

# Zagreb Stock Exchange

**Sell**

Initiation of coverage

Price: HRK 15.5

Price target: HRK 14.2

## A pricey bet on the Balkan markets consolidation

We initiate coverage of Zagreb Stock Exchange (ZSE), a micro-cap (USD 11.2m) company based in Croatia, with a SELL rating and a price target (PT) of HRK 14.2/share, offering downside of c.8.2% to the 20 October closing price. ZSE is a group consisting of the Zagreb Stock Exchange, the Ljubljana Stock Exchange (LJSE), and a small stake of c.5.3% in the Macedonian Stock Exchange (MSE). On the negative side, we see a lack of major triggers in the short term and a relatively rich valuation compared to its peers. However, going forward, we appreciate the company's M&A strategy and appetite, which could not only put the excess liquidity on the balance sheet to work, but also, at the same time, increase the scale of ZSE's operations. In the meantime, we highlight the company's diversified revenue stream, as well as its relatively high average commissions. The company trades currently at 16.5x and 15.2x our 2021E and 2022E EV/EBITDAs, respectively. While we see these multiples as quite stretched, we note that the company's EBITDA, as well as its bottom line, could record superior growth rates going forward.

**M&A may be front and centre going forward.** Given ZSE's very liquid balance sheet, coupled with its inability to pay dividends due to its accumulated loss, and a lack of larger triggers in the short- to mid-term, ZSE's strategy is likely to turn towards M&A, in our view. We appreciate this move and note that the group acquired a small stake of c.5.3% in the MSE at the end of last year. Further acquisitions are likely, in our view, be it an increase of the ownership stake in the MSE or a new acquisition elsewhere in the Balkans. We do not pencil any acquisitions into our model, however, and choose to remain on the sidelines, until there is something specific. We note that the acquisition of an exchange can sometimes prove to be difficult, for political reasons.

**We highlight ZSE's diversified revenue sources.** The group has tapped some unconventional revenue sources in order to stabilise its top line. Commission income accounts for only one-third of the total revenue stream; quotation maintenance, an annual fee paid by issuers on the lower-tier markets, accounts for more than one-quarter; while about 20-24% of the total revenue comes from data vending and the supply of information; and the rest, c.20%, comes from other sources, some rather unconventional, such as OTC services, and income from seminars, etc. Furthermore, the business is diversified by the group's exposure to its SEE Link and Funderbeam SEE projects. Approximately half of ZSE's revenues could be considered stable and non-cyclical, in our view.

**Strong bottom-line growth potential.** Given the small scale of the group's operations and as it has broken even recently, it is likely, in our view, to show quite strong growth rates on the bottom line, on the back of more or less flat expenses compared to the slight top-line growth. We see the 2019-24E EBITDA CAGR at 28%. The high rate is the result of the operational leverage of operating expenses remaining relatively flat, coupled with a conservative revenue CAGR of 2% for the same period.

**On P/E and EV/EBITDA multiples, ZSE trades above its peers.** Despite the above, we believe it is trading at expensive multiples currently. On our estimates, ZSE trades 16.5x and 15.2x our 2021E and 2022E EV/EBITDAs, respectively, at premiums to its peer group. Our PT brings the company's EV/EBITDA multiples into line with, or at a slight discount vs., its peers, which we see as more reasonable. This justifies our SELL rating, in our view.

### Expected events

4Q20 unaudited	February 2021 (TBC)
FY20 results	April 2021 (TBC)
1Q results	April 2021 (TBC)
2Q results	July 2021 (TBC)
3Q results	October 2021 (TBC)

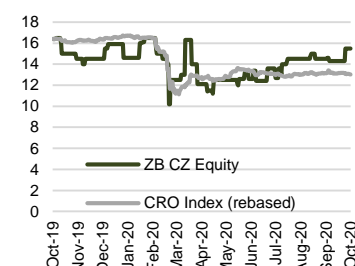
### Key data

Market Cap	USD 11.2m
Free float	100%
3M ADTV	USD 375
Shares outstanding	4.6m
Major Shareholder	-
Bloomberg Code	ZB CZ Equity
CRO Index	1,598.8

### Price performance

52-w range	HRK 10.2-16.5
52-w performance	-5%
Relative performance	15%

ZSE 12M share price performance



Year	Sales (HRK m)	EBIT (HRK m)	Net Profit (HRK m)	EPS (HRK)	P/E (x)	EV/EBITDA (x)	ROE (%)
2018	23.9	0.4	0.2	0.0	n.m.	37.4	0.5%
2019	25.0	-0.4	0.9	0.2	78.7	44.5	2.3%
2020E	26.6	2.3	2.3	0.5	30.6	15.5	5.6%
2021E	26.1	1.9	2.0	0.4	36.1	16.5	4.5%
2022E	26.6	2.1	2.1	0.5	33.4	15.2	4.7%

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## Closing Prices as of 20 October 2020

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# Company snapshot – SELL, PT HRK 14.2

Zagreb Stock Exchange		SHARE PRICE PERFORMANCE		COMPANY DESCRIPTION									
<b>SELL</b>		<b>SHARE PRICE PERFORMANCE</b>		<b>COMPANY DESCRIPTION</b>									
Bloomberg ticker	ZB CZ			Zagreb Stock Exchange (ZSE) is the central place for securities trading in Croatia.									
Closing price (HRK)	15.5			Today, the exchange is comprised of two markets, the Regulated Market and the Multilateral Trading Facility, and there are more than 150 companies listed. Together with the exchanges in North Macedonia and Bulgaria, ZSE has created SEE LINK, a company with the objective to create a regional infrastructure for securities trading.									
Price target (HRK)	14.2			ZSE is also a 100% shareholder of the Ljubljana Stock Exchange of Slovenia.									
Upside to PT	-8.2%												
Shares outstanding (m)	4.64												
MCAP (HRK m)	72												
Free float	100%												
3M ADTV (USD)	375												
52 Week Range (HRK)	10.2-16.5												
<b>RATIOS &amp; MARGINS</b>													
<b>VALUATION RATIOS</b>		<b>2018</b>	<b>2019</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>	<b>Margins</b>		<b>2018</b>	<b>2019</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>
P/E (x)	n.m.	78.7	30.6	36.1	33.4		EBITDA margin	6.2%	5.8%	14.9%	13.8%	14.3%	
P/BV (x)	1.6	1.8	1.7	1.6	1.5		EBITDA margin - LJSE	12.6%	9.9%	n.a.	n.a.	n.a.	
EV/EBITDA (x)	37.4	44.5	15.5	16.5	15.2		EBITDA margin - MSE	36.1%	34.8%	n.a.	n.a.	n.a.	
P/FCF (x)	n.m.	67.0	38.3	27.6	26.7		EBIT margin	1.5%	-1.7%	8.8%	7.3%	7.9%	
Div. yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%		EBIT margin - LJSE	4.3%	2.1%	n.a.	n.a.	n.a.	
<b>PER SHARE FIGURES</b>		<b>2018</b>	<b>2019</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>	EBIT margin - MSE	30.5%	29.1%	n.a.	n.a.	n.a.	
EPS (HRK)	0.04	0.20	0.51	0.43	0.46		Net margin	0.8%	3.8%	8.8%	7.6%	8.1%	
BVPS (HRK)	8.52	8.75	9.25	9.68	10.14		Dividend payout	0.0%	0.0%	0.0%	0.0%	0.0%	
DPS (HRK)	0.00	0.00	0.00	0.00	0.00		ROE	0.5%	2.3%	5.6%	4.5%	4.7%	
<b>COMPANY FINANCIALS</b>													
<b>INCOME STATEMENT (HRK m)</b>		<b>2018</b>	<b>2019</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>	<b>BALANCE SHEET (HRK m)</b>		<b>2018</b>	<b>2019</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>
Sales revenue	15.4	15.1	17.5	16.6	16.8		Property and equipment	12.3	8.6	7.9	7.1	6.2	
Other operating income	8.5	9.9	9.2	9.6	9.8		Intangible assets and goodwill	2.5	3.0	3.0	3.0	3.0	
<b>Total operating revenues</b>	<b>23.9</b>	<b>25.0</b>	<b>26.6</b>	<b>26.1</b>	<b>26.6</b>		Other non-current assets	2.5	3.5	3.5	3.5	3.5	
Personnel expenses	-10.9	-11.2	-11.2	-11.1	-11.1		<b>Total non-current assets</b>	<b>17.3</b>	<b>15.0</b>	<b>14.3</b>	<b>13.5</b>	<b>12.6</b>	
D&A	-1.1	-1.9	-1.6	-1.7	-1.7		Trade receivables and other assets	4.0	4.4	4.7	4.6	4.7	
Other operating expenses	-11.5	-12.4	-11.5	-11.5	-11.7		Financial assets at fair value through P&L	17.7	19.6	20.6	21.6	23.1	
<b>Total operating costs</b>	<b>-23.5</b>	<b>-25.4</b>	<b>-24.3</b>	<b>-24.2</b>	<b>-24.5</b>		Short-term deposits	4.1	1.5	1.5	1.5	1.5	
<b>EBITDA</b>	<b>1.5</b>	<b>1.5</b>	<b>4.0</b>	<b>3.6</b>	<b>3.8</b>		Cash and cash equivalents	2.4	7.6	8.9	10.9	12.5	
<b>Operating (loss)/profit</b>	<b>0.4</b>	<b>-0.4</b>	<b>2.3</b>	<b>1.9</b>	<b>2.1</b>		Other current assets	0.5	0.6	0.6	0.6	0.6	
<b>Net finance income</b>	<b>0.1</b>	<b>1.4</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>		<b>Total assets</b>	<b>46.0</b>	<b>48.7</b>	<b>50.6</b>	<b>52.7</b>	<b>55.0</b>	
Share of loss of equity - investees	-0.1	0.1	0.2	0.2	0.2		Issued share capital	46.4	46.4	46.4	46.4	46.4	
<b>Profit before tax</b>	<b>0.3</b>	<b>1.0</b>	<b>2.9</b>	<b>2.4</b>	<b>2.6</b>		Accumulated loss	-21.4	-20.4	-18.0	-16.0	-13.9	
Income tax	-0.1	-0.1	-0.5	-0.4	-0.5		Other equity	14.6	14.5	14.5	14.5	14.5	
<b>Profit for the period</b>	<b>0.2</b>	<b>0.9</b>	<b>2.3</b>	<b>2.0</b>	<b>2.1</b>		<b>Total equity and reserves</b>	<b>39.5</b>	<b>40.5</b>	<b>42.9</b>	<b>44.9</b>	<b>47.0</b>	
<b>Dividends</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>Total non-current liabilities</b>	<b>0.3</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	
Dividend payout	0.0	0.0	0.0	0.0	0.0		Trade and other payables	1.9	2.6	2.4	2.4	2.4	
<b>Free cash flow</b>	<b>0.0</b>	<b>1.1</b>	<b>1.9</b>	<b>2.6</b>	<b>2.7</b>		Contractual liabilities and provisions	4.2	4.0	3.7	3.9	3.9	
							Other non-current liabilities	0.1	0.8	0.8	0.8	0.8	
							<b>Total equity and liabilities</b>	<b>46.0</b>	<b>48.7</b>	<b>50.6</b>	<b>52.7</b>	<b>55.0</b>	
<b>OTHER DATA</b>													
	<b>2018</b>	<b>2019</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>	<b>EBITDA (HRK m)</b>		<b>Profit for the period (HRK m)</b>					
Average commissions	0.13%	0.13%	0.13%	0.13%	0.13%								
Total turnover - ZSE	2,854	2,994	3,434	2,932	3,017								
Total market turnover - ZSE	1.22%	1.14%	1.29%	1.10%	1.13%								
Total turnover - LJSE	2,504	2,447	2,956	2,679	2,679								
Total market turnover - LJSE	1.01%	0.95%	1.15%	1.04%	1.04%								
Liquidity ratio (Current assets / Liabilities)	4.4	4.1	4.7	5.0	5.3								
Cash and deposits as a % of total assets	17.4%	18.7%	20.5%	23.6%	25.5%								
Cash and deposits as of % of mkt cap	10.8%	12.3%	14.5%	17.3%	19.5%								

