



## Research Study (Initial Coverage)

### Coreo AG



### Attractive “value-add” real estate specialist

**Fast portfolio expansion achieved, value-creating growth strategy to be supported by capital increase, high share price potential**

#### IMPORTANT NOTE:

Please take note of the disclaimer/risk warning, as well as the disclosure of potential conflicts of interest as required by section § 85 WpHG und Art. 20 MAR on page 30

Note on research as a “minor non-monetary benefit” according to the MiFID II regulation: This research meets the requirements for being classified as a “minor non-monetary benefit”. For more information, see the disclosure under “I. Research under MiFID II”

Date and time of completion of this research (german version): 29/11/2018 (5:13 pm)

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Target price valid until: max. 31/12/2019

## Coreo AG<sup>\*4,5a,5b,6a,11</sup>

### BUY

Target Price: €3.10

Current price: € 1.68  
28/11/18 / XETRA; 5:36 pm  
currency: EUR

### Key data:

ISIN: DE000A0B9VV6  
WKN: A0B9VV  
Ticker symbol: NNS  
Number of shares<sup>3</sup>  
(pre money): 9.36  
Number of shares<sup>3</sup>  
(post money): 19.36  
Marketcap<sup>3</sup>: 15.72  
EnterpriseValue<sup>3</sup>: 2.19  
<sup>3</sup> in Mio. / in Mio. EUR  
Freefloat: 33 %

Transparency level:  
Freiverkehr

Market segment:  
Open Market

Accounting standard:  
HGB/IFRS

Financial year-end: 31/12

Designated Sponsor:  
Hauck & Aufhäuser AG

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\*catalogue of potential conflicts  
of interests on page 31

### Company profile

Sector: Real estate

Focus: Commercial and residential real estate

Employees: 6 (31/08/2018)

Founded: 2003

Registered office: Frankfurt am Main

CEO: Marin N. Marinov

Coreo AG, based in Frankfurt am Main, is a dynamic growing real estate company focused on German commercial and residential real estate. The company invests in real estate with significant potential for upside potential through renovation, preferably in the so called B- and C-cities in Germany. The goal is to build up an efficiently managed, high-yield real estate portfolio through the prudent development and sale of non-strategic properties. Coreo AG's strategy is characterised by an expansive and selective approach to its real estate investments. The focus of this concept is on the acquisition and management of commercial real estate. Business locations with high yield levels in Germany are given preference, creating the basis for long-term and stable rental income. Opportunities are also used very selectively. Coreo AG acquires value-added portfolios/properties in order to increase their recoverability significantly and sustainably over the medium term with an active "manage-to-core" approach. Non-strategic portfolio components are sold on at a profit.



P&L in €m \ FY-End	31/12/2017	31/12/2018e	31/12/2019e	31/12/2020e
Total Income	4.21	5.82	5.14	5.54
EBITDA	3.02	3.32	3.49	3.54
EBIT	3.01	3.31	3.47	3.52
Net profit	2.99	1.98	3.42	3.81

### Per share figures in EUR

Earnings per share	0.32	0.10	0.18	0.20
Dividend per share	0.00	0.00	0.00	0.00

### Key financials

EV/Total income	0.52	0.38	0.43	0.40
EV/EBITDA	0.73	0.66	0.63	0.62
EV/EBIT	0.73	0.66	0.63	0.62
P/E	5.26	7.94	4.60	4.13
P/B	0.97			
NAV		2.40*		

\* Expected NAV at the time of study publication (pre money)

### Financial schedule

06/12/18: Family Office Day Vienna

11.-12/12/18: MKK München

### \*\*last research published by GBC:

Date: publication / price target in € / rating

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\*\* the research reports can be found on our website  
www.gbc-ag.de or can be requested at GBC AG,  
Halderstr. 27, D86150 Augsburg

## EXECUTIVE SUMMARY

- Coreo AG is currently executing a subscription-rights capital increase with projected gross issue proceeds of up to EUR 16 million. The liquidity proceeds will be used to acquire commercial and residential real estate for the “value-add” business segment. In accordance with the corporate strategy, the focus is on medium-sized cities in Germany which have not yet been affected by the strong price increases thus enabling adequate rental returns. The goal is to build a high-yielding portfolio in terms of purchase prices. Currently (pre money), the company has a projected NAV (based on GBC calculations) of € 2.40. Our fair value rating on DCF basis (post money) is even higher (see below).
- The company was known as Nanostart AG until 2016 and was active as an investment company in the nanotechnology sector. The company and corporate purpose were changed to real estate as a result of a resolution passed by the Annual General Meeting in 2016. The majority of the investments (made in previous years) have since been sold. As of 30 June 2018, the company still held a little bit more than 2 million shares and thus almost 7.7% of the listed company MagForce AG. Since 2017, Coreo has been investing in residential and commercial properties/portfolios, primarily in the value-added segment, in line with its value-creating growth strategy. The sale of non-strategic portfolio elements generates short-term capital gains. At the same time, the remaining properties are being developed and optimised in order to increase long-term rental income and consequently create potential for value appreciation.
- Since launching the new corporate strategy, the company has already completed five transactions with a total investment volume of just under EUR 41 million. The properties are all located in the B and C locations addressed by Coreo AG and have comparatively high rental yields of more than 10%. In the current 2018 financial year, the largest investments in terms of volume involved the acquisition of the residential real estate portfolio in Göttingen and the Hydra portfolio. The acquired portfolios will be held for producing long-term rental income. In addition, individual properties are being revitalised or rebuilt in order to benefit from expected increases in value. The company also plans to raise hidden reserves within the scope of property sales. Access to liquidity from property sales is then to be used for the planned investments (revitalisation, conversion, etc.). It can also be assumed that the company will successively reduce its stake in MagForce AG, thereby releasing further liquidity.
- The basis for our sales and earnings forecasts is the current real estate portfolio and assumed investments following the current capital increase. The forecasts and valuation are therefore a so-called of post-money consideration. We have also taken note of the unusual fact that Coreo AG until now does not consolidate the property companies (note: all properties are held in subsidiaries of the legal form GmbH and GmbH & Co. KG). The after-tax result of the property companies is consequently only reported as investment income in the financial result of Coreo AG. We are “moving up” this net income position to the gross profit of Coreo AG, which means that the property income will be part of the operating result (EBITDA, EBIT).
- For the current and upcoming financial year, we expect a tangible increase in income and profit. In addition to the increase in rental income, the company is expected to generate significant sales proceeds and uncover hidden reserves. As income from participation represents a residual value, Coreo AG should achieve high profit margins of up to 65%, according to our plans. At the level of a property company, the profit margin is lower, but still at the upper end of the industry-standard key figures.

