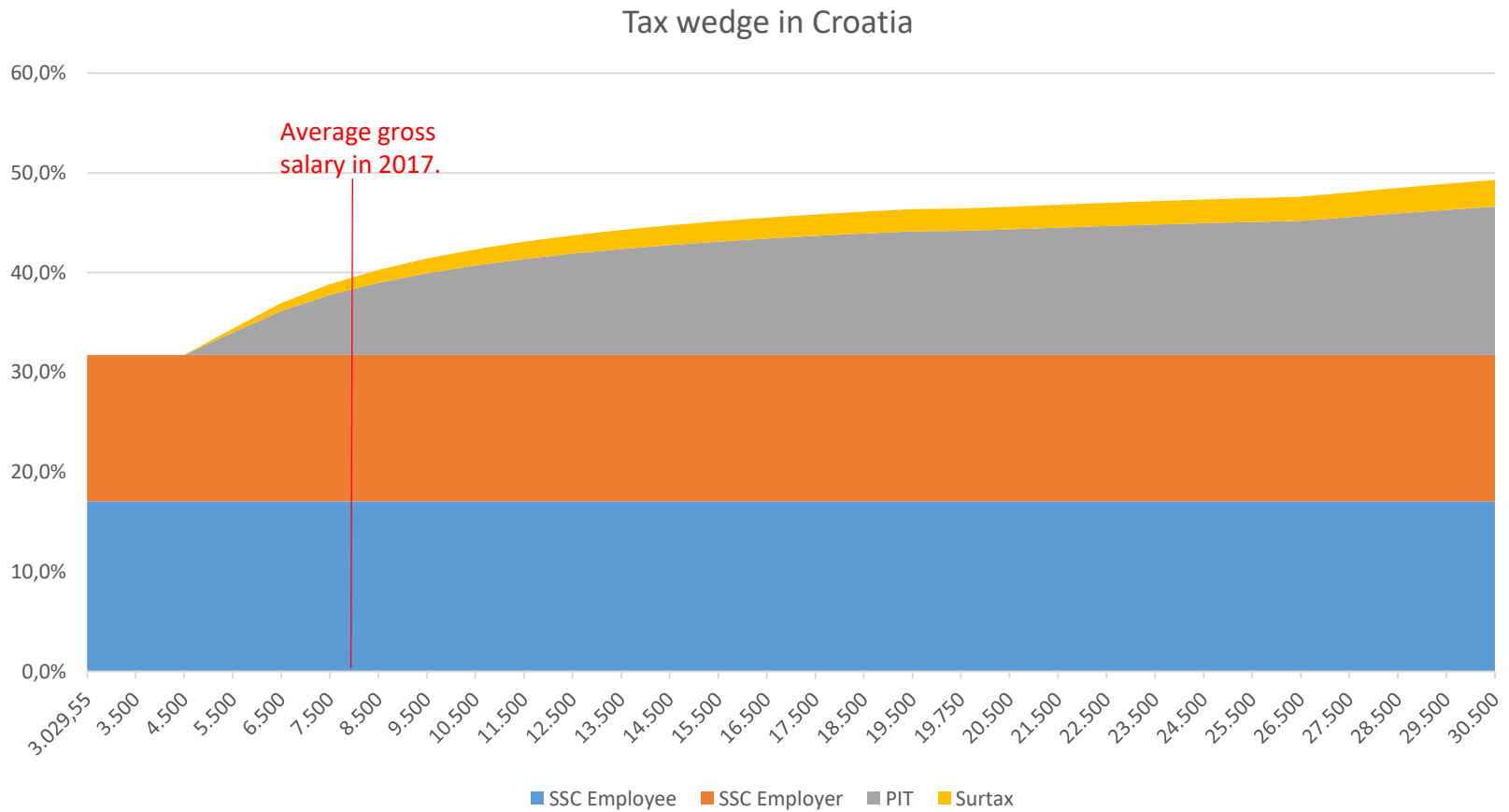
# Developments in labor taxation

EU & CEE trends and Croatian perspective (PIT and social contributions)

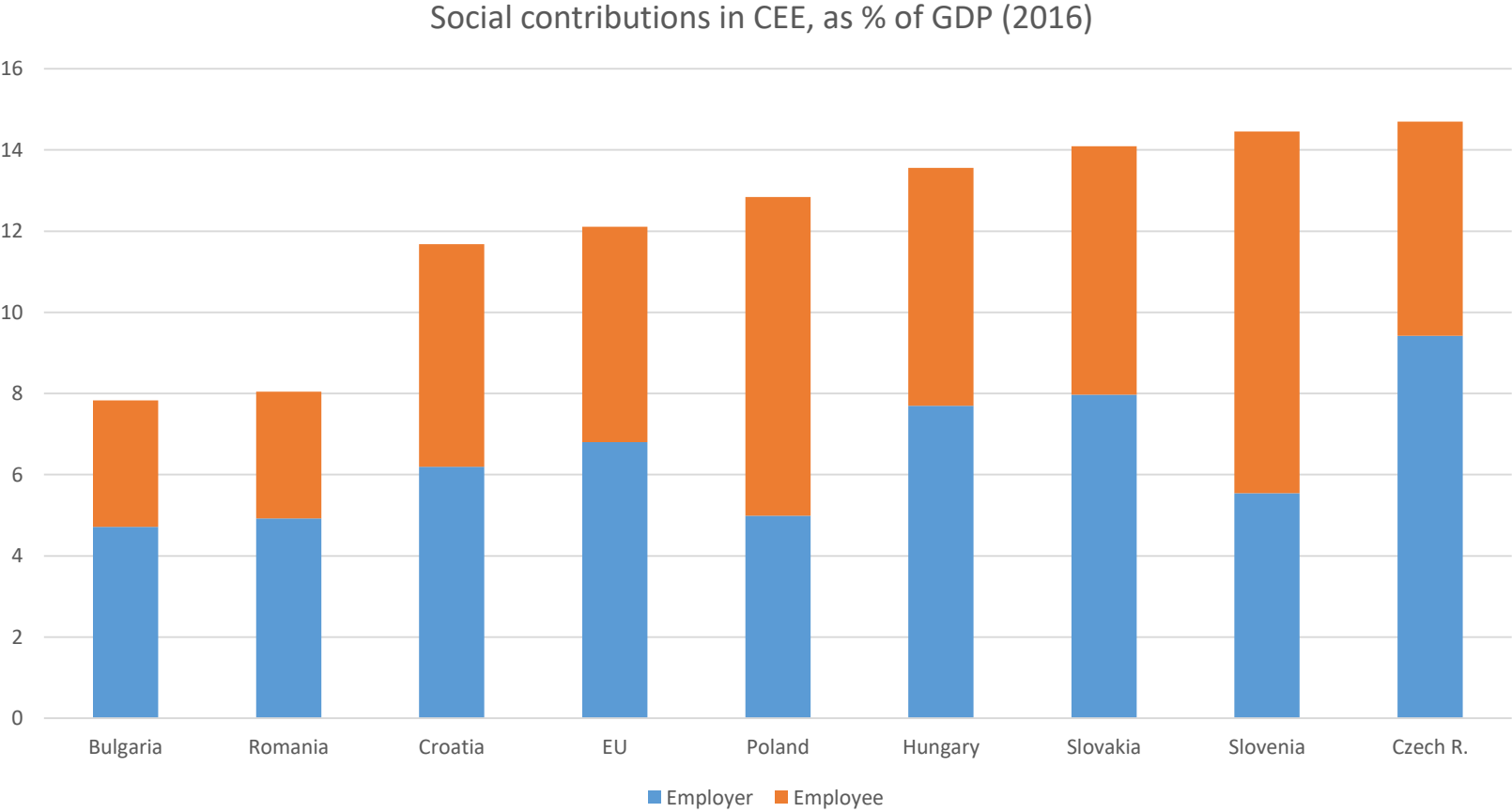
# SSC are dominant in tax wedge in EU...



