

## The NAGA Group

**Software**

10 July 2017

### Aiming to add spice to social trading

The NAGA Group is a fintech start-up with two products launched before the end of 2017: SwipeStox (securities trading and robo-advisory) and SWITEX (in-game items trading), a joint venture with Deutsche Börse AG. Named after NAGA, the strongest chili in the world, the group's intention is to be disruptive; it believes that the open API module underpinning SwipeStox can quickly be duplicated on p2pfx (P2P FX/CFD trading) and Trafex (trading of bitcoin and real currencies) before early 2018. The IPO should enhance NAGA's visibility and attract talent. Anticipated net proceeds of €1.7m, at an offer price of €2.6, implies 18.8x EV/sales based on 2016 consolidated financials.

#### SwipeStox: Social trading for millennials

SwipeStox is currently NAGA's only live product, generating €740k revenue for NAGA following its launch in June 2016, with Hanseatic Brokerhouse Global Markets (HBGM) contributing c €2.5m in 2016. As a Finovate-Europe 2016 Best of Show Winner, SwipeStox takes social dating to investing, using an algorithm to ensure that only trades that match specific criteria are displayed. By tapping and swiping, users can interact, copy the best-performing trades and opt for the support of CYBO, a robo-advisor.

#### SWITEX: Secondary market for in-game items

Exclusively powered by Deutsche Börse, SWITEX is a market for trading in virtual goods from the gaming world. The business model is to share revenues with game publishers who are currently not benefiting from the secondary trading of in-game items on the grey market. NAGA owns 60% of SWITEX and Deutsche Börse 40%.

#### Valuation: IPO priced at a premium

The valuation of online brokers (eg IG Group and CMC Markets), fintech companies (eg Cinnober Financial Technology), mobile social media and gaming apps (eg Momo and GREE) may provide good reference points for NAGA. The IPO price implies 18.8x EV/sales and 3.8x price/book (based on 2016 consolidated financials, including €19m intangible assets). The free float will be limited to new shares initially.

#### Consolidated financial summary

Year end	Revenue** (€m)	PBT (€m)	EPS (€)**	DPS (€)	P/E (x)	Yield (%)
12/15	0.60	(0.78)	(15.6)	0	N/A	N/A
12/16	3.23	(6.48)	(131.6)	0	N/A	N/A

Source: Company accounts. Note: \*\*Based on 50,000 shares in 2015 and 50,001 shares in 2016.

IPO price	€2.6
Market cap	€55m

#### Share details

Code	N4G
Listing	Deutsche Börse Scale
Shares in issue upon IPO	21m
Last reported net debt as 31 December 2016	€6m

#### Business description

The NAGA Group is a fintech start-up in social trading with two flagship products: SwipeStox (for securities trading) and SWITEX (for in-game items trading), a joint venture with the Deutsche Börse. Headquartered in Hamburg, the company will have 85 employees following the proposed acquisition of the Hanseatic Brokerhouse Group.

#### Bull

- Social trading and robo-adviser may gain significantly traction in German.
- German fintech companies may benefit from Brexit.
- NAGA may emerge as the dominant social media for trading, at least in Europe.

#### Bear

- The intended acquisition may not be approved by the regulators in Cyprus or Germany.
- NAGA's business model gets copied by Silicon Valley giants.
- Competition is likely from existing players in finance and gaming.

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## Company description: Social media for trading

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The NAGA Group, founded in April 2015, is an amalgamation of several app developers. NAGA currently has interests in 100% of SwipeStox (social trading and robo-advisory); p2pfx (for FX/CFD peer-to-peer trading); Trafex (social trading of bitcoins and real currencies); and Swipy Technology (ownership of IP rights), as well as 60% of Switex GmbH. The remaining 40% of Switex GmbH is held by the Deutsche Börse AG.

NAGA started to generate revenue in Q216 with SwipeStox, currently its only live product. It is planning to launch SWITEX, an exchange for virtual goods in the context of gaming in Q317. Another two apps, p2pfx and Trafex, are expected to come online by the end of 2017 or early 2018.

NAGA is headquartered in Hamburg, Germany. To date the majority of its revenues come from customers in Germany, Austria, Switzerland and Spain. NAGA is interested in market opportunities in Poland, Russia, Slovakia and the Czech Republic, as well as Japan, China and South Korea. The group intends to expand to China, with the support of its major investor, Fosun, a Chinese international conglomerate and investment company. NAGA currently has 20 permanent and 10 contracted employees. This is expected to increase to 85 employees following completion of the proposed acquisition of Hanseatic Brokerhouse Group in the third quarter of 2017.

### SwipeStox: The core NAGA product

SwipeStox, an app for social trading formally launched in June 2016, is currently the only live product from NAGA. Between June 2016 and March 2017, the number of monthly new installations of the App jumped from 1,000 to 50,000. Users spend an average of 22 minutes in the app, according to NAGA's internal surveys (compared to 15 minutes on Instagram and 22 minutes on Facebook based on iOS usage in the US in July 2016).

SwipeStox seeks to attract customers aged between 18 and 35 who have not ventured into the complex world of investments and are not being served by traditional brokers. Users can observe, interact with other users and copy the trades of the best performers on the site. Novice investors can open a demo account (to practice) or a live account (with real cash) with one of the participating brokers, with SwipeStox's open API (application program interface) connecting with multiple brokers and news providers. Approximately 60% of demo users switch to real money accounts. To encourage its users to be better-informed investors, news flows, training and education are a big part of the SwipeStox platform and future revenue streams.