- Based on our DCF model (post-money), we have calculated a target price of €3.10. Based on the current share price and the placement price within the context of the current capital increase of EUR 1.60 per share, our recommendation is BUY.

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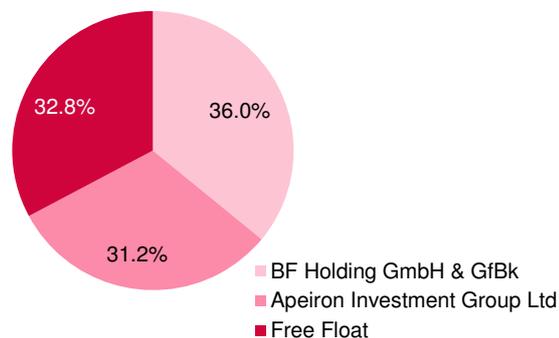
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## COMPANY

### Shareholders Structure

Shareholder in %	
BF Holding GmbH	25.3%
GfBk Gesellschaft für Börsenkommunikation mbH	10.7%
Apeiron Investment Group Ltd	31.2%
Free Float	32.8%

Source: Coreo AG; GBC AG



### Current capital measures

According to the company's announcement on 21 November 2018 and the company's prospectus of 26 November 2018, Coreo AG currently carries out a capital increase with subscription rights followed by a private placement of non-purchased shares. The issue of up to 10 million shares at a placement price of EUR 1.60 per share is expected to generate gross issue proceeds of up to EUR 16 million. The subscription period for the capital measure runs from 29 November 2018 to 13 December 2018. The subscription ratio is 9:10.

The major shareholder Apeiron Investment Group Ltd. has indicated its willingness to exercise the subscription rights to which it is entitled and to be actively involved in the replacement of unrelated shares. Exercising subscription rights alone would entitle the major shareholder to subscribe to around 3.2 million shares with gross proceeds of just over EUR 5 million.

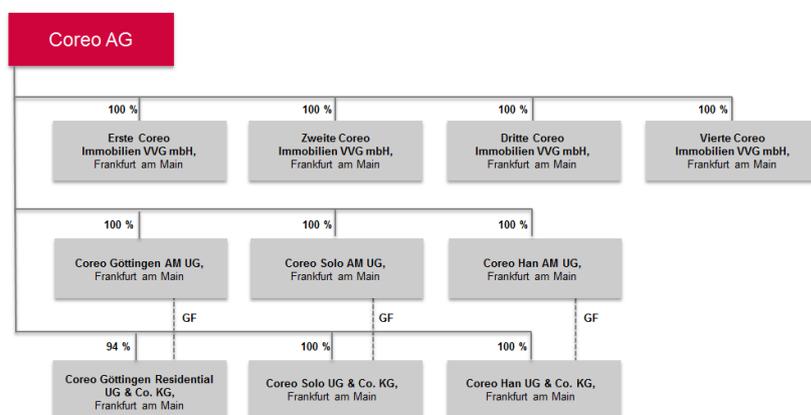
Coreo AG intends to use the funds from the capital increase to acquire individual real estate and real estate portfolios. As part of the value-creating growth strategy, Coreo initially plans in particular to acquire real estate in the value-add segment in order to generate rental income which, in accordance with the corporate strategy, is located in the medium-sized German cities.

## Company History

Date	Event
December 2003	Company foundation under the name "Nanostart AG".
January 2005	Resolution of the Annual General Meeting regarding the relocation of the registered office of the company to Frankfurt am Main.
May 2016	Resolutions of the Annual General Meeting regarding the company's name change to "Coreo AG" and an amendment of the company's purpose to implement the real estate business model.
November 2016	Public offer of 3,120,000 new no-par registered shares (individual share certificates).
December 2016	Registration of the increase in the share capital by €3.12 million.
May 2017	Acquisition of a first real estate portfolio in Bad Köstritz at a purchase price of €2.80 million by the wholly owned subsidiary Erste Coreo Immobilien VVG mbH.
July 2017	Acquisition of a second real estate portfolio in Mannheim at a purchase price of €3.05 million by the wholly owned subsidiary Second Coreo Immobilien VVG mbH.
August 2017	Acquisition of a commercial property in Bruchsal at a purchase price of €3.68 million by the wholly owned subsidiary Third Coreo Immobilien VVG mbH.
January 2018	Issue of a corporate bond with a term until 31 January 2022, including a combination of a bond with a volume of €20 million with a coupon of 10% p.a. and 624,000 options for a corresponding number of shares in the company at a strike price of €2.50 per option/share. The warrant bond was fully placed with investors of Serengeti Asset Management LP.
April 2018	Acquisition of HS Wohnen in Göttingen & Co. KG (later Coreo Göttingen Residential UG (haftungsbeschränkt) & Co. KG), 94% with a residential real estate portfolio in Göttingen and the surrounding area at a purchase price of €9.30 million.
May 2018	Acquisition of twelve office, residential and commercial buildings at various locations in Germany at a purchase price of €20.60 million from the 100% subsidiaries Coreo Han UG (haftungsbeschränkt) & Co. KG and Coreo Solo UG (haftungsbeschränkt) & Co. KG.
Oct./Nov. 2018	Sale of Hydra properties in Trier, Marburg and Flensburg, realizing nearly 85% of the sales portfolio

Source: Coreo AG; GBC AG

## Group structure



Source: Coreo AG; GBC AG

Coreo AG has a typical company structure for real estate companies. The real estate is fully held in subsidiaries, either in the legal form GmbH or GmbH & Co. KG. Of the four

transactions, only the residential portfolio in Göttingen has as yet been acquired by way of a share deal. The parent company therefore holds a 100% stake in the property companies, apart from in this case. Operational activities such as management, administration, leasing, maintenance, development and financing brokerage are handled by Coreo AG through concluding corresponding contracts. In addition to six portfolio-holding property companies, Coreo AG also holds shares in three general partners and a stockholding GmbH. As of 30 June 2018, the Company also holds the following investments:

- 21.4% in Lumiphore, Inc., Berkeley, California, USA, corporate purpose: production and distribution of bio-functional chelators for medical applications
- with 7.5% at MagForce AG, Berlin, Germany, corporate purpose: nanobiotechnological and medical research and development and the marketing of medical devices and all related businesses
- 0.3% in Nanosys, Inc., Milpitas, California, USA, corporate purpose: production, marketing and distribution of quantum dot materials
- 1.12 % in NanoDimension LP, Kaimaninseln; corporate purpose: investing venture capital in technology companies in the field of life sciences and natural sciences.