# ...especially in Croatia...

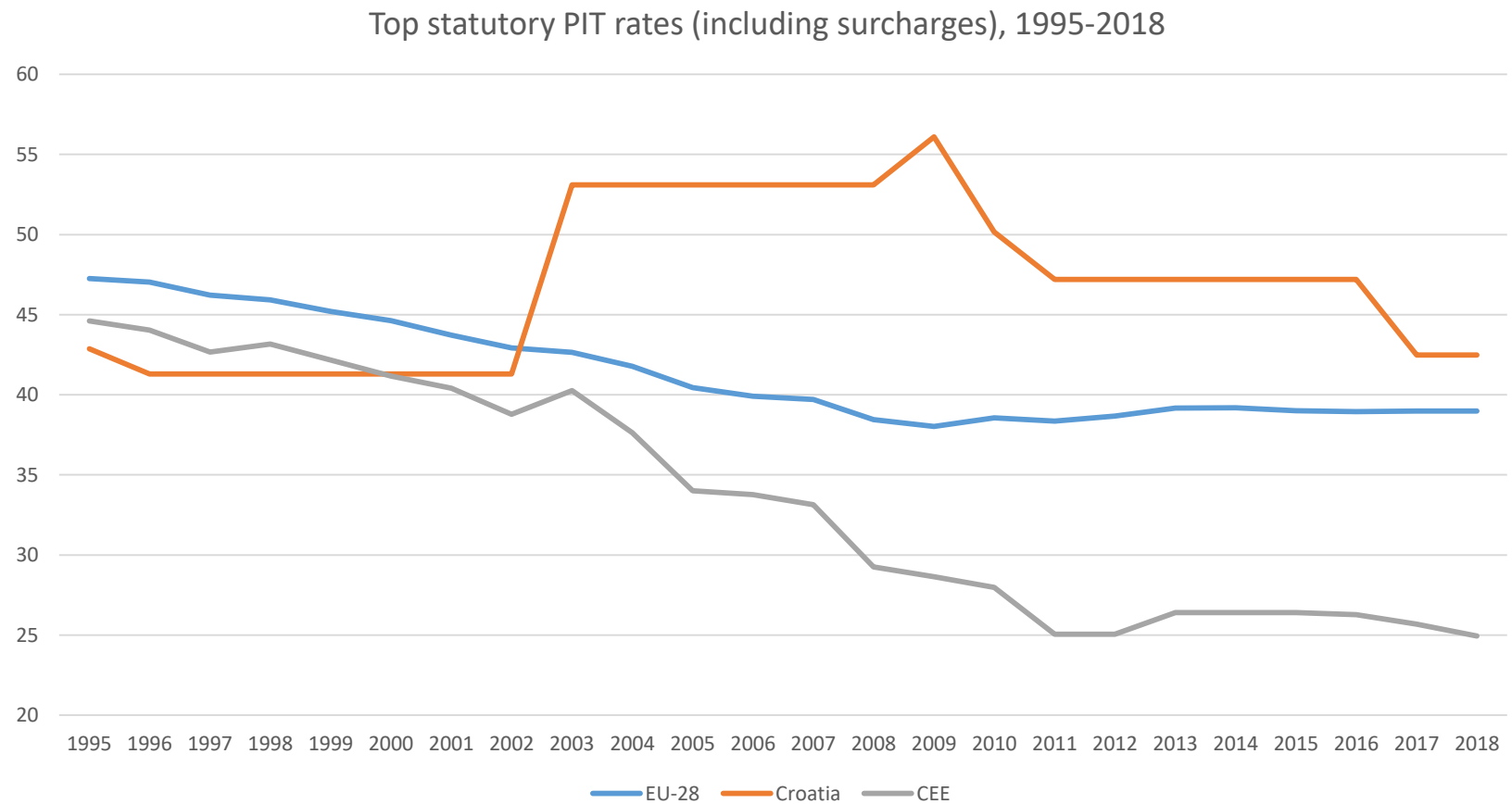


# Social contributions are above EU average in majority CEE countries



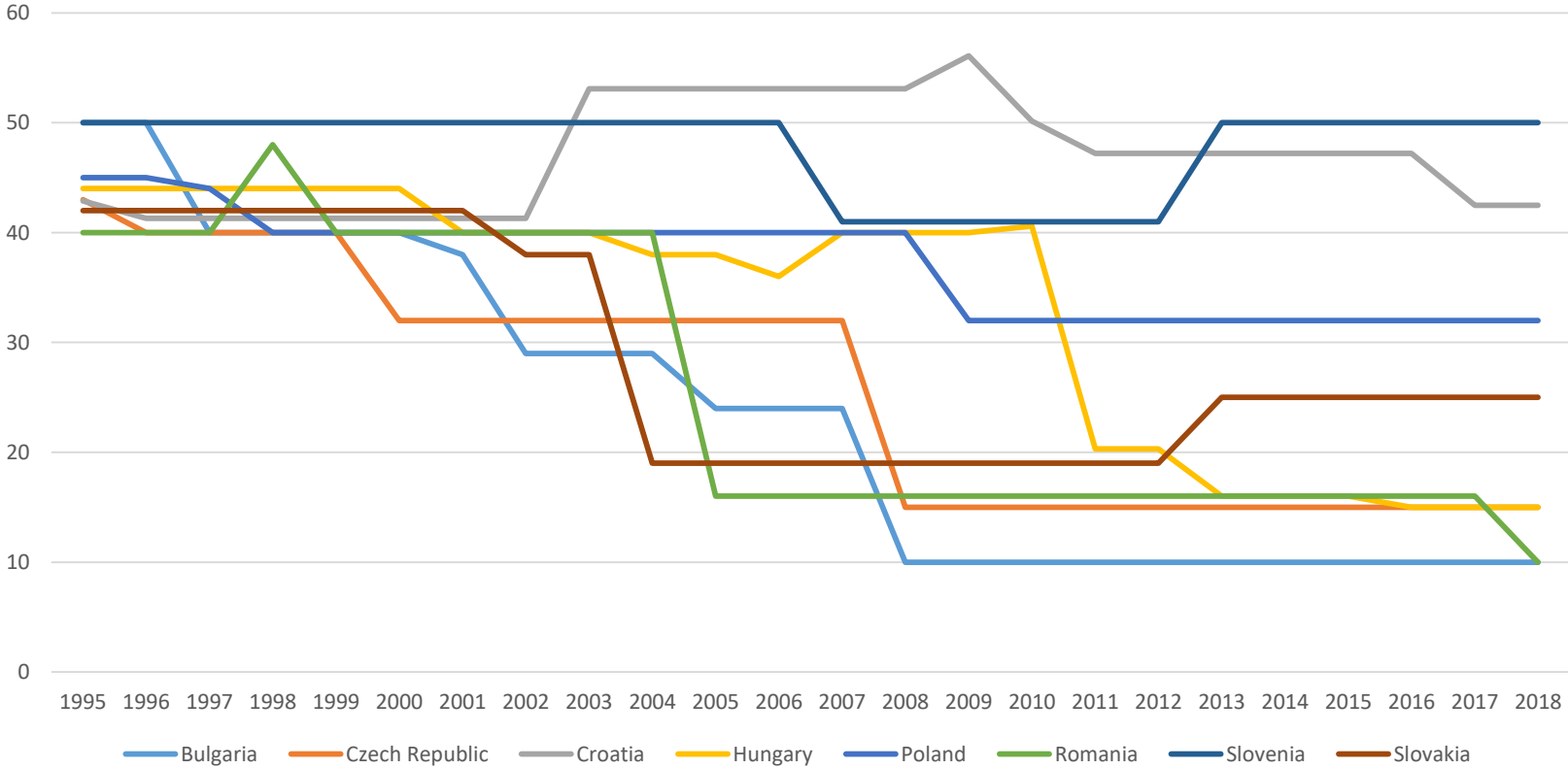
Source: European Commission (2018).

