

# Intensity of Competition, Corruption Risk and Estimated Direct Social Loss in Public Procurement of Zagreb - 2011-2016

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CMS  
Zagreb

# CRCB

- Non-profit, non-partisan organisation
- From 2013
- recent topics:
  - Measuring corruption risk
  - Analysing corrupt system and kleptocratic state in Hungary with hard data
  - Measuring the quality of legislation with hard data
  - Corruption risks, price distortion & competition at EU level

# research & analytical tool

- Analysis of 5,922 contracts of 4,483 public procurement issued by Grad Zagreb and Zagreb Holding
- Period of time: 2011-2016
- 1,197 winner companies

# research & analytical tool

## Database processing tool for the Croatian Public Procurement (DCPP)

- Analytical tool to analyse the Croatian Public Procurement
- On-line platform
- PP data and firm level balance sheet and ownership data
- Real time analysis

# Database processing tool for the Croatian Public Procurement (DCPP)

The screenshot shows the 'PUBLIC TENDERS: EDIT CASES' section of the DCPP Database Manager. The interface includes a search bar, a dropdown for 'Issuer' (set to 'Grad Zagreb'), and sorting options (order by: uploads (latest first), per page: 15, item, page: 1). A list of tenders is displayed, each with a title, a brief description, and a date.

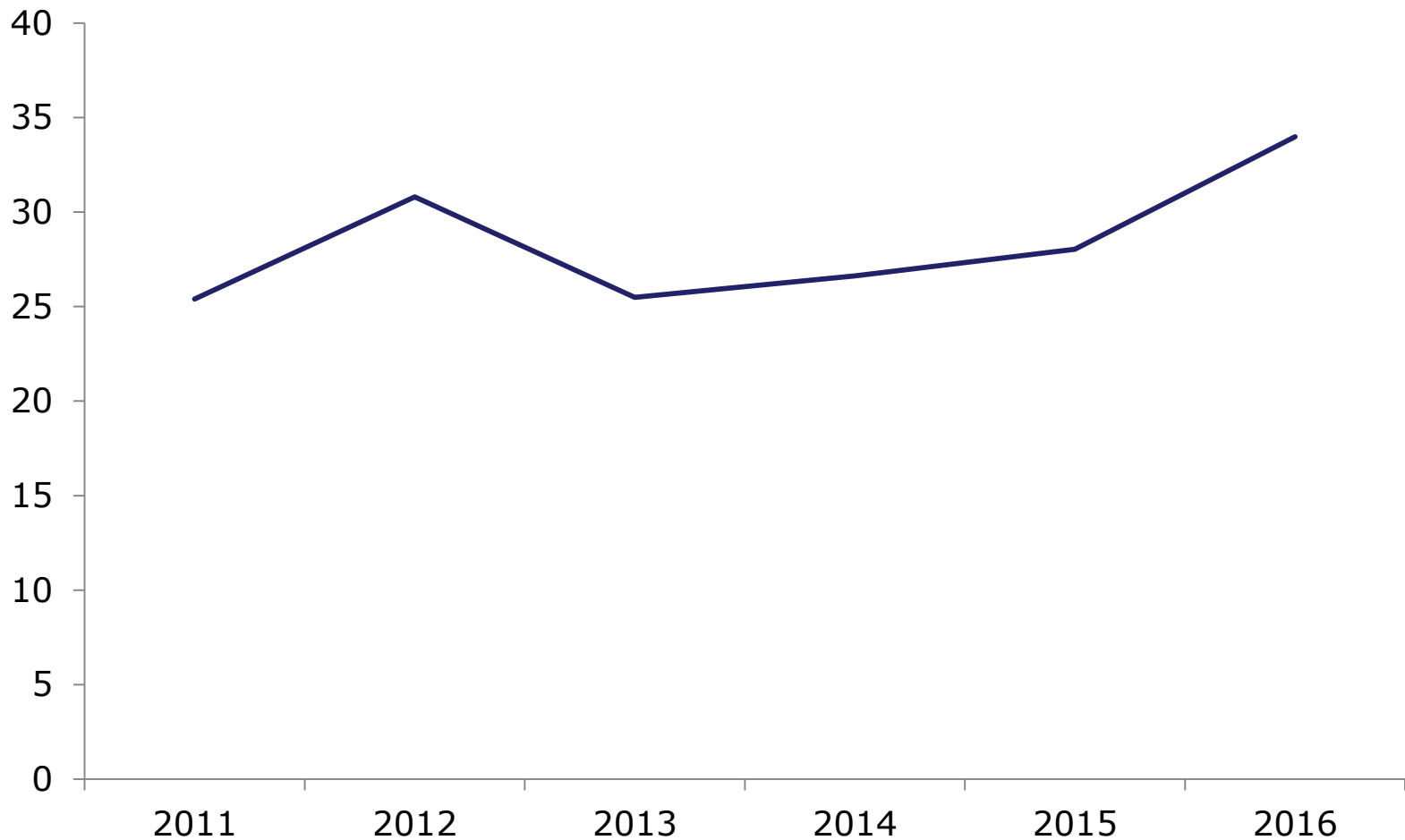
Tender Title	Issuer	Date
<b>IZGRADNJA ELEKTROENERGETSKE MREŽE NA IV. ETAPI RADNIČKE CESTE – OD ŽELJEZNIČKE PRUGE DO DOMOVINSKOG MOSTA</b>	HEP - operator distribucijskog sustava d.o.o., D.P. Elektra Zagreb	15.09.2017
<b>IZRADA IDEJNOG, GLAVNOG I IZVEDBENOG PROJEKTA IZGRADNJE JAVNE ODVODNJE U DIJELU NASELJA JARUN</b>	AQUA.OMEGAd.o.o.; TIBORA-EKO d.o.o.	15.09.2017
<b>SANACIJA KUHINJE U DJEČJEM VRTIĆU PREČKO</b>	TIM-COLOR D.O.O.	18.09.2017
<b>IZRADA GLAVNIH I IZVEDBENIH PROJEKATA NOVE ŽIČARE SLJEME SA PRIPADAJUĆOM INFRASTRUKTUROM I GEOMEHANIČKIM ISTRAŽNIM RADOVIMA</b>	ELEKTROPROJEKT d.d.	20.09.2017
<b>SANACIJA KROVA U DJEČJEM VRTIĆU IVANE BRLIĆ MAŽURANIĆ</b>	O.K.I.mont d.o.o.	26.09.2017
<b>BOJE I LAKOVI</b>	CHROMOS-SVJETLOST d.o.o.	26.09.2017

2017.10.12.