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## Investment case

**We initiate coverage of Zagreb Stock Exchange (ZSE) with a SELL rating and a price target (PT) of HRK 14.2/share, with potential downside of 8.2% to the current share price. While the company lacks any major triggers currently, we believe that its highly liquid balance sheet and inability to pay dividends call for M&A activity. ZSE's M&A appetite was demonstrated recently by the acquisition of a minority stake in the Macedonian Stock Exchange (MSE). Dividends could be announced at some point, but only further down the road, in our view. In the meantime, the group's top-line diversification and its ability to charge higher fees than we see elsewhere in the region should help keep the revenue stream largely stable. However, given its rich valuation compared to its peers, we have decided to recommend to SELL the shares now. We note that an M&A announcement could change our view, as any scale-increasing activity would have a positive impact on the company's investment case.**

**Highly liquid balance sheet and the inability to pay dividends out call for further M&A activity in the short term.** As is the case with the majority of the stock exchanges in the region, the group's balance sheet is very liquid and largely financed by equity. As of the end of 2019, cash and equivalents, such as deposits, accounted for almost 19% of its total assets. Currently, ZSE carries an accumulated loss and is therefore unable to pay dividends out. Thus, we see the cash and equivalents' share on the balance sheet growing to 25.9% by 2024E. The company also holds a large amount of short-term financial assets through its P&L. While vertical consolidation seems to be rather unlikely now, we believe that horizontal expansion and opportunistic M&A are on the table, as the excess liquidity needs to be put to work. Similarly, the company acquired a minority stake of 5.3% in the MSE recently. Given the group's strategy, we believe that increasing its stake in MSE and looking for further M&A targets in the region are both possible. The group does have the firepower to move quickly, in this regard.

**Diversified revenue stream helps the company to keep its top-line stable.** Income from commissions accounts for c.27-30% of the group's revenues, and we expect this to remain largely flat going forward. Another large amount of income is derived from quotation maintenance, c.26-28%, an annual fee for the inclusion of the securities on the exchange's lower-tier markets. While the income from this source has declined slightly recently, mostly as a result of delistings, the average fee seems to have increased. We believe that the income from quotation maintenance could increase to HRK 8.0m by 2024E, a CAGR of c.4% from 2019. Most of our expected increase is due to the price hike in 2020 vs. 2019. Another large part, c.20-24%, is from the supply of information, a fee charged to members of the exchange for the right to distribute real-time data. The rest are unconventional sources, such as seminars and certain OTC services. We believe that these other, unconventional resources should grow over time, albeit slower than the rest, and that their share is likely to decline slightly over our forecast period.

**Through multiple projects, the stock exchange is offering trading not only in Croatia, but in the Balkans in general.** Currently, the majority of ZSE's revenue stream is generated in Croatia and Slovenia. The company is, however, a 33.33% shareholder in SEE Link, a regional securities trading platform. The platform was established in 2014 by the Zagreb, Macedonian and Bulgarian stock exchanges to offer more simple and efficient access to the regional markets. Currently, SEE Link gives access to a market with a total capitalisation of more than USD 50bn and 1,200 securities as, over the years, other exchanges have joined. Currently, SEE Link connects the three original stock exchanges, as well as the Belgrade, Ljubljana, Sarajevo and Banja Luka stock exchanges.

**The good cost control of the past couple of years is likely to continue, but large cost cuts are unlikely now.** Following the migration from a more expensive trading IT infrastructure to the cheaper Xetra system, total operating costs fell quite substantially, to HRK 23.5m in 2018 from HRK 28.4m in 2017. In 2019, total operating costs increased to HRK 25.4m, mostly on the back of an increase in D&A and an increase in the impairment losses on financial assets. These could be rather short-lived, in our view, and we believe that the group's expenses could decline on a yoy basis, even though they may remain somewhat elevated vs. 2018. A further increase in cost efficiency is possible, in our view, especially as the LJSE will be migrated to a common data warehouse, developed internally by the ZSE. This should offer some IT cost reductions.

**We appreciate the company's ability to charge relatively high commissions, which offset, at least partially, the low volumes traded.** On our calculations, the group's average commission is around 0.13%, higher than most of its regional peers. As we do not anticipate high growth rates for the volumes traded, we expect the average commission to remain largely flat, at least for the foreseeable future. On our numbers, the commissions earned are likely to show a CAGR of 2% over the period between 2019 and 2024E. Both markets in Zagreb and Ljubljana lack clear triggers in the near future and, despite higher turnover in absolute terms in Croatia, the equity turnover velocity in Zagreb is consistently lower than in Ljubljana, giving the Croatian equity market some potential to catch up.

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**Rich valuation compared to its peers prevents us from having a more positive stance currently.**

The company is trading currently at premiums of 13% and 9% vs. its peers on our 2021E and 2022E EV/EBITDA multiples, respectively. We see these multiples as rather stretched. On our PT, the company trades at multiples closer to its peers, at a minor premium of 2% and a discount of 2% on our 2021E and 2022E EV/EBITDAs, respectively, which we would deem more reasonable. Having said that, our PT of HRK 14.2/share offers downside of c.8.2%, so we believe our SELL recommendation is justified. At the same time, we note that the announcement of an acquisition could play out well for the company's investment thesis, as it would increase its scale, margins and, consequently, profits and cash flows, provided that the acquisition is executed well, at a reasonable price.

## Valuation

To derive the fair value and price target for ZSE's shares, we use a DCF valuation model. With the company's size and liquidity, it is difficult to find easily comparable peers with which to perform peer valuation. For this reason, we use the peer group only to cross check our PT-implied multiples. The current share price offers downside of c.8.2% to our PT, resulting in our SELL recommendation on the shares.