## Top PIT rate in EU are stable after crisis period...Croatia differs from EU trends until last couple years



# Slovenia and Croatia have highest PIT rates in CEE

Top statutory PIT rates in CEE, 1995-2018



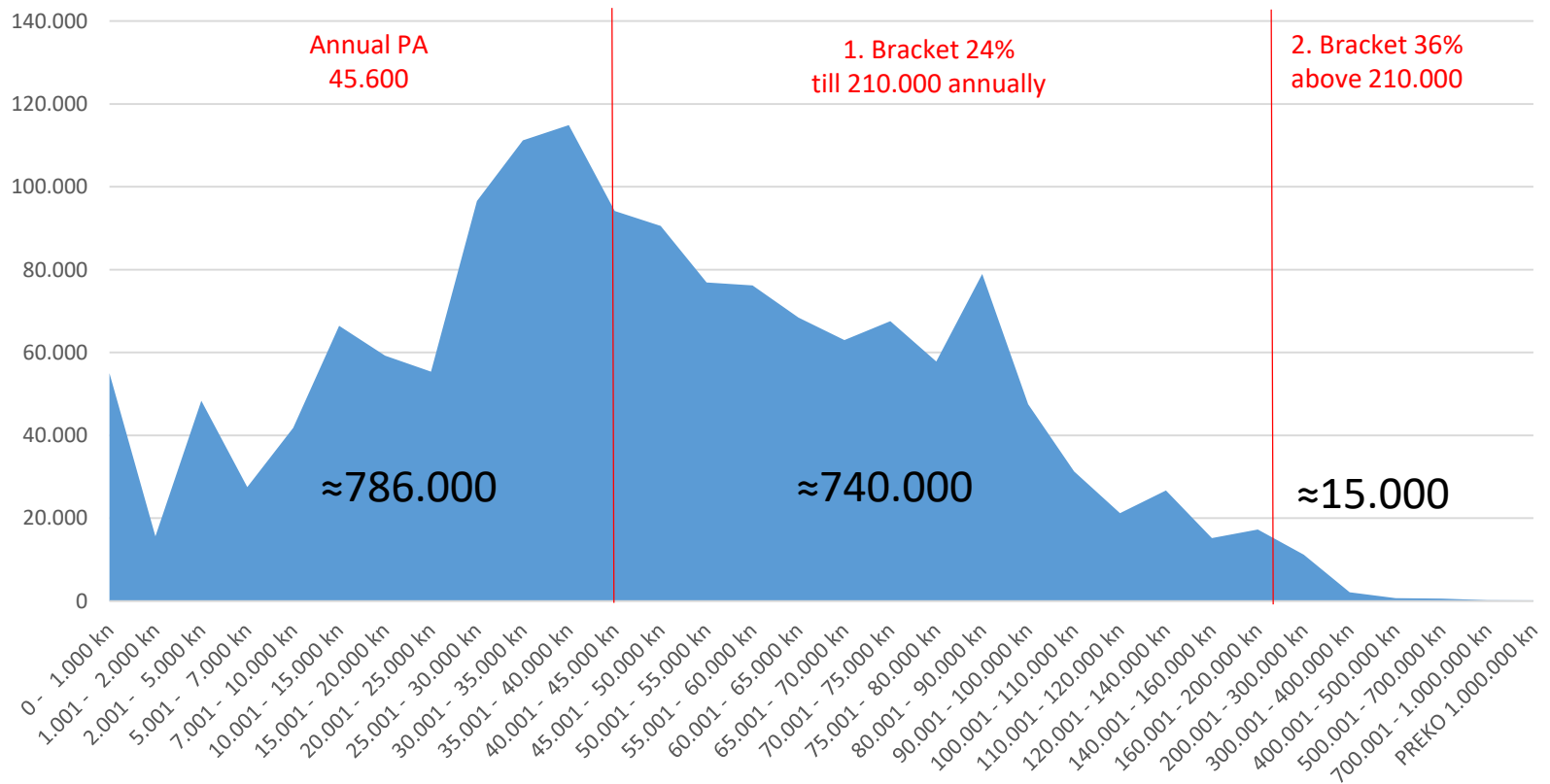
Source: European Commission (2018).