According to the company's focus which was in effect until 2016, these minority interests are investments in the field of nanotechnology. The only significant investment here is the shareholding in the Berlin-based listed company MagForce AG, which has a market value of around €12.5 million as at 31 August 2018. As this is an atypical asset, it should be sold with this perspective in mind. Due to the size of the investment and the low liquidity of the share, the Executive Board assumes a medium-term holding period.

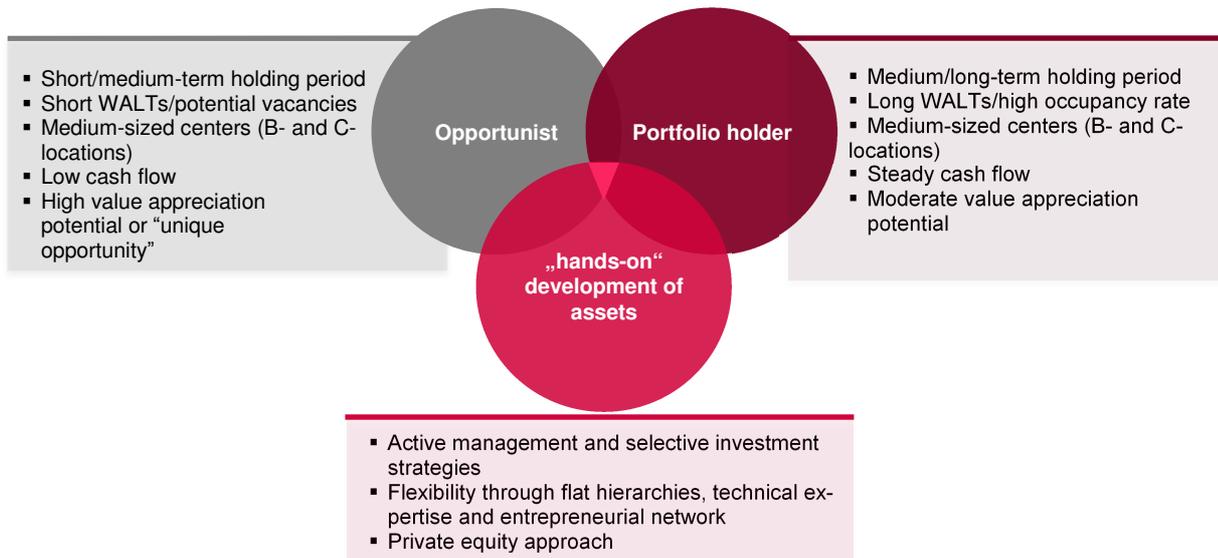
## Corporate strategy

Until mid-2016, the focus of the company was on building up holdings in the nanotechnology sector. At the Annual General Meeting in May 2016, a decision was made to change the name of "Nanostart AG" to "Coreo AG" and to amend the Articles of Association. Since then, the main activity of Coreo AG has been the establishment of a commercial and residential real estate portfolio in Germany. With its focus on German business locations, the regional alignment of the build-up of high-yield properties is outside the A-locations that have been characterised by strong price increases in recent years. This not only leads to an expected higher return potential at relatively lower price levels, but also means that the company is operating below the "radar" of large institutional investors. The current real estate portfolio is geographically well diversified and consists of one existing property and four existing portfolios. In accordance with the geographical focus, the properties are mainly situated in B and C locations such as Darmstadt, Mannheim, Frankfurt am Main, Göttingen, Bruchsal, Kiel, Giessen, Bad Köstritz etc.

In accordance with this niche focus, the acquired properties are primarily too big for private buyers but too small for institutional investors in terms of the investment volume. The company has identified a minimum investment volume of approximately €3 million as an investment criterion. The purchase of the Hydra portfolio at a price of €20.60 million in May 2018 is the company's largest real estate investment so far.

Essentially, the aim is to create a mix of predictable cash flows from the long-term leasing of real estate and opportunistic short-term capital gains. Coreo AG has provided the proof of concepts for the previous real estate acquisitions, demonstrating that high rental yields, in some cases double-digit yields, can be achieved at the time of purchase. If renovation measures or a reduction in vacancies are feasible, potential for value appreciation can also be achieved.

## Business model and strategy



Source: Coreo AG; GBC AG

However, high potential for value appreciation can also be achieved opportunistically within the context of property sales. The first sale of a residential and commercial building in the “Hydra Portfolio” in October 2018 is an example of this potential. Coreo AG has also bundled a total of six properties into the subsidiary Coreo Solo AM UG, for which a short-term sale is planned. These properties either do not meet the geographical criteria of the company and/or their property volume is too small.

According to the focus described, Coreo AG has made five real estate investments since May 2017 with a total purchase price of €39.43 million. In the current 2018 financial year in particular, comparatively high-volume investments included the acquisition of the residential real estate portfolio in Göttingen and the Hydra portfolio:

Date	Property	Purchase price	Initial return on investment*
May 2017	Bad Köstritz	€ 2,8 million	11.6%
June 2017	Mannheim	€ 3,05 million	10.7%
August 2017	Bruchsal	€ 3,68 million	8.7%
April 2018	Göttingen	€ 9,3 million	13.1%
May 2018	Hydra-Portfolio	€ 20,6 million	non-yielding

Source: Coreo AG; GBC AG, \* rent (net)/purchase price

## Portfolio composition

### Bad Köstritz (residential)



Property type: 4 residential blocks with 100 units
Purchase price including ancillary costs: app €3.1m
Leased space: 6.078 m <sup>2</sup>
Property area: 10.948 m <sup>2</sup>
Acquisition: May 2017
Occupancy: 90%

Source: Coreo AG; GBC AG

The first real estate acquisition following the change in company activity consisted of four adjoining apartment blocks in a central location of Bad Köstritz. The complex was built in the early sixties and modernised in the 1990s. With a high occupancy rate of 90% susceptible to fluctuations, the rental yield based on the gross purchase price is more than 11%. The properties are to be held long-term to generate rental income as a buy-and-hold investment.

### Mannheim (commercial)



Property type: Port facility with very good connections
Purchase price including ancillary costs: app. €3.3m
Leased space: 23,867 m <sup>2</sup>
Property area: 30,354 m <sup>2</sup>
Acquisition: June 2017
Occupancy: 89%

Source: Coreo AG; GBC AG

The property in Mannheim is approximately 1.5 km long, acquired in July 2017, and mainly consists of storage and office buildings. The majority of the current rentable area of just over 24,000 m<sup>2</sup> has already been let. Coreo AG plans to develop and lease the remaining unused properties according to different usage concepts. This may result in significant potential for value appreciation. A partial sale of space is, in our view, a valid option and is likely to generate hidden reserves in the near future. For example, the company is currently marketing a new building project (2,500m<sup>2</sup> of office space) in an unused property area. According to current building legislation, construction work can begin after a predefined pre-letting quota has been reached. The company intends to sale about 50% of its space in the near future, reducing its capital binding to below 15%. The rental income would then fall to about 45% of the current level.

