

Buy (old: n.a.)

Price target: EUR 5.90 (old: EUR n.a.)

Price:	EUR 3.18	Next result:	FY 20 tbd.
Bloomberg:	N4G GR	Market cap:	EUR 124.5 m
Reuters:	N4G.DE	Enterprise Value:	EUR 125.7 m

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Superior social trading platform ready for roll-out

The NAGA Group AG is a **globally operating online broker and market maker** with more than 725k registered customer in >90 countries providing a **unique social trading platform** that is a revolutionary symbiosis of a trading and a social media platform.

Naga's state of the art user interface is creating a superior experience that is rated with five stars by users and should **enable strong customer growth** driven by:

- (1) **Forceful expansion in new countries** such as the 2nd biggest CFD market Australia, the exponentially growing online brokerage market China as well as South Africa and Nigeria.
- (2) **Introduction of new products such as real stocks, NAGA PAY and cryptocurrencies** attracting new target groups that can potentially be converted into high marginal CFD-traders.
- (3) **Improved marketing strategy** with increasing conversion rates
- (4) **Reduced churn-rates, thanks to autocopy function** that enables inexperienced clients to copy trades of best rated traders.

The growing customer base (40% CAGR2019-24E to 28.4k) and a continuous **increasing average customer life time value (CLTV)** at 37% CAGR2019-24E to € 5,051 should fuel sales that are expected to grow at 79% p.a. to **€ 116m in 2024E**.

Since the **business model is highly scalable**, EBITDA margin looks set to **increase to 43% in 2024E**, thanks to declining OPEX relatively to sales.

Given **high market volatility as well as structural shift** of towards online brokerage should continue to **additionally fuel customer wins and sales** throughout the remainder of H1 2021E (20.4k new customer and 48.5m in sales as of FY21E).

Overall, stock looks mispriced in terms of PEG '21E, not adequate accounting for the unique social trading platform and the strong growth momentum driven by global expansion and high volatility.

Initiate with **BUY** with a **PT of € 5.90** based on peer group valuation (PER '21E; DCF: € 6.70).



Source: Company data, Hauck & Aufhäuser

High/low 52 weeks: 4.40 / 0.54

Price/Book Ratio: 1.2

Relative performance (SDAX):

3 months	40.5 %
6 months	-36.5 %
12 months	393.4 %

Changes in estimates

		Sales	EBIT	EPS
2020	old:	0.0	3.2	0.07
	Δ	-	-	-
2021	old:	0.0	10.0	0.23
	Δ	-	-	-
2022	old:	0.0	21.9	0.38
	Δ	-	-	-

Key share data:

Number of shares: (in m pcs)	42.0
Authorised capital: (in € m)	15.5
Book value per share: (in €)	2.7
Ø trading volume: (12 months)	119

Major shareholders:

Fosun Fintech Holdings	45.3 %
Others	22.4 %
Management	15.4 %
Free Float	12.1 %
H&A	3.4 %
Fosun Management	1.4 %

Company description:

The NAGA Group AG is a financial technology and services company that develops and markets disruptive online brokerage applications

Y/E 31.12 (EUR m)	2016	2017	2018	2019	2020E	2021E	2022E
Sales	2.0	12.8	16.1	6.2	25.9	48.5	74.0
Sales growth	n/a	552 %	26 %	-61 %	317 %	87 %	52 %
EBITDA	-1.4	2.9	0.3	-9.2	6.5	13.7	26.0
EBIT	-3.7	-1.9	-4.8	-12.2	3.2	10.0	21.9
Net income	-3.9	-2.2	-4.0	-12.0	2.9	9.5	16.0
Net debt	-1.2	-8.7	-3.7	-3.2	-4.2	-11.6	-24.0
Net gearing	-8.3 %	-43.0 %	-3.0 %	-2.8 %	-3.7 %	-9.3 %	-17.1 %
Net Debt/EBITDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EPS pro forma	-77.82	-0.10	-0.10	-0.30	0.07	0.23	0.38
CPS	-30.36	-0.43	-0.20	-0.13	0.13	0.06	0.29
DPS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dividend yield	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Gross profit margin	64.9 %	73.3 %	93.5 %	78.5 %	83.5 %	84.0 %	84.5 %
EBITDA margin	-70.8 %	22.4 %	1.7 %	-147.3 %	25.0 %	28.2 %	35.2 %
EBIT margin	-189.5 %	-14.8 %	-29.9 %	-195.8 %	12.2 %	20.5 %	29.7 %
ROCE	-20.8 %	-8.3 %	-6.5 %	-10.6 %	2.7 %	8.5 %	17.3 %
EV/sales	-0.5	4.2	7.2	19.2	4.8	2.4	1.4
EV/EBITDA	0.8	18.6	425.5	-13.0	19.4	8.7	4.1
EV/EBIT	0.3	-28.1	-23.9	-9.8	39.7	11.9	4.8
PER	0.0	-28.3	-29.4	-9.9	42.5	13.1	7.8
Adjusted FCF yield	321.9 %	-3.6 %	-4.5 %	-9.2 %	2.5 %	8.4 %	15.7 %

Source: Company data, Hauck & Aufhäuser Close price as of: 09.12.2020

Please refer to important disclosures at the end of the report

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Introducing The NAGA Group

- **Globally operating CFD broker** and market maker with more than 725k registered customers in >90 countries
- **Unique social trading platform** that is a revolutionary combination of a trading and a social media platform
- **Internationally operating teams and a multilingual platform** enable fast roll-outs in new countries
- **Vertical extension of the business model** with NAGA PAY and equity trading in order to extend reach

Founded in 2015 on the back of its **economic predecessor “SwipeStox”**, with more 100k users in three European countries, The NAGA Group AG has become one of the **fastest growing social trading platforms in the world**. NAGA is listed in the scale segment and is regulated by BAFIN.

Starting the business mainly in Spain and Germany, NAGA in the meantime rolled-out to countries all over the world, thanks to **international teams and a multilingual platform**. Today NAGA is active in more than **90 countries**, providing online brokerage services to more than **725k registered customers**.

The core of its business is CFD trading for retail customers with **NAGA acting as the market maker**. Market maker means that NAGA provides the prices of the underlying assets and the customers are trading against NAGA. So if a customer opens a CFD-position, **NAGA automatically opens the offsetting position**. If the customer closes the position with a profit, NAGA automatically realizes a loss of the same amount. **Since 80-90% of the customer base is loosing more money than it is winning in the long run**, NAGA is gaining more than it is loosing. Roughly 2/3 of all customer trades are winning trades (with small profits), which means NAGA needs a certain cash reserve to pay out profits, while awaiting the 1/3 of customer's loss trades (with significant higher losses). Since all of the customers' positions are running into the same trading book, NAGA is **naturally hedged to certain extend** (since some customers are long in an underlying, some are short). If the customers' exposure in a certain product is too high, **NAGA can always de-risk and hedges these positions** to other liquidity pools while earning markups (c. 3% of all trades are hedged).

That being said, customer's funds are typically depleting over time as they are engaging in loss-making trades at some point. **High volatility or low risk-aversion as well as high position leverage are factors that are speeding up the process**. Since most of the customers churn after a while, NAGA focusses on:

- (1) **Acquiring new customers even faster:** The consequent **expansion in new countries** as well as the **introduction of new products** such as real stocks, NAGA PAY and cryptocurrencies in combination with an **improved marketing strategy**, unlock **additional customer potentials**.
- (2) **Reducing churn-rates:** The **revolutionary symbiosis towards a trading and social media platform** creates a strong and unique community that pushed and supports each other. The dynamics within the community **reduce the churn-rates** significantly and far below industry average, also driven by functionalities such as **NAGA autcopy**.
- (3) **Increasing the refunding- and reactivation-rates of the customer base:** The social trading platform and targeted incentives additionally increase the refunding and reactivation rates.

	Self-determined trade	Autocopy Trades	
Sales 20E (€ m)	10.4	15.6	25.9
Sales share	40%	60%	
Products			
Customers	<ul style="list-style-type: none"> Male risk-seeking Trader avg annual income of c. 60k socially minded 25-35 years old tech affine 		
Employees (June 2020)	105 FTE's (29 in sales & marketing, 28 in UI/UX, remaining 48 in ten other business units); Additional 100 FTE's (mainly IT) via service-agreements		
Sales distribution by region (2020)			
Market position	Niche player with focus on social CFD trading, targeting risk-seeking investors in more than 100 countries (83% in Europe). Continuous ramp-up in Asia, Middle East and Latin-America		
Competitors			
EBITDA 20E			6.0
EBITDA-margin 20E			23%
EBITDA 24E			49.9
EBITDA-margin 24E			43%

Competitive Quality

- Competitive quality is rooted in **NAGA's revolutionary state-of-the-art social trading platform**, that perfectly combines trading with social media
- **A strong, globally diversified community** and **product innovations such as NAGA autocopy** increase customer's success and reduce churn-rates
- **International teams and a multilingual IT-platform** ease product-roll-outs in different markets
- Balanced marketing mix and disciplined approach towards marketing spend improve the customer acquisition funnel at reasonable customer acquisition costs

Premium social trading platform attracts customers

The NAGA Group AG is an online broker focusing on **CFD based social trading / social investing**. NAGA's social trading platform often called "**Facebook of investing**" - combines all necessary tools and products of state-of-the-art online brokerage with elements of social networks such as Facebook. The NAGA platform connects risk-seeking heavy traders and CFD traders to build a community of very specialized customers.

By using the NAGA platform, **customers are provided with all tools and applications they are familiar with on a typical social media platform**. They can follow and subscribe to each other and share their status and latest trades. They can also like and comment on trades and posts of other customers.

It is also possible to upload videos and images of trading analyses, open and join group chats and connect to top traders via Messenger. With the **NAGA RADAR** customers can see who is trading nearby and connect offline.

Thanks to a customized integration of the **Thomson Reuters database**, users receive real-time market and stock market news.

The platform with all its features comes along with a **superior user interface and user experience that is honored by the users** with an above average rating in the App stores of Apple and Google.

Above average user ratings for the NAGA app



Source: Company data, Hauck & Aufhäuser

Reduced churn, thanks to Autocopy

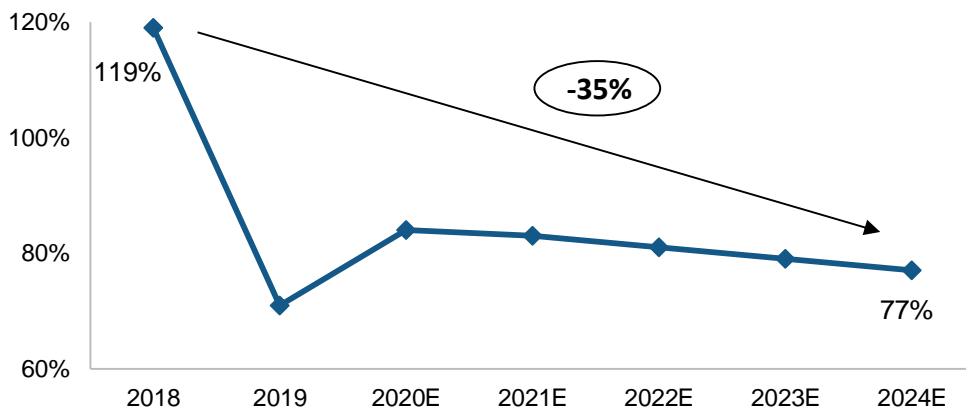
With this **unique combination of online trading and social network**, NAGA has the perfect framework for **revolutionary products such as NAGA AUTOCOPY**. With NAGA autocopy users can copy trades of other users with a fixed amount or with a certain percentage of the copied trade. To find the best traders, NAGA has established the **NAGA leaderboard**, where customer can find the best performing traders according to various metrics. Customer can also copy the trades of multiple "leaders" simultaneously.