# Frequent changes in PIT in Croatia

Year	Change	Personal allowance	I. Bracket		II. Bracket		III. Bracket		IV. Bracket	
			Rate	Base	Rate	Base	Rate	Base	Rate	Base
1994.		332	25%	till 996	35%	above 996				
	PA (February)	400	25%	till 1.200	35%	above 1.200				
	PA (July)	500	25%	till 1.500	35%	above 1.500				
1995.	PA	700	25%	till 2.100	35%	above 2.100				
1997.	PA + rate	800	20%	till 2.400	35%	above 2.400				
1999.	PA	1.000	20%	till 3.000	35%	above 3.000				
2000.	PA (April)	1.250	20%	till 3.750	35%	above 3.750				
2001.	Rate & bracket	1.250	15%	till 2.500	25%	2.500-6.250	35%	above 6.250		
2003.	PA, new rate & bracket	1.500	15%	till 3.000	25%	1.500-7.500	35%	7.500-21.000	45%	Above 21.000
2005.	PA	1.600	15%	till 3.200	25%	3.200-8.000	35%	8.000-22.400	45%	above 22.400
2008.	PA (July)	1.800	15%	till 3.600	25%	3.600-9.000	35%	9.000-25.200	45%	above 25.200
2010.	Rate & bracket (July)	1.800	12%	till 3.600	25%	3.600-10.800	40%	above 10.800		
2012.	PA & bracket (March)	2.200	12%	till 2.200	25%	2.200-8.800	40%	above 8.800		
2015.	PA & bracket	2.600	12%	till 2.200	25%	2.200-12.200	40%	above 12.200		
2017.	PA, new rate & bracket	3.800	24%	till 17.500	36%	above 17.500				

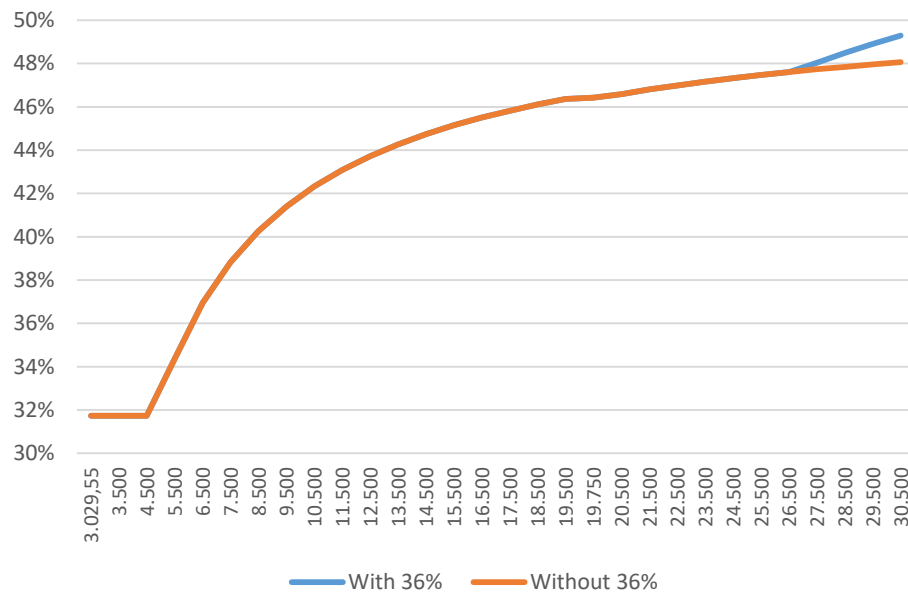
# Narrow tax base in Croatia (SSC, PA, brackets, rates and other sources of income)

Structure of employees (annual net income, 2015)

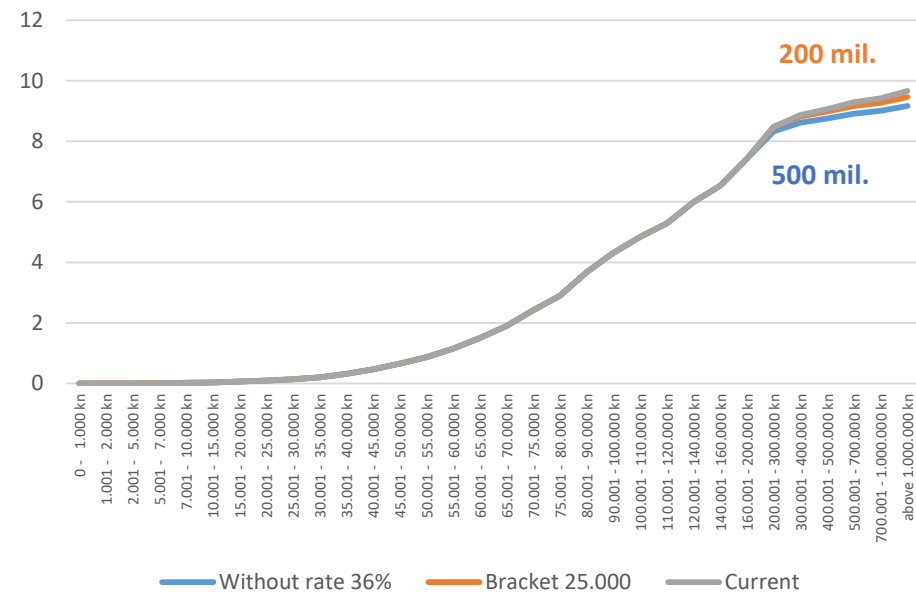


# Potential changes: broader 1. bracket or abandon 36% rate?

Tax wedge in Croatia



Fiscal effect of potential changes (Billion HRK)



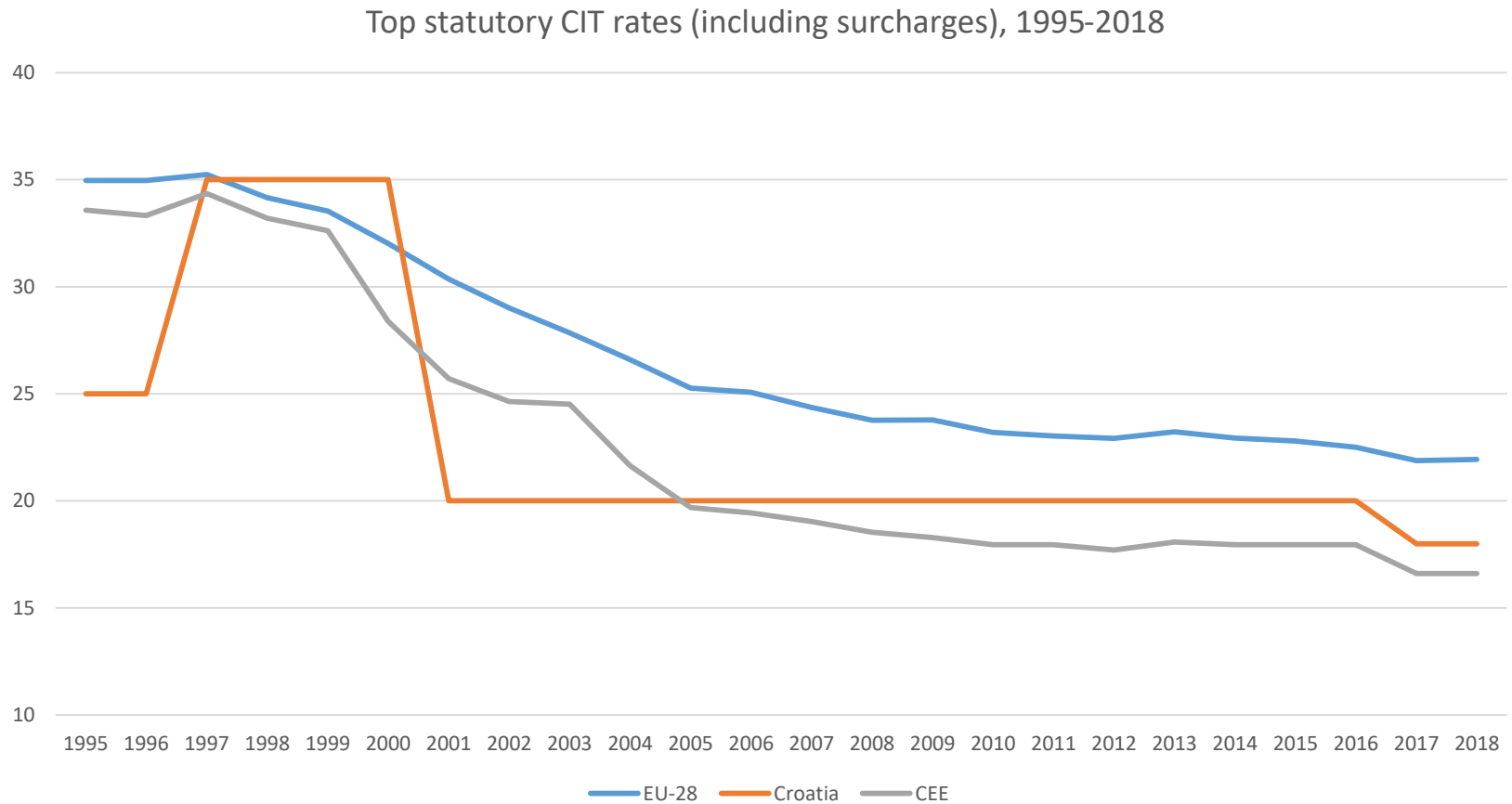
# Discussion questions?