SwipeStox also comes with CYBO, a so-called Robo-advisor. CYBO learns from the trades, crowd-sources user-generated content, and monitors and reacts to relevant economic and technical indicators with its in-built risk management mechanism. CYBO can be started, paused or switched off by users at any time.

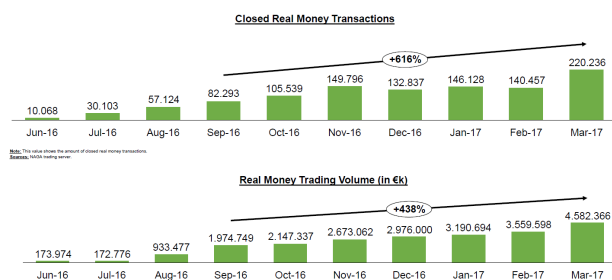
The SwipeStox software is front end ie a user interface. Transactions are not executed via the app, but through partner brokers who are connected to the SwipeStox's open API. Hanseatic Brokerhouse Global Markets (HBGM) is SwipeStox's preferred broker but users can choose from the list of seven partner brokers (forex capital markets, PORTEX MARKETS.COM, ADMIRAL MARKETS, ONE FINANCIAL MARKETS, Think Markets, BDSWISS and BlackBull). Currently, the brokers on SwipeStox only offer CFD (contract for difference) and forex trading. NAGA plans to connect the first share-trading brokers eg Directbanks by the end of 2017.

The order is registered by and on a server operated by HBGM, irrespective of which broker the user has chosen. The order is not recorded by SwipeStox or by a server operated by SwipeStox. If the user uses HBGM as broker, HBGM processes the orders internally. If not, HBGM forwards the offer to the user's chosen broker. Investors can issue instructions on either SwipeStox or MetaTrader 4

(licensed to NAGA). The customer's deposits are kept in a segregated trust account at Donner and Reuschel bank in Hamburg.

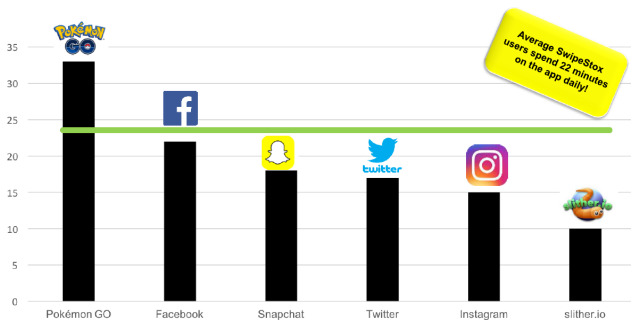
The connected brokers pay SwipeStox a fee for each transaction. In addition, SwipeStox generates sales as a broker introducer. NAGA receives a feed-in commission. SwipeStox receives 7.79% commission for the revenue generated by HBGM. SwipeStox also receive 50% commission for new customers it refers to HBGM. This includes revenue from HBGM's own commerce with new customers' business ie revenue generated by SwipeStox via market making or hedging, including revenue derived from a referred account to other clearing houses or market makers. In return for its participation in this revenue stream, SwipeStox bears 50% of the losses from HBGM's own commerce with new customers, up to €250,000 per month. Furthermore, SwipeStox will also bear 50% of HBGM's external costs (IT, maintenance, development costs) incurred in connection with its platform and trading activities, up to €10,000 per month.

**Exhibit 1: Growth in transactions and trading volumes**



Source: NAGA KPI report

**Exhibit 2: Average minutes spent daily on social apps**



Source: Sensor Tower; based on US iOS usage on 11 July 2016

## Strategy

The estimated net IPO proceeds of €1.7m, if on full placement, will be invested in marketing (in particular, on the acquisition of new SwipeStox customers), software development and business development. The company intends to duplicate SwipeStox's open API architecture for other platforms ie SWITEX, p2pfx and Trafex. Most of the development costs incurred to date, c €1.8m, is for SwipeStox. NAGA relies on its internal developers, as well as access to more than 70 highly qualified developers through its cooperation partner, The Ministry of Programming operating from Sarajevo, Bosnia. Faris Zacina is CEO and co-founder of the Ministry of Programming.

**Exhibit 3: Investments to date**

Project	Timeframe	Amount (€)	Comments
Setup costs: SwipeStox, Naga Innovation, p2pfx Trafex	Sep 2015	65,000	Naga Innovations purchased from CEO Mr Qureshi for €25,000, but the transaction was cancelled due to legal reasons
SwipeStox's software development	2015	558,000	
Trafex's prototype development	2015	75,000	
Purchase of 100% Swipy Technologiet	May 2016	20,039	Swipy Technologiet valued at €20m upon purchase
SwipeStox's software development	H116	731,000	contribution in kind
Purchase of 100% ZACK Beteiligungs GmbH (which holds 100% of HBGM)	Feb 2016	490,000	ZACK Beteiligungs GmbH previously 100% owned by CEO
SwipeStox's software development	H216	512,000	
HBGM's software and licensing fees	H216	690,000	HBGM consolidated in the pro forma financial statements
Purchase of 60% of Switex GmbH	Nov 2016	16,000	Remaining 40% is owned by Deutsche Börse

Source: Company data

## Launch of SWITEX

NAGA is planning to launch SWITEX in Q317 as a global trading platform for virtual items from computer/online games, exclusively powered by Deutsche Börse AG. Revenues will be shared with partner game publishers.