# MAIN RESULTS

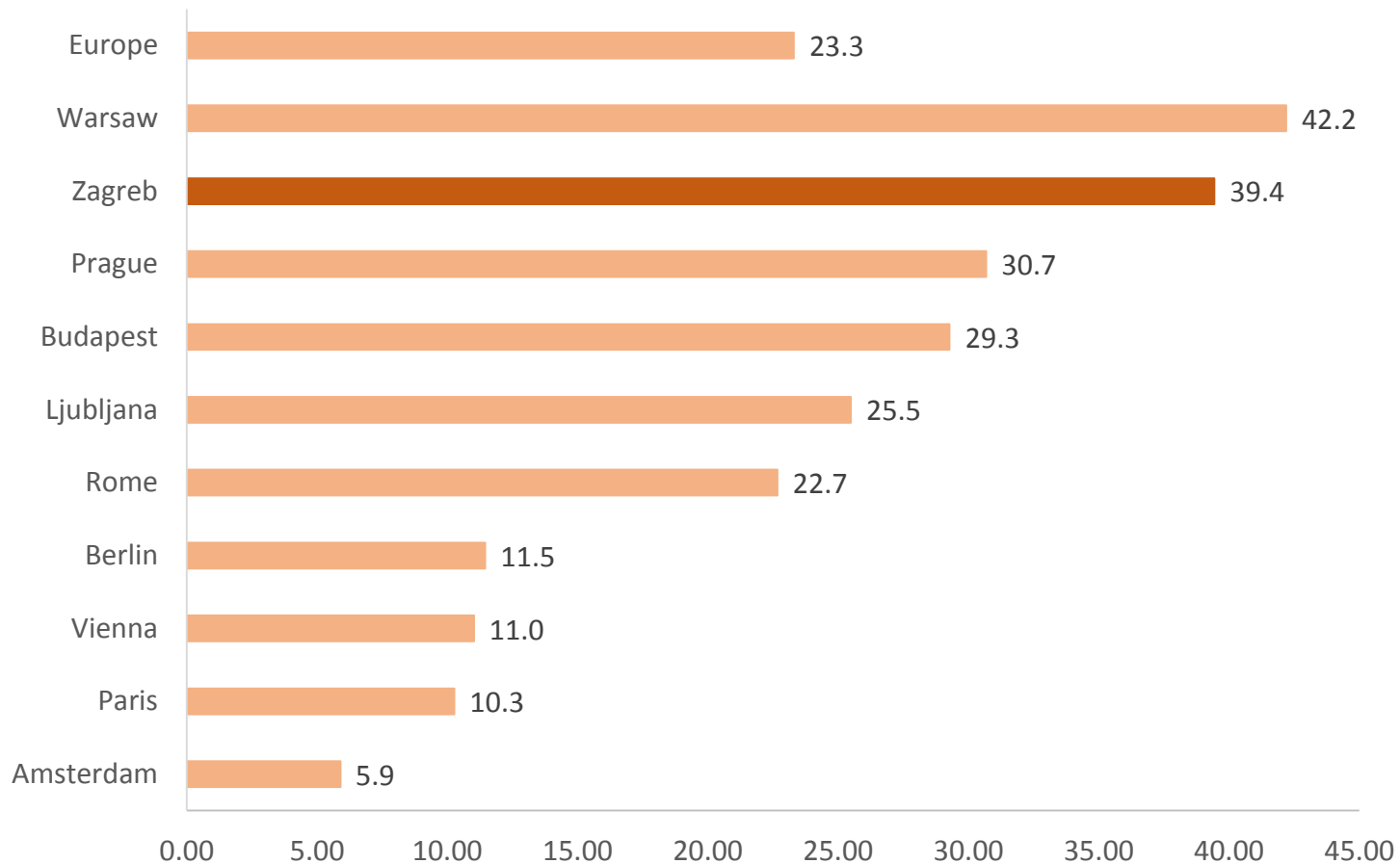
1. The corruption risk of public procurement increased significantly. The share of tenders without competition increased from 25% to 34% between 2011 and 2016