### Bruchsal (commercial)



Property type: Fully rented commercial rental space
Purchase price including ancillary costs: app €3.94m
Leased space: 5,813m <sup>2</sup>
Property area: 14,121m <sup>2</sup>
Acquisition: August 2017
Occupancy: 100%
WALT: 1.5

Source: Coreo AG; GBC AG

The commercial property acquired in August 2017 in Bruchsal (Baden-Württemberg) is fully let to METRO Cash & Carry (METRO GASTRO). With a gross purchase price of approximately €3.9 million, the initial rental yield is just over 8.7%, according to our calculations. Coreo intends to hold the property for the long term and also assumes that the tenant will remain on the property for a longer period of time.

#### Göttingen und Umland (residential)



Property type: 12 properties, including 7 in Göttingen
Purchase price including ancillary costs: app. €9.3m
Leased space: 13,180m <sup>2</sup>
Property area: -
Acquisition: April 2018
Occupancy: 90%

Source: Coreo AG; GBC AG

The Göttingen portfolio is a residential real estate portfolio consisting of 432 micro apartments spread over 12 apartment blocks in several locations in Göttingen and the surrounding area. The current rental income is €1.2 million p.a. based on the gross investment volume, which equates to a double-digit rental yield. This confirms the effectiveness of the Coreo strategy with a focus on niche properties in B and C locations. Coreo intends to keep the majority of the apartments in the portfolio for the long term. The remaining units are to be sold in the near future. The incoming funds will help to finance planned Capex measures. As not all apartments in individual buildings are in the portfolio, additional purchases and sales as well as the exchange of individual units is also planned, with the aim of transferring the remaining properties to sole ownership. At the same time, various properties are being fully renovated. As a preparatory measure, vacancies need to be actively arranged in some cases, so full occupancy will not be possible. Upon completion of the work, significantly higher rents and therefore an increase in value are likely to be realised. The current 432 units are to be reduced to 416 units, but the target rent is still to be raised to € 1.4 million p.a.

#### Hydra Portfolio (residential and commercial)



Property type: 12 properties in prime locations
Purchase price including ancillary costs: app. €22.5m
Leased space: 22,000m <sup>2</sup>
Property area: 9,015m <sup>2</sup>
Acquisition: May 2018
Occupancy rate: almost empty

Source: Coreo AG; GBC AG

Through the acquisition of the Hydra portfolio, Coreo acquired twelve former Commerzbank branches in inner-city locations in Hesse, North Rhine-Westphalia, Rhineland-Palatinate and Schleswig-Holstein for a total of €22.5 million. The former office and commercial buildings were acquired by two property companies. The properties with no medium to long-term portfolio inclusion plans are to be resold in the near future. Through the recent sale of properties in Trier, Flensburg and Marburg, Coreo quickly found new owners for half of the six properties, which together account for more than 85% of the pro rata purchase price. The company's financial room for manoeuvre has increased due to the incoming funds. In addition to the financing of conversion and letting measures of the six Hydra properties remaining in the portfolio, a partial repayment of the outstanding warrant bond could also be made.

## Executive bodies

### *Executive Board*

#### **Marin N. Marinov**

Mr Marin N. Marinov was appointed to the executive board of the company with effect from 15 May 2016. He has a degree in engineering and started his career in the Deutsche Bank AG Group and in the finance department of Andersen Consulting (today: accenture). He then moved into the real estate industry and has held various management positions in well-known companies such as DTZ, Vivico Real Estate (now: CA Immo), Hudson Advisors Germany and JLL. His responsibilities included activities in the areas of real estate investment and real estate asset management. During this time, Mr. Marinov was responsible for the acquisition, asset management and sale of real estate and real estate portfolios with a total volume of several billion euros.



### *Supervisory Board*

#### **Stefan Schütze (Chairman)**

Mr Stefan Schütze graduated from the law department of Martin Luther University Halle-Wittenberg after studying from 1991 to 1996. From 2003 to 2004, Mr Schütze completed the “Mergers and Acquisitions” master’s degree programme at the Westfälische Wilhelms-Universität, earning the title Master of Laws “LL.M.”. Mr Schütze is now a licensed lawyer with many years of experience as a legal advisor on the supervisory boards and executive boards of listed investment companies. Sitting on the executive board of Fin-Lab AG, a listed associated company in Frankfurt am Main, Mr Schütze is also a member of a large number of supervisory boards, including: artec technologies AG, Diepholz (Chairman), Consortia Vermögensverwaltung, Cologne (Member).



#### **Axel-Günter Benkner (Deputy Chairman)**

After studying at the University of Gießen from 1973 to 1980, Mr Axel-Günter Benkner graduated with a degree in Economics, which he completed as a graduate economist with a Diploma in Business Administration. From 1980 to 2009, Mr Benkner initially worked for DWS Investment GmbH as a fund manager before joining the management team. In addition to his work at this company, he also acted as Global Head for the Fund Business at the Deutsche Bank Group and lectured at various universities and professional associations in the stock exchange and asset management fields. He currently holds several supervisory board positions and works as a consultant in the financial industry.



#### **Dr. Friedrich Schmitz**

Dr Friedrich Schmitz graduated in Law. After graduation, he studied for his doctorate in Paris and Mainz and obtained the title “Dr jur”. From 1986 to 2000, Dr Schmitz worked at Deutsche Bank AG, where he held various positions including Managing Director, Head of Trading & Sales and Divisional Board member. From 2000 - 2007, Dr Schmitz held the position of Group Head of Global Asset Management at Commerzbank AG. He is currently a partner and member of the executive board of CE Asset Management AG Meilen, Zurich, and holds other supervisory board positions.