Switex GmbH is 60% owned by NAGA and 40% by Deutsche Börse. According to the agreement on 4 November 2016, NAGA shall invest a total of €2m in 18 monthly instalments on SWITEX's technical development and marketing campaigns.

### **Proposed acquisition of Hanseatic Brokerhouse Global Markets and its affiliates**

Pending approval from the Cyprus Securities and Exchange Commission, SwipeStox (100% owned by NAGA) will acquire all shares in ZACK Beteiligungs, which holds 100% of Hanseatic Brokerhouse Global Markets (HBGM). HBGM is a regulated financial services institute based in Cyprus offering trading services for CFDs and FX contracts. NAGA also intends to purchase 60% of Hanseatic Brokerhouse Securities (HBS), which owns 60% of Hanseatic Broker House Financial Services (HBHF), unless blocked by the Federal Financial Supervisory Authority of Germany. HBFS currently provides HBGM's CFD trading accounts to interested customers, while HBS provides financial and investment training and education. The purchase of 60% of HBS and its 100% subsidiary, HBHF will be made with a capital increase against contributions in kind and the issuance of 11,777,039 shares (c 57% of the outstanding share capital, or c €30m at the current market price). Management hopes to complete the acquisition by the end of 2017.

NAGA purchased 100% of ZACK Beteiligungs from CEO Mr Qureshi on 24 February 2016 for €490,000, which has already been paid. While awaiting approval from the Cyprus Securities and Exchange Commission, Mr Qureshi is holding the shares in trust for NAGA. On 17 February 2017, SwipeStox entered into a contract with NAGA and took over all of NAGA's rights and obligations set out in the share sale and transfer agreement between NAGA and ZACK Beteiligungs dated 24 February 2016.

ZACK Beteiligungs is a holding company with the sole purpose of holding all the shares of HBGM. NAGA's executive director, Christoph Brück is chairman of the board of HBS and director of HBGM.

## **Recent news flow and upcoming catalysts**

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NAGA has utilised its own trading app SwipeStox and the business relationship with HBFS for the IPO subscription process. Investors in Germany, Austria, Spain and Switzerland were able to subscribe to NAGA's new shares via the NAGA website at no discount or via the HBGM trading accounts at a 5% discount to the IPO price of €2.6/share. Management's intention was that the exercise enhanced brand awareness and made its customers feel part of the NAGA franchise. There are no lock-up agreements regarding the new shares. There were no stabilisation measures, over-allotment or Greenshoe options in the offer. NAGA prioritised subscriptions from its own employees as well as the employees of HBGM, HBS and HBFS to 100%.

## **Market overview: Social trading, robo-advisor and in-game items exchange**

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According to KPMG and CB Insights, Germany is the second largest home to fintech companies in Europe, following the UK. Brexit may prove favourable to German firms and this may be the case already. An analysis by KPMG and CB Insights (2016) suggested that in Q216 more money from venture capital firms flowed into Germany rather than Britain in the fintech space for the first time.

### **Social trading: Social media behaviour in the world of investment**

According to a report commissioned by the Federal Ministry of Finance in Germany and published in October 2016, the market value for wealth management platforms (comprised of social trading, robo-advisors, Personal Financial Management and Investment & Banking) totalled €360m in Germany in 2015. The assets under management of social trading platforms, robo-advisors and

fintech companies in investment and banking in Germany totalled c €1.4bn, with a market penetration of c 0.1%. Social trading allows investors to observe, discuss, and copy the investment strategies or portfolios of others on a social network, benefiting from the collective wisdom of a large number of traders.

#### Exhibit 4: Comparison of selective social trading platforms in Europe

Company	Inception	Key products	Differentiation
Ayondo	2009	Predominately CFD	White labelling services; introducing brokers
eToro	2006	CFD, stocks, currencies	Initially catering to novice investors; Partnership with West Ham United football club
Tradeo	2012	Mainly FX/CFD instruments	Brokers connect to the platform on MT4 or ACT; Starting to act as a STP broker since 2014
wikifolio	2012	Equities, funds, certificates and leveraged products	Open-ended, tradeable wikifolio certificates mimicking the best performing investments
Copyop	2015	Options	Live results from human traders

Source: Federal Ministry of Finance; Edison Investment Research

There were 14 fintech companies headquartered in Germany as of April 2016 active in social trading. These firms employed a total of approximately 280 people in 2015, an average of c 21 employees per platform. The report indicated that a total of €190m was transacted on social-trading platforms in Germany in 2015, up 63% year-over-year.

Social trading sites are, by and large, still exploring the best protocol for behaviours and optimal business models. For instance, the ability to follow the best-performing traders is considered a key differentiation of social trading vs traditional trading platforms. However, there are different approaches regarding the reward mechanism to the sharing of investment strategies. Some sites give credits to the copied trades, while others do not offer any compensation to ensure there is no significant change in risk attitude.

#### Robo-advisors

Robo-advisors are automated software asset managers who offer investment advice or make investment decisions. As the algorithms are generally based on passive investing and diversification strategies, exchange-traded funds (ETFs) characterised by low cost structures are the most popular investment instrument.

According to the Federal Ministry of Finance in Germany report referred to above, the assets under management by robo-advisors amounted to €170m in Germany in 2015 (vs less than €50m in 2014). In 2013, Quirion and Cashboard became the first robo-advisor companies in Germany. Since then, 21 other companies have entered the market. The two market leaders, SmartDepot and Quirion, have more than 50% market share in terms of asset under management.