For risk-management, NAGA additionally offers a stop loss for copied trades as well as a take-profit function.

“Copiers” have to pay \$ 0.5 per copied trade plus 5% profit fee to NAGA. NAGA on the other hand pays \$ 0.3 per copied trade to the “leaders” as an incentive for them to share their trades to the community. It does not matter whether the copied trade was profitable or not. Key benefits of the Autocopy functionality mainly:

- (1) **Strengthen the community**, as users chat about the trades they are involved in.
- (2) **Reduce churn of unexperienced users**, since these can learn from the trades of more experienced ones.
- (3) **Incentivize experienced users** to share their trades which creates financial and emotional reward.

Significantly reduced churn



Source: Company data, Hauck & Aufhäuser

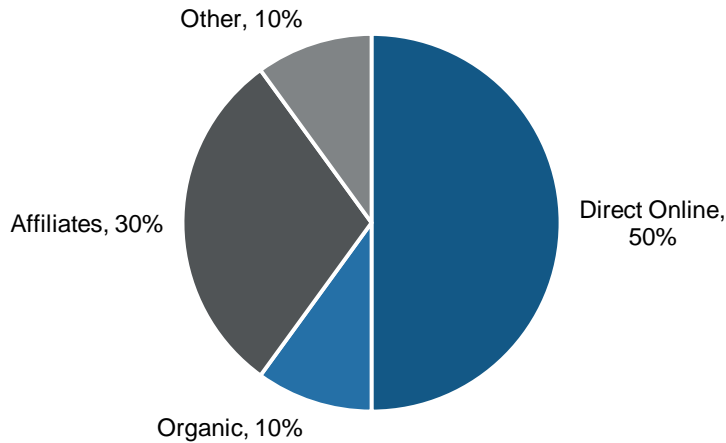
Disciplined approach to marketing spend

Next to **organic growth** (10% of total customer inflow) fueled by sponsorships and non-fee referrals, **NAGA acquires new customers via performance marketing and non-performance marketing.**

Performance marketing via affiliates constitutes the biggest inflow share with around 30%. NAGA has established an affiliate network of 1.500 partners fully based on success, which makes it easy to control customer acquisition costs.

Non-performance marketing mainly consists of direct online marketing such as online ads that are run in 10 different languages across the globe. The frequently used channels are Facebook, Instagram, tictoc, Twitter and Google as well as Mediabuy.

Customer Inflow Breakdown

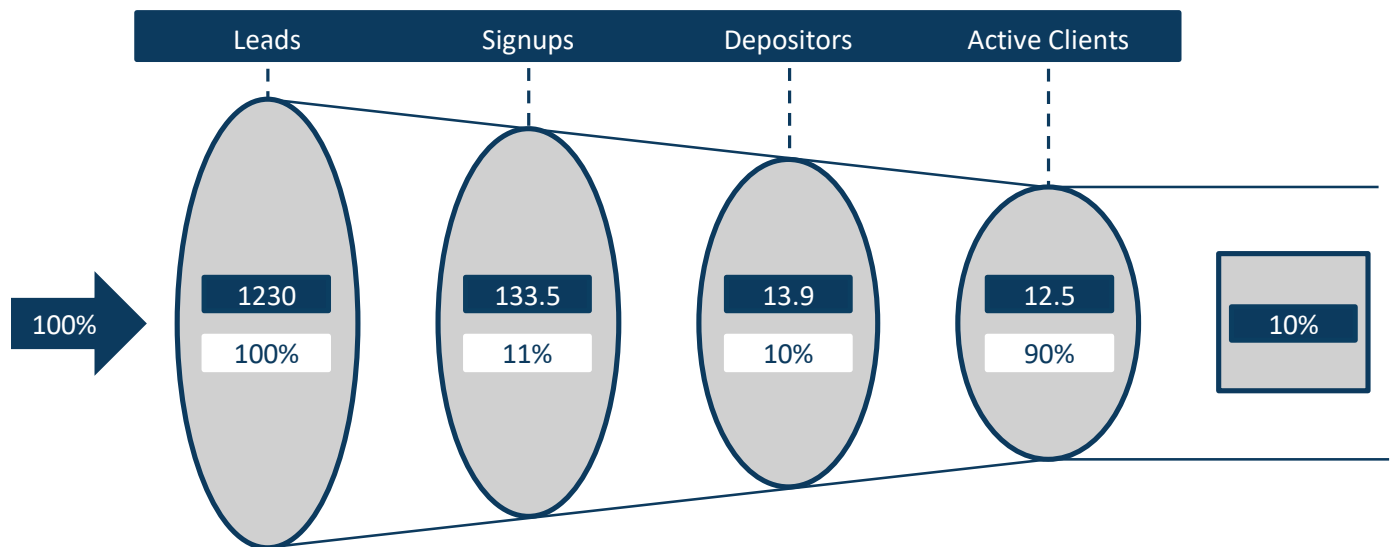


Source: Company data, Hauck & Aufhäuser

Improved customer acquisition funnel

With the improved marketing strategy, NAGA is able to **improve the customer acquisition funnel**. Due to more targeted marketing, the lead generation remained approximately constant from 2018 to 2020 (1.23m in 20E vs 1.20m in 18). On the other hand, the conversion rate from converting Sign-ups into Depositors have increased by 6% from 4% to 10%. In a nutshell, **NAGA paid significantly less leads to acquire the same amount of active customer**. In addition to that, the quality of customers in terms of **funding per account** has **significantly improved from € 1,805 to € 3,002 per new customer** (H&Ae).

Improved customer acquisition funnel in 2020E (in k)



Source: Company data, Hauck & Aufhäuser estimates

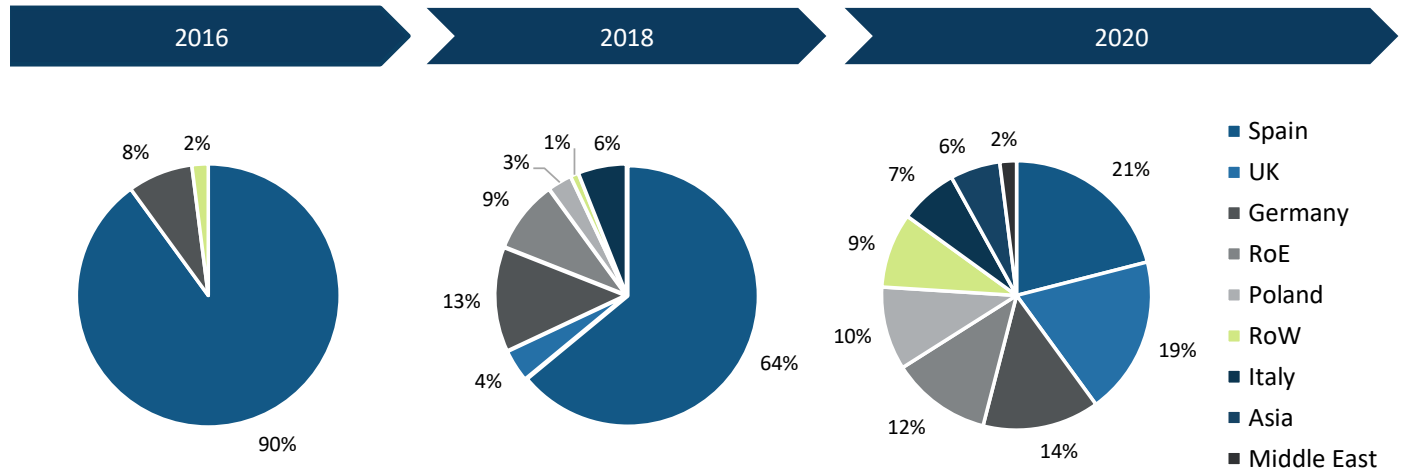
Globally diversified customer base

With the ongoing global expansion, **NAGA diversified its customer base significantly**. In 2016, NAGA has been active in <10 countries, mainly in Spain

(90%) and Germany (8%). **Today, NAGA is active in more than 90 countries**, well diversified among the most developed countries of the world.

The majority of customer is still located in Spain with 21% followed by UK with 19% and Germany with 14%.

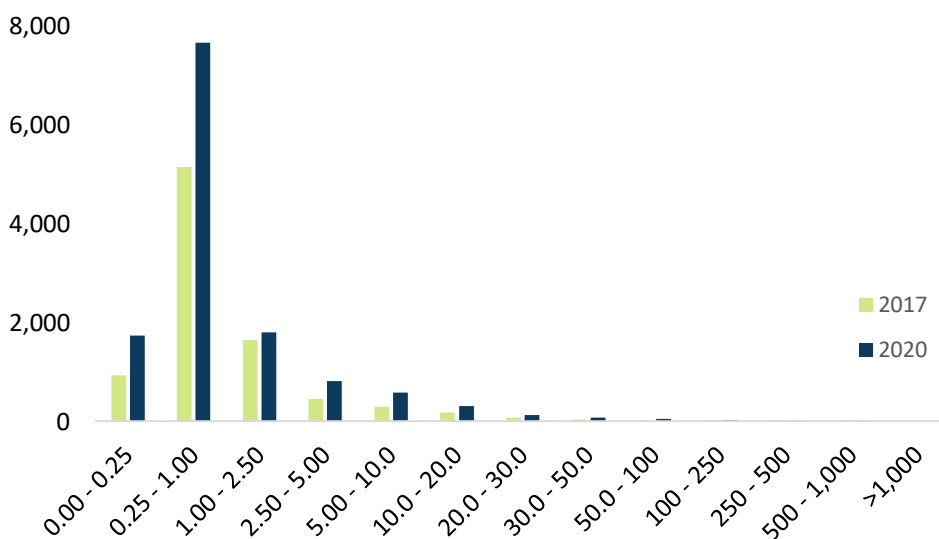
Geographic diversification of customer base over time



Source: Company data, Hauck & Aufhäuser

In addition to the global diversification, **NAGA also shows a solid distribution of customer's account size**: In 2020E, we expect 71% of the overall 13.218 active accounts to be funded with less than € 1,000 and only four active accounts funded with more than € 250k. Furthermore, we see **growth in all cohorts in comparison to 2017**. Cohorts with a funding of > € 2.500 grew at the highest pace, which **is an indicator for the increased customer quality in terms of account size** caused by improved target marketing. This favorable development should result in an average net deposit value of € 2,396 in 2020E (+13% CAGR2017-20E).