- Should Croatia abandon top PIT rate of 36% or broader 1. bracket to 25.000 HRK?
- Horizontal equity issue: Should all sources of income inside PIT be taxed in the same way (at statutory rates, without allowing the lower withholding tax to be the final tax due)?

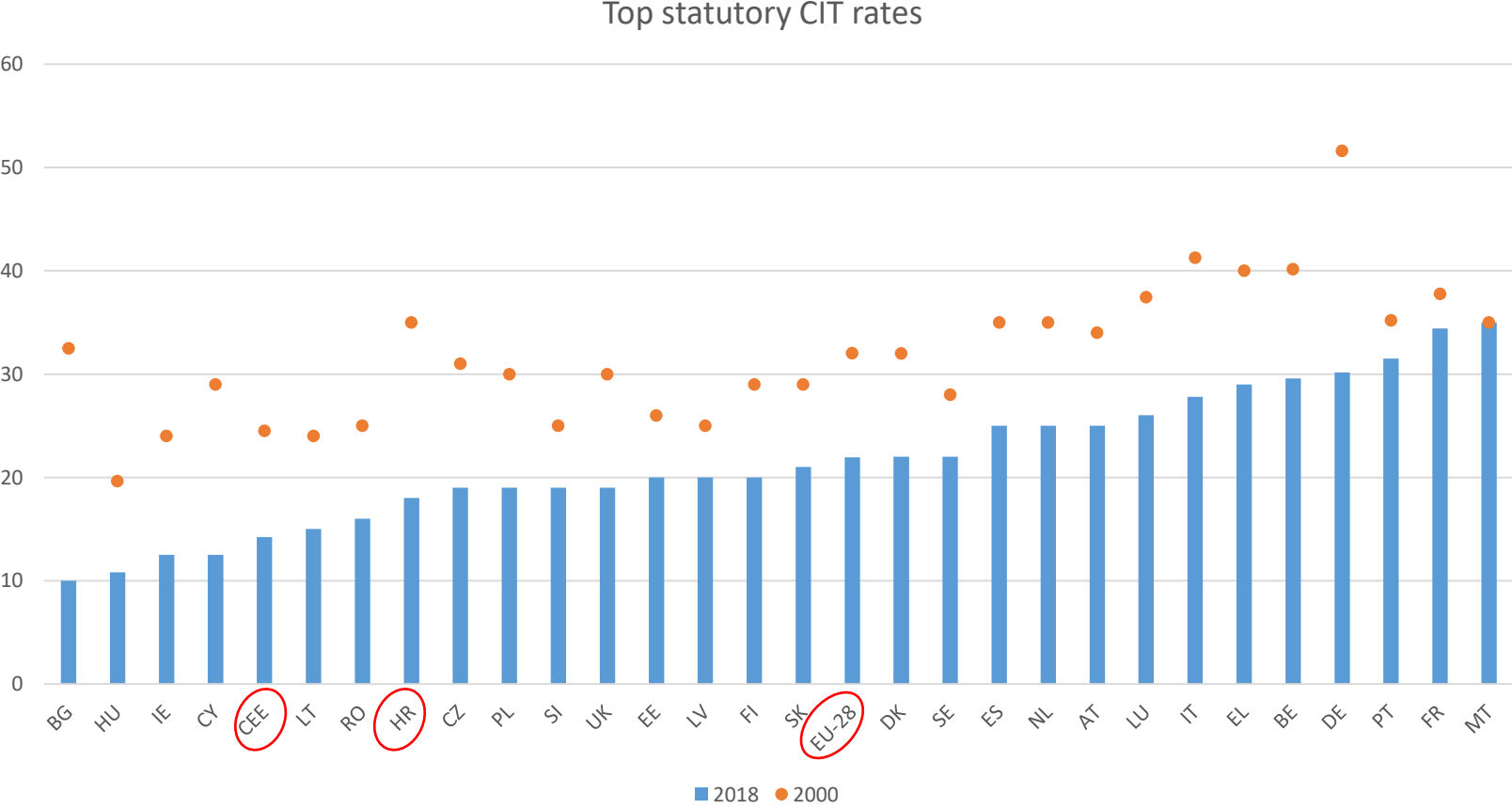
# Developments in CIT

EU & CEE trends and Croatian perspective

# Race to the bottom still present in EU... Croatia after long time in trend



# Since 2000 almost every MS have significantly lowered CIT rate



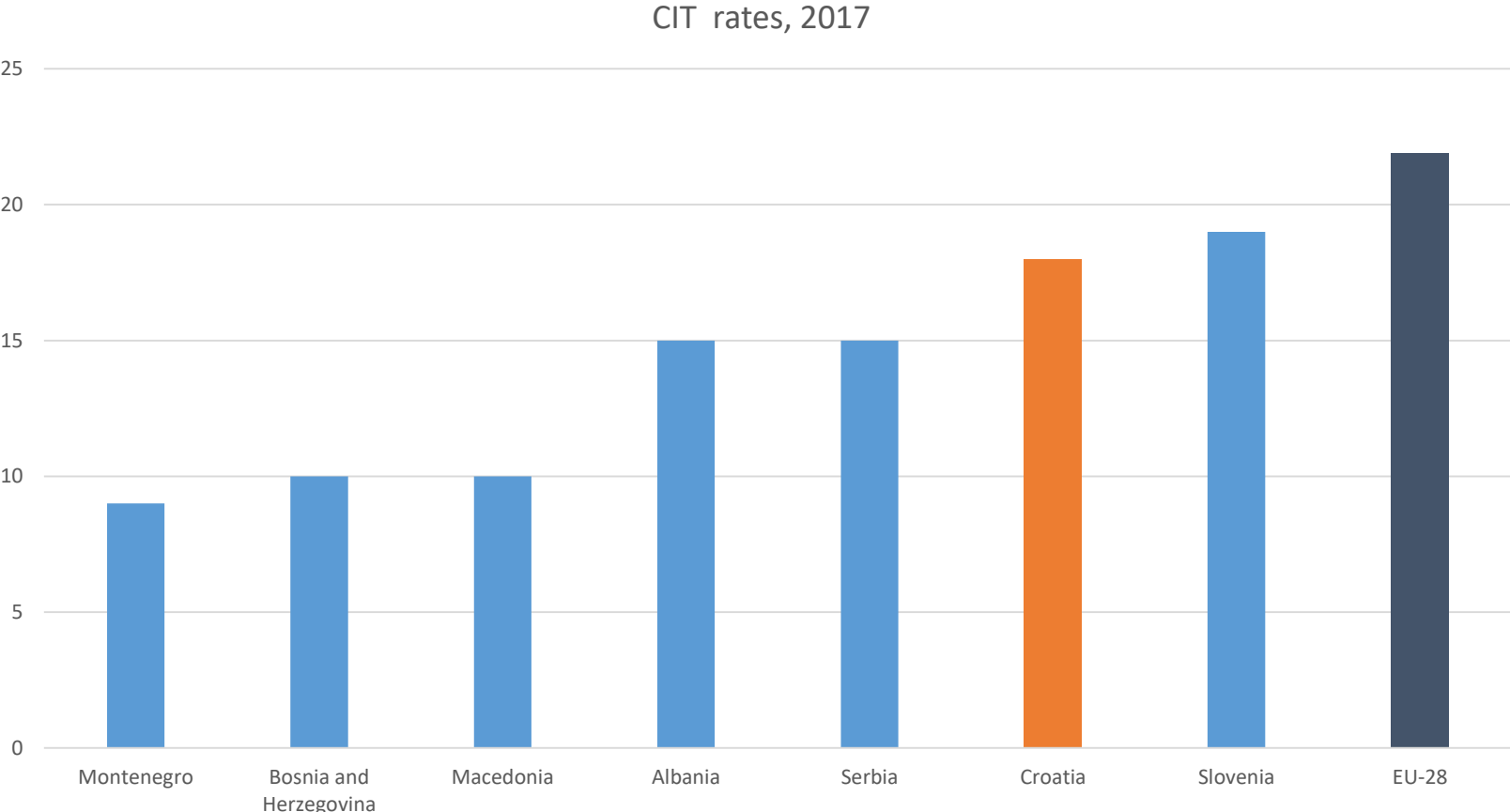
Source: European Commission (2018).

# Europa precede the rest of the World



Source: KPMG (2017).