### Zagreb Stock Exchange: valuation summary

ZB CZ Equity	
Discounted cash flow (100%)	14.2
Current price	15.5
<b>Potential upside</b>	<b>-8.2%</b>

Source: WOOD Research, Bloomberg

### Discounted cash flow valuation

In our discounted cash flow (DCF) model, we assume a risk free rate and an equity risk premium of 5.0%, combined with a beta of 0.8x. Furthermore, we assume a long-term growth rate of 3.0% for the terminal value.

### Zagreb Stock Exchange: WACC calculation

WACC	
Risk free rate	5.0%
Market risk premium	5.0%
Market return	10.0%
Beta	0.80
<b>Cost of equity</b>	<b>9.0%</b>
Cost of debt pre-tax	6.0%
Marg. tax rate	16.0%
<b>Cost of debt after tax</b>	<b>5.0%</b>
Weight k(e)	100.0%
Weight k(d)	0.0%
<b>WACC %</b>	<b>9.0%</b>

Source: WOOD Research

### Zagreb Stock Exchange: DCF valuation

	2019	2020E	2021E	2022E	2023E	2024E
Adj. EBIT	-0.4	2.3	1.9	2.1	3.2	3.4
Tax rate		-18%	-18%	-18%	-18%	-18%
NOPAT	-0.4	1.9	1.6	1.7	2.6	2.8
Depreciation & amortization	1.9	1.6	1.7	1.7	1.7	1.6
Changes in working capital	-0.5	0.7	-0.2	-0.1	0.0	0.0
CAPEX	-0.9	-0.9	-0.9	-0.8	-0.8	-0.8
Free cash flow	1.1	1.9	2.6	2.7	3.5	3.6
growth yoy		n.a.	39%	3%	30%	4%
Time adjustment for the valuation date		0.2	1.2	2.2	3.2	4.2
Discount factor		1.0	0.9	0.8	0.8	0.7
Discounted free cash flow		1.8	2.3	2.2	2.6	2.5
Sum	11.6					
Long term growth rate	3%					
Residual value at horizon	62.3					
PV of residual value	39.8					
Net debt	-9.1					
EV	60.5					
Number of shares (m)	4.6					
Fair value of ZSE's share	13.0					
Price target	14.2					
Upside	-8%					
Valuation date	20 October 2020					
Fiscal year end	31 December 2020					
Time adjustment	0.20					

Source: WOOD Research

## Sensitivity analysis of our model

To provide more colour on our PT, below, we show the sensitivity analysis of our DCF model to the different levels of WACC and the terminal growth rate.

### Sensitivity analysis of equity value per share from our DCF model

		Long-term growth rate				
		2.0%	2.5%	3.0%	3.5%	4.0%
WACC	7.0%	13.7	14.5	15.3	16.3	17.5
	8.0%	13.3	13.9	14.7	15.7	16.8
	9.0%	12.8	13.5	14.2	15.1	16.2
	10.0%	12.4	13.0	13.7	14.6	15.6
	11.0%	12.0	12.6	13.3	14.1	15.1

Source: WOOD Research

## Peer valuation summary

On EV/EBITDA, Zagreb Stock Exchange trades currently at 16.5x and 15.2x, on our 2021E and 2022E EBITDA estimates. Furthermore, on our numbers, its current P/E multiples for 2021-22E are 36.1x and 33.4x, respectively. We see such high multiples as rather stretched. In our view, multiples in line with our selected peer group (please see the next page for details), or even a slight discount, would be more justified. Our PT brings the EV/EBITDA multiples down to 14.9x and 13.6x, respectively, a premium of 2% on the 2021E multiple and a discount of 2% on the 2022E multiple. Furthermore, the company is not paying out a dividend at this time and we do not expect this to change within our forecast period. All of the above, in our view, supports our SELL recommendation on the stock.

Peer valuation table as of 20 October 2020

	Last px	Market cap	P/E			EV/EBITDA			Div yield		
	lcl	(USD)	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E
Hong Kong Exchanges	367.0	60,757	42.5	36.6	32.6	24.1	20.6	17.6	2.1%	2.4%	2.7%
CME Group Inc	163.1	58,499	23.6	23.5	22.1	18.1	17.9	16.6	3.9%	4.1%	4.6%
Intercontinental Exchange	100.0	54,262	22.1	20.6	19.1	16.2	14.6	13.9	1.2%	1.3%	1.4%
London Stock Exchange	8758.0	39,980	42.0	32.5	29.2	26.0	19.0	18.4	0.9%	1.0%	1.1%
Deutsche Boerse	141.7	31,917	22.7	22.2	20.4	14.8	14.3	13.2	2.1%	2.2%	2.5%
BM&Fbovespa	57.9	21,268	27.0	25.7	23.7	18.4	17.2	15.7	3.8%	4.0%	4.0%
Nasdaq	129.0	21,188	21.4	21.4	20.2	15.5	15.2	14.0	1.5%	1.6%	1.6%
ASX	82.8	11,251	31.9	33.0	32.0	19.6	14.0	13.2	2.8%	2.7%	2.8%
Singapore Exchange	9.2	7,171	21.5	22.5	22.2	14.3	14.6	14.0	3.5%	3.5%	3.6%
TMX Group	135.7	5,868	23.7	22.3	19.6	16.2	15.3	13.9	2.0%	2.1%	2.3%
Moscow Stock Exchange*	146.3	4,318	14.4	14.5	13.0	7.1	7.1	6.2	5.9%	5.9%	6.5%
Bolsas Y Mercados Espanoles	33.0	3,270	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.2%	3.1%	3.2%
Bursa Malaysia	9.0	1,736	23.2	28.0	28.9	15.8	18.9	19.6	3.9%	3.3%	3.1%
Warsaw Stock Exchange*	48.0	524	15.3	16.2	15.1	10.9	11.8	11.4	5.0%	5.2%	5.4%
NZX	1.8	317	28.7	27.8	24.3	14.1	13.4	12.4	3.5%	3.6%	4.1%
Hellenic Exchanges	2.7	193	30.7	24.0	16.6	7.5	6.7	5.1	5.7%	6.1%	8.0%
Bucharest Stock Exchange*	23.0	45	17.1	18.4	27.6	12.7	17.1	39.7	5.7%	5.1%	4.3%
<b>Zagreb Stock Exchange</b>	<b>15.5</b>	<b>11</b>	<b>30.6</b>	<b>36.1</b>	<b>33.4</b>	<b>15.5</b>	<b>16.5</b>	<b>15.2</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Zagreb Stock Exchange PT</b>	<b>14.2</b>	<b>10</b>	<b>28.1</b>	<b>33.2</b>	<b>30.7</b>	<b>14.0</b>	<b>14.9</b>	<b>13.6</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
Median			23.6	23.5	22.1	15.8	14.6	13.9	3.3%	3.2%	3.1%
<b>Current (discount)/premium</b>			<b>29%</b>	<b>53%</b>	<b>51%</b>	<b>-2%</b>	<b>13%</b>	<b>9%</b>	<b>-3.3ppts</b>	<b>-3.2ppts</b>	<b>-3.1ppts</b>
(Discount)/premium on PT			19%	41%	39%	-11%	2%	-2%	-3.3ppts	-3.2ppts	-3.1ppts

Source: WOOD Research, Bloomberg; \*WOOD Research estimates used instead of the Bloomberg consensus



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## Risks

### **Market risk**

The exchange's revenues are extremely sensitive to trading volumes. A delay in IPOs, an economic downturn, and longer-term price declines can all have a negative impact on Zagreb Stock Exchange's trading volumes, revenues and, consequently, the profit it reports.

### **Low scale of operations**

The company's scale is very low. With costs remaining relatively flat over our forecast period, a slight movement in revenues, to both the upside as well as the downside, can have quite large consequences for the margins and the bottom line.

### **Ownership limit**

The company has a 10% ownership limit in place. For a stake higher than 10% to be acquired, regulatory approval is needed. This may create some corporate governance issues, as complete control of the exchange would be difficult to achieve.

### **Low liquidity of the group's shares**

The trading volumes for Zagreb Stock Exchange's shares are too low (below USD 1,000/day), which increases the risk of the investment.

### **COVID-19 pandemic**

At this stage, it is difficult to estimate and quantify the effect of the current crisis on the country's economy, politics and business. While we have pencilled a number of COVID-19 related effects into our model, the uncertainty remains high. Increased volatility would be positive for volumes, but long-lasting uncertainty and effects could have negative implications for the company.