No cluster risks in customer's account size distribution (account size in €k)



Source: Company data, Hauck & Aufhäuser

Growth

- **Global expansion to unlock customer growth potential**, especially in brokerage-affine countries such as Australia and growing markets such as China
- **Improved customer acquisition funnel** thanks to increasing customer inflows and reduced churn
- **Sales growth of 79% p.a. (2019-24E)** to € 116m, driven by increasing quantitative and qualitative customer inflow
- **EBITDA growth with break-even in 2020E**: High scalability of the business should enable EBITDA margins of >30%

Ongoing regional expansion

The NAGA Group is currently active **in more than 90 countries all over the world** and the expansion is still ongoing. Next countries that are expected to be rolled out are:

- **Australia – currently the 2nd biggest CFD-market in the world after UK**, providing an enormous growth potential. The application for an Australian financial services license (AFSL) is already submitted to the Australian authorities. Thanks to an **international team and a platform that is fully multilingual** the ramp-up phase should be rather short. The launch of NAGA Australia should take place in Q1 2021, complemented by a fully digital marketing campaign. We expect NAGA to have **10k new active customer** by the end of 2021E in Australia.
- **China – one of the fastest growing retail brokerage markets in the world**. The market launch was already in July 2020 and within 3 month (August – November) the funding of client accounts **ramped-up from € 100k to € 1.0m**. This trend should continue.

In addition to that, the **license application process has been started in South Africa**. In **Nigeria physical training centers are up and running** since Q3 2020.

New products as “door-opener” to new customer groups

Since the customer potential for pure CFD brokerage is limited, NAGA launched new products that make it easier to win new customer. The products are most importantly (1) NAGA PAY, (2) real stocks for zero commission and (3) crypto currencies in a NAGA wallet.

- (1) **With NAGA PAY, NAGA enters the market of personal banking & payments for the next generation** that is currently dominated by FinTechs such as N26 and Revolut. With NAGA PAY, NAGA offers a full banking account, including SEPA transfers as well as a personal MasterCard, including Apple and Google Pay. Since a banking account is easier to sell to new customers, marketing campaigns should be more effective and should come along with **significant lower customer acquisition cost (CAC)**. The goal is to acquire low margin banking customers and **convert them into high margin CFD customers via the social trading platform** with its influencing community. Since the target group of potential banking accounts is much bigger than the target group of pure CFD customers, **customer inflow is set to ramp-up**. In a nutshell, NAGA PAY can be seen as “door-opener” to a broader range of customer.

- (2) An additional minor “door-opener” is the offering of **real-stocks at zero-commissions**. With the approach of zero commission, NAGA directly attack zero-commission online brokers such as TradeRepublic, JustTRADE, Scalable Broker a.o. that have faced **exponential customer growth during the last years**. Negative interest rates should additionally fuel the growth of the online brokerage market. With its zero-commission offering, NAGA should attract different groups of customers. Like with NAGA PAY, NAGA should **win new customer at lower customer acquisition costs and convert them into CFD traders** via its social trading platform with its influencers.
- (3) In order to **monetize the customer base further**, NAGA offers **crypto-currencies and their own NAGA Wallet**. Thanks to high volatility in the crypto currencies, these instruments are also attracting a similar group of new customers that is partially attracted by CFDs, too. Hence, the **conversion into a CFD-customer** should not be too difficult.

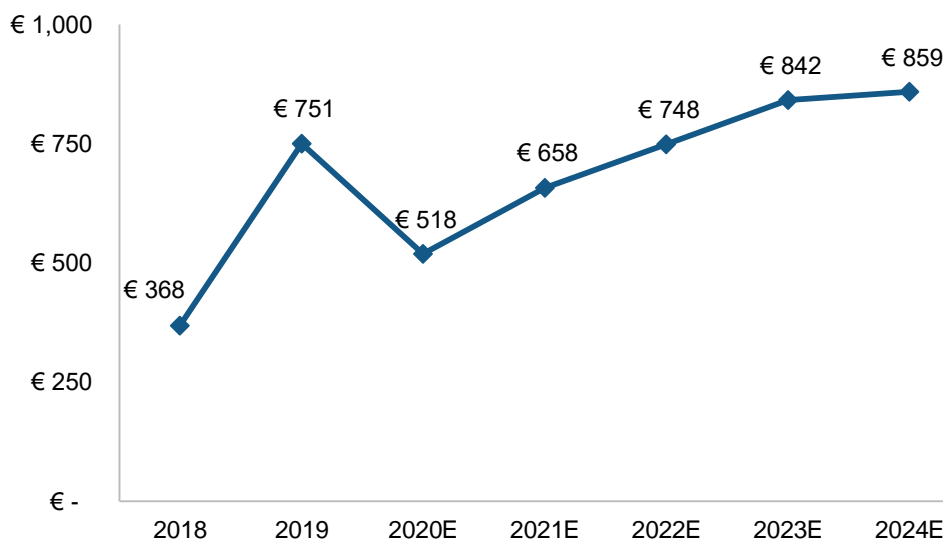
Increasing marketing spending

Thanks to **ramped-up customer inflows and sales**, NAGA is well positioned to start a **virtuous circle**: Organically increasing marketing spends fuels top- and bottom line which again unlocks additional marketing budgets, resulting in an **exponentially growing business**.

We expect **marketing spending to increase by 47.9% p.a. (2019-24E)** from € 2.5m to € 17.4m (15% of sales in 2024E).

Since pure **performance marketing** is rather limiting customer wins, we also expect NAGA to spend money on **non-performance marketing to create and establish brand awareness and extend reach** in certain countries. More targeted performance marketing should decrease CAC, which should however be more than offset by an increase in non-performance marketing. The combination of both should result in **slightly increasing CAC to an average of c. € 730 (H&Ae, avg. 2019-24E)**.

Customer Acquisition Costs (CAC)



Source: Company data, Hauck & Aufhäuser

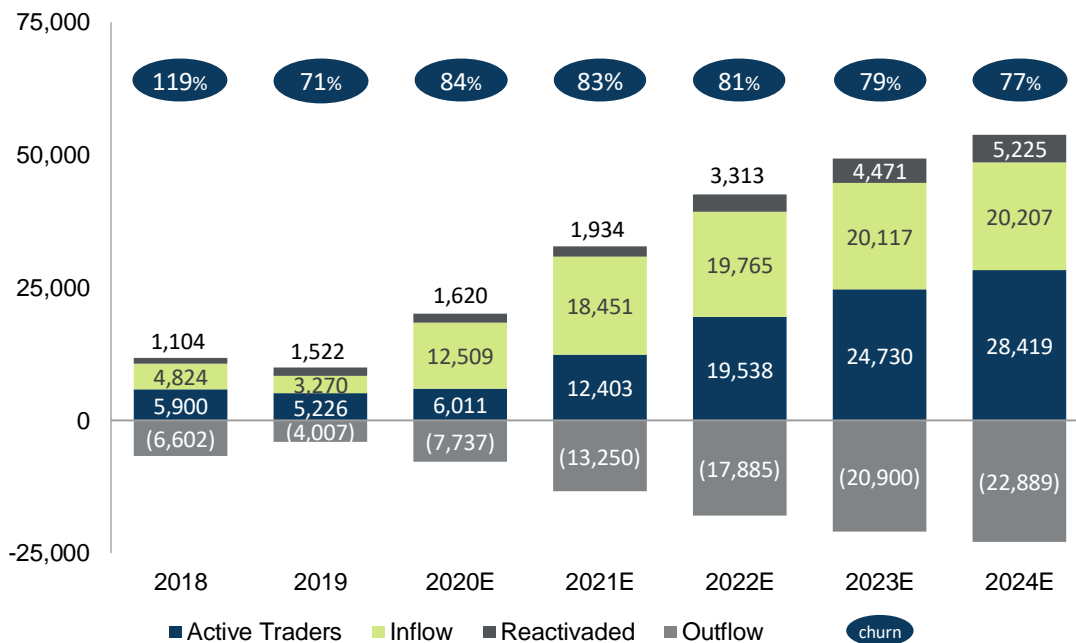
Growing marketing spends in combination with nearly stable customer acquisition costs (CAC) should **strongly fuel customer wins**.

Growing customer base

The ongoing global expansion, new product innovations as well as more targeted marketing, increased marketing spends and reduced churn-rates should lead to a constantly expanding customer base.

Hence, we expect the annual customer wins to increase by 44% CAGR2019-24E from 3,270 to 20,207 customers (H&Ae). For the same reasons, the number of reactivated customers should increase by 30% p.a. to 5,627 in 2024E, too. Since the average life-time-span of a CFD-customer is just 8 month (industry average), a high customer outflow is a natural part of the business. Thanks to the social trading platform as well as the copy trading, NAGA is able to lengthen the customer-life time span to 16 month in 2024E (H&Ae, currently 14 month) and decrease the churn rate to 77% in 2024E (H&Ae, currently 84%). As a result, the annual customer inflow (new customer + reactivation) should outpace the annual outflow by 39% on average (2020-24E).

Increasing customer base thanks to increased customer wins and reduced churn

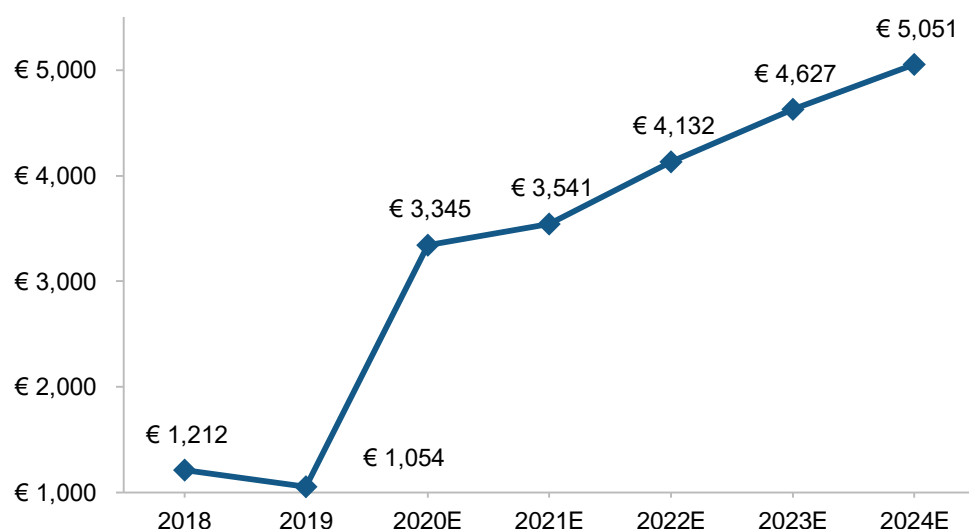


Source: Company data, Hauck & Aufhäuser

Higher revenue per client increase average CLTV

The average revenue per client should increase by 39% CAGR2019-24E to € 3.894 per customer, driven by improved customer quality in terms of account size. Thanks to a longer average customer life-time-span and a reduced churn-rate, the average customer life-time-value (CLTV) is seen to increase by 37% CAGR2019-24E to € 5,051 in 2024E.

Active Customer Life Time Value (CLTV)



Source: Company data, Hauck & Aufhäuser

Strong scalability with increasing sales

The constantly growing customer base and the improving active customer life-time value should continue to fuel sales. We expect **sales growth at 79% CAGR2019-24E**, resulting in **total sales of € 116m in 2024E**. Costs of sales (costs that are directly related to trade execution such as autocopy fees to “leaders” or fees to affiliates) should slightly decrease on the back of economies of scale, resulting in **sustainable gross profit margins of c. 85%**.