# Croatia has one of the highest rates in region...Slovenia recently increased rate



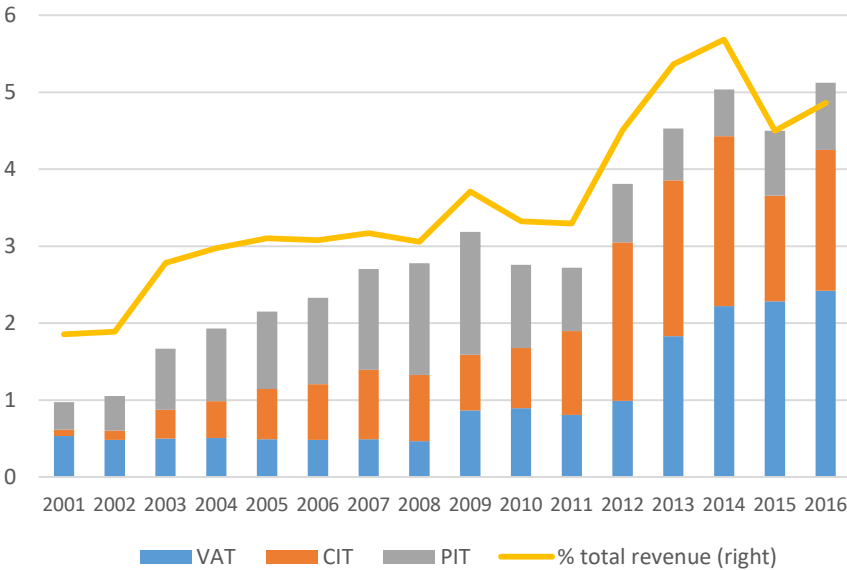
Source: KPMG (2017).

Although there is trend to broaden tax base, still many types of tax incentives are employed which reduce ETR

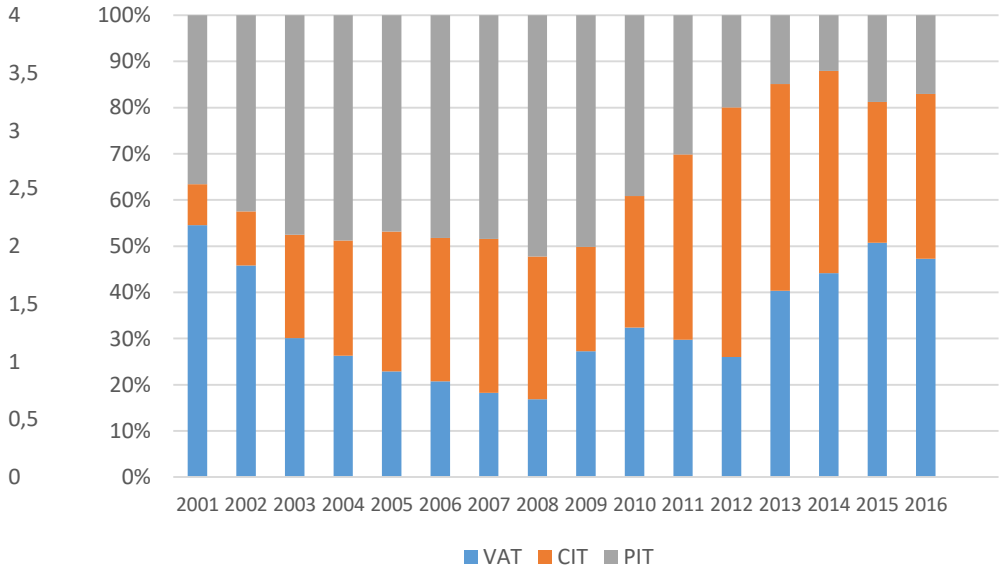
Incentive	Developing countries(52)	Developed countries (51)	Total (103)
Reduced CIT rate	43	40	83
Tax holidays	37	30	67
Accelerated depreciation	26	21	47
Investment allowances	18	8	26
Social security reductions	5	7	12
Import duty exemptions	39	24	63
Other	32	13	45

# Several period of different incentive policy in Croatia... inconsistent and dependable of EU accession process

Tax expenditure in Croatia (billion HRK)



Structure of tax expenditure in Croatia



Source: author.