### **Interest rate and capital markets risk**

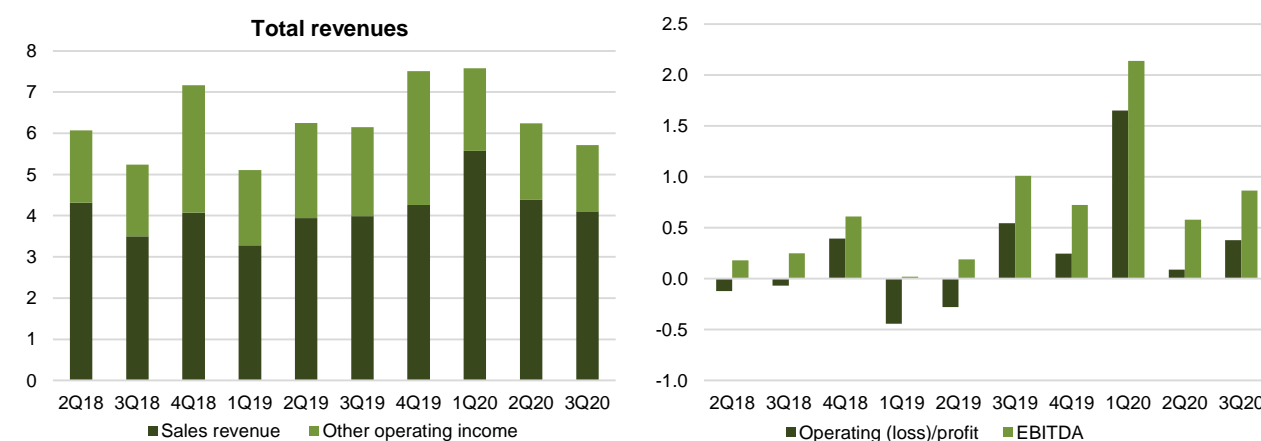
The excess liquidity on the company's balance sheet is invested currently into open-ended money market and bond investment funds, and carries these investments at fair value. While the company does diversify its portfolio by investment in different funds and via different asset management companies, there is a risk that such investment could lose in terms of value, and influence not only the asset size of the balance sheet, but also the financial result.

## Brief overview of the results reported for 3Q20

On 19 October, ZSE reported its 3Q20 results. The trend of lower trading activity, which began in the second quarter, following quite a good first quarter, continued in the third quarter as well. The stock turnover in 3Q in Zagreb declined by 27% qoq and 56% yoy; while, in Ljubljana, the stock turnover declined by 29% qoq. The activity in the bonds market on both exchanges declined as well.

On a yoy basis, this is explained partly by the higher basis, due to the higher turnover of the Kras shares last year, in September 2019, on the back of the takeover process. The decline compared to the second quarter is explained partially by the increased trading activity, due to COVID-19, as the highest turnovers were recorded in March and April 2020. This resulted in the top line declining by 8% qoq and 7% yoy, to HRK 5.7m.

### Zagreb Stock Exchange: quarterly revenues, operating income & EBITDA (HRK m)



Source: WOOD Research, Zagreb Stock Exchange

Good cost control helped to more than offset this, however, at least on a qoq basis. Total operating expenses fell by 13% qoq and 5% yoy, resulting in operating profit of HRK 0.4m (+327% qoq, but -31% yoy). At the EBITDA level, the company reported HRK 0.9m, up 49% qoq, but 14% lower yoy.

The net profit for the period came in at HRK 0.7m, supported by HRK 0.4m in income from financial assets.

## Zagreb Stock Exchange: 3Q20 results review

(HRK m)	3Q19	4Q19	1Q20	2Q20	3Q20	qoq	yoy
Sales revenue	4.0	4.3	5.6	4.4	4.1	-6%	3%
Other operating income	2.2	3.2	2.0	1.9	1.6	-14%	-26%
<b>Total operating income</b>	<b>6.1</b>	<b>7.5</b>	<b>7.6</b>	<b>6.2</b>	<b>5.7</b>	<b>-8%</b>	<b>-7%</b>
Total operating expenses	-5.6	-7.3	-5.9	-6.2	-5.3	-13%	-5%
<b>Operating (loss)/profit</b>	<b>0.5</b>	<b>0.2</b>	<b>1.7</b>	<b>0.1</b>	<b>0.4</b>	<b>327%</b>	<b>-31%</b>
<b>EBITDA</b>	<b>1.0</b>	<b>0.7</b>	<b>2.1</b>	<b>0.6</b>	<b>0.9</b>	<b>49%</b>	<b>-14%</b>
<i>EBITDA margin</i>	<i>16.4%</i>	<i>9.6%</i>	<i>28.2%</i>	<i>9.3%</i>	<i>15.2%</i>		
Net finance income	0.2	-0.1	-0.7	0.3	0.4	18%	88%
Share of loss of equity-accounted investees	0.0	0.0	0.1	0.0	0.0	-52%	n.m.
<b>Profit before tax</b>	<b>0.8</b>	<b>0.2</b>	<b>1.0</b>	<b>0.4</b>	<b>0.7</b>	<b>96%</b>	<b>-6%</b>
Income tax	0.0	-0.1	-0.1	-0.2	0.0	-78%	n.m.
<b>Profit for the period</b>	<b>0.8</b>	<b>0.1</b>	<b>0.9</b>	<b>0.2</b>	<b>0.7</b>	<b>247%</b>	<b>-10%</b>
<b>Zagreb:</b>							
Stocks turnover	827	555	1,031	502	365	-27%	-56%
Bonds turnover	50	154	81	49	38	-22%	-24%
Equity block turnover	75	188	273	32	31	-3%	-59%
Debt block turnover	0	0	0	0	0		
<b>Ljubljana:</b>							
Stocks turnover			133	97	69	-29%	n.a.
Bonds turnover			1	1	0	n.a.	n.a.
Commercial papers			0	0	0	n.a.	n.a.
Total assets	47.8	48.7	51.6	51.0	51.2	0%	7%
Cash & cash equivalents	5.1	7.6	10.0	8.1	9.3	16%	83%
Total equity	40.3	40.5	41.9	42.0	42.7	2%	6%
ROE (ttm)	2.6%	2.4%	4.5%	4.9%	4.6%		

Source: WOOD Research, Zagreb Stock Exchange

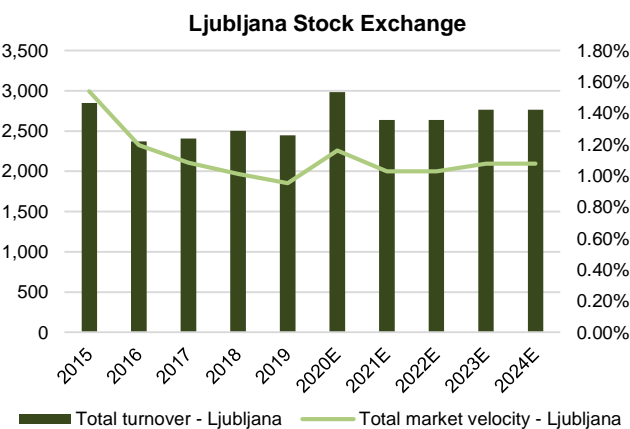
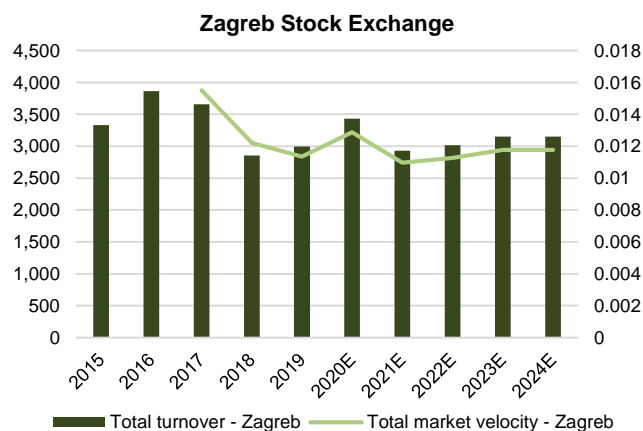
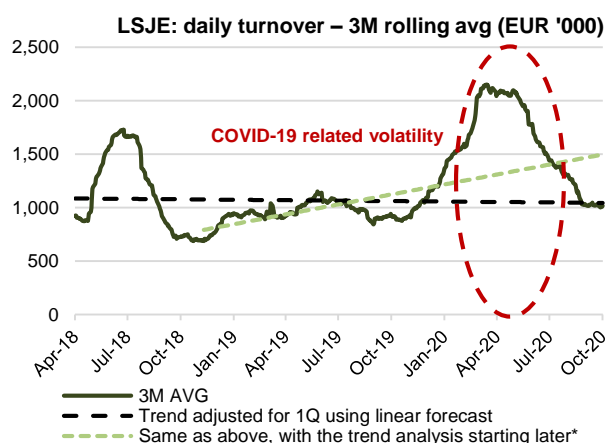
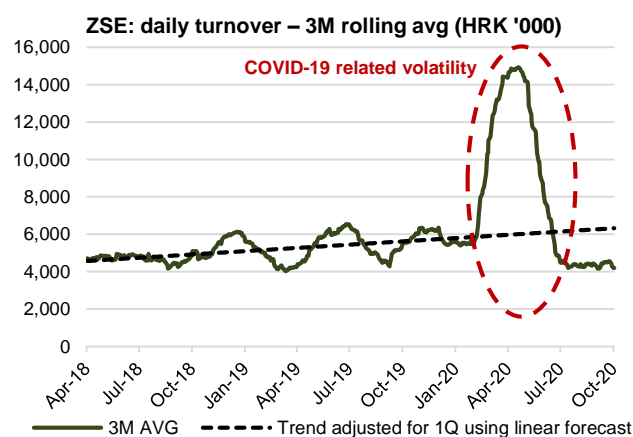
## Financial forecasts

### Volumes traded, average commissions and other revenues

Both Croatia and Slovenia saw COVID-19 pandemic induced volatility in the first half of 2020. Since then, however, the volumes have declined to levels similar to their long-term trends. We have adjusted the trend lines for the COVID-19 volatility, using a linear forecast on the trends prior to the pandemic. While a second wave could cause another upsurge in volumes, we believe we are not likely to see similar levels to those earlier this year. Thus, we forecast equity volumes in line with the trendlines shown in the charts below.