The NAGA Group AG - P&L

in € mln	2019	2020E	2021E	2022E	2023E	2024E
Total Sales	6.2	25.9	48.5	74.0	96.8	115.7
Cost of Sales	1.3	4.3	7.8	11.5	14.7	17.4
in % of sales	21.5%	16.5%	16.0%	15.5%	15.2%	15.0%
Gross Profit	4.9	21.7	40.8	62.5	82.1	98.3
Gross margin	78.5%	83.5%	84.0%	84.5%	84.8%	85.0%
Marketing expenses	2.5	6.5	12.1	14.8	16.9	17.4
in % of sales	39.5%	25.0%	25.0%	20.0%	17.5%	15.0%
R&D expenses	1.7	1.9	2.4	3.3	4.2	4.7
in % of sales	27.6%	7.3%	5.0%	4.5%	4.3%	4.1%
Personnel expenses	4.6	4.5	7.4	10.2	12.2	13.6
in % of sales	73.7%	17.4%	15.3%	13.8%	12.6%	11.8%
Other operating income	0.9	1.9	2.7	3.7	4.4	4.6
in % of sales	15.2%	7.5%	5.5%	5.0%	4.5%	4.0%
Other operating expenses	6.2	4.2	7.8	11.8	15.5	17.4
in % of sales	100.2%	16.4%	16.0%	16.0%	16.0%	15.0%
EBITDA	-9.2	6.5	13.7	26.0	37.6	49.9
EBITDA margin	-147.3%	25.0%	28.2%	35.2%	38.9%	43.1%
D&A	3.0	3.3	3.7	4.1	4.5	4.9
EBIT	-12.2	3.2	10.0	21.9	33.1	45.0
EBIT margin	-195.8%	12.2%	20.5%	29.7%	34.2%	38.9%
Net financial result	-0.1	-0.2	-0.4	-0.7	-0.9	-1.0
Tax expenses	1.1	0.0	0.0	5.3	8.1	11.0
Tax rate	-8.7%	0.0%	0.0%	25.0%	25.0%	25.0%
Net Income	-13.4	2.9	9.5	16.0	24.2	33.0

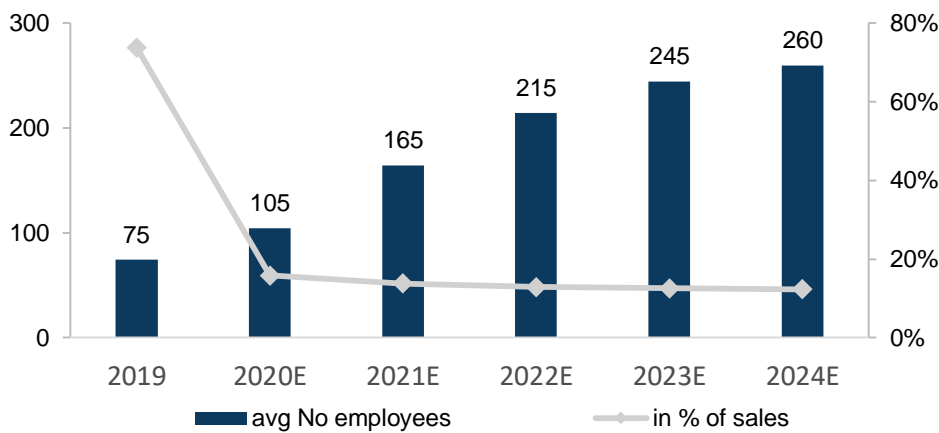
Source: company data; Hauck & Aufhäuser

Thanks to a highly scalable business model that leads to declining personnel and operating expense ratios, **EBITDA margins of around 35% should be well in reach**

Scale effects on personnel

The expected growth of the business should be supported by an increase in headcount to 260 from currently 105, mainly in sales and supporting functions. However, thanks to the scalable and digitized business model, the **increase of personnel should be less than proportionate to sales**. In steady state, personnel expenses are seen to decrease **below 20% of sales**.

Personnel development



Source: Company data, Hauck & Aufhäuser estimates

Scale effects on other operating costs

In 2019, personnel and other operating expenses (driven by legal advice and other consultancy) were the major cost items of NAGA. Going forward though, the **ramp-up of marketing spends should be the key driver of other OPEX** increasing in absolute terms **to € 17.4m in 2024E**, supporting the dynamic sales. Nevertheless, scale effects should enable a decline of other OPEX ratio by **15.5pp** compared to 2020E towards **34% of sales in 2024E**.

Valuation

The fair value per share of € 5.9 is derived from:

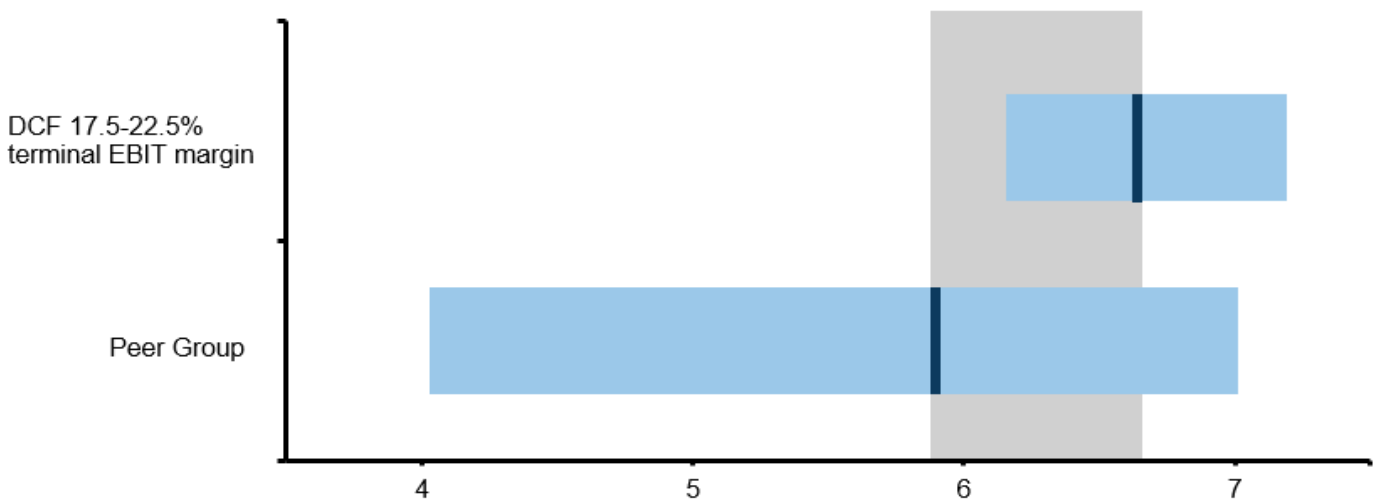
- The DCF model indicates a **fair value of € 6.7** in a range of € 6.2 – 7.2
- The peer group analysis result in a **fair value of € 5.90** based on **average PER '21** of peers flatexDEGIRO and wallstreet:online

The valuation models for The NAGA Group are based on the estimates described previously.

In order to derive a fair value for The NAGA Group, the following valuation models were used:

- **DCF:** The DCF model derives an **implied fair value per share of € 6.3** at a terminal year EBIT margin of 20% and long-term growth of 1.0%.
- **Peer group:** The peer group valuation is based on **PER 21E** derived from the peers flatexDEGIRO and wallstreet:online and derives a **fair stock price of € 6.20**.

Valuation overview (per share)



Source: Company data, Hauck & Aufhäuser

Discounted cash flow valuation

The key model assumptions are:

- **Terminal year EBIT margin of 20%:** The Terminal year EBIT margin of 20% is on the level of 2021E (21%). This is right in the middle of the range of 17.5-22.5% that we expect for sustainable EBIT margins, thanks to the strong scalability.
- **Terminal year growth rate of 1%:** mid-term growth rate is seen to be very dynamic at 42% (2023-28E), thanks to global expansion and increasing market penetration.
- **WACC of 8.5%:** The WACC of 8.5% is derived from 1% risk-free rate, a beta of 1.5 and 6% risk premium.

Looking at the sensitivity analysis a 2.5% lower terminal year EBIT margin would imply a **fair value per share of € 6.2** and a 2.5% higher terminal year EBIT margin would result in **€ 7.2 per share, underscoring significant upside.**

DCF (EUR m) (except per share data and beta)	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	Terminal value
NOPAT	3.2	10.0	16.5	24.9	33.8	29.5	29.6	23.8	20.6
Depreciation	3.3	3.7	4.1	4.5	4.9	5.3	5.6	6.0	5.8
Increase/decrease in working capital	0.6	-7.1	-3.9	-3.6	-3.0	-0.6	-0.2	0.2	0.4
Increase/decrease in long-term provisions and accruals	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capex	-3.0	-3.4	-3.7	-4.1	-4.5	-4.8	-5.2	-5.5	-5.8
Acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital increase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash flow	5.9	3.2	12.9	21.7	31.2	29.4	29.9	24.5	21.0
Present value	5.9	2.9	10.9	16.9	22.4	19.4	18.2	13.8	172.6
WACC	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%

DCF per share derived from		DCF avg. growth and earnings assumptions	
Total present value	283	Short term growth (2020-2023)	55.1%
thereof terminal value	61%	Medium term growth (2023 - 2028)	41.8%
Net debt (net cash) at start of year	-3	Long term growth (2028 - infinity)	1.0%
Financial assets	0	Terminal year EBIT margin	20.0%
Provisions and off balance sheet debt	4		
Equity value	282		
No. of shares outstanding	42.0		
Discounted cash flow per share	6.7		
upside/(downside)	127%		
Share price		WACC derived from	
	2.96	Cost of borrowings before taxes	4.0%
		Tax rate	25.0%
		Cost of borrowings after taxes	3.0%
		Required return on invested capital	8.5%
		Risk premium	6.0%
		Risk-free rate	1.0%
		Beta	1.5

Sensitivity analysis DCF							Sensitivity analysis DCF						
		Long term growth							EBIT margin terminal year				
		0.0%	0.5%	1.0%	1.5%	2.0%			15.0%	17.5%	20.0%	22.5%	25.0%
WACC	9.5%	5.6	5.8	6.0	6.3	6.5	WACC	9.5%	5.2	5.6	6.0	6.4	6.9
	9.0%	5.9	6.1	6.3	6.6	6.9		9.0%	5.4	5.9	6.3	6.8	7.3
	8.5%	6.2	6.4	6.7	7.0	7.4		8.5%	5.7	6.2	6.7	7.2	7.7
	8.0%	6.5	6.8	7.1	7.5	7.9		8.0%	6.0	6.6	7.1	7.7	8.2
	7.5%	6.9	7.2	7.6	8.1	8.6		7.5%	6.4	7.0	7.6	8.2	8.8

Source: Company data; Hauck & Aufhäuser

Peer group valuation

The peer group consists of a group of online brokers that trade at **median PER'21E of 18.3x**.

The peers are:

IG Group: IG Group is a UK-based company providing trading in financial derivatives such as contracts for difference and financial spread betting and, as of 2014, stockbroking to retail traders. While the majority of the company's activities are based in the UK, the company has expanded internationally. It is listed on the London Stock Exchange and is a constituent of the FTSE 250 Index

CMC Markets: CMC Markets is a UK-based company that offers online trading in shares, spread betting, contracts for difference (CFDs) and foreign exchange (FX) across world markets. CMC is headquartered in London, with hubs in Sydney and Singapore. It is listed on the London Stock Exchange and is a constituent of the FTSE 250 Index.