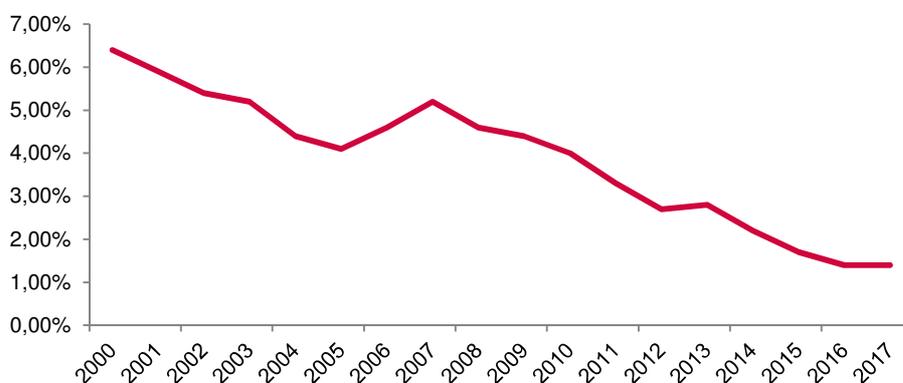


## MARKET AND MARKET ENVIRONMENT

### Development of interest rates

The German real estate market has developed very dynamically in recent years. The real estate market as a whole benefited from a positive environment, which has in particular been characterised by solid macroeconomic development and historically low interest rates. Mortgage rates for real estate loans have continued the downward trend which started in 2000. In 2017, they reached a new low of around 1.4% and therefore property financing is currently particularly attractive. In 2000, the effective interest rates for mortgage loans with a ten-year fixed interest rate stood at 6.4%.

#### Development of the interest rate level for 10-year mortgage loans (effective interest rate)



Source: Statista; GBC AG

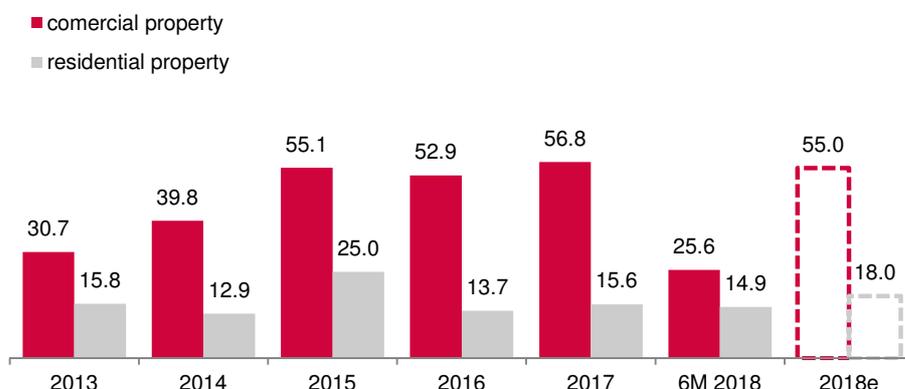
The mortgage rate very much depends on the ECB's interest rate development. Financial experts assume that the key interest rate will remain at its historically low level (currently: 0.0%, 2009: approx. 4.5%) in the near future. The ECB itself has announced that key rates will remain at their current low level at least until "beyond the summer of 2019". Accordingly, the favourable financing conditions for mortgage loans are expected to continue.

Demand for German real estate was boosted by the low interest rates and a lack of investment alternatives among domestic and foreign investors. Compared to low-risk bonds (10-year German government bond yield: 0.36% - August 2018, Statista), real estate investments still generated handsome returns. According to a recent study (The 5% Study 2018) by Bulwiengesa's real estate experts, commercial properties, for example, can generate a minimum return of 3% (IRR). In some sub-segments, such as business parks, current yields are even higher at around 6%.

### Transaction volumes in commercial and residential real estate

One indicator of investor interest in real estate is the high transaction volume in this segment. Since 2010, investors have increasingly invested in real estate, benefiting both the commercial real estate market and the residential real estate market.

### Transaction volumes with German commercial and residential real estate (in € billion)



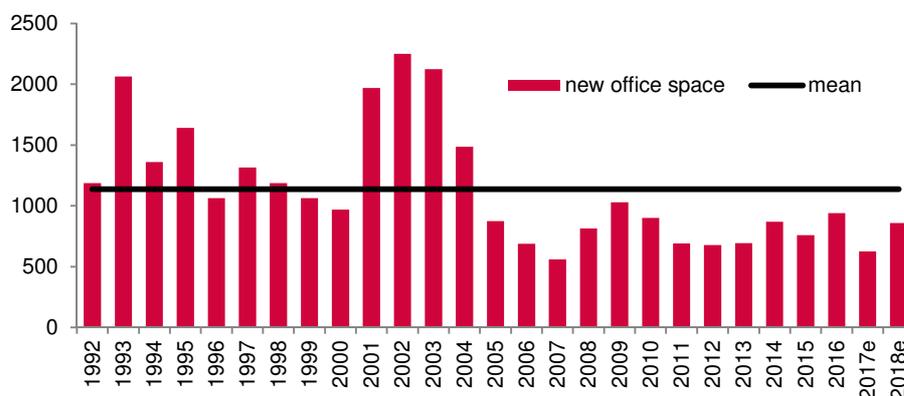
Source: JLL; GBC AG

Since 2013, commercial real estate trading has increased by 85% from €30.7 billion to €56.8 billion. The upward trend that began in 2010 has therefore continued. With a forecast sales level of €55 billion, a new record level for commercial real estate transactions is expected for the current period, which would essentially confirm the previous year's high. A similar development is also evident in residential real estate transactions. In this segment, the transaction volume averaged €16.6 billion (2013 - 2017). In 2018, the experts expect transaction revenues of €18 billion, which represents an above-average level of trade.

### Development of supply in commercial and residential real estate

The volume of new real estate or floor space has not been able to keep pace with increasing demand in recent years. In the case of office real estate, for example, new space has been moving within the range of 500,000 to 1,000,000m<sup>2</sup> since 2004. Although the amount of new office space has increased almost continuously since 2007, it has not been able to reach peak levels so far and is also far from the record levels of 2001-2003. Below-average development is also expected in 2017 and 2018.

#### Newly available office space (area in thousand square meters)

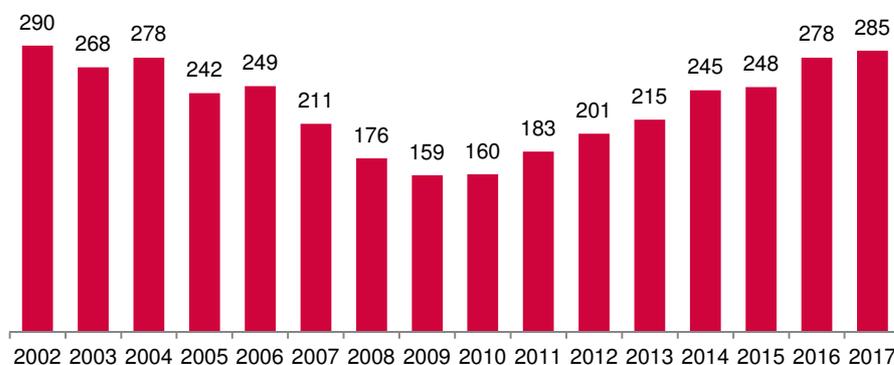


Source: DG HYP; GBC AG

The German residential real estate market has also undergone a similar development in recent years. The number of completed residential housing units is still well below demand, which is a good indicator of a demand gap. The Institute of German Business estimates the annual demand for new housing at 350,000, a value that has not been met

by supply in recent years. Although the number of completed flats has increased by 79.2% since 2009 to 285,000 flats, there is still a high surplus in demand for flats.