In both cases, however, we expect the total turnover to grow, supported also by the fixed income market segments. In Zagreb less so, as the market has remained quite active over the past couple of preceding years. In Ljubljana, however, the velocity of the fixed income segment has neared 0.04% in the past four years, despite the number of listed instruments doubling in 2018 vs. 2017. Thus, we believe that a certain increase in activity is due, and we pencil this into our model.

### Daily turnover of CRO and SBITOP indices & WOOD turnover assumptions



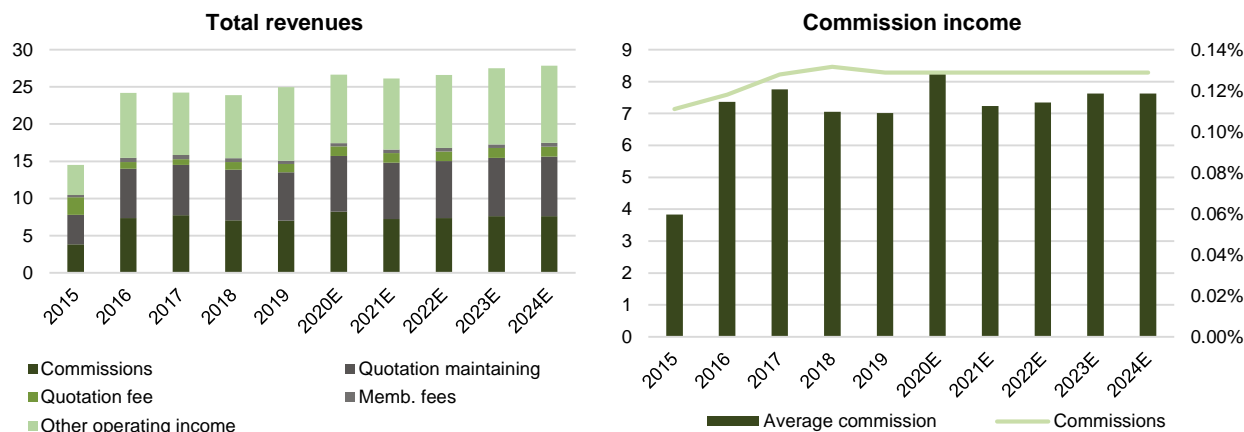
Source: WOOD Research, Bloomberg, Zagreb Stock Exchange; \*we decided to add another trendline to the chart, to adjust for the higher volumes in July 2018

Assuming a flat commission of 0.13% over our forecast period, such volumes could, in our view, generate a revenue stream of HRK 8.2m in 2020E and HRK 7.2m in 2021E, which should rise gradually, to HRK 7.6m by 2024E, a CAGR of 2% between 2019 and 2024E.

Following a price increase, which should be felt this year already, we assume that both the income from quotation maintenance and from quotation fees will rise. The CAGR of 4% that we assume for both lines between 2019 and 2024E is mostly the result of the price increase this year. The annual increases for the remainder of our forecast period are lower, while we also assume modest annual increases of c.2% in membership fees. The other operating income consists of the income from the supply of information, which we assume will increase more or less the same as total turnover, and other income, which we forecast to remain flat during our forecast period.

The total revenue CAGR in the same period, i.e., between 2019 and 2022E, lands at 2%. This is the result of no large and immediate triggers in sight. A large part of our thesis is based on the M&A story, which is difficult to predict. Thus, we have decided to remain conservative and stay on the sidelines, until something actual and specific is announced, and we do not pencil this into our model.

## WOOD's revenue forecasts and assumed commission income (HRK m)



Source: WOOD Research, Zagreb Stock Exchange

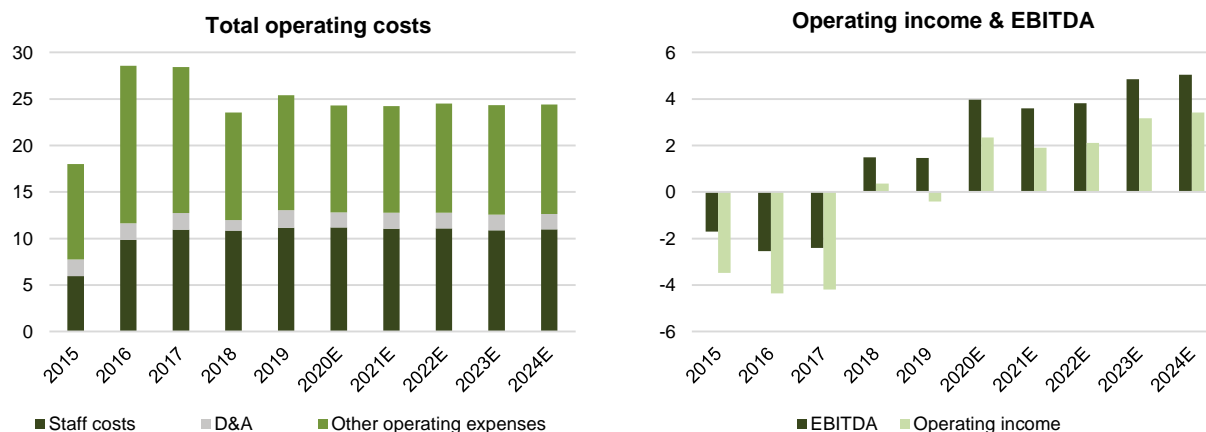
## Operating costs and profit

On the costs side, we do not anticipate much pressure going forward, and we believe the group's operating costs could remain largely flat. While we assume a very negligible increase in the cost base annually, its growth rates stay below the levels that we assume for the top line. Therefore, in our view, the company's margins should see a continuous upward trend.

Currently, c.43.9% of the total operating expenses are allocated to personnel costs. We believe that both their share of the total operating expenses, as well as their absolute amount, should remain relatively flat over our forecast period. While we anticipate very minor salary inflation, we believe that there could be a slight decline in the headcount, too, which should help to offset it.

All-in-all, our cost assumptions result in a CAGR of total operating expenses of -0.8% between 2019 and 2024E. The negative rate is a result of a higher base of expenses in 2019 vs. the previous years. Due to the low scale of operations and a cost base that stays more or less flat, the margins are likely to see quite an increase, which would be reflected in the company's total operating income and EBITDA levels.

## Operating costs and WOOD's estimates (HRK m)



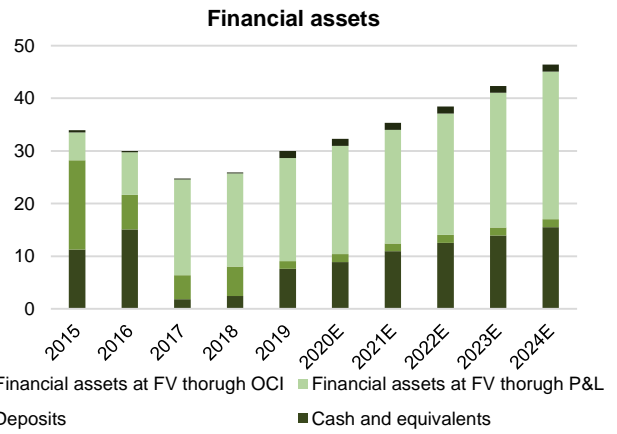
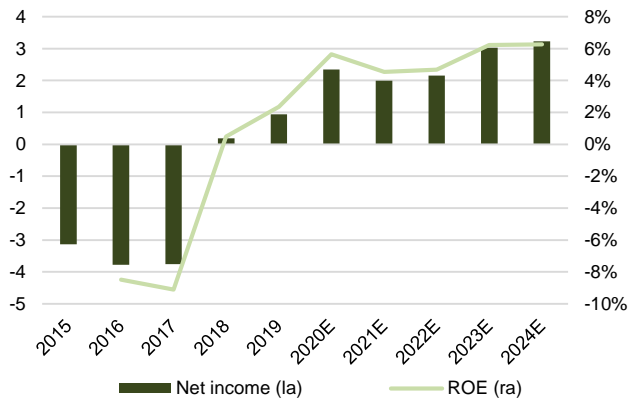
Source: WOOD Research, Zagreb Stock Exchange

## Net income

For 2020E, we expect the company to increase its net income to HRK 2.3m, from HRK 0.9m in 2019, mostly on the back of the increased volatility from the beginning of the year. In that respect, the net income in 2021E could fall to HRK 2.0m, in our view. From then onwards, we anticipate the net income to increase gradually, to as much as HRK 3.2m in 2024E.