FlatexDEGIRO: flatexDEGIRO is a financial technology company and the market leader in the pan-European online brokerage market after the acquisition of DEGIRO. DEGIRO is an online broker based in Netherlands that is active in 18 countries in Europe. FlatexDEGIRO provides trading in stocks, funds, ETPs and derivatives such as contracts for difference (CFD) and foreign exchange. It is listed on the Frankfurt stock exchange and a constitute of the SDAX.

Wallstreet:online: wallstreet:online operates some of the leading German-finance portals boasting the largest financial community, with 3.5m finance savvy readers. In December 2019 it launched its new online broker,

smart broker, to further monetize the readership. To date, smartbroker already gained some 80k customers.

The NAGA Group - Peers

Peers	FX	Price	Market Cap (€m)	EBITDA-margin (2020E)
CMC Markets	GBP	363.50	1,057	56%
IG Group	GBP	814.00	3,014	49%
flatexDEGIRO	EUR	54.00	1,065	38%
wallstreet:online	EUR	14.80	213	22%
The NAGA Group	EUR	3.12	131	25%

Source: Company data; MarketMap (as of 08.12.2020); Hauck & Aufhäuser estimates

Peers	EV/EBITDA			PER			PEG		
	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E
CMC Markets	3.9	4.6	9.01	7.0x	15.5x	15.4x	7.6	16.9	16.8
IG Group	7.2	8.7	9.04	13.8x	14.6x	13.0x	-6.7	-7.1	-6.3
flatexDEGIRO	16.0	11.8	9.27	27.1x	21.0x	16.9x	0.9	0.7	0.5
wallstreet:online	37.2	22.4	13.11	52.0x	31.5x	23.1x	1.2	0.8	0.6
Median	11.6x	10.2x	9.2x	20.5x	18.3x	16.2x	1.1x	0.7x	0.5x
The NAGA Group	-13.0x	19.4x	8.7x	42.2x	13.0x	7.7x	0.3x	0.1x	0.1x

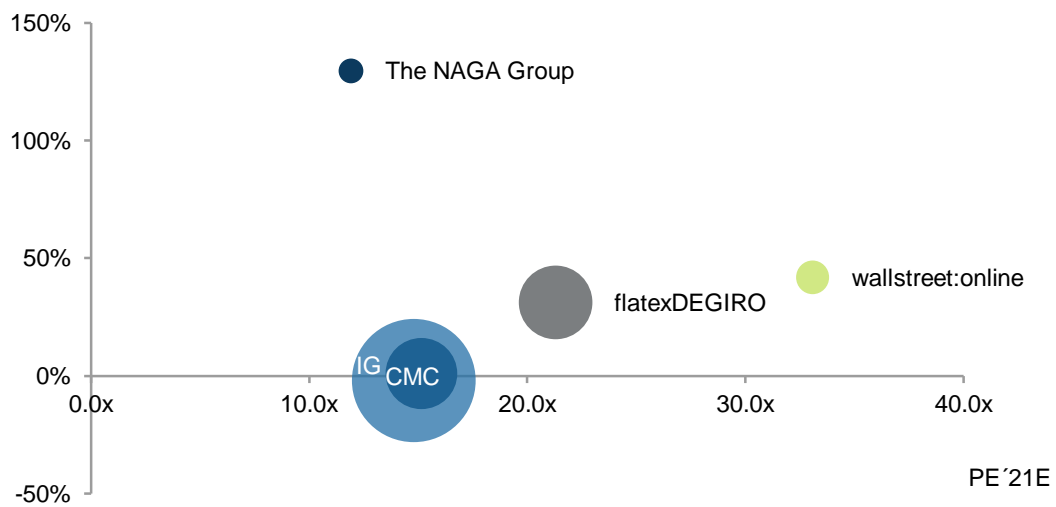
Source: Company data; MarketMap (as of 08.12.2020); Hauck & Aufhäuser estimates

Taking the 2021E **median P/E multiple** of the peer group of **18.3x**, we arrive at a **fair value of The NAGA Group AG of € 173m or € 4.11 per share**, given expected net income of € 9.5m in 2021E (H&Ae).

Looking at **PEG upside of NAGA to the median of the peer group**, the fair value should be significantly higher. In order to account for stronger growth profile of NAGA for growth we take the **average P/E of 21E of flatexDEGIRO and wallstreet:online**, since they show growth rates of >30% p.a., which is still below NAGA's growth dynamic. **The fair value for NAGA based on avg P/E '21 of these peers would be € 249m or € 5.9 per share.**

Peer group comparison indicates undemanding valuation

CAGR2019-22E



Source: Company data; Hauck & Aufhäuser

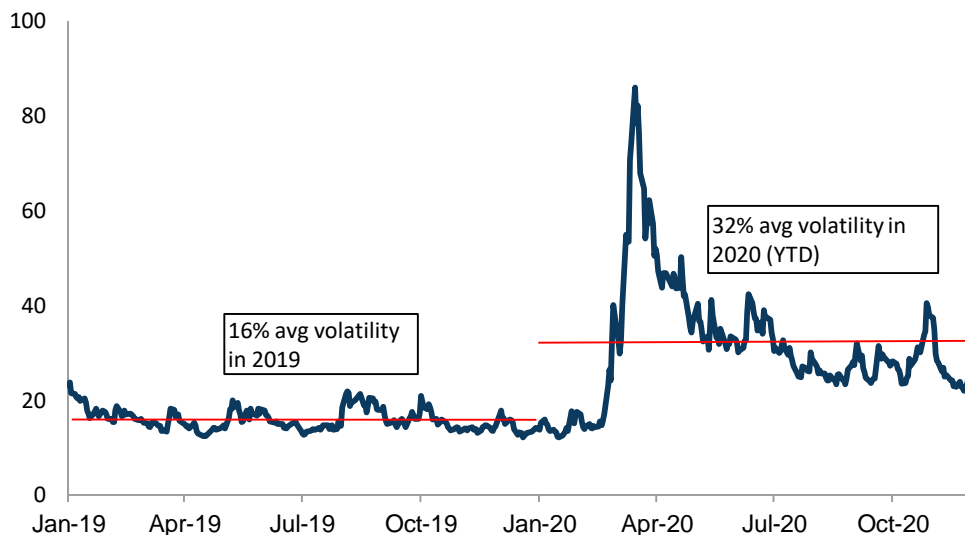
Theme

- **Market volatility** that consolidates on high levels **drives number of trades** of all retail brokers.
- COVID is a **catalyst for the accelerating structural growth** in the brokerage market.
- **Improved UI/UX, lower entry barriers** as well as **low and transparent pricing** attract new customer

Volatility consolidated on high levels

Driven by the COVID crisis and related lockdowns, **volatility (VIX) spiked in March**. Against expectations, volatility **remained on extraordinary high levels** during the course of the year, despite easing COVID-measures. In fact, the average volatility has doubled to more than 32% in 2020 compared to 2019 with 16%. This is also **significantly higher than in 2017 and 2018** (14% and 17% avg. volatility).

Volatility: High is the new normal



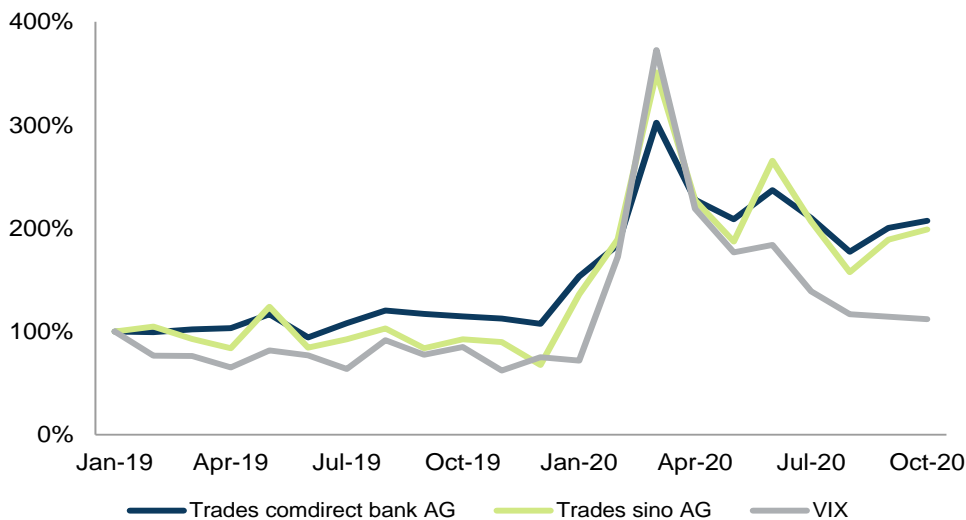
Source: MarketMap, Hauck & Aufhäuser

Volatility drives trades

The volatility index is probably the **best indicator for the number of transactions** in the retail brokerage and CFD market. An increasing number of trades results in market movements and hence increases volatility. Increasing volatility on the other hand drives the number of trades, since the pressure on retail investors to react increases.

Monthly trading statements of listed online brokers sino AG and comdirect bank AG, demonstrate the **strong positive correlation between trading activity and volatility**.

Monthly transactions at comdirect and sino



Source: Bundesbank, Hauck & Aufhäuser

Indeed, both brokers more than **doubled their monthly number of transactions in 2020**, compared to 2019: Comdirect increased the number of trades by 102% from an average 6.1m per quarter in 2019 to an average of 12.3m per quarter in 2020. Sino increased the trades on its platform from an average 0.135m per quarter in 2019 to an average of 0.306m per quarter in 2020 (+127% yoy). Thanks to ongoing COVID-related uncertainty, **trades are expected to remain on high levels during the course of Q4 20 and H1 21**.

Three **catalysts are currently driving the number of trades** at online brokers such as NAGA:

1. **Higher activity of current active customers** driven by volatility as described above.
2. **Reactivation of non-active customers.** The longer a broker is in the market, the stronger the dilution of the customer base with non-active customers usually is.
3. **High demand from new customers** that open security accounts and execute trades at NAGA for the first time.

Lockdowns, home office, more spare time and the thrill of making a fortune by trading securities attract many retail investors.

Structural trend: Changed behavior of retail investors

The current **tailwinds for online brokerage** are accelerating a clearly positive structural trend in our view. The heavy customer inflow among all competitors should lead to a **sustainably increased new-normal number of trades** supported by the following a favorable market environment and improving focus on customers:

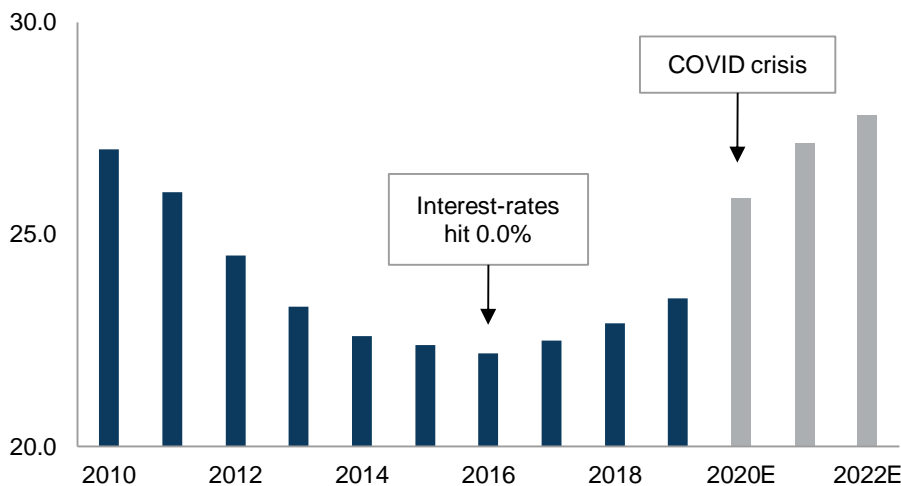
Favorable market environment:

- **Low interest rates** encourage retail investors to rethink their saving behaviors and push them into the bond and stock markets. As a result, some retail-investors start to engage in leveraged trading with CFD's and binary options
- **Increasing pressure on classical retirement plans** driven by the public discourse about private retirement planning and poverty among the elderly makes private households look set to spend more on financial security. Also

CFD broker should benefit indirectly from this development, since **more customer should convert into CFD traders**.