As a result of their cost structures, robo-advice providers can meet the needs of young investors with modest personal wealth. With a minimum investment of between €0 (Vaamo or Ginmon, for example) and €10,000 (Scalable or Quirion), robo-advisors can address the needs of a market segment previously not served by traditional asset managers. However, some financial institutions in Germany eg Comdirect Bank and Deutsche Bank, have developed their own robo-advisors.

Although HBGM has the necessary licence, NAGA does not plan to launch classical asset management services in the near future. CYBO, the robo-advisory functionality on SwipeStox is meant to enhance the customer experience and hopefully returns.

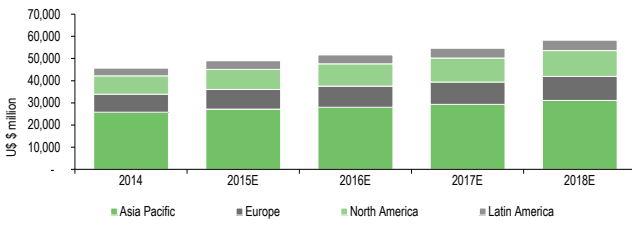
#### In-game items trading: Virtual goods, virtual currencies, real money

In-game items refer to virtual objects such as avatar clothing, weapons, currencies, characters and tokens that commonly exist solely within the virtual world of gaming. The global market for virtual items issued from game publishers was approximately \$50bn in 2016 according to Super Data. By working with Deutsche Börse, NAGA seeks to address the needs for a regulated cross-game secondary market with SWITEX. The joint venture with NAGA is not Deutsche Börse's first attempt

to run a regulate market for in-game items. Its high profile launch of the collaboration with Swapster on Deutsche Börse’s Analyst Day on 25 August 2015 eventually went into oblivion. NAGA indicates that it won the beauty contest organized by Deutsche Börse to obtain this exclusive cooperation opportunity.

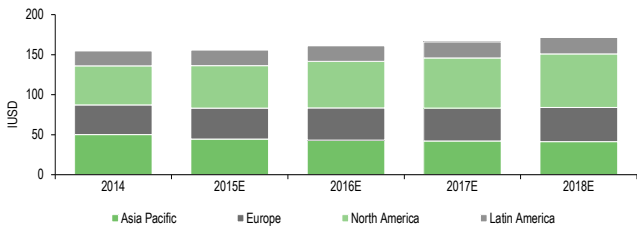
Different from the trading of financial instruments, the trading of secondary in-game items comes with the complexity of intellectual properties. Signing up with game publishers is critical to the business case of SWITEX.

**Exhibit 5: Primary market size for in-game items**



Source: Super Data Research

**Exhibit 6: Average spend per active user per annum**



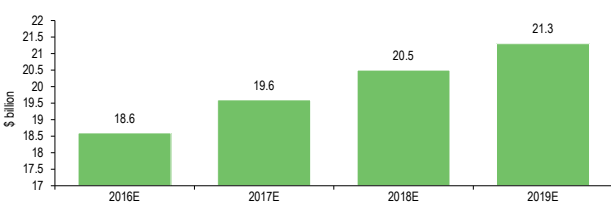
Source: Super Data Research

The secondary market for in-game items has been growing for decades although some game publishers still expressly ban it. This is because gold farming was once considered cheating. Gold farming is the practice of playing a massive multiplayer online game (MMO) to acquire in-game items and later sell them for real-world money. Gold farming started to thrive in the early 1990s due to the popularity of MMO games, but it is still going strong even with non-MMO games such as Pokémon Go.

Instead of fighting a futile battle against the grey market, some developers such as ArenaNet started to embrace it while seeking to maintain the prestige and competitive nature of the game titles. Everquest 2, a long-running MMO, allows the buying and selling of in-game items for real money in select areas only, with a cut of each transaction going to the developer. In 2015, Blizzard (the publisher of World of Warcraft) implemented in-game items and tokens that cost players real money to purchase. These can be gifted or auctioned off to other players for in-game currencies.

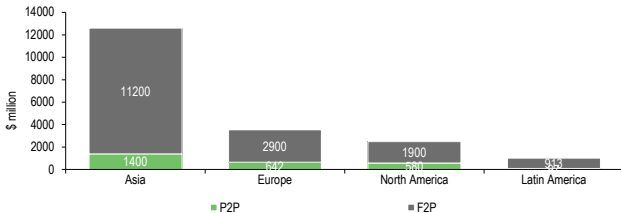
Most MMOs and free-to-play games have some mechanism for exchanging real currency for digital coins or credit and vice versa.

**Exhibit 7: F2P PC game revenue**



Source: Super Data Research

**Exhibit 8: P2P and F2P revenue for MMO games in 2016**



Source: Statista 2017

## Management, organisation and corporate governance

### Supervisory board and management board

The management board is responsible for the day-to-day operations of the company and dealings with third parties. The supervisory board monitors the performance of the management.

## Management board

**CEO Yasin Sebastian Qureshi** (born in 1973, German citizen, resident in Hamburg): Mr Qureshi is a seasoned banking and finance professional. He was the youngest person in Europe ever to have obtained a banking licence and subsequently founded and ran his own investment bank Varengold GmbH until 2015. Mr Qureshi studied from 1994 to 1995 at the private academy of economic seminars in Hamburg and the University of Hamburg. Mr. Qureshi holds shares in Jumeirah Ltd., Global Citizen Magazine and Pingr Ltd.