Its net income is also supported by financial income. The excess liquidity is invested currently into assets held fair value through the P&L. In our view, the group's income from such financial assets could average around HRK 0.3m annually over our forecast period.

**WOOD's estimates of net income and ROE (HRK m)**



Source: WOOD Research, Zagreb Stock Exchange

# Ljubljana Stock Exchange and Macedonian Stock Exchange

## Ljubljana Stock Exchange

The Zagreb Stock Exchange (ZSE) acquired a 100% stake in Ljubljana Stock Exchange (LJSE) in late-2015 and, as of 2019, the subsidiary accounted for as much as 43.7% of the group's total revenues. In the period between 2016 and 2019, the company managed to grow its revenues only slightly, at a CAGR of 1.14%, while its total costs have grown 2% annually over the same period, which suppressed the margins and overall profitability. Despite this, Ljubljana Stock Exchange remains margin accretive and strengthens the group's income statement. Both exchanges share similar development paths, as well as a similar financial framework.

LJSE has been margin-accretive since the acquisition, and we expect this to continue to for some time, across our forecast period. There are further synergies, albeit small, to be found, in our view, especially as LJSE is in the process of migrating its data to ZSE's internally developed data centre, which could save some IT costs.

Margins could be supported further by an increase in trading volumes. While the trend in volumes traded on the exchange has remained largely flat over the past two years, as shown in one of the charts on page 10 of this report, the trend also seems to have been increasing slightly since the beginning of January 2019, even when adjusted for the COVID-19 related volatility. We anticipate this trend continuing going forward, and we reflect this in our estimates.

### Ljubljana Stock Exchange: historical numbers

(EUR)	2015	2016	2017	2018	2019
Share capital	1,400,893	1,400,893	1,400,893	1,400,893	1,400,893
<b>Total capital</b>	<b>2,286,827</b>	<b>2,376,378</b>	<b>2,591,903</b>	<b>2,471,796</b>	<b>2,442,112</b>
Total assets	2,642,682	2,654,468	2,939,649	2,771,539	2,752,688
<b>Total revenue</b>	<b>1,493,896</b>	<b>1,421,246</b>	<b>1,445,485</b>	<b>1,453,553</b>	<b>1,470,623</b>
- fee & commission income	516,571	502,011	464,127	503,905	436,776
- other income	977,325	919,235	981,358	949,648	1,033,847
<b>Total costs</b>	<b>1,579,384</b>	<b>1,355,835</b>	<b>1,352,242</b>	<b>1,390,127</b>	<b>1,439,080</b>
- labour costs	758,576	546,430	615,491	617,626	607,566
- other costs	820,808	809,405	736,751	772,501	831,514
<b>EBITDA</b>	<b>68,830</b>	<b>137,390</b>	<b>166,103</b>	<b>183,454</b>	<b>145,334</b>
<b>EBIT</b>	<b>-90,445</b>	<b>63,427</b>	<b>88,421</b>	<b>62,632</b>	<b>30,368</b>
<b>Profit or loss before tax</b>	<b>-85,488</b>	<b>65,411</b>	<b>93,243</b>	<b>63,425</b>	<b>31,543</b>
Income tax and deferred tax	-10,684	24,140	-13,924	-16,541	-9,212
<b>Net profit or loss for the financial year</b>	<b>-96,172</b>	<b>89,551</b>	<b>79,319</b>	<b>46,885</b>	<b>22,331</b>
Number of shares	33,571	33,571	33,571	33,571	33,571
EPS in EUR	-2.86	2.67	2.36	1.40	0.67
DPS in EUR	0.00	0.00	5.03	1.69	0.00
Book value per share in EUR	68.12	70.79	77.21	73.63	72.74
<b>Number of employees</b>					
Year end	10	12	14	13	13
Average	10	10	12	12	11
<b>EBITDA margin</b>	<b>4.6%</b>	<b>9.7%</b>	<b>11.5%</b>	<b>12.6%</b>	<b>9.9%</b>
EBIT margin	-6.1%	4.5%	6.1%	4.3%	2.1%
Net income margin	-6.4%	6.3%	5.5%	3.2%	1.5%
Dividend payout	0.0%	0.0%	212.9%	121.0%	0.0%
<b>ROE</b>		<b>3.8%</b>	<b>3.2%</b>	<b>1.9%</b>	<b>0.9%</b>
Equity to total assets	86.5%	89.5%	88.2%	89.2%	88.7%

Source: WOOD Research, Zagreb Stock Exchange, Ljubljana Stock Exchange

## Macedonian Stock Exchange

While the company has acquired only a relatively small stake in the Macedonian Stock Exchange of 5.3%, we believe the new subsidiary could be value-accretive. Macedonian Stock Exchange turned profitable on the bottom line in 2017, after two years of reporting a negative bottom line. In 2018 and 2019, ZSE's most recent acquisition reported net profit of MKD 15.8m (HRK 1.9m) and MKD 13.5m (HRK 1.6m), respectively.

Despite being quite small, the stock exchange has been highly profitable in the past two years, with its ROEs at 10.5% and 8.4% for 2018 and 2019, respectively. As the table below shows, the profitability of the Macedonian Stock Exchange is even superior to that of Ljubljana Stock Exchange. Due to the small stake acquired, the investment has not been consolidated. It should, however, support ZSE's bottom line, even if only marginally, in our view.

We appreciate ZSE's M&A strategy, especially as, currently, the company is unable to pay dividends out, and other growth opportunities are either too slow in coming or otherwise impossible. We understand that the company, if there is such an opportunity, would be open to further acquisitions in the region, including increasing its stake in the Macedonian Stock Exchange. In our view, any acquisition that would help to increase the scale of ZSE's business should, at this stage, be value accretive, provided the acquisition is reasonably priced.

#### Macedonian Stock Exchange: historical numbers

(MKD)	2015	2016	2017	2018	2019
Share capital	103,497,760	103,497,760	103,497,760	103,497,760	103,497,760
Total equity	139,537,534	139,472,529	143,392,442	159,238,472	162,731,719
Total assets	142,543,805	141,301,412	146,899,956	163,220,051	167,179,853
Total revenue	29,044,255	30,383,392	37,635,072	56,502,865	52,053,013
- fee & commission income	21,959,627	23,438,082	28,413,340	45,247,364	38,040,054
- other income	7,084,628	6,945,310	9,221,732	11,255,501	14,012,959
Total costs	34,000,919	30,448,398	33,500,844	39,263,100	36,887,526
- labour costs	12,513,662	12,030,045	12,867,235	14,848,372	15,632,543
- other costs	21,487,257	18,418,353	20,633,609	24,414,728	21,254,983
EBITDA	-1,502,287	3,068,481	7,353,693	20,399,805	18,121,052
EBIT	-4,956,664	-65,006	4,134,228	17,239,765	15,165,487
Income tax and deferred tax	0	0	214,316	1,393,735	1,621,039
Net profit or loss for the financial year	-4,956,664	-65,006	3,919,912	15,846,030	13,544,448
EBITDA margin	-5.2%	10.1%	19.5%	36.1%	34.8%
EBIT margin	-17.1%	-0.2%	11.0%	30.5%	29.1%
Net income margin	-17.1%	-0.2%	10.4%	28.0%	26.0%
ROE		0.0%	2.8%	10.5%	8.4%
Equity to total assets	97.9%	98.7%	97.6%	97.6%	97.3%

Source: WOOD Research, Macedonian Stock Exchange



## Company description

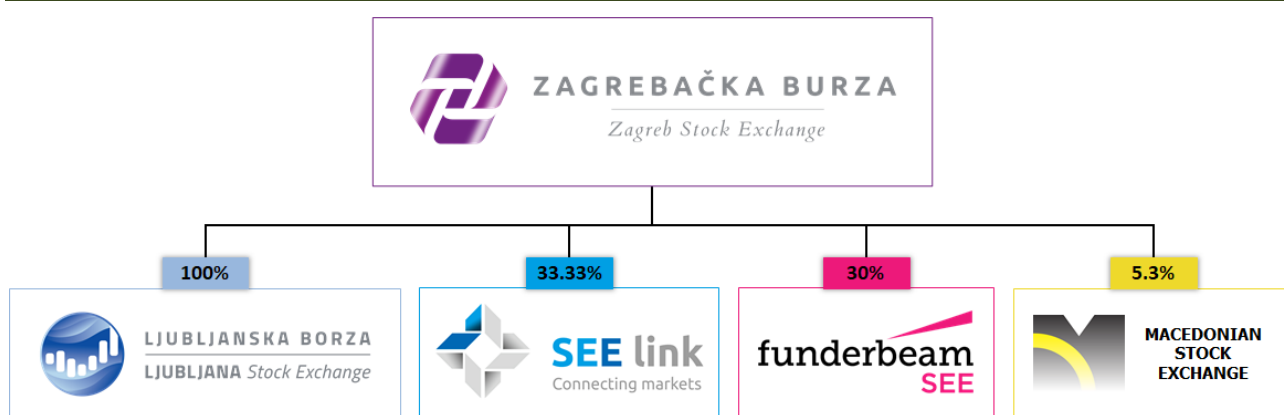
Zagreb Stock Exchange was established in 1907. Following multiple interruptions during the two World Wars, and when the Socialist regime took over in Croatia, the Zagreb Stock Exchange was finally reopened again in 1991 by two insurance companies and 25 banks, which were the initial members of the exchange. Since then, this number has increased to more than 40.