After six years of declining security accounts in Germany (-3.2% p.a.), **interests rates hitting zero in 2016 marked a turning point**. From 2016 onwards, the number of security accounts increased by 2% p.a. to 23.5m in 2019. We expect this trend to continue at even **accelerated growth rates of 5.8% CAGR2019-22** to 27.8m in 2022E, since COVID even increased the pressure on retail-investors. The development in Germany can be seen as proxy for other countries.

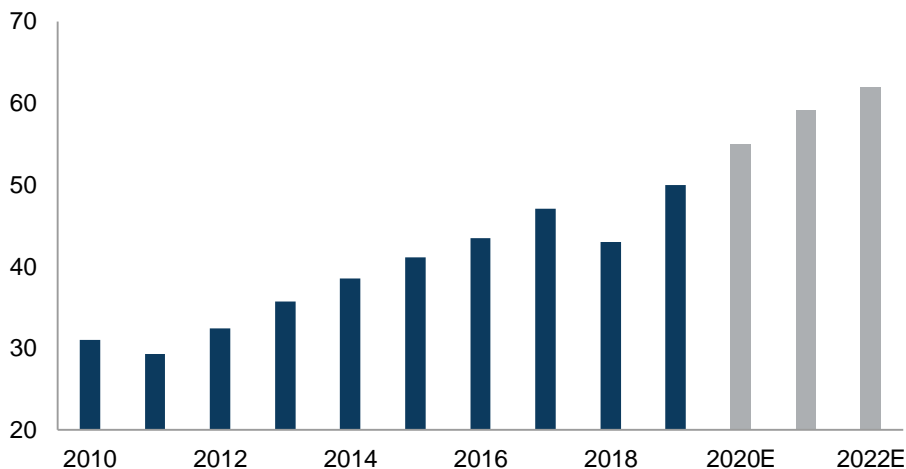
Increasing number of security accounts in Germany



Source: Bundesbank, Hauck & Aufhäuser

On top of this, the average amount per security account continuously increased by 5.4% CAGR 2010-19 from € 31k 2010 to € 50k in 2019. Also the cumulative deposit amount of all retail investors has faced constant growth of 3.8% p.a.

Constantly increasing avg. security account size (€k)



Source: Bundesbank, Hauck & Aufhäuser

Both trends should additionally push customer inflow to CFD broker such as NAGA and fuel number of trades and sales.

Improving focus on customers:

A higher degree of digitization with implied higher real-time access and comfort should continue to facilitate the shift from offline channels to online and mobile channels.

- **Lower prices and higher transparency:** Increasing automation allow for more transparent and attractive pricing for customers.
- **Lower entry barriers:** Online brokers are simplifying the onboarding processes of security accounts. On top, brokers are reducing investment limits to an absolute minimum and ease UI/UX of the frontends.

NAGA should benefit from both, thanks to zero commission brokerage and superior online and app frontends.

To put it in a nutshell, online brokerage in general should benefit in the short term from the ongoing **COVID-related volatility** that should remain on high levels throughout the course of Q4 '20 as well as H1 '21. **Moreover, COVID is a clear catalyst for the accelerating structural growth** in the online brokerage market.

Company Background

- History
- Business Model & Customer
- Employees & Management & Supervisory Board
- Shareholder Structure
- Investment Risks

History

The NAGA Group AG was founded in 2015 by the current CEO Benjamin Bilski. At that time the backbone of NAGA was its economic predecessor “SwipeStox“, with more 100k user in three European countries (90% Spain, 8% Germany) and 40 employees.

In July 2017, the IPO of The NAGA Group followed. NAGA was listed in the new segment scales of Frankfurt Exchange.

With a record initial coin offering in Germany in December 2017, NAGA generated more than € 42m from its Nagacoin.

In 2018 the expansion towards other countries in Europe and the whole world started. Hence, the stake of customer from Spain constantly decrease whereas the stake of countries such as Germany, Italy, UK and Poland as well as other countries constantly increased.

Today, the customer of The NAGA Group are well diversified among the whole globe. The stake of Spain is just 21% and the stake of the biggest CFD market UK is at 20%. But also the stake in Asia, Middle East and other countries continue to increase.

Business Model

The NAGA Platform - The „facebook“ for Trading

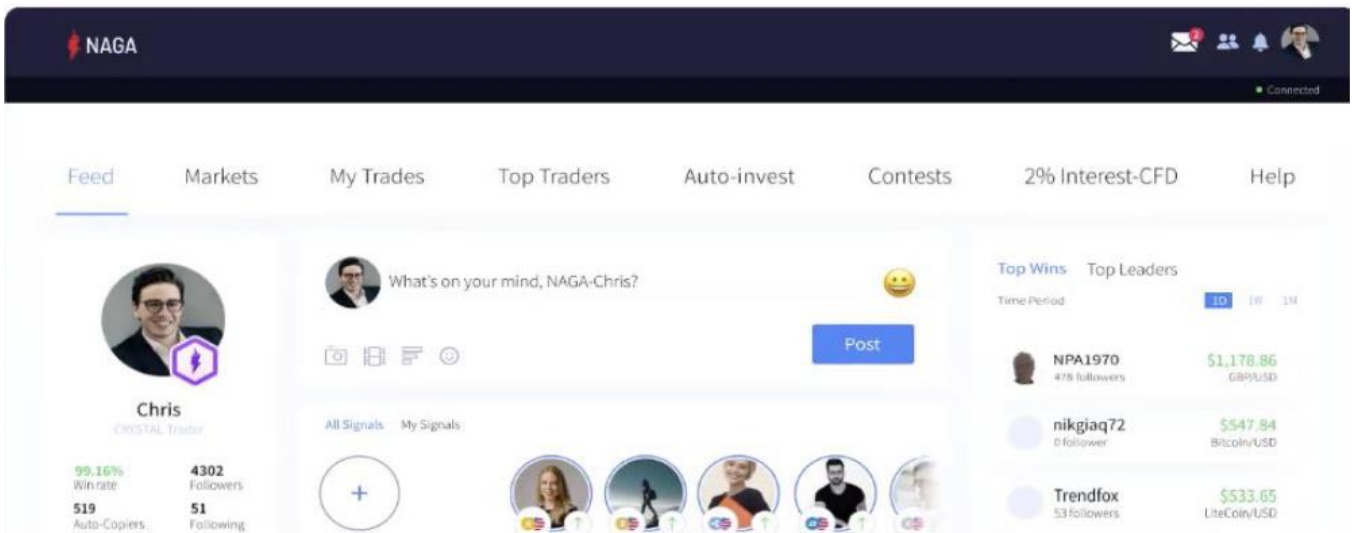
NAGA has established a platform of social trading for its customers that can be seen as the “facebook” for trading, since it is constructed as the social network “facebook”. Trader can follow other trader, subscribe, share status and latest trades as well as like and comment.

They are also able to upload videos and images of trading analyses, open and join group chats and connect to top traders via Messenger. With the NAGA RADAR it is possible to see who is trading nearby and connect offline.

The users receive real-time markets and shares news, thanks to a customized integration of Thomson Reuters.

According to the company, social trading helps to activate customers, reduces churn, increases life-time-value and overall success of all customers.

"Facebook" of trading



Source: Company data, Hauck & Aufhäuser

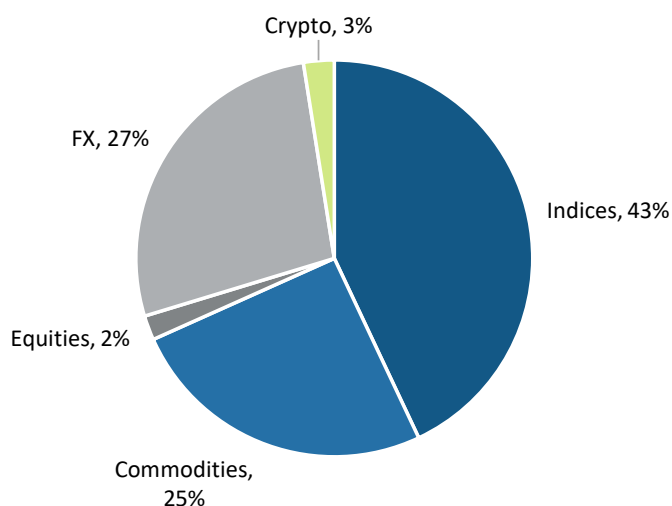
NAGA "autocopy"

An innovation within the social trading platform is the NAGA autocopy. Trades posted by other users of the platform can be copied. In addition user can follow other user (leader) and copy all of their trades with an absolute amount or a percentage of the leaders position. Push messages and notification informs user in real-time about all opened and closed positions. Users can subscribe and unsubscribe at any time. The autocopy function increases the number of trades and attract both: unexperienced traders who can participate from the trades of experienced traders with a proven track-record. Experienced traders on the other hand can earn additional money by publishing their trades to the community.

Asset universe

NAGA offers 800 tradeable instruments to its customers. Most traded instruments are CFDs on most relevant global markets indices. But also CFD's on commodities, and FXs of the world's largest and most liquid currencies are popular among NAGA's customer. Only 2% of the customers trade Equities. Cryptocurrencies are not frequently traded assets.

Popularity of underlyings among customers



Source: Company data as of June 2020; Hauck & Aufhäuser

Customer

The NAGA Group AG targets young, digital natives, globally. The focus is on very **risk-seeking** retail investors with a clearly **digital mindset** that frequently use social networks. The average investor is **between 25 and 35 years old, male** and has an **average annual income of € 50-60k**. As self-determined client, NAGA's customer are getting all needed information online. The average financial knowledge should be slightly above average.

Employees

As of June 2020, **The NAGA Group AG employed 105 FTE's**. 29 employees work in the sales and in the marketing department, 28 work for user experience. The remaining 48 employees work in 10 different business units. Additional 100 FTE's are currently working for NAGA via service-level agreements, therefore not on NAGA's payroll. 55% of the employees are female and 45% are male.

In order to accelerate growth NAGA plan to continue hiring new people. We expect NAGA to have **260 full time employees by the end of 2024E**.

Management

Benjamin Bilski CEO

Benjamin Bilski was one of the founder of The NAGA Group in 2015 and has been a board member since then as CTO. In April 2019 Mr. Bilski became the CEO of NAGA and is responsible for Product & Technology, Online Marketing and Investor Relations.