# Share of tenders without competition (SB=1) by year, 2011-16, %, N = 5,922

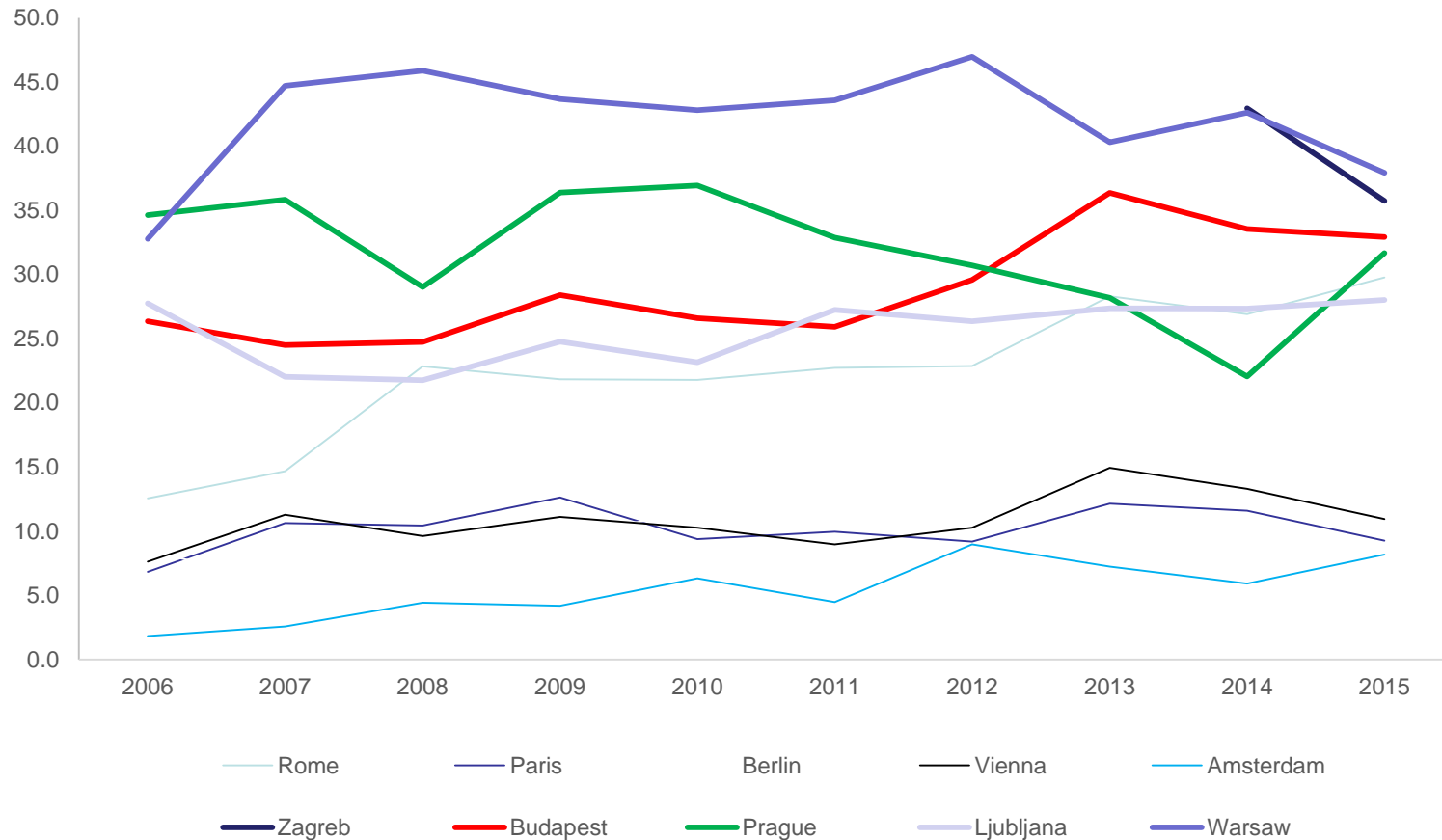




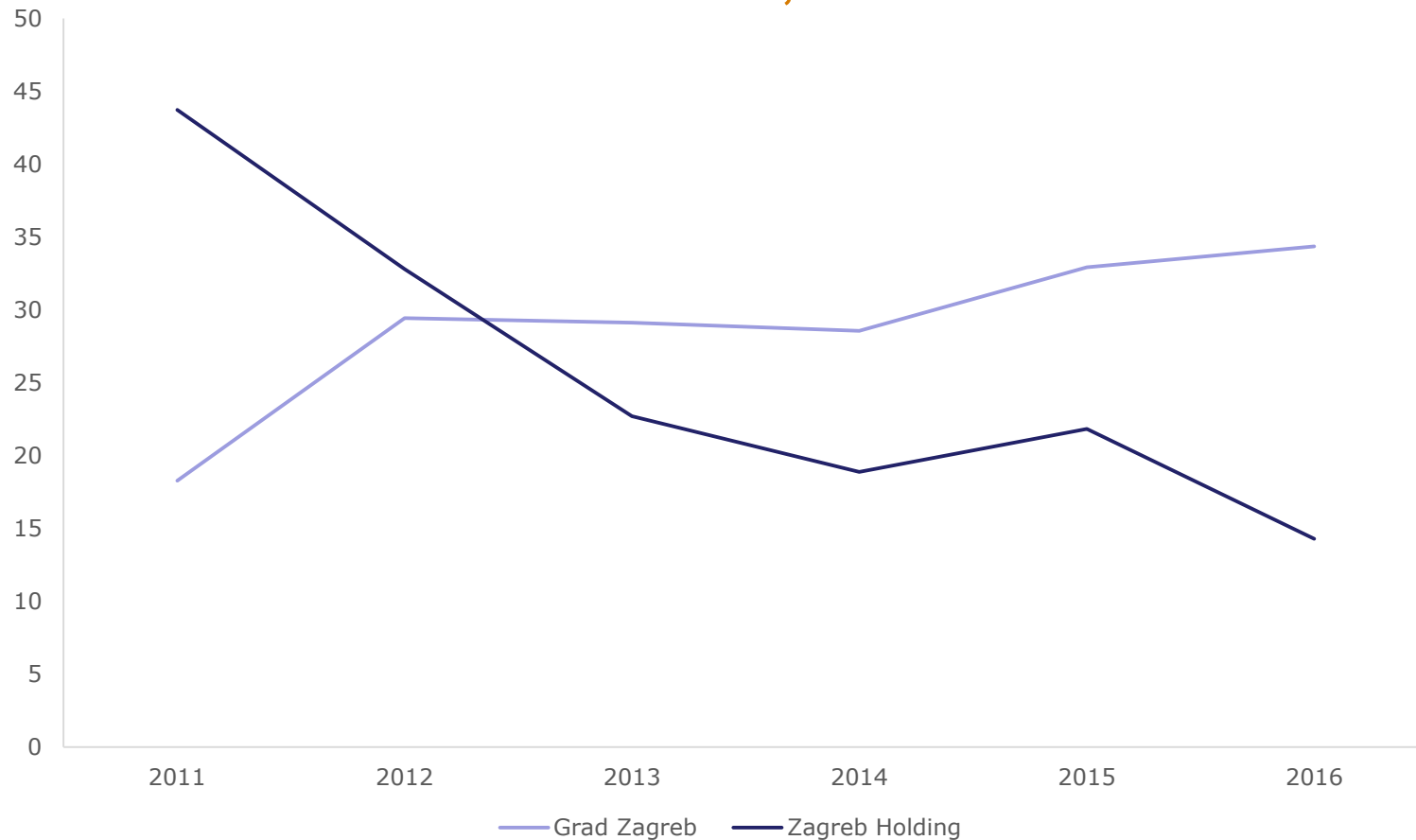
# Share of tenders without competition (SB=1) in selected European capitals, 2006-15, N = 3,407,027



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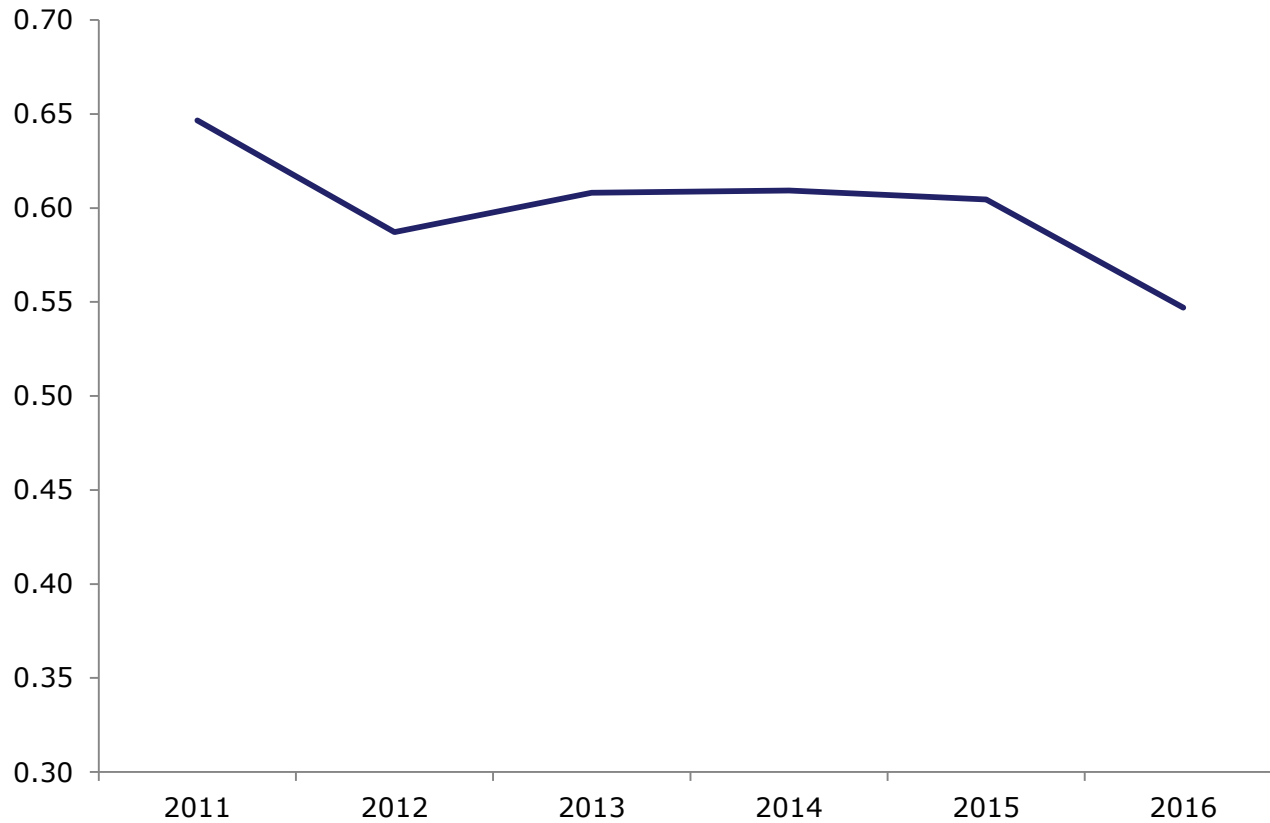
# Share of tenders without competition (SB=1) in City of Zagreb and Zagreb Holding, 2011-16, 2011-16, %, N = 5,922