### Development of completed flats in Germany (in thousands)

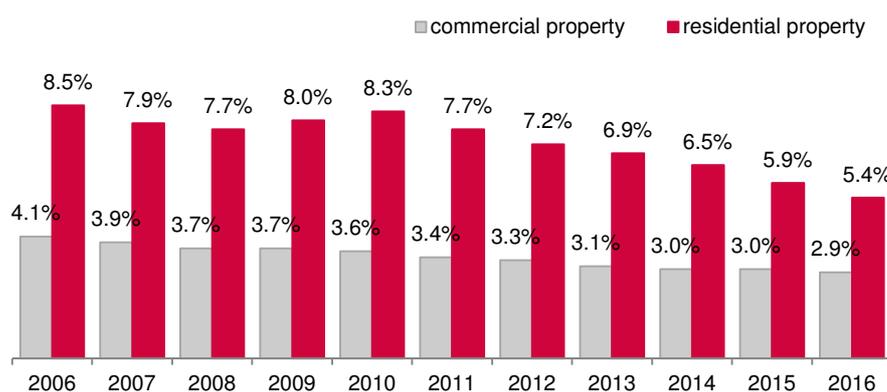


Source: Statistisches Bundesamt; GBC AG

According to the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR), the number of domestic households is expected to increase by over 500,000 by 2030. In our opinion, this additional demand on the German housing market will not be covered by the additional construction of new housing, which last year amounted to around 285,000 residential properties.

According to the BBSR study, the average household size in Germany will continue to fall. This in turn means that the number of households will increase more than the population. 70% of the 37.4 million households are single and two-person households. In the largest cities, this rate is even higher at 80%. The trend towards smaller households, immigration into the cities, favourable financing conditions, a strong labour market situation and a lack of investment alternatives are the main drivers here.

### Development of vacancy rates



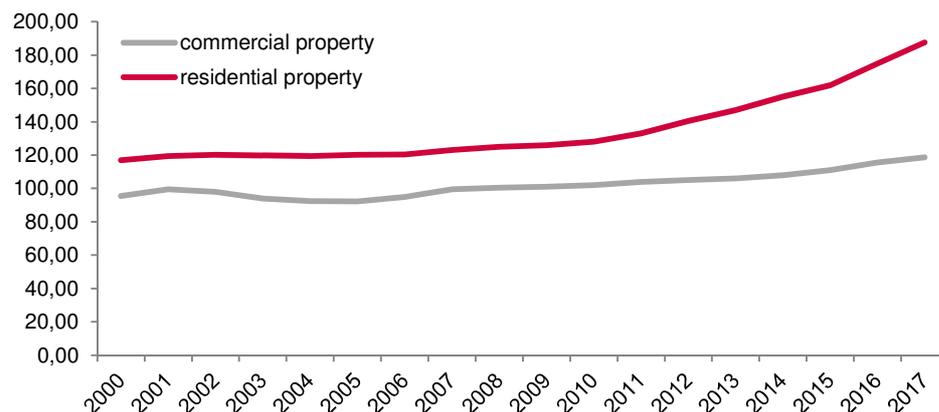
Source: Statista; GBC AG

An essential aspect of the current surplus in demand is the gradual reduction in vacancy rates over the past few years. Germany-wide vacancies for residential real estate almost halved between 2006 and 2016 from 8.5% to 5.4%. The same applies to vacancy rates for office properties, with a noticeable reduction in vacant space.

## Price development in commercial and residential real estate

The strong increase in real estate prices evident in recent years is the consequence of this strong surplus in demand. The price has been trending upwards continuously since 2015. According to a study by Bulwiengesa, residential real estate prices rose by around 56% from 2005 to 2017. According to the real estate experts, commercial real estate prices also increased by approximately 29% in the same period. This positive trend on the German real estate markets appears to be continuing.

### Index development for residential and commercial real estate



Source: vdp; GBC AG

Although particularly high demand was recorded in the A cities, a separate analysis of the price development according to city types indicates a comparatively homogeneous situation. Only in the so-called D cities, i.e. in smaller, regionally focused locations, is a comparably lower rate of increase apparent, which is associated with corresponding catch-up potentials. While the A, B and C cities experienced price increases between 20.1% (B cities) and 28% (A cities) in the aftermath of the financial crisis, the value was significantly lower in the D cities at 15.6%. Coreo AG, whose real estate portfolio currently primarily comprises locations in B, C and D cities, should accordingly benefit from comparatively low purchase prices, combined with catch-up potential.

### Price development by city type



Source: Bulwiengesa; GBC AG

The yield development (IRR/internal interest rate) of a property in particular depends on the respective sub-segment of the real estate market (real estate class) and the location (A location or secondary location) of the property. According to the Bulwiengesa study, it is generally possible to generate higher returns with real estate at secondary locations

than in “A locations”. Coreo has specifically focused its real estate business on such locations in order to achieve a particularly attractive risk-return ratio.

## **Summary**

Coreo is active in the German commercial and residential real estate market and is able to benefit from diversification effects. The real estate company also focuses on secondary locations (B + C locations), which makes an attractive risk-return ratio possible. Against the background of the continuing positive economic situation and ongoing low interest-rate environment, we expect the market environment to continue to develop positively. The framework conditions for the real estate company are currently highly favourable and very positive for the near future.