**Executive Director Christoph Bruck** (born in 1978, German citizen, resident in Hamburg): Mr. Bruck has extensive experience in law, finance and deal structuring. Prior to founding NAGA, he was a partner at L2C Luecke and Partner mbB, a law firm in Hamburg, Germany. Mr. Brück studied from 1998 to 2005 Law at the Christian Albrecht University in Kiel. From 2005 to 2009, he completed the master in commercial laws at the University of Kiel.

**Chief Technology Officer Benjamin Bilski** (born in 1988, German citizen, resident in Frankfurt am Main): Mr. Bilski is a serial entrepreneur and former professional swimmer. At the age of 21 he co-founded [angelplatz.de](http://angelplatz.de), an e-commerce shop for fishing equipment. Mr. Bilski studied from 2010 to 2013 International Business at the accadis Business School in Bad Homburg and at the Florida Atlantic University in Boca Raton, Florida, USA. From 2013 to 2015 Mr. Bilski studied at the EBS Business School in Oestrich-Winkel and graduated with a Master in Management.

The current service contracts with all the management members expire on 30 August 2018.

## Supervisory board

Current members of the supervisory board are as follows:

**Hans J. M. Manteuffel** (born in 1950, German citizen, resident in Langenfeld im Rheinland): Mr. Manteuffel studied law and economics at the Westfälische Wilhelms-Universität in Münster and the London School of Economics and Political Science. Since 1972 Mr. Manteuffel has worked as a publicist and has been a lawyer since 1982. Since August 27, 2015 Mr. Manteuffel has been a member of NAGA's supervisory board. His current appointment lasts until 2021.

**Hans Jochen Lorenzen:** (born in 1950, German citizen, resident in Hamburg): Mr. Lorenzen studied Business Administration at the Universities of Hamburg and Kiel after he obtained his first degree in 1972. In 1985, Mr. Lorenzen was the tax advisor and in 1986 the auditor's tax account. In 1991, he worked as a managing director at Ohlsen Lorenzen & Partner. From 2004 to 2014 he advised as a partner with Deloitte in Hamburg. Since 2015 Mr. Lorenzen has been working as an independent auditor and tax consultant. Since May 24, 2017 Mr. Lorenzen has been a member of NAGA's supervisory board. His current appointment lasts until 2021.

**Wieslaw Bilski:** (born in 1958, German citizen, resident in Frankfurt am Main): In 1986, Mr. Bilski graduated from the University of Opole, Poland, with a diploma in technology. From 1982 he worked as a school teacher in Opole, Poland, and from 1984 to 1986 in Lubin, Poland. From 1988 to 1993, he worked as a senior employee at Klaus Jeschke, a tech company in Kelkheim, and then from 1993 to 1997 as a senior employee at Telejet Telekommunikations GmbH in Kelkheim. In 1997 he started working as a Managing Director of Bimex Elektronikbauteile GmbH in Königstein. Since May 24, 2017 Mr. Bilski has been a member of NAGA's supervisory board. His current appointment lasts until 2021. Mr. Wieslaw Bilski is the father of Chief Technology Officer Benjamin Bilski.

**Michael Oskar Bentlage** (born in 1964, German citizen, resident in Augsburg): Mr. Bentlage completed his study in Business Mathematics at the University of Augsburg in 1990. He has been working in asset management since 1990: Trinkaus Capital Management (1990-1992); Allianz Kapitalanlagegesellschaft GmbH (1992-1994); Bayerische Hypotheken-und-Wechselbank (1994-1997); Allfonds-BKG Management GmbH (1997-2000); Activest Investment (2000-2002); BayernInvest Kapitalanlagegesellschaft (2002-2009). Since 2009 Mr. Bentlage has been a partner

at Hauck & Aufhäuser Privatbankiers AG. Starting on April 18, 2017 Mr. Bentlage has been a member of NAKA's supervisory board, representing the shareholder Fosun. His current appointment ends in 2021.

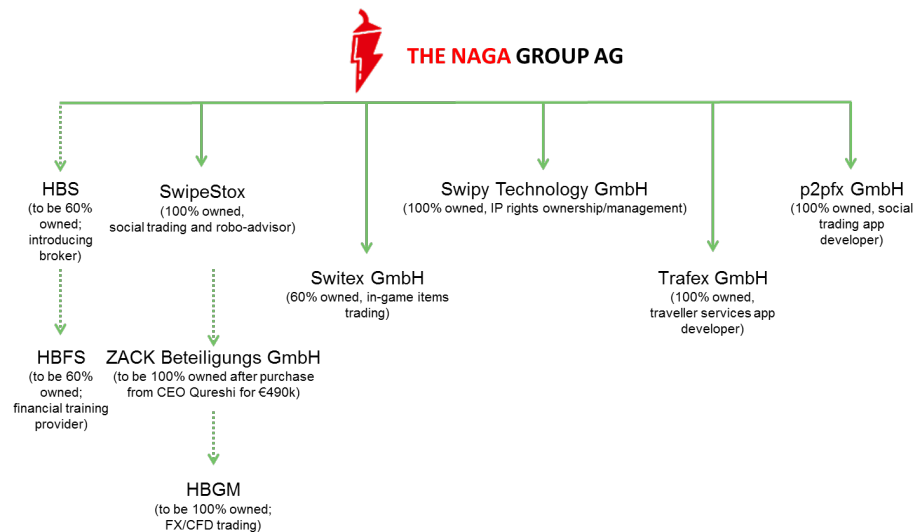
**Dr. Jian Liang** (born in 1980, Chinese citizen, resident in Frankfurt am Main): Dr. Liang obtained her master's degree in economics from Hunan University in China in 2004. From 2004 to 2006, Dr. Liang did her doctorate at Renmin University in Beijing, and from 2006 to 2008 at the Frankfurt School of Finance & Management in Frankfurt. She worked in China Development Bank in 2004-2005 and for KfW Entwicklungsbank in Frankfurt in 2005. From 2009 to 2015, Dr. Liang served as various senior roles and finally as Deputy Managing Director and Senior Relationship Manager at Commerzbank AG. In 2015-2016, Dr. Liang worked for the Fosun Group as Managing Director, and since 2015 she has been the chairperson of Hauck & Aufhäuser. Starting on January 2, 2017, Dr. Liang has been a member of NAKA's supervisory board, representing the shareholder Fosun. Her current appointment lasts until 2021.