Prior to The NAGA Group, Mr. Bilski was the managing director of NAGA's predecessor SwipeStox GmbH and initiator of Angelplatz GmbH, one of the biggest e-commerce platforms for fishing accessories in the DACH region.

Mr. Bilski holds a Master in Management (M.Sc.) from the EBS Business School in Oestrich-Winkel and was listed at Forbes 30 under 30 Europe in 2018.



Andreas Luecke CFO

Andreas Luecke joined The NAGA Group as CFO in 2018, when he was promoted from his previous role as Head of Legal and Tax. Mr. Luecke is responsible for Auditing, Legal Affairs and Accounting.

Mr. Luecke has more than 25 years of experience in management positions, including Tax Partner at EY and Partner of T2C Tax Advisory mbH.



Michalis Mylonas

Member of the board

Michaelis Mylonas is a Board Member since 2019 and was part of the NAGA founding team in 2015. Besides, he is the Chief Executive of NAGA Markets Europe Limited since 2017. Mr Mylonas is an entrepreneur and investor with a vast experience in cross-border mergers and acquisitions, financial regulatory framework, corporate structuring and financing as well as Partnerships (B2B)

Mr. Mylonas studied Mechanical Engineering at Higher Technical Institute (HTI) and Business and Law at Middlesex University.

**Supervisory Board****Harald Patt**

Chairman

Mr Patt is an expert of the German CFD and brokerage market. Currently, he is the Managing Director of the Wealth Department and Fintech Sector of Fosun Group and CEO of the Fosun Europe Innovation Hub. He was COO of CMC Markets, CEO of Die Aktionärsbank and General Representative of FinTech Group Bank AG. Mr Patt has been the chairman of NAGA's supervisory board since 2019.

Robert Sprogies

Mr. Sprogies has been a member of NAGA's supervisory board since 2018. He works for Hauck & Aufhäuser since 2002 and is CFO, CRO and COO of Hauck & Aufhäuser since 2019.

Qiang Liu

Mr. Liu has been a member of NAGA's supervisory board since 2017. He is also the Deputy Chairman of the supervisory board of Hauck & Aufhäuser and Managing Director of Fosun Group.

Hans-Jochen Lorenzen

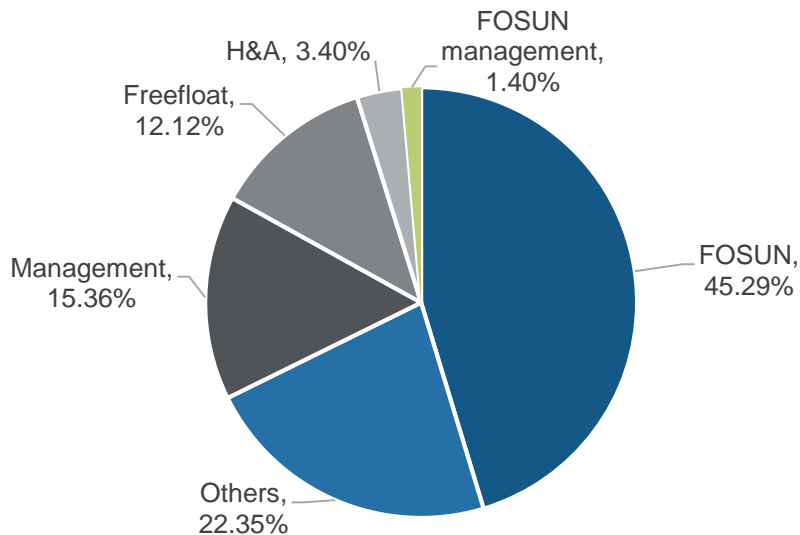
Mr. Hans-Jochen Lorenzen has been Member of the Supervisory Board of The NAGA Group AG since May 2017. Since 2015 he has been an Independent auditor and tax consultant at NPP Niethammer, Posewang & Partner. Prior to that he worked at Deloitte and at Ohlsen Lorenzen & Partner as tax consultant.

Shareholder Structure

The NAGA Group has currently 42.05m shares outstanding. The number of outstanding shares increased in June 2020 by 1,846,321 shares, due to a capital increase in order to ramp-up marketing activities.

Currently shares are held by FOSUN (45%), 13 Pre-IPO Investors (Others, 22%) and H&A (3%) as well as Management (15%). The remaining 12% are Freefloat. All shareholders, but Freefloat are locked-up until 31.12.2022.

Shareholder structure (42,049,903 shares)



Source: Company data; Hauck & Aufhäuser

Investment Risks

As with any investment, there are certain risks associated with investing in The NAGA Group. The key investment risks, in our view are:

- **Market risk:** Potential stricter regulation of CFD's in various countries as well as legal uncertainties in non-western countries could have negative effects of the performance of the company.
- **Execution risk:** The NAGA Group is aiming to deliver dynamic growth, on the back of the expansion in other countries and the launch of new products that includes tasks such as hiring personnel, managing customer relationships and expanding corporate structures. Failure in executing key tasks related to business expansion could have adverse effect on the execution of NAGA's growth strategy.
- **Technology risk:** The NAGA Group is a technology provider with a technological lead in offering a social brokerage platform. New innovative technology could change the situation and adversely affect NAGA's success in the market.
- **Capital market risk:** Disruptions on the capital markets moreover could come with notable share price movements, which can be unrelated to the operational performance of the company.

Financials

Profit and loss (EUR m)	2016	2017	2018	2019	2020E	2021E	2022E
Sales	2.0	12.8	16.1	6.2	25.9	48.5	74.0
Sales growth	n/a	551.6 %	25.5 %	-61.4 %	316.8 %	87.1 %	52.4 %
Cost of sales	0.7	3.4	1.0	1.3	4.3	7.8	11.5
Gross profit	1.3	9.4	15.1	4.9	21.7	40.8	62.5
Sales and marketing	0.1	0.2	1.8	2.5	6.5	12.1	14.8
General and administration	0.8	2.7	6.8	4.6	4.5	7.4	10.2
Research and development	0.0	2.0	2.6	1.7	1.9	2.4	3.3
Other operating income	0.8	4.8	6.3	0.9	1.9	2.7	3.7
Other operating expenses	2.5	6.4	9.9	6.2	4.2	7.8	11.8
Unusual or infrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	-1.4	2.9	0.3	-9.2	6.5	13.7	26.0
Depreciation	2.3	4.8	5.1	2.7	3.0	3.4	3.7
EBITA	-3.7	-1.9	-4.8	-11.9	3.5	10.3	22.3
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.0	0.0	0.0	0.3	0.3	0.3	0.4
Impairment charges	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT (inc revaluation net)	-3.7	-1.9	-4.8	-12.2	3.2	10.0	21.9
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Interest expenses	0.1	0.2	0.2	0.1	0.3	0.5	0.7
Other financial result	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial result	-0.1	-0.2	-0.1	-0.1	-0.2	-0.4	-0.7
Recurring pretax income from continuing operations	-3.8	-2.1	-5.0	-12.3	2.9	9.5	21.3
Extraordinary income/loss	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Earnings before taxes	-3.8	-2.1	-5.0	-12.3	2.9	9.5	21.3
Taxes	0.1	0.1	-0.9	1.1	0.0	0.0	5.3
Net income from continuing operations	-3.9	-2.2	-4.1	-13.4	2.9	9.5	16.0
Result from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	-3.9	-2.2	-4.1	-13.4	2.9	9.5	16.0
Minority interest	0.0	0.0	-0.1	-1.4	0.0	0.0	0.0
Net profit (reported)	-3.9	-2.2	-4.0	-12.0	2.9	9.5	16.0
Average number of shares	0.1	10.5	36.8	40.2	42.0	42.0	42.0
EPS reported	-77.82	-0.21	-0.11	-0.30	0.07	0.23	0.38

Profit and loss (common size)	2016	2017	2018	2019	2020E	2021E	2022E
Sales	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Cost of sales	35.1 %	26.7 %	6.5 %	21.5 %	16.5 %	16.0 %	15.5 %
Gross profit	64.9 %	73.3 %	93.5 %	78.5 %	83.5 %	84.0 %	84.5 %
Sales and marketing	6.6 %	1.6 %	11.0 %	39.5 %	25.0 %	25.0 %	20.0 %
General and administration	42.5 %	21.0 %	42.3 %	73.7 %	17.4 %	15.3 %	13.8 %
Research and development	0.0 %	15.6 %	16.2 %	27.6 %	7.3 %	5.0 %	4.5 %
Other operating income	38.1 %	37.4 %	39.2 %	15.2 %	7.5 %	5.5 %	5.0 %
Other operating expenses	124.8 %	50.1 %	61.6 %	100.2 %	16.4 %	16.0 %	16.0 %
Unusual or infrequent items	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
EBITDA	neg.	22.4 %	1.7 %	neg.	25.0 %	28.2 %	35.2 %
Depreciation	118.7 %	37.2 %	31.6 %	44.1 %	11.6 %	7.0 %	5.1 %
EBITA	neg.	neg.	neg.	neg.	13.3 %	21.2 %	30.1 %
Amortisation of goodwill	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Amortisation of intangible assets	0.0 %	0.0 %	0.0 %	4.3 %	1.1 %	0.7 %	0.5 %
Impairment charges	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
EBIT (inc revaluation net)	neg.	neg.	neg.	neg.	12.2 %	20.5 %	29.7 %
Interest income	0.3 %	0.0 %	0.1 %	0.1 %	0.1 %	0.1 %	0.1 %
Interest expenses	3.9 %	1.6 %	1.0 %	2.1 %	1.0 %	1.0 %	1.0 %
Other financial result	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Financial result	neg.	neg.	neg.	neg.	neg.	neg.	neg.
Recurring pretax income from continuing operations	neg.	neg.	neg.	neg.	11.3 %	19.6 %	28.8 %
Extraordinary income/loss	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Earnings before taxes	neg.	neg.	neg.	neg.	11.3 %	19.6 %	28.8 %
Tax rate	n/a	-6.7 %	17.3 %	-8.7 %	0.0 %	0.0 %	25.0 %
Net income from continuing operations	neg.	neg.	neg.	neg.	11.3 %	19.6 %	21.6 %
Result from discontinued operations (net of tax)	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Net income	neg.	neg.	neg.	neg.	11.3 %	19.6 %	21.6 %
Minority interest	0.1 %	neg.	neg.	neg.	0.0 %	0.0 %	0.0 %
Net profit (reported)	neg.	neg.	neg.	neg.	11.3 %	19.6 %	21.6 %