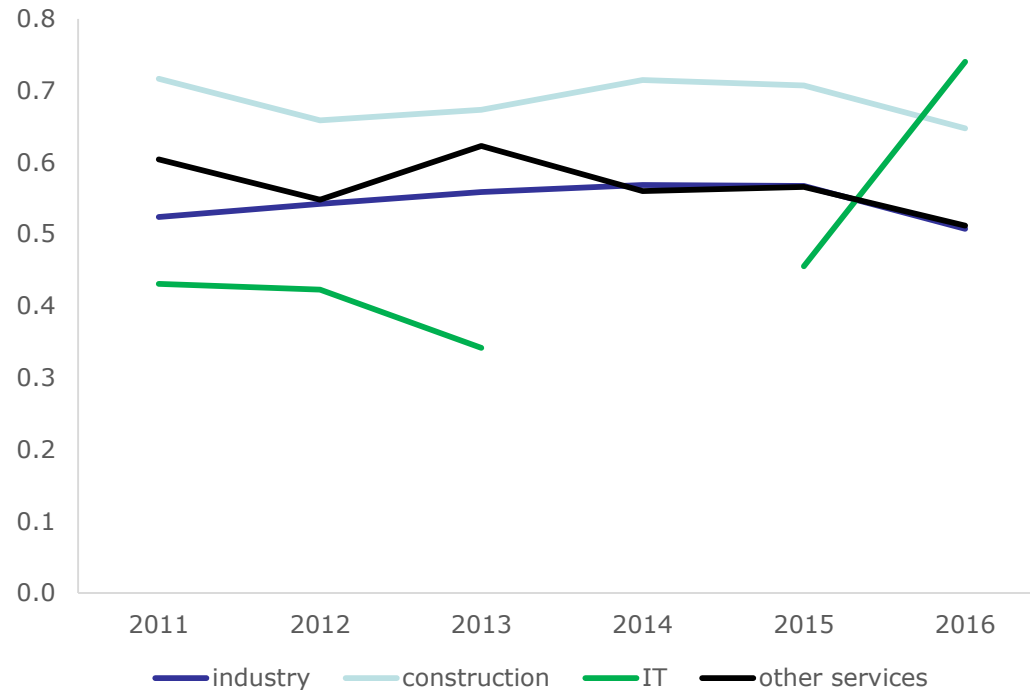
2. The intensity of competition (ICI) decreased considerably from 0.65 to 0.55 points during the period.

$$[0 \leq ICI \leq 1]$$

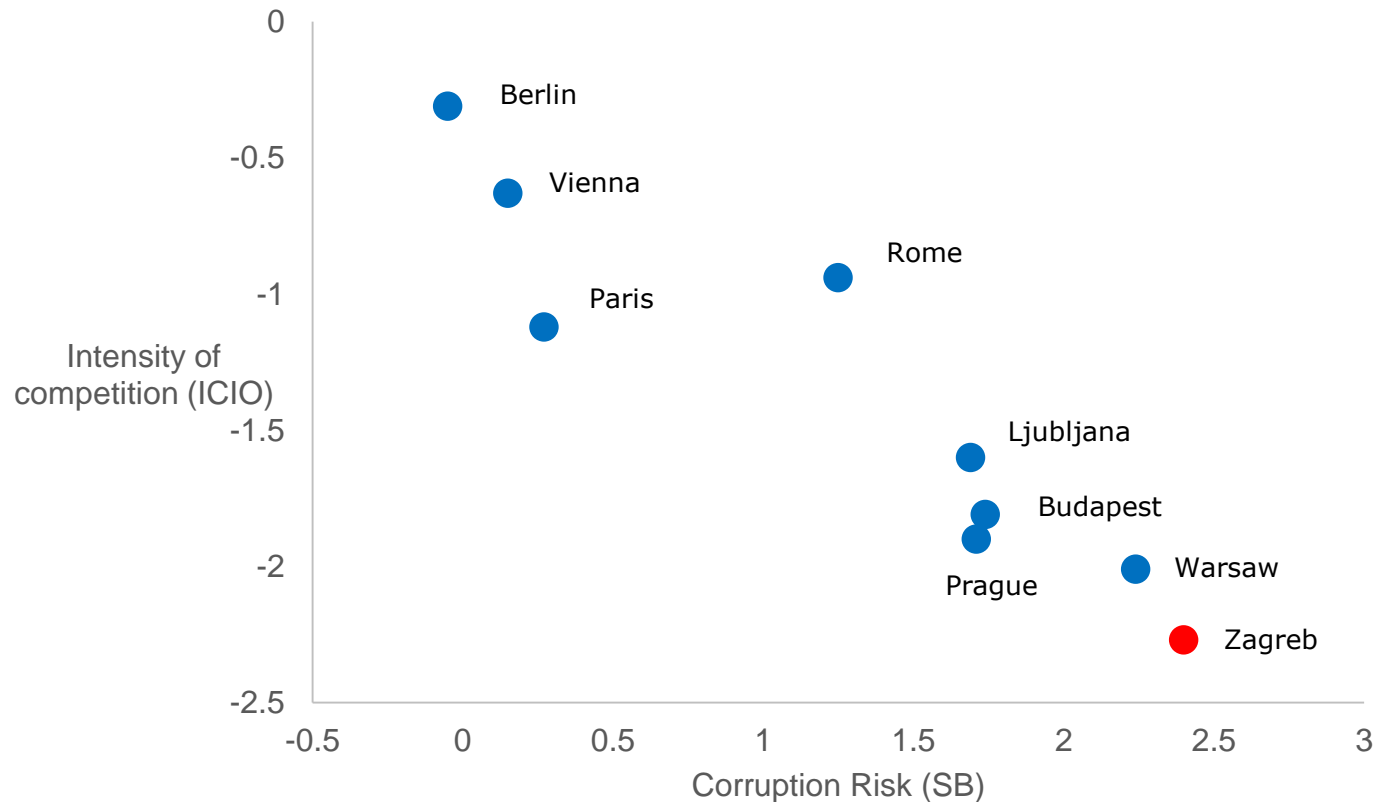
## The average value of Indicator of Competitive Intensity (ICI) by year, 2011-16, N = 4,238