## COMPANY DEVELOPMENT

### Overview of key figures

P&L (in €m)	FY 2016	FY 2017	FY 2018e	FY 2019e	FY 2020e
Revenue	0.00	0.06	0.56	0.98	1.42
Other operating income	0.03	4.10	0.10	0.15	0.40
Income from subsidiaries	0.07	0.05	5.17	4.01	3.72
<b>Total income</b>	<b>0.10</b>	<b>4.21</b>	<b>5.82</b>	<b>5.14</b>	<b>5.54</b>
Personel expenses	-0.30	-0.37	-0.70	-0.85	-1.00
Depreciation	-0.01	-0.01	-0.01	-0.02	-0.02
Other operating expenses	-2.27	-0.82	-1.80	-0.80	-1.00
<b>EBIT</b>	<b>-2.47</b>	<b>3.01</b>	<b>3.31</b>	<b>3.47</b>	<b>3.52</b>
Financial income	0.00	0.00	0.78	1.79	2.16
Financial expenses	-4.79	-0.02	-1.90	-1.55	-1.50
<b>EBT</b>	<b>-7.27</b>	<b>2.99</b>	<b>2.19</b>	<b>3.71</b>	<b>4.18</b>
Taxes	0.00	0.00	-0.21	-0.29	-0.37
<b>Net profit</b>	<b>-7.27</b>	<b>2.99</b>	<b>1.98</b>	<b>3.42</b>	<b>3.81</b>
EBITDA	-2.47	3.02	3.32	3.49	3.54
in % of total income	neg.	71.7%	57.1%	67.9%	63.9%
EBIT	-2.47	3.01	3.31	3.47	3.52
in % of total income	neg.	71.5%	56.9%	67.6%	63.5%
Earnings per share in €	-0.78	0.32	0.10	0.18	0.20
Number of shares in million	9.36	9.36	19.36	19.36	19.36
NAV			2.40 <sup>*1</sup>		
LTV			45.8% <sup>*2</sup>		

Source: Coreo AG; GBC AG; <sup>\*1</sup>Expected NAV at the time of the study publication (pre money); <sup>\*2</sup>Bank liabilities of the subsidiaries related to their real estate assets

## Historical performance

in €m	FY 2016	FY 2017	31/08/2018
Revenues	0.00	0.06	0.32
Total income	0.10	4.21	0.39
EBIT	-2.47	3.01	-1.18
Net profit	-7.27	2.99	-1.97

Source: Coreo AG; GBC AG

### Revenue and earnings performance

Our analysis of Coreo AG's historical business development only covers the period starting in the 2016 financial year, when a change of corporate purpose in the real estate sector was agreed at the Annual General Meeting. At the same time, Nanostart AG changed its name to Coreo AG. In previous financial years, the focus of the company was on investments by nanotechnology companies and operational development prior to the restructuring does not, therefore, provide a good basis for comparison.

Furthermore, it should be noted that the Company has until now no consolidated financial statements, which has different implications. The revenues and earnings of the property companies are therefore not reflected in Coreo AG's income statement and the after-tax result is shown as a residual amount in the investment result (financial result). This means that the classic P&L key figures, such as sales, EBITDA and EBIT are significantly lower compared to consolidated financial statements. The focus here will be on the financial result. The Coreo balance sheet also includes the respective carrying amount of the investment in the long-term financial assets of the project companies. Coreo AG will also generate additional positive earnings contributions in its financial result through the loans extended to the subsidiaries. The property-related bank financing and any other debt capital at the level of the property companies are not included in the Coreo balance sheet, which results in a comparatively lean balance sheet structure.

The revenues of Coreo AG therefore only include revenues associated with services provided (management, administration, consulting, marketing) to the real estate companies and don't include any rental income. The revenues are consequently at a low level, but should increase sharply against the background of a rising real estate portfolio and a resulting increase in the scope of services. This is already indicated by the sales development in the current financial year (1 January 2018 - 31 August 2018) with an increase in sales to €0.32 million (FY 17: €0.06 million). The investments made in the real estate sector, including the acquisition of the first property in May 2017 and the high-volume acquisitions during the first half of 2018, have significantly raised the basis for service revenues.

Date	Property	Purchase price	Subsidiary
May 2017	Bad Köstritz	€2.80 million	Erste Coreo Immobilien VVG mbH
June 2017	Mannheim	€3.05 million	Zweite Coreo Immobilien VVG mbH
August 2017	Bruchsal	€3.68 million	Dritte Coreo Immobilien VVG mbH
April 2018	Göttingen	€9.30 million	Coreo Göttingen Residential UG & Co. KG
May 2018	Hydra-Portfolio	€20.60 million	Coreo Han UG & Co. KG and Coreo Solo UG & Co. KG

Source: Coreo AG; GBC AG

Real Estate purchases of €39.43 million were therefore made within 12 months. Given the first-time full-year inclusion of the subsidiaries with a high volume of properties, the services provided to the individual subsidiaries are expected to increase significantly

from the coming financial year onwards, but will continue to remain in the single-digit million range.

#### Development of after-tax earnings (in € million)



Source: Coreo AG; GBC AG

However, the fact that Coreo AG's after-tax result is highly volatile, with an otherwise lean and consistent cost structure, is solely attributable to the financial investments still held in nanotechnology companies and is thus still attributable to "legacy" business. Although this has been successively dissolved in recent financial years, Coreo AG currently still holds a noteworthy investment of €10.45 million in the Berlin-based listed MagForce AG and €0.50 million in the NanoDimension LP fund, according to HGB accounting.

The highly negative result in the 2016 financial year resulted primarily from impairment losses on the investments MagForce AG, Nanosys Inc. and Lumiphore Inc. (€ -4.79 million) and book losses from the sale of investments (€ -1.48 million). In 2016, MagForce shares were sold below their cost and the stake in ItN Nanovation AG was sold in its entirety.

By contrast, in the past financial year 2017, MagForce AG recorded a significant price jump of 43.5%, which led to a write-up of €2.62 million recognised in profit or loss. Furthermore, MagForce shares were also sold (profit contribution: € 1.38 million) and the stake in New Asia Investments was sold for a profit, which led to an overall increase in after-tax earnings.

As of 31 December 2017, the operating subsidiaries Erste to Dritte Coreo Immobilien VVG mbH were part of the Coreo group for the first time. They generated a net profit of approximately €23,000 for the first time and did not therefore contribute significantly to the investment result. The loans granted to the three named subsidiaries amounted to €2.93 million as at 31 December 2017 and generated financial income of €0.05 million with an average interest rate of 2.7%.

However, due to the acquisition of the Göttingen portfolio and the Hydra portfolio, the volume of loans extended to the subsidiaries increased significantly to €22.26 million on 31<sup>st</sup> of August 2018, which led to an increase in interest income at the Coreo AG level to €0.42 million. Coreo AG issued a warrant bond (maturity: 31 January 2022) with a volume of €20 million and a coupon of 10% at the beginning of 2018 to finance the investments and therefore the loan extensions. Financial expenses therefore also rose sharply, resulting in a negative financial result totalling €-0.79 million (FY 2017: EUR 0.03 million).

As a result of non-recurring expenses (including the issue of bonds) and the absence of valuation gains in the current financial year 2018, Coreo AG reported a negative after-tax result of € -1.97 million as at 31.08.2018. This result is not to be considered critical for companies that are in a strong phase of expansion. This is particularly the case considering that Coreo AG's accounts have been prepared using the cost model and have thus far not shown any additions of the real estate value to the acquisition costs in the income statement. Portfolio adjustments, re-lettings, revitalisation measures and refurbishments will be carried out successively over the course of upcoming reporting periods and, as expected, will result in a higher valuation of the properties. The fact that the company is able to acquire real estate at attractive price levels shows the fact that the market values of the properties are already noticeably above the purchase prices before the measures mentioned above are carried out.