Mr Qiang Liu and Mr Steffen Fix were appointed additional members of the Supervisory Board with effect from 2 January 2017.

## Organisation

After the proposed (indirect) acquisition of 100% of HBGM, NAGA will have an office in Limassol, Cyprus. The completion of the proposed purchase of 60% of HBG will bring four offices in Spain, in Madrid, Barcelona, Valencia and Palma de Mallorca.

**Exhibit 9: Group structure**



Source: Company data; Edison Investment Research

## Corporate governance

Fosun Fintech Holdings (HK) Limited ("Fosun"), owning 34.5% of NAGA before IPO, currently has three seats on the supervisory board: Dr. Jian Liang, Mr Qiang Liu and Mr. Steffen Fix. According to the company's articles of association, the supervisory board should have at least five members and at least one from Fosun.

## Shareholders and free float

The IPO is for up to 1,000,000 non-par value new shares, in addition to the existing 20,008,048 shares. Each share carries one vote and full dividend rights. Assuming the full placement of the offered shares at IPO (only subscribed by non-existing shareholders), existing shareholders will hold 95.2% of the company. The existing 20,008,048 shares are subject to a lock-up period of six



months post IPO, and another six months unless the sale of shares is approved by Hauck & Aufhäuser Privatbankiers AG, the IPO underwriter and the designated sponsor of NAGA's shares traded on the Frankfurt Stock Exchange.

**Exhibit 10: Pre-IPO Shareholders**

Shareholders	Background	Holdings
Fosun Fintech Holdings (HK) Limited	Parent company Fosun International (00656.HK)	27.3%
Zack Holding GmbH	100% owned by CEO Yasin Sebastian Qureshi	26.5%
Team Treuhand GmbH	Beneficiaries CEO Yasin Sebastian Qureshi, Christoph Brück and Benjamin Bilski	14.7%
ISARMODUL GmbH	100% owned by Christoph Brück, with Zack Holding GmbH being the beneficiary of 48% of the Naga shares	11.0%
FidesKapital Gesellschaft für Kapitalbeteiligungen mbH	A private bank owned by Fosun	7.2%
Benjamin Bilski	Founder & CEO SwipeStox	6.6%
NAGA Beteiligungs GmbH	The legal entity 99.93% owned by Yasin Sebastian Qureshi; beneficiaries include seed investors	6.1%
Other shareholders	Natural persons Bin Tang, Qiang Liu, Jian Liang, Qichen Zhu, Junyang Shao, Lisi Lun and Ye Xu	0.5%

Source: Company data; Edison Investment Research

**Exhibit 11: Pre-IPO ownership structure by key natural person shareholders**

Name	No. of shares	Holdings	Direct Vehicle	Level 1 Vehicle	Level 2 Vehicle
Yasin Sebastian Qureshi	5,299,393	26.49%	Zack Holding GmbH		
Yasin Sebastian Qureshi	1,227,390*	6.14%*	NAGA Beteiligungs GmbH		
Yasin Sebastian Qureshi	1,766,657	8.83%	Team Treuhand GmbH	Zack Holding GmbH	
Yasin Sebastian Qureshi	1,059,960	5.30%	ISARMODUL GmbH	Zack Holding GmbH	
Yasin Sebastian Qureshi	353,320	1.77%	Team Treuhand GmbH	ISARMODUL GmbH	Zack Holding GmbH
<b>TOTAL</b>	<b>9,706,720</b>	<b>48.52%</b>			
Christoph Brück	1,148,289	5.74%	ISARMODUL GmbH		
Christoph Brück	383,075	1.91%	Team Treuhand GmbH	Isarmodul GmbH	
<b>TOTAL</b>	<b>1,529,415</b>	<b>7.65%</b>			
Benjamin Bilski	1,326,593	6.63%	Bilski Unicorn GmbH		
Benjamin Bilski	440,060	2.20%	Team Treuhand GmbH	Bilski Unicorn GmbH	
<b>TOTAL</b>	<b>1,766,653</b>	<b>8.83%</b>			

Source: Company data; Edison Investment Research \*Mr. Qureshi is the 99.93% shareholder of NAGA Beteiligungs GmbH; however, the beneficiaries of the shares owned by NAGA Beteiligungs GmbH include seed investors.

The transfer of shares from Zack Holding GmbH, ISARMODUL GmbH and from Benjamin Bilski to FidesKapital Gesellschaft für Kapitalbeteiligungen mbH ("Fides") is excluded from the lock-up, if Fides exercise the option to holds 50 % and one share of the total share capital issued by NAGA. The shares held by Fosun, Bin Tang, Qiang Liu, Jian Liang, Qichen Zhu Junyang Shao, Lisi Lun, Ye Xu, who in aggregate hold 27.78% of Naga (before the IPO), are considered Fides shares for calculation of the "50% plus one share" target participation. The option is valid from 31 January 2017 to the end of July 2019.