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# Intensity of Competition and Corruption Risk in selected European Capitals 2006-15, N = 3,407,027

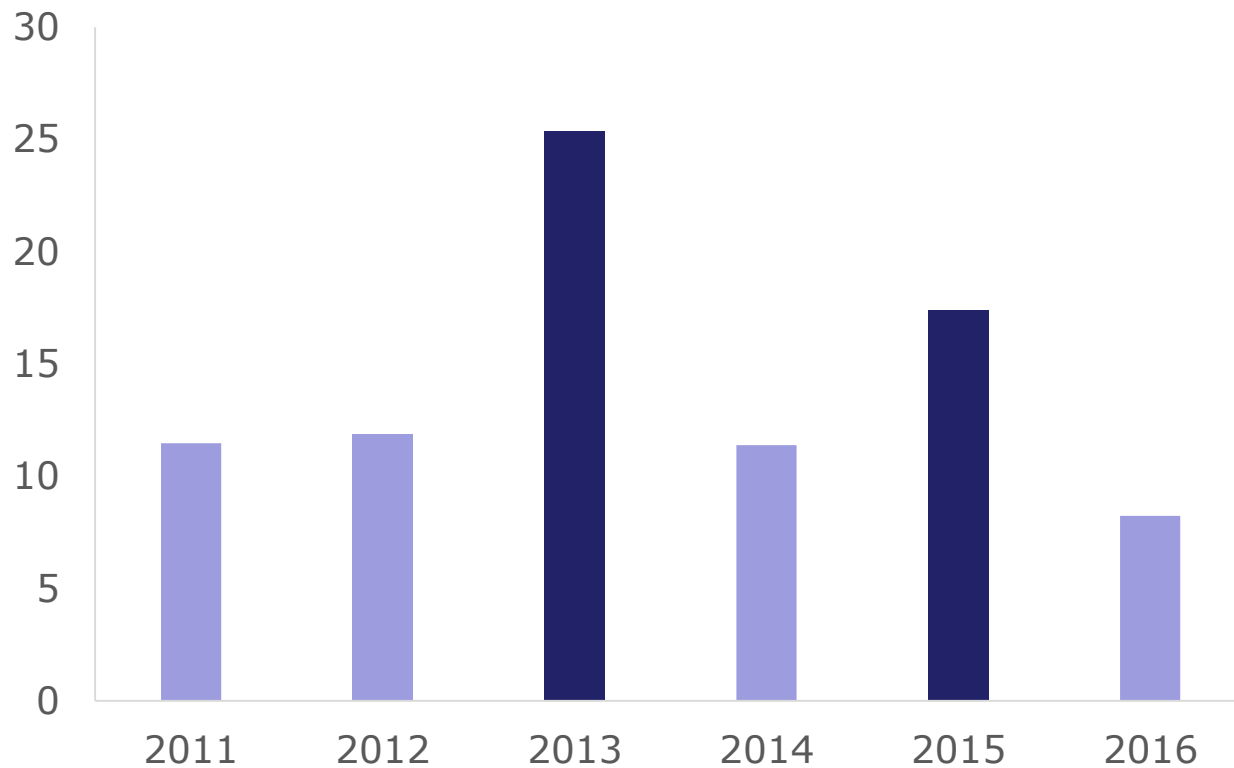


Source: CRCB's own calculation from TED data; values in X and Y axis are coefficients from logit and ordered logit models, reference capital: Amsterdam, controls: year, sector, contract size (ln net contract value).

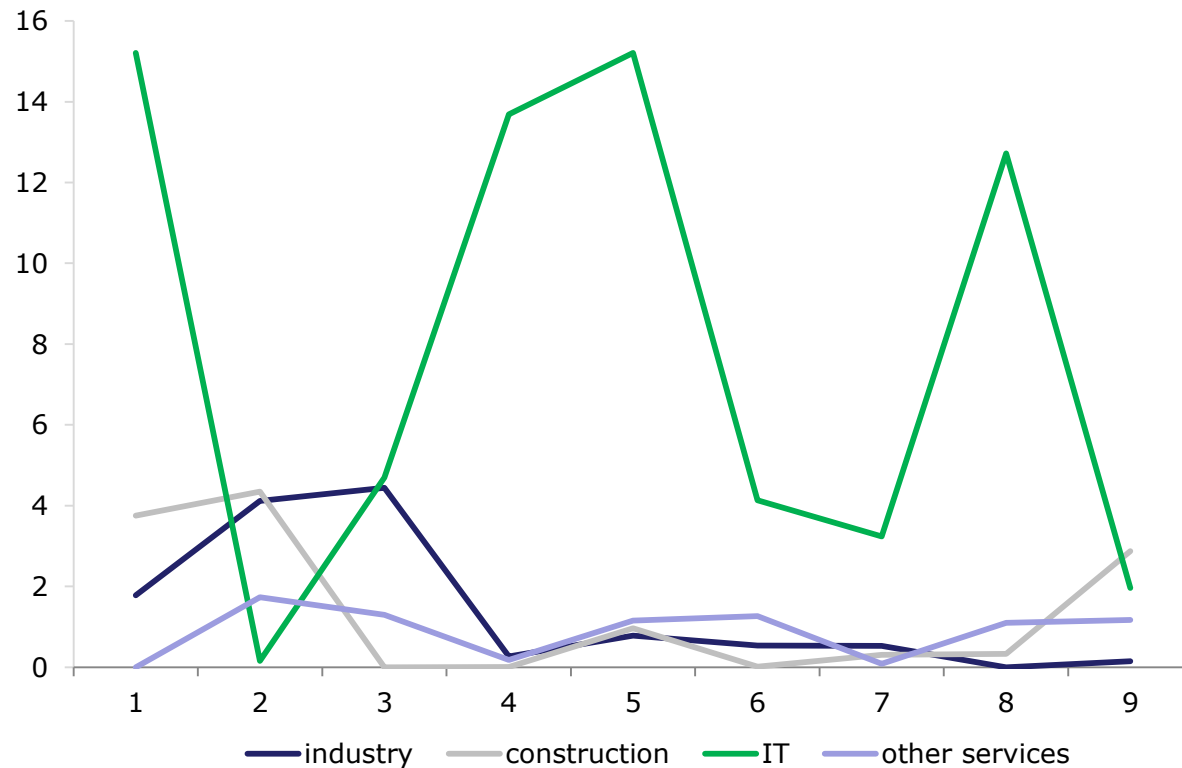
### 3. The price distortion was high in 2013 and in 2015



# The weight of price distortion: the squared error (SE) of contract prices of PPZ from the theoretical (Benford's) distribution by year, 2011-16, N = 5,922