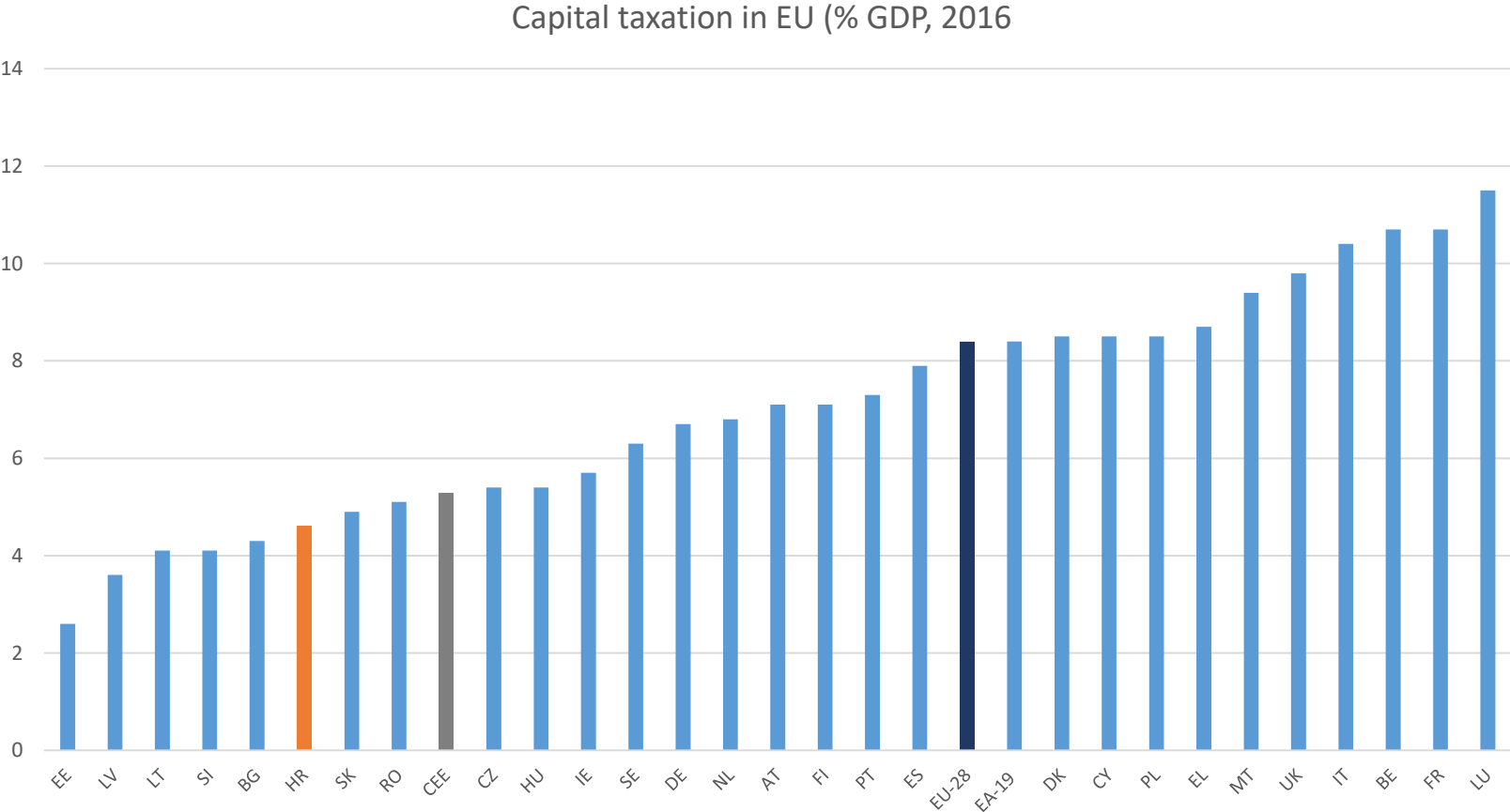
# Discussion questions?

- Should Croatia **increase/decrease** CIT rate?
- Does Croatia have enough **tax incentives**? Are they efficient?

# Developments in capital taxation

EU vs. CEE vs. Croatia (property taxation in focus)

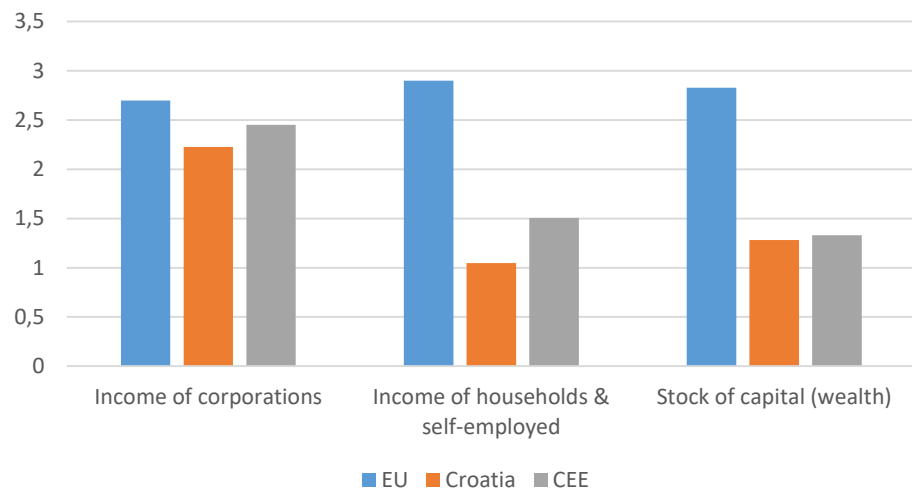
# Short recap... Croatia among MS with lowest capital taxation



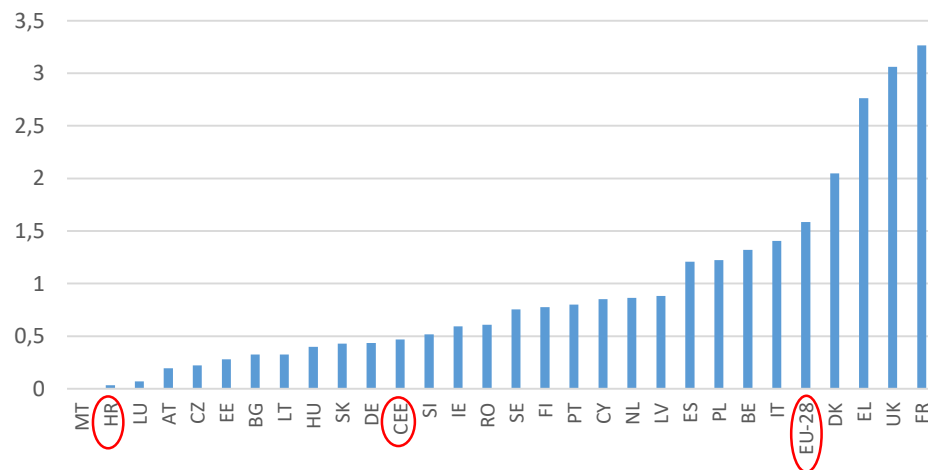
Source: European Commission (2018).