In March 2007, the Varaždin Stock Exchange merged into the Zagreb Stock Exchange, forming a single Croatian capital market. In late-2015, the acquisition of the Ljubljana Stock Exchange was finalised, bringing new financial opportunities. Following the acquisition of LJSE, the group started expanding its portfolio through projects such as the SEE Link, as well as Funderbeam SEE (please see the Business model below for more details). In 2019, the company also acquired a minority stake of 5.3% in the Macedonian Stock Exchange.

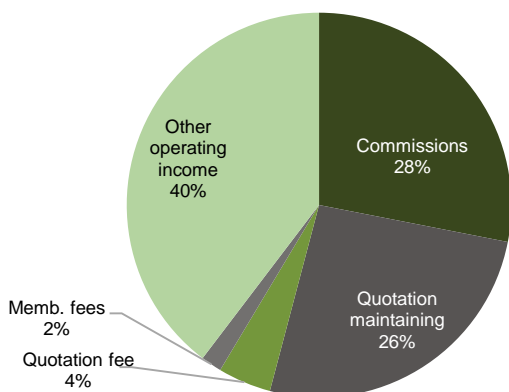
Currently, the top three shareholders are RR ONE Capital, FINA and PBZ CO OMF, with each holding a c.9.99% stake. We note that a shareholder can acquire 10% or more only with approval from the regulator.

The exchange runs a number of indices, with the CROBEX Index serving as the Croatian benchmark. Other indices include CROBEX10, CROBEXprime, and CROBEXindustrija, among others.

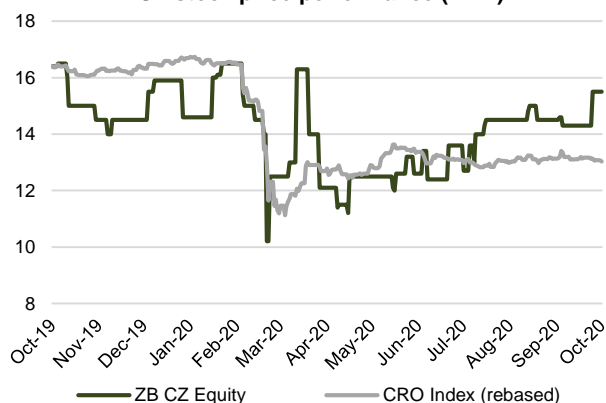
### ZSE's group structure and other data



Revenue breakdown (2019)



ZSE stock price performance (HRK)



Source: Zagreb Stock Exchange, WOOD Research, Bloomberg

### Business model and top line diversification

Zagreb Stock Exchange has a relatively well-diversified business model. In 2019, 28% of the company's total revenue was generated by commissions, while 26% of the total streamed from quotation maintaining, a fee charged to issuers in lower-tier markets. The quotation fees and membership fees accounted altogether for c.6% of the total, while the other operating income accounted for c.40%. The largest part of the other operating income, c.61%, is generated by data vending services.

As is the case with other stock exchanges, a relatively flat cost base creates operating leverage. If volumes or revenues in general rise, the company's margins, profits and cash flows tend to rise with them.

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## **SEE Link**

SEE Link was established by the Bulgarian, North Macedonian and Zagreb Stock Exchanges in May 2014. Currently, Zagreb Stock Exchange holds a 33.33% equity stake in the platform. The purpose was to establish a regional trading infrastructure for these three markets. The project has earned the support of the EBRD as well.

In 2016, the Belgrade and Ljubljana Stock Exchanges joined the platform, with the Banja Luka and Sarajevo Stock Exchanges joining a year later.

The platform also runs its independent indices, most notably the SEE LinX and SEE LinX EWI, which create more visibility and transparency for the capital markets in the region.

## **Funderbeam SEE**

The idea behind Funderbeam SEE is the belief that the stock market should serve as a financial hub for companies in all stages of growth. In October 2016, Funderbeam was presented by the ZSE as a new model of financing for start-ups. It is a small, crowdfunding platform. Following the purchase of a further 10% stake on 7 July 2020, ZSE holds 30% of the total equity of Funderbeam SEE.

## **Key management figures**

### **Ivana Gažić, President of the Management Board**

Ivana graduated from the Faculty of Economics and Business at the University of Zagreb in 1997 and earned her degree in Finance. She has also gained an Executive MBA degree from the International Executive Development Center Bled (Slovenia) in 2001. Prior to joining ZSE, Ivana worked for multiple institutions, such as Pliva plc, Lura plc, and Societe Generale – Splitska Bank. Since May 2010, she has been the President of Management Board of ZSE.

### **Tomislav Gračan, Member of the Management Board**

Tomislav graduated from the Faculty of Law at the University of Zagreb in 1997, and gained an Executive MBA degree from the Cotrugli Business School in 2012. Prior to ZSE, Tomislav worked as a legal advisor at the municipal court in Đurđevac. He then transferred to Zagrebacka Banka. He also worked as a consultant for Dioki Inc and as a legal advisor for the board of HVB Leasing Croatia and Hypo-Leasing Ltd. Since May 2010, Tomislav has been a Member of the Management Board of ZSE. He is also a Member of the Supervisory Board of Ljubljana Stock Exchange.

# Financials

## Income statement

(HRK m)	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
Sales revenue	10.4	15.4	15.9	15.4	15.1	17.5	16.6	16.8	17.3	17.5
Other operating income	4.1	8.8	8.4	8.5	9.9	9.2	9.6	9.8	10.2	10.4
<b>Total operating revenues</b>	<b>14.5</b>	<b>24.2</b>	<b>24.2</b>	<b>23.9</b>	<b>25.0</b>	<b>26.6</b>	<b>26.1</b>	<b>26.6</b>	<b>27.5</b>	<b>27.8</b>
Personnel expenses	-6.0	-9.8	-10.9	-10.9	-11.2	-11.2	-11.1	-11.1	-10.9	-11.0
D&A	-1.8	-1.8	-1.8	-1.1	-1.9	-1.6	-1.7	-1.7	-1.7	-1.6
Other operating expenses	-10.3	-16.9	-15.7	-11.5	-12.4	-11.5	-11.5	-11.7	-11.8	-11.8
<b>Total operating costs</b>	<b>-18.0</b>	<b>-28.6</b>	<b>-28.4</b>	<b>-23.5</b>	<b>-25.4</b>	<b>-24.3</b>	<b>-24.2</b>	<b>-24.5</b>	<b>-24.3</b>	<b>-24.4</b>
<b>EBITDA</b>	<b>-1.7</b>	<b>-2.5</b>	<b>-2.4</b>	<b>1.5</b>	<b>1.5</b>	<b>4.0</b>	<b>3.6</b>	<b>3.8</b>	<b>4.8</b>	<b>5.0</b>
<b>Operating (loss)/profit</b>	<b>-3.5</b>	<b>-4.4</b>	<b>-4.2</b>	<b>0.4</b>	<b>-0.4</b>	<b>2.3</b>	<b>1.9</b>	<b>2.1</b>	<b>3.2</b>	<b>3.4</b>
<b>Net finance income</b>	<b>0.4</b>	<b>0.4</b>	<b>0.6</b>	<b>0.1</b>	<b>1.4</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>
Share of loss of equity - accounted investees	0.0	0.0	-0.1	-0.1	0.1	0.2	0.2	0.2	0.2	0.2
<b>Profit before tax</b>	<b>-3.1</b>	<b>-4.0</b>	<b>-3.6</b>	<b>0.3</b>	<b>1.0</b>	<b>2.9</b>	<b>2.4</b>	<b>2.6</b>	<b>3.7</b>	<b>3.9</b>
Income tax	0.0	0.2	-0.1	-0.1	-0.1	-0.5	-0.4	-0.5	-0.7	-0.7
<b>Profit for the period</b>	<b>-3.1</b>	<b>-3.8</b>	<b>-3.8</b>	<b>0.2</b>	<b>0.9</b>	<b>2.3</b>	<b>2.0</b>	<b>2.1</b>	<b>3.0</b>	<b>3.2</b>