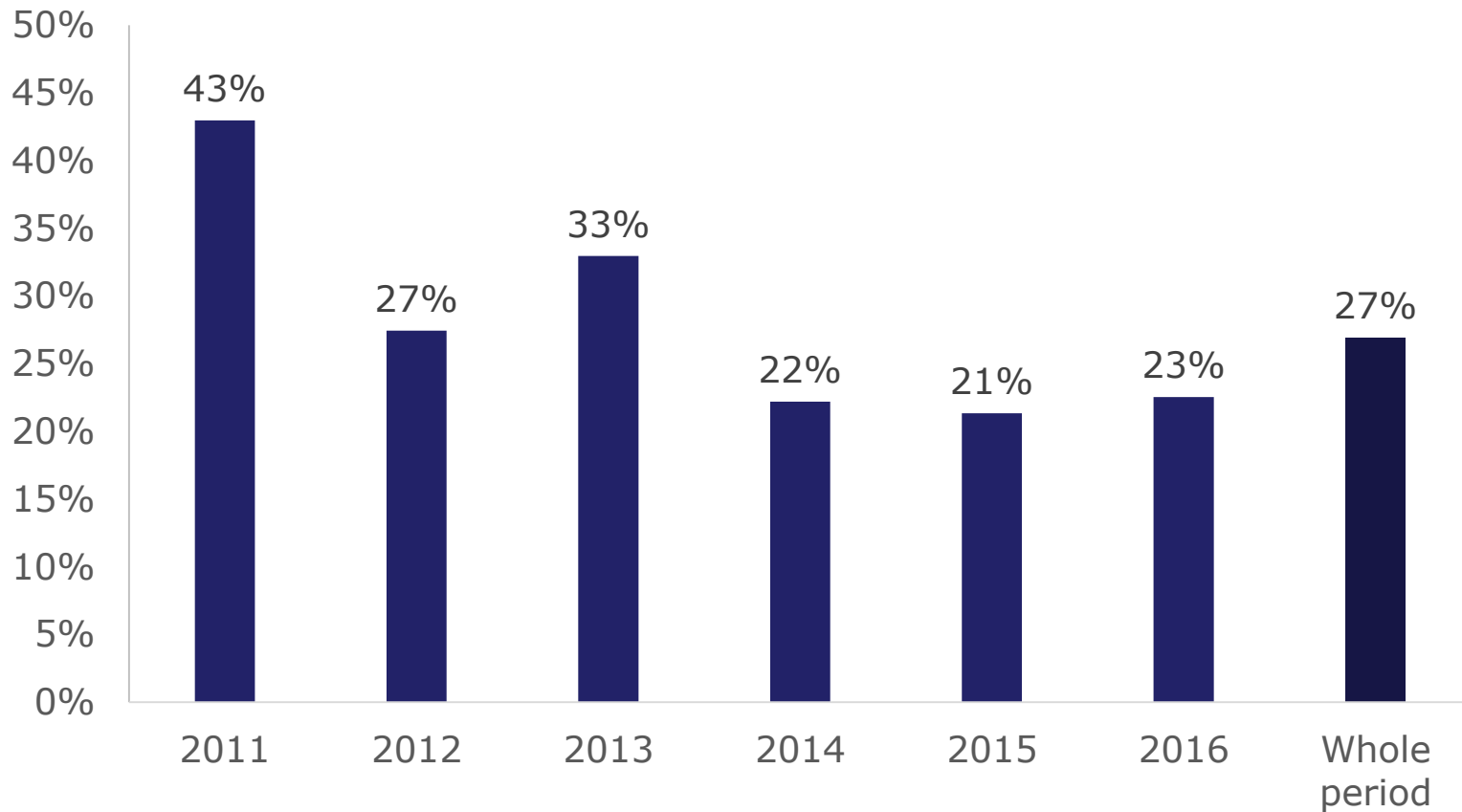


# The weight of price distortion: the squared error (SE) of contract prices of PPZ from the theoretical (Benford's) distribution by sectors, 2011-16, N = 5,922

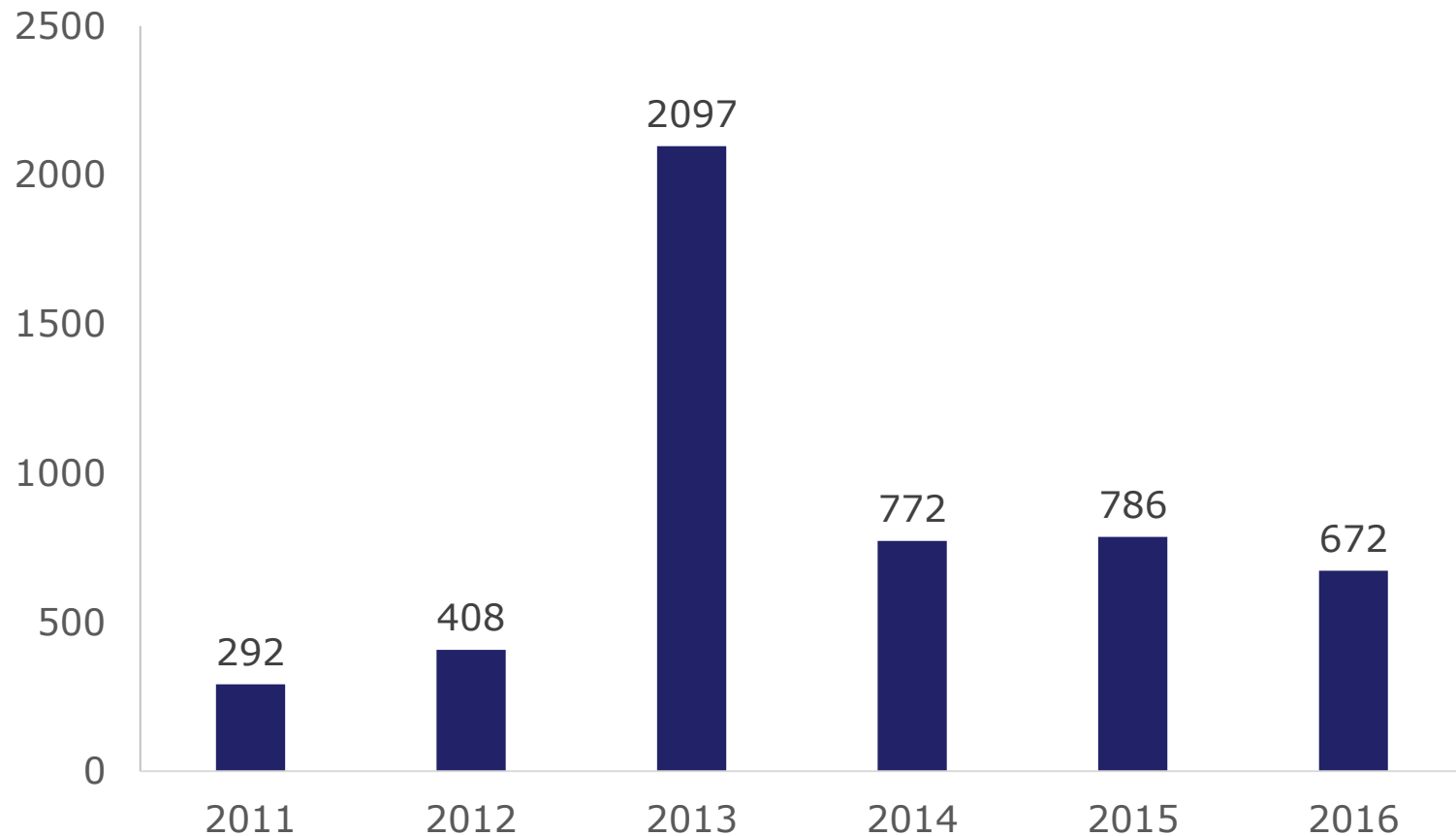


4. 27% of the aggregate contract value was spent without competition. Between 2011 and 2016 the competition practically did not exist at more than the quarter of public money spent on public procurement. The highest value (43%) was in 2011 and the lowest one (21%) in 2015.