Source: Company data, Hauck & Aufhäuser

Balance sheet (EUR m)	2016	2017	2018	2019	2020E	2021E	2022E
Intangible assets	19.2	15.7	110.5	108.8	108.0	107.7	107.4
Property, plant and equipment	0.1	0.1	0.2	0.4	0.4	0.4	0.4
Financial assets	0.1	0.2	0.3	0.2	0.2	0.2	0.2
FIXED ASSETS	19.4	16.0	111.0	109.4	108.6	108.3	108.0
Inventories	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accounts receivable	0.2	4.6	3.1	1.5	1.8	11.6	17.6
Other current assets	1.8	5.4	5.8	4.8	6.5	4.1	4.9
Liquid assets	4.6	8.7	3.7	3.2	4.2	11.6	24.0
Deferred taxes	0.0	0.0	0.4	0.1	0.1	0.1	0.1
Deferred charges and prepaid expenses	0.0	0.0	0.1	0.0	0.5	0.5	0.5
CURRENT ASSETS	6.7	18.7	13.0	9.6	13.1	27.8	47.0
TOTAL ASSETS	26.1	34.7	124.0	119.0	121.7	136.1	155.0
SHAREHOLDERS EQUITY	14.6	20.3	123.8	112.0	114.8	124.3	140.3
MINORITY INTEREST	0.0	7.4	-5.1	-6.7	-6.9	-6.9	-6.9
Long-term debt	3.4	0.0	0.0	0.0	0.0	0.0	0.0
Provisions for pensions and similar obligations	0.0	0.0	0.0	3.6	5.5	5.5	5.5
Other provisions	0.0	0.0	0.7	0.6	0.5	0.5	0.5
Non-current liabilities	3.4	0.0	0.7	4.2	6.0	6.0	6.0
short-term liabilities to banks	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accounts payable	2.9	5.2	1.3	0.9	1.8	4.5	6.6
Advance payments received on orders	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other liabilities (incl. from lease and rental contracts)	4.5	1.2	1.7	7.5	5.2	5.2	4.7
Deferred taxes	0.0	0.1	0.6	0.7	0.5	0.5	0.5
Deferred income	0.7	0.5	0.9	0.4	0.3	0.3	0.3
Current liabilities	8.1	7.0	4.6	9.5	7.9	10.5	12.1
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	26.1	34.7	124.0	119.0	121.8	133.9	151.5

Balance sheet (common size)	2016	2017	2018	2019	2020E	2021E	2022E
Intangible assets	73.5 %	45.3 %	89.1 %	91.5 %	88.7 %	80.4 %	70.9 %
Property, plant and equipment	0.4 %	0.3 %	0.2 %	0.3 %	0.4 %	0.3 %	0.3 %
Financial assets	0.5 %	0.4 %	0.2 %	0.2 %	0.1 %	0.1 %	0.1 %
FIXED ASSETS	74.4 %	46.1 %	89.5 %	92.0 %	89.2 %	80.9 %	71.3 %
Inventories	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Accounts receivable	0.7 %	13.1 %	2.5 %	1.2 %	1.5 %	8.6 %	11.6 %
Other current assets	7.1 %	15.6 %	4.6 %	4.0 %	5.3 %	3.0 %	3.2 %
Liquid assets	17.7 %	25.1 %	3.0 %	2.6 %	3.5 %	8.7 %	15.8 %
Deferred taxes	0.0 %	0.0 %	0.3 %	0.1 %	0.1 %	0.1 %	0.1 %
Deferred charges and prepaid expenses	0.0 %	0.0 %	0.1 %	0.0 %	0.4 %	0.3 %	0.3 %
CURRENT ASSETS	25.6 %	53.9 %	10.5 %	8.0 %	10.7 %	20.8 %	31.1 %
TOTAL ASSETS	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	101.6 %	102.3 %
SHAREHOLDERS EQUITY	55.9 %	58.5 %	99.8 %	94.1 %	94.3 %	92.8 %	92.6 %
MINORITY INTEREST	0.0 %	21.3 %	neg.	neg.	neg.	neg.	neg.
Long-term debt	13.1 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Provisions for pensions and similar obligations	0.0 %	0.0 %	0.0 %	3.1 %	4.5 %	4.1 %	3.6 %
Other provisions	0.0 %	0.0 %	0.6 %	0.5 %	0.4 %	0.4 %	0.3 %
Non-current liabilities	13.1 %	0.0 %	0.6 %	3.5 %	4.9 %	4.5 %	3.9 %
short-term liabilities to banks	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Accounts payable	11.2 %	15.0 %	1.1 %	0.7 %	1.5 %	3.3 %	4.3 %
Advance payments received on orders	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Other liabilities (incl. from lease and rental contracts)	17.1 %	3.5 %	1.4 %	6.3 %	4.3 %	3.9 %	3.1 %
Deferred taxes	0.0 %	0.2 %	0.5 %	0.6 %	0.4 %	0.4 %	0.3 %
Deferred income	2.6 %	1.6 %	0.8 %	0.4 %	0.3 %	0.2 %	0.2 %
Current liabilities	31.0 %	20.3 %	3.7 %	8.0 %	6.5 %	7.9 %	8.0 %
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: Company data, Hauck & Aufhäuser

Cash flow statement (EUR m)	2016	2017	2018	2019	2020E	2021E	2022E
Net profit/loss	-3.9	-2.2	-4.1	-13.4	2.9	9.5	16.0
Depreciation of fixed assets (incl. leases)	2.3	4.8	5.1	2.7	3.0	3.4	3.7
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.0	0.0	0.0	0.3	0.3	0.3	0.4
Others	0.0	0.0	0.0	0.0	1.9	0.0	0.0
Cash flow from operations before changes in w/c	-1.6	2.5	1.0	-10.4	8.1	13.2	20.1
Increase/decrease in inventory	-0.7	-3.7	0.0	0.0	0.0	0.0	0.0
Increase/decrease in accounts receivable	1.0	-4.4	-4.6	6.8	-0.3	-9.8	-6.1
Increase/decrease in accounts payable	1.6	1.3	-0.8	0.2	0.9	2.7	2.1
Increase/decrease in other working capital positions	0.5	0.0	1.6	1.0	0.0	0.0	0.0
Increase/decrease in working capital	2.4	-6.8	-3.9	8.0	0.6	-7.1	-3.9
Cash flow from operating activities	0.8	-4.2	-2.9	-2.4	8.7	6.1	16.1
CAPEX	0.7	1.6	2.3	1.1	3.0	3.4	3.7
Payments for acquisitions	0.0	0.0	-0.2	0.0	0.0	0.0	0.0
Financial investments	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
Income from asset disposals	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash flow from investing activities	-0.7	-1.6	-2.2	-1.0	-3.0	-3.4	-3.7
Cash flow before financing	0.1	-5.8	-5.0	-3.4	5.7	2.7	12.4
Increase/decrease in debt position	3.9	-1.5	0.0	3.0	0.0	0.0	0.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	11.4	0.0	0.0	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0
Effects of exchange rate changes on cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash flow from financing activities	3.8	9.9	0.0	2.9	0.0	0.0	0.0
Increase/decrease in liquid assets	4.0	4.0	-5.0	-0.5	5.7	2.7	12.4
Liquid assets at end of period	4.6	8.7	3.7	3.2	8.9	11.6	24.0

Source: Company data, Hauck & Aufhäuser

Regional split (EUR m)	2016	2017	2018	2019	2020E	2021E	2022E
Domestic	0.0	0.0	0.0	0.0	0.0	0.0	0.0
yoy change	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rest of Europe	0.0	0.0	0.0	0.0	0.0	0.0	0.0
yoy change	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NAFTA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
yoy change	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Asia Pacific	0.0	0.0	0.0	0.0	0.0	0.0	0.0
yoy change	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rest of world	0.0	0.0	0.0	0.0	0.0	0.0	0.0
yoy change	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TTL	0.0	0.0	0.0	0.0	0.0	0.0	0.0
yoy change	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source: Company data, Hauck & Aufhäuser

Key ratios (EUR m)	2016	2017	2018	2019	2020E	2021E	2022E
P&L growth analysis							
Sales growth	n/a	551.6 %	25.5 %	-61.4 %	316.8 %	87.1 %	52.4 %
EBITDA growth	n/a	-306.2 %	-90.6 %	-	2291.6 %	-249.0 %	301.9 %
EBIT growth	n/a	-49.1 %	153.4 %	153.0 %	-165.7 %	-181.7 %	593.3 %
EPS growth	n/a	-99.7 %	-47.4 %	171.9 %	-163.5 %	-175.8 %	444.4 %
Efficiency							
Total operating costs / sales	135.8 %	50.9 %	91.9 %	225.8 %	58.5 %	55.8 %	49.3 %
Sales per employee	73.0	583.8	176.2	83.5	297.3	389.1	463.7
EBITDA per employee	-51.7	130.8	3.0	-123.1	74.3	109.5	163.3
Balance sheet analysis							
Avg. working capital / sales	neg.	neg.	3.4 %	19.1 %	3.4 %	8.0 %	7.5 %
Inventory turnover (sales/inventory)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trade debtors in days of sales	36.1	129.5	70.1	87.0	87.0	87.0	87.0
A/P turnover [(A/P*365)/sales]	1,544.5	555.3	470.8	232.5	209.3	209.3	209.3
Cash conversion cycle (days)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cash flow analysis							
Free cash flow	0.1	-5.8	-5.2	-3.5	5.7	2.7	12.4
Free cash flow/sales	6.6 %	-45.1 %	-32.2 %	-56.0 %	22.0 %	5.6 %	16.7 %
FCF / net profit	neg.	neg.	neg.	neg.	194.6 %	28.7 %	77.5 %
Capex / depn	29.0 %	33.4 %	45.4 %	33.6 %	91.0 %	91.2 %	91.3 %
Capex / maintenance capex	0.0 %	0.0 %	0.0 %	0.0 %	91.0 %	91.2 %	91.3 %
Capex / sales	34.4 %	12.4 %	14.3 %	16.3 %	11.6 %	7.0 %	5.1 %
Security							
Net debt	-1.2	-8.7	-3.7	-3.2	-4.2	-11.6	-24.0
Net Debt/EBITDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net debt / equity	neg.	neg.	neg.	neg.	neg.	neg.	neg.
Interest cover	0.0	0.0	0.0	0.0	12.2	20.5	29.7
Dividend payout ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Asset utilisation							
Capital employed turnover	0.1	0.5	0.1	0.1	0.2	0.4	0.5
Operating assets turnover	-0.8	-23.7	8.1	6.0	56.8	6.4	6.4
Plant turnover	17.4	113.7	68.3	15.5	57.9	108.3	165.1
Inventory turnover (sales/inventory)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Returns							
ROCE	-20.8 %	-8.3 %	-6.5 %	-10.6 %	2.7 %	8.5 %	17.3 %
ROE	-26.7 %	-10.8 %	-3.3 %	-10.7 %	2.6 %	7.7 %	11.4 %
Other							
Interest paid / avg. debt	2.2 %	12.0 %	n/a	n/a	n/a	n/a	n/a
No. employees (average)	27	22	92	75	87	125	160
Number of shares	0.1	10.5	36.8	40.2	42.0	42.0	42.0
DPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EPS reported	-77.82	-0.21	-0.11	-0.30	0.07	0.23	0.38
Valuation ratios							
P/BV	0.0	3.1	1.0	1.1	1.1	1.0	0.9
EV/sales	-0.5	4.2	7.2	19.2	4.8	2.4	1.4
EV/EBITDA	0.8	18.6	425.5	-13.0	19.4	8.7	4.1
EV/EBITA	0.3	-28.1	-23.9	-10.0	36.3	11.5	4.8
EV/EBIT	0.3	-28.1	-23.9	-9.8	39.7	11.9	4.8
EV/FCF	-8.1	-9.2	-22.2	-34.3	22.0	43.3	8.6
Adjusted FCF yield	321.9 %	-3.6 %	-4.5 %	-9.2 %	2.5 %	8.4 %	15.7 %
Dividend yield	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %

Source: Company data, Hauck & Aufhäuser

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Company	Disclosure
NAGA Group AG	2, 3, 6, 8

Historical target price and rating changes for NAGA Group AG in the last 12 months



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