Source: WOOD Research, Zagreb Stock Exchange

## Balance sheet

(HRK m)	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
Property and equipment	10.8	10.7	14.2	12.3	8.6	7.9	7.1	6.2	5.3	4.5
Intangible assets and goodwill	5.2	4.0	2.9	2.5	3.0	3.0	3.0	3.0	3.0	3.0
Other non-current assets	1.0	1.0	2.9	2.5	3.5	3.5	3.5	3.5	3.5	3.5
<b>Total non-current assets</b>	<b>17.0</b>	<b>15.7</b>	<b>20.0</b>	<b>17.3</b>	<b>15.0</b>	<b>14.3</b>	<b>13.5</b>	<b>12.6</b>	<b>11.7</b>	<b>10.9</b>
Trade receivables and other assets	2.9	3.9	3.2	4.0	4.4	4.7	4.6	4.7	4.9	4.9
Financial assets at fair value through profit or loss	5.3	8.1	18.2	17.7	19.6	20.6	21.6	23.1	25.6	28.1
Short-term deposits	17.0	6.5	2.6	4.1	1.5	1.5	1.5	1.5	1.5	1.5
Cash and cash equivalents	11.3	15.1	1.8	2.4	7.6	8.9	10.9	12.5	14.0	15.5
Other current assets	3.5	3.9	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
<b>Total assets</b>	<b>56.9</b>	<b>53.4</b>	<b>46.4</b>	<b>46.0</b>	<b>48.7</b>	<b>50.6</b>	<b>52.7</b>	<b>55.0</b>	<b>58.2</b>	<b>61.5</b>
Issued share capital	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4
Accumulated loss	-13.8	-17.6	-21.4	-21.4	-20.4	-18.0	-16.0	-13.9	-10.8	-7.6
Other equity	14.0	13.8	14.9	14.6	14.5	14.5	14.5	14.5	14.5	14.5
<b>Total equity and reserves</b>	<b>46.5</b>	<b>42.5</b>	<b>39.9</b>	<b>39.5</b>	<b>40.5</b>	<b>42.9</b>	<b>44.9</b>	<b>47.0</b>	<b>50.1</b>	<b>53.3</b>
<b>Total non-current liabilities</b>	<b>0.1</b>	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>
Trade and other payables	6.0	6.5	2.9	1.9	2.6	2.4	2.4	2.4	2.4	2.4
Contractual liabilities and provisions	0.0	0.0	0.0	4.2	4.0	3.7	3.9	3.9	4.1	4.2
Other non-current liabilities	4.3	4.1	3.3	0.1	0.8	0.8	0.8	0.8	0.8	0.8
<b>Total equity and liabilities</b>	<b>56.9</b>	<b>53.4</b>	<b>46.4</b>	<b>46.0</b>	<b>48.7</b>	<b>50.6</b>	<b>52.7</b>	<b>55.0</b>	<b>58.2</b>	<b>61.5</b>

Source: WOOD Research, Zagreb Stock Exchange

## Cash flow statement

(HRK m)	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
<b>Profit for the year</b>	<b>-3.1</b>	<b>-4.0</b>	<b>-3.8</b>	<b>0.2</b>	<b>0.9</b>	<b>2.3</b>	<b>2.0</b>	<b>2.1</b>	<b>3.0</b>	<b>3.2</b>
D&A of fixed assets	1.8	1.8	1.8	1.1	1.9	1.6	1.7	1.7	1.7	1.6
Interest income	-0.3	-0.3	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3
Corporate income tax expense	0.0	0.2	-0.1	0.1	0.1	0.5	0.4	0.5	0.7	0.7
Other	0.4	0.9	1.5	-0.3	-1.2	0.0	0.0	0.0	0.0	0.0
<b>Net cash from operations before changes in WC</b>	<b>-1.2</b>	<b>-1.4</b>	<b>-0.7</b>	<b>1.1</b>	<b>1.5</b>	<b>4.1</b>	<b>3.8</b>	<b>4.0</b>	<b>5.0</b>	<b>5.2</b>
Changes in working capital:										
Change in trade, other receivables	-0.3	-0.6	1.2	-0.6	-0.2	-0.3	0.1	-0.1	-0.2	-0.1
Change in trade, other payables	3.6	0.7	-3.5	-1.0	0.1	-0.2	0.0	0.0	0.0	0.0
Change in prepaid expenses	-2.9	-0.4	3.4	0.0	-0.2	0.0	0.0	0.0	0.0	0.0
Corporate income tax paid	0.0	-0.1	0.0	0.0	0.0	-0.5	-0.4	-0.5	-0.7	-0.7
Other	0.1	-1.3	-1.8	0.6	0.3	-0.3	0.2	0.1	0.2	0.1
<b>Net cash from operations</b>	<b>-0.7</b>	<b>-3.0</b>	<b>-1.4</b>	<b>0.1</b>	<b>1.5</b>	<b>2.9</b>	<b>3.6</b>	<b>3.6</b>	<b>4.4</b>	<b>4.5</b>
Purchase of financial instruments	0.0	0.0	-9.6	-1.1	-2.6	-1.0	-1.0	-1.5	-2.5	-2.5
Interest received	0.2	0.6	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3
Other	-3.8	6.3	-2.0	1.6	6.8	-0.9	-0.9	-0.8	-0.8	-0.8
<b>Net cash from investing activities</b>	<b>-3.6</b>	<b>6.9</b>	<b>-11.6</b>	<b>0.6</b>	<b>4.5</b>	<b>-1.6</b>	<b>-1.6</b>	<b>-2.0</b>	<b>-3.0</b>	<b>-3.0</b>
<b>Net cash inflows from financing activities</b>	<b>14.9</b>	<b>0.0</b>	<b>-0.2</b>	<b>-0.1</b>	<b>-0.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total cash flows</b>	<b>10.5</b>	<b>3.9</b>	<b>-13.2</b>	<b>0.6</b>	<b>5.2</b>	<b>1.3</b>	<b>2.0</b>	<b>1.6</b>	<b>1.4</b>	<b>1.6</b>
Cash at the beginning of the period	0.7	11.3	15.1	1.8	2.4	7.6	8.9	10.9	12.5	14.0
<b>Cash at the end of the period</b>	<b>11.2</b>	<b>15.2</b>	<b>1.9</b>	<b>2.4</b>	<b>7.6</b>	<b>8.9</b>	<b>10.9</b>	<b>12.5</b>	<b>14.0</b>	<b>15.5</b>
<b>Free cash flow</b>		<b>-5.0</b>	<b>-6.8</b>	<b>0.0</b>	<b>1.1</b>	<b>1.9</b>	<b>2.6</b>	<b>2.7</b>	<b>3.5</b>	<b>3.6</b>

Source: WOOD Research, Zagreb Stock Exchange

## Other data

Margins & profitability (%)	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
EBITDA margin	-11.7%	-10.5%	-9.9%	6.2%	5.8%	14.9%	13.8%	14.3%	17.6%	18.1%
EBIT margin	-24.0%	-18.0%	-17.3%	1.5%	-1.7%	8.8%	7.3%	7.9%	11.5%	12.3%
Net margin	-21.6%	-15.6%	-15.5%	0.8%	3.8%	8.8%	7.6%	8.1%	11.0%	11.6%
Dividend payout	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ROE	n.a.	-8.5%	-9.1%	0.5%	2.3%	5.6%	4.5%	4.7%	6.2%	6.3%
<b>Per share data (x) &amp; multiples</b>										
Shares outstanding (m)	4.2	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Year-end share price (HRK)	15.2	16.1	10.9	16.0	15.9	15.5	15.5	15.5	15.5	15.5
Average price per share (HRK)	n.a.	15.6	13.5	13.4	16.0	15.5	15.5	15.5	15.5	15.5
EPS (HRK)	-0.7	-0.9	-0.8	0.0	0.2	0.5	0.4	0.5	0.7	0.7
BVPS (HRK)	11.0	9.2	8.6	8.5	8.7	9.3	9.7	10.1	10.8	11.5
DPS (HRK)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FCF per share (HRK)	n.a.	-1.1	-1.5	0.0	0.2	0.4	0.6	0.6	0.8	0.8
P/E (x)	n.a.	n.m.	n.m.	327.9	78.7	30.6	36.1	33.4	23.8	22.2
P/BV (x)	n.a.	1.7	1.6	1.6	1.8	1.7	1.6	1.5	1.4	1.3
EV/EBITDA (x)	n.a.	n.m.	n.m.	37.4	44.5	15.5	16.5	15.2	11.7	10.9
P/FCF (x)	n.a.	n.m.	n.m.	n.m.	67.0	38.3	27.6	26.7	20.6	19.8
Div. yield (%)	n.a.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: WOOD Research, Zagreb Stock Exchange

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