## The share of money spent in PPZ without competition, %, 2011-16, N = 5,922

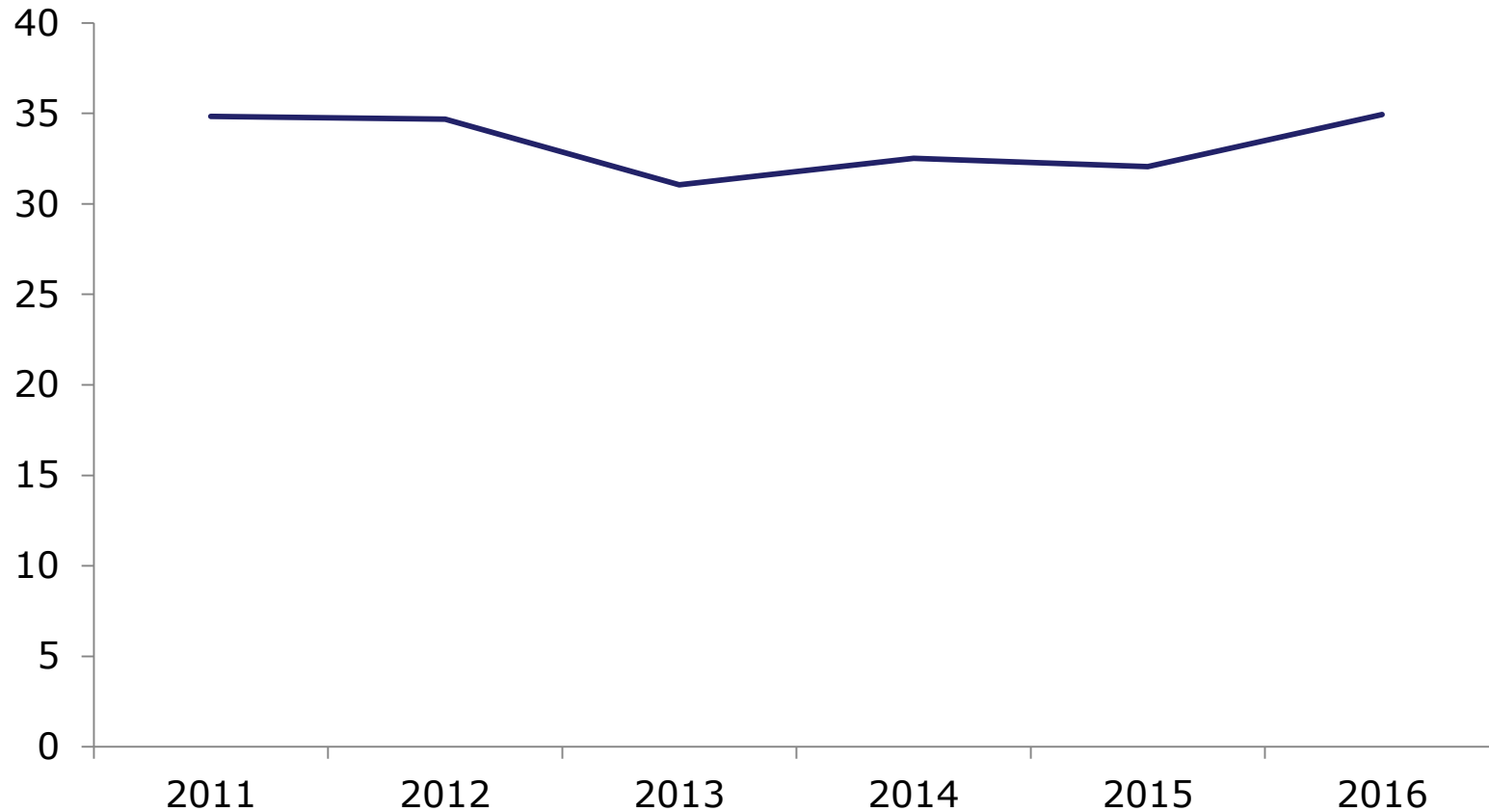


## The sum of the value of PPZ without competition, in million HRK, 2011-16, N = 1,684



5. The median level of estimated direct social loss remained stable during the period and its value has moved between 31-34%