The lock-up obligation applies also for the further 19,195,534 new shares from the capital increases already resolved but not yet implemented (ie the aggregate of Capital Increase 3, Capital Increase 4 and Capital Increase 5 in the Investment Agreement with Fosun).

**Investment agreement and shareholders' agreement with Fosun**

On 14 October/4 November 2016, existing shareholders Zack Holding GmbH, ISARMODUL GmbH, Benjamin Bilski, FidesKapital Gesellschaft für Kapitalbeteiligungen mbH ("Fides"), new shareholders Fosun, Bin Tang, Qiang Liu, Jian Liang, Quichen Zhu, Jungyang Shao, Lisi Lun, Ye Xu (together with Fosun collectively referred to as the "Investors"), The Naga Group AG and Yasin Qureshi entered into an investment agreement. Pursuant to the agreement, the Investors shall hold as many shares as required to hold a collective of 35% of Naga AG. The 35% threshold includes the shares held by Fides.

**Exhibit 12: Increase of capitalisation with cash injection from Fosun**

Time	Instrument	Value	Price per share
December 2016	Convertible bonds	€3,240,000	N/A
Feb 14, 2017	Purchase of shares from trustee + contribution to reserves	€ 2,393,723	€0.67
March 24, 2017	Convertible bonds converted into 1,970,402 shares	€3.24m nominal value of bonds outstanding	€1.64
3Q17	Cash contribution	€ 6,718,495	€1

Source: Company data; Edison Investment Research

After the capitalization with cash injection from Fosun up to date, the Investment Agreement also provides for (1) Capital Increase 3 against contribution of 45,000 shares in HBS (equal to 60% of the HBS shares), raising the share capital in NAGA from €20,008,048 to €31,785,087.00 by issuing 11,777,039 new shares to the HBS Shareholders and HBS itself); (2) Capital Increase 4: from €31,785,087 to €32,485,087.00 by issuing to the Seed Investors 700,000 new shares at €1 per share. This is in relation to €700,000 loans to be granted; (3) Capital Increase 5: from €32,485,087 to €39,203,582 by issuing to the Fosun Investors 6,718,495 new shares at €1 per share. The resolutions regarding these capital increases were resolved on 24 May 2017; the capital increases have, however, not yet been carried out.

## Financials

The vast majority of sales in NAGA's consolidated financial statements as of 31 December 2016 were achieved by HBGM. SwipeStox, currently NAGA's only live product, generated €740k in revenue in 2016. NAGA's consolidated revenue including SwipeStox and HBGM was €3.2m in 2016.

**Exhibit 13: Consolidated financial summary (including HBGM)**

Year end December	IFRS	€'000s	30 April to 31 December 2015	H116	H216
<b>Income statement</b>					
Revenue			0	16	1,971
Activated programming services (commissions)			633	731	512
Other operating income			0	112	239
Commission expenses			0	(8)	(691)
Personal expenses			(166)	(536)	(536)
Other operating expenses			(1,266)	(1,497)	(1,497)
Earnings before amortisation			(770)	(1,268)	(1,396)
Operating profits			(771)	(2,659)	(3,736)
Earnings before taxes			(779)	(2,682)	(3,806)
Net income			(779)	(2,690)	(3,890)
Earnings per share			(15.6)	(53.8)	(77.8)
<b>Balance sheet</b>					
Tangible assets			633	20,726	19,164
Fixed assets			1	79	113
Financial assets and other assets			48	141	128
Other short-term assets			68	385	1,084
Cash and cash equivalents			84	550	3,471
Equity capital			(729)	18,463	14,583
Long-term debts			0	618	214
Short-term debts			1,563	2,888	9,403
Other provisions			181	570	678
Total equity capital and liabilities			834	21,969	24,200
<b>Cash flow</b>					
Net cash from operating activities			(601)	(963)	(249)
Net cash from investing activities			(575)	(1,014)	(688)
Net Cash from financing activities			1,210	2,443	3,838
<b>Net Cash Flow</b>			<b>34</b>	<b>466</b>	<b>2,901</b>
<b>Cash &amp; cash equivalent end of year</b>			<b>84</b>	<b>550</b>	<b>3,471</b>

Source: Company accounts

## Income statement

NAGA currently generates sales revenues almost exclusively from the brokerage business. Commission earnings are recorded as service revenues, from external brokers via SwipeStox.

## Balance sheet and cash flow

The intangible assets value as of 30 June 2016 increased to €20.7m from €633,000 as of 31 December 2015, following the acquisition of Swipy Technology by way of contributions, and subsequently decreased to €19.1m as of 31 December 2016 to €19,164,000 due to amortisation of the software owned by Swipy Technology. On the basis of a one euro capital increase against contributions in kind from €50,000 to €50,001 on 21 March 2016, Zack Holding (owned by CEO, Mr Qureshi) contributed all the shares of SWIPY Technology to NAGA. The additional amount of €20,037,000 was positioned in capital reserve.

## Valuation

Although there are no direct comparable companies for NAGA in the public equity market, it is possible to refer to fintech companies, online trading platforms and technology providers, mobile gaming and social media companies for reference points in terms of NAGA's valuation. Before NAGA's Trafex platform for the trading of bitcoin and real currencies starts to generate revenue, payment companies such as WorldPay and Square Inc may not be good peer comparisons. We note that the majority of comparators are of a larger size and have more mature businesses.