# Even less when taxing stocks of capital (wealth), especially immovable property

Structure of capital taxation (% GDP, 2016)



Recurrent taxes on immovable property (% GDP, 2016)



Capital tax on Stocks of Wealth	Mil. HRK	%
Real estate transfer tax	885,5	19,8%
Public land use taxes	70,3	1,6%
Utility charges	2.356,6	52,7%
Contributions for forest	51,6	1,2%
Motor vehicle taxes (legal persons)	64,6	1,4%
Boat taxes (legal persons)	1,2	0,0%
Annual levy on public roads use (at motor vehicles registration)	243,1	5,4%
Levy on public roads use for tractors	1,8	0,0%
Trading name taxes	127,6	2,9%
Deposit insurance premiums	535,7	12,0%
Taxes on holiday houses	122,1	2,7%
Inheritance and gift taxes	14,1	0,3%
<b>Total</b>	<b>4.474,2</b>	<b>100,0%</b>

Source: European Commission (2018).

# Discussion questions?

- Should Croatia introduce **new recurrent property tax**?
- If yes, should Croatia abandon **utility charges**?

# Conclusion

- EU and international context

- Stabilization in tax changes in post-crisis period in general
- Rise in capital and consumption taxes, fall in labour taxes

- Consumption taxation

- Croatia among highest VAT rates in EU (fiscal reasons)
- There is space for reducing standard rate, and changes in reduced rates (political reasons)

- Labour taxation

- SSC dominate in EU and Croatia
- Simplifying trend (less brackets, lower rates, less reliefs)
- Problem of fiscal equalization

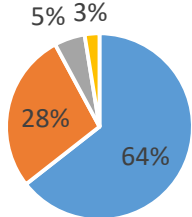
- CIT taxation

- Simplifying trend also
- Abandoning incentive for reinvested profit
- Reduce CIT rate?

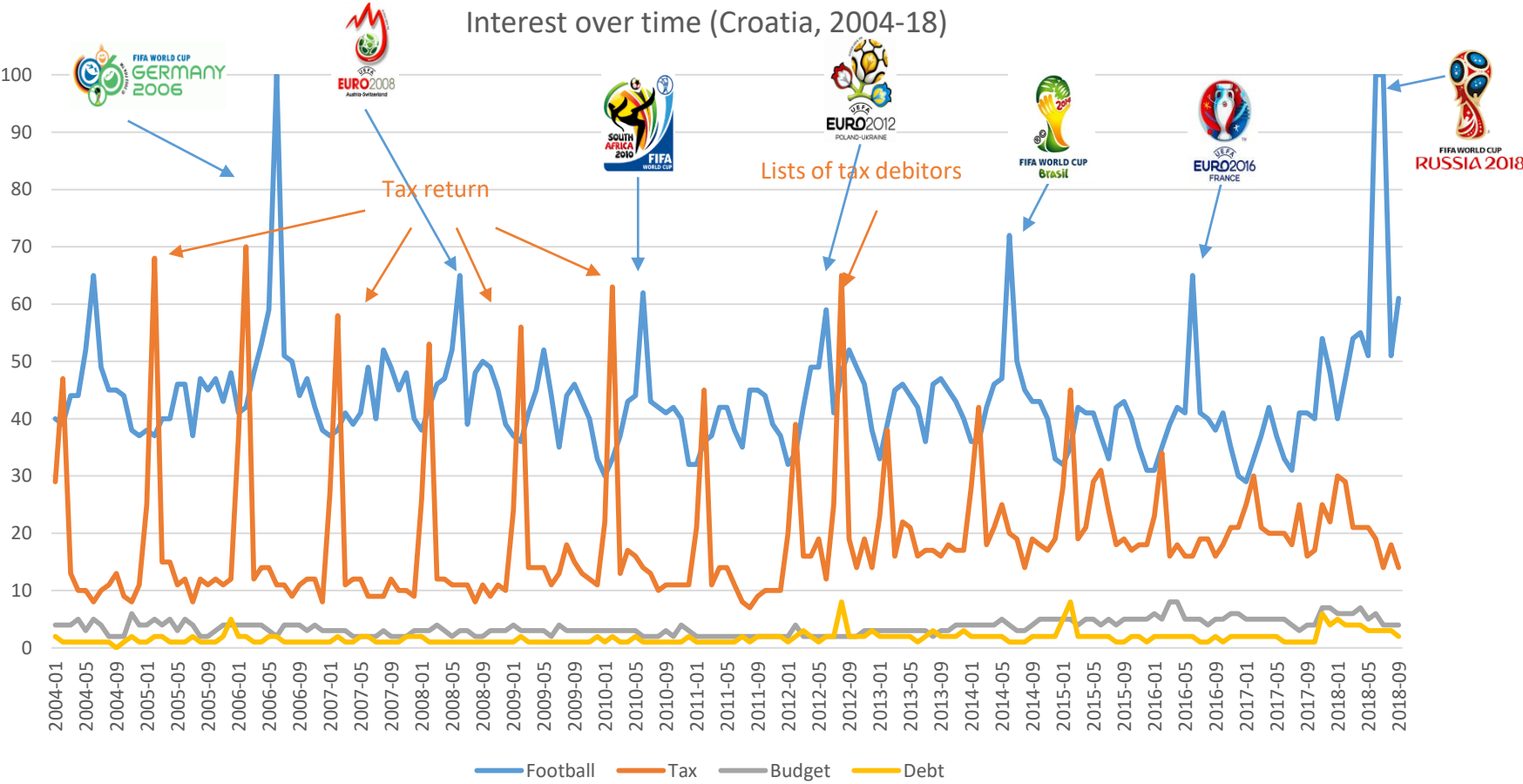
- Property taxation

- Space for improvement
- Recurrent immovable property tax

Average, 2004-18



# Final note... Thank you for your attention!



**Note:** Numbers present interest for search related to highest point on graph for given region and time. Value 100 present the most popular term. Value 50 means that popularity is half less etc.  
Source: Google Trends.