# The median value of the ratio of estimated direct social loss in net contract value by year, %, 2011-16, N = 3,076

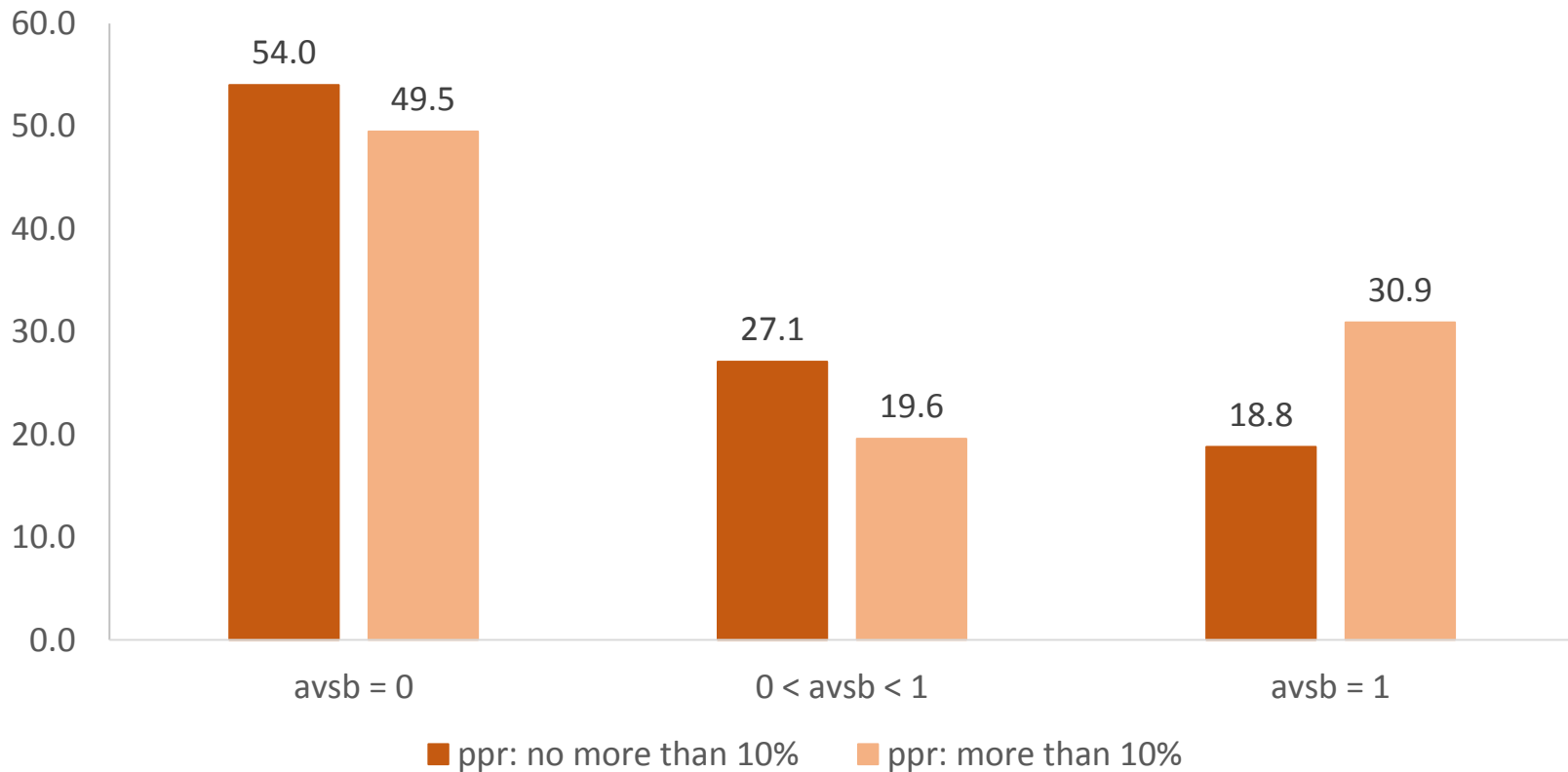


6. The results point to the existence of a positive link between corruption risks of public tenders and its importance in total sales of the company. If the role of the public procurement market is greater within the company's sales, the company typically won public tenders characterized by high corruption risks.

=> institutionalization of corruption (??)



The share of tender won by the winner company as single bidder in total number of tender by the weight of total contract value of public tenders in total net turnover of the company %, 2011-15, N = 878



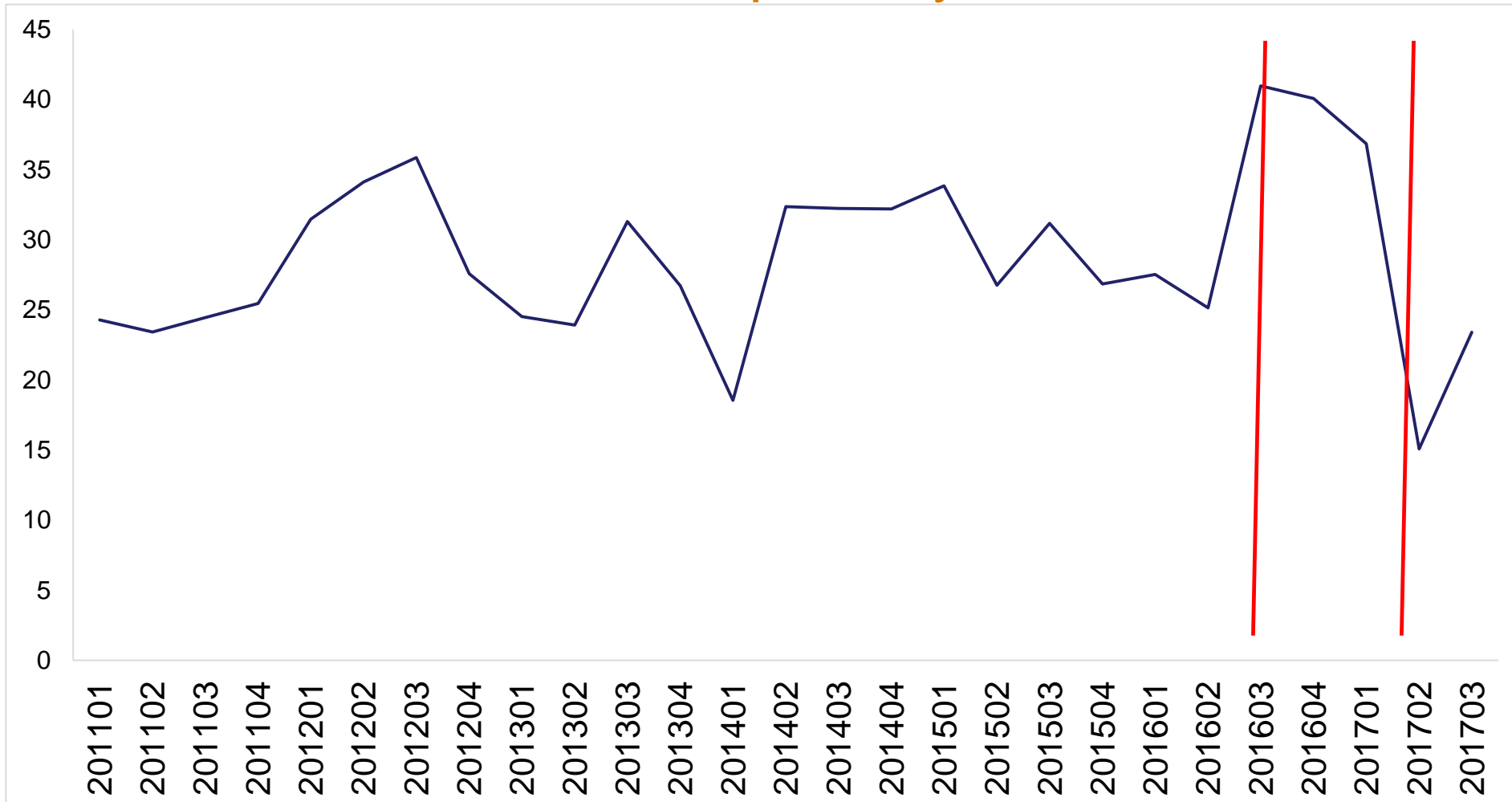
## 7. New Data from 2017.01-2017.09

Evolution before and after the local election of 2017

before: considerable increase of corruption risks

after: sudden drop

# The share of tender without competition (SB=1) 2011.01. – 2017.09., quarterly data, N = 6,076



# LESSONS

# Lessons

- Low intensity of competition
- High corruption risks
- High level of estimated direct social loss
- Corruption towards institutionalization

# Lessons

- Need for a regular empirical analysis of the intensity of competition, corruption risks and direct social loss of public tenders.
- This is the first step towards to increase social welfare.

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# Thank you for your attention!

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