### Exhibit 124: Publicly listed online trading, fintech and mobile social media companies

Company	Ticker	Geography	Business
IG Group	IGG:LN	Europe	Trading of CFDs/spread betting
CMC Market	CMCX:LN	Europe	Trading of CFDs/FX/spread betting
Alpha FX Group	AFX:LN	UK	Currency trading, news commentary and market analysis
Cinnober Financial Technology	CINN:SS	Europe	Platform developers for financial transactions
ChimpChange	CCA:ASE		Money transfers via mobile phones with debit Mastercard
MyBucks	MBC:GR	Africa	Financial products/services to the low and middle-income consumer segment, predominantly in Sub-Saharan Africa
Momo Inc	MOMO:NASDAQ	China	Mobile social media and gaming
YY Inc	YY:NASDAQ	China	Mobile social media, gaming and e-learning
GREE	3632:Tokyo	Japan	Social media, gaming, advertising and investment in start-ups

Source: Edison Investment Research

The listing price implies 18.8x EV/sales and 3.8x price/book (based on 2016 consolidated financials, including €19m of intangible assets).

### Exhibit 15: Peer group valuations

	Market cap (m)	PE (x)		EV/SALES (x)		EV/EBITDA	
		2017e	2018e	2017e	2018e	2017e	2018e
IG Group	£2,090	12.2	13.6	3.7	3.8	8.0	8.7
CMC Market	£421	14.5	12.3	2.4	2.2	8.1	7.6
Alpha FX Group	£143	33.7	25.9	12.1	9.5	25.1	19.3
<b>Trading &amp; investment advisory average</b>		<b>20.1</b>	<b>17.3</b>	<b>6.1</b>	<b>5.2</b>	<b>13.7</b>	<b>11.9</b>
Cinnober Financial Technology	SEK1,968	160.7	38.6	4.5	3.6	107.4	28.4
ChimpChange	A\$44	N/A	N/A	24.0	14.0	N/A	N/A
MyBucks	€164	N/A	48.7	5.3	4.0	17.6	9.2
<b>Fintech companies in P2P and investments</b>		<b>160.7</b>	<b>43.7</b>	<b>11.3</b>	<b>7.2</b>	<b>62.5</b>	<b>18.8</b>
GREE	JPY237,300	17.6	25.3	2.5	2.1	14.4	8.5
Momo Inc	\$7,480	25.2	17.5	5.5	4.0	19.4	13.5
YY Inc	\$3,250	11.6	9.9	2.1	1.7	8.1	6.9
<b>Mobile social media &amp; gaming average</b>		<b>18.1</b>	<b>17.6</b>	<b>3.4</b>	<b>2.6</b>	<b>14.0</b>	<b>9.6</b>

Source: Bloomberg. Note: Prices as at 29 June 2017.

## Sensitivities

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As a fintech start-up for social trading, the NAGA business case is accompanied with the following risk factors:

- **Litigation issues:** Mr Qureshi was a member of the management board of a company that provided a shelf-fund (TGV of an InvAG, comparable to SICAV, an open-ended collective investment scheme) to an asset manager who executed dividend arbitrage transactions which are now under investigation. The investigation includes all entities and their management boards.
- **Technical issues:**
  - (1) Free float is limited initially to one million new shares issued as part of the IPO.
  - (2) If, at the time of the exercise of the option for target participation by Fides (ie Fosun), the shares owned by ZACK Holding, the ISARMODUL and Benjamin Bilski are not sufficient to meet the requirement, NAGA is obliged to carry out a corresponding cash capital increase and key management members may not exercise their subscription right.
- **Regulatory issues:**
  - (1) The acquisition of the major investments is still subject to the approval of the relevant supervisory authorities. NAGA remains liable in future for losses incurred by ZACK Beteiligungs, which it wishes to acquire, pending approval from the Cyprus Securities and Exchange Commission.
  - (2) In its general ruling of 8 May 2017, the Federal Financial Supervisory Authority prohibited the distribution of Contract for Differences (CFD) with additional funding obligations (ie leverage) to individuals in Germany with effect from 10 August 2017. Currently the trading terms of HBGM for CFDs provide for a reserve liability for all customers and this regulatory change may incur additional costs for the HBGM.
  - (3) NAGA could be qualified as a financial holding company and thus subject to the supervision of the BaFin and the Deutsche Bundesbank. The classification as a financial holding company would result in an increased administrative overhead and costs for NAGA.
- **Exchange rate issues:** NAGA seeks to address customers worldwide and thus incurs an exchange rate risk. For instance, the trading of CFDs requires equity backing to a certain extent. In these transactions, NAGA will act as counterparty of the customer, after the indirect acquisition of shares in HBGM.
- **Intellectual property issues:**
  - (1) NAGA is partly dependent on an external programming partner, the Ministry of Programming;
  - (2) Games providers may not grant their consent to the sale of in-game items via the SWITEX platform.
- **Competitive issues:**
  - (1) Established financial institutions may have scale advantages in robo-advisory business;
  - (2) Existing social media giants may wish to compete in social trading;
  - (3) Payment companies and debit/credit card issues may wish to compete in the virtual currency market. For instance, MasterCards released Blockchain APIs in November 2016;
  - (4) Game publishers may opt to facilitate their own secondary market for in-game items or continue to take advantage of the Steam platform with additional offerings.

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