*Conclusion: the company is currently in a strong phase of expansion following the first real estate investments in mid-2017. Although the previous "legacy business", i.e. participation in companies in the field of nanotechnology, still had a considerable influence on its business development in previous business years, this should decrease gradually. The real estate business will come to the fore in its place and consequently increase the financial result (earnings contribution of the real estate companies, sales proceeds in connection with portfolio adjustments, increase in value of the properties, and financial income from granted loans).*

### **Historical cash flow development**

While high investment speed is only partially reflected in the income statement of Coreo AG, the investments and associated loan transfer to the subsidiaries are reflected in the operating cash flow. Loans to property companies are generally declared as short-term receivables from affiliated companies and therefore increase the net working capital. At the level of the subsidiaries, however, property investments, as usual with real estate companies, are included in the investment cash flow. At the Coreo AG level, however, the expansion of the real estate portfolio is reflected in the operating cash flow.

Investment cash flow has so far largely included movements in financial assets, i.e. investments in companies in the nanotechnology sector. During the course of the steady sale of financial assets and the gradual abandonment of the "old business", this has tended to be in positive territory in recent financial years.

<b>in €m</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>31/08/2018</b>
Cashflow – operating activities	-0.94	-2.79	-20.39
Cashflow – investing activities	1.42	2.50	-0.73
Cashflow – financing activities	3.12	0.00	16.96
<b>Total</b>	<b>3.60</b>	<b>-0.29</b>	<b>-4.17</b>

Source: Coreo AG; GBC AG

Coreo AG issued a warrant bond with a volume of €20 million at the beginning of 2018 to finance its real estate investments. The outstanding volume as at 31 August 2018 is €18 million, and the financing cash flow increased significantly compared to the previous year as a result. If no real estate sales in excess of the known plans are made, future investments would in principle need to be financed through further capital measures or borrowing.

## Portfolio of Coreo AG (HGB)

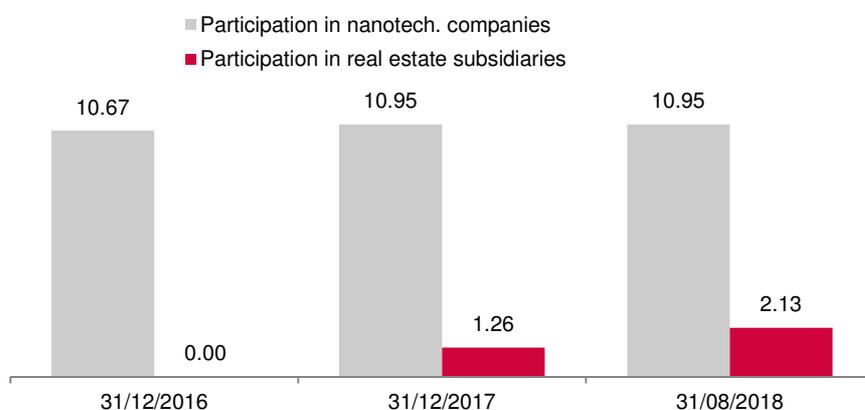
in €m	31/12/2016	31/12/2017	31/08/2018
Equity	15.27	18.26	16.29
Equity ratio	98.5%	98.2%	46.7%
Financial assets	10.67	12.21	13.07
Receivables from equity investments	0.00	3.03	23.21
Liquid assets	4.78	4.49	0.32
Interest-bearing debt	0.00	5.83	18.17

Source: Coreo AG; GBC AG

The fact that the 100% property companies are not fully consolidated in the Coreo balance sheet is particularly evident due to the lean balance-sheet structures. On the asset side, the investment approach of the property companies is based on the lower acquisition costs in accordance with HGB principles and therefore only corresponds to the paid-in equity.

The valuations of the real estate companies, including a loan of €1.17 million to Erste Coreo Immobilien VVG mbH, are therefore still at a low level of €2.13 million (31 August 2018). Furthermore, the majority of the financial assets, amounting to €10.95 million, are attributable to nanotechnology investments, in particular the investment in MagForce AG amounting to approximately €10 million. According to the company, the shares in the listed company MagForce AG are freely marketable securities, which is expected to generate a steady inflow of liquidity over the next few years.

### Long-term financial assets (in € million)

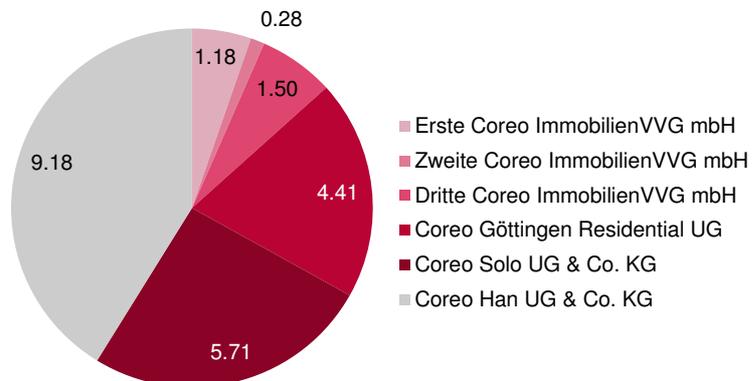


Source: Coreo AG; GBC AG

Due to the lack of consolidation, the liabilities of Coreo AG do not include the debt capital of the subsidiaries, which means that the company has a high equity ratio of 46.7% (31 August 2018) compared to the rest of the industry. The decline in the equity ratio compared to the last balance sheet date is a consequence of two real-estate investments (Göttingen portfolio and Hydra portfolio) in 2018, for which an option bond with an outstanding volume of €18 million was issued at the level of Coreo AG. The warrant currently represents the parent company's only interest-bearing debt component.

Around 90% of the issue volume of the warrant was used to acquire the Göttingen and Hydra portfolios with a total purchase price of €29.90 million, which was correspondingly passed on to the property companies Coreo Göttingen Residential UG, Coreo Solo UG & Co. KG and Coreo Han UG & Co. KG as a loan. The total lending volume amounts to €22.26 million and is distributed as follows:

### Loans to subsidiaries (in € million)



Source: Coreo AG; GBC AG

The financing of the previous real estate acquisitions was based on the reduction of financial assets from the nanotechnology sector on the one hand and a capital increase of €3.12 million (December 2016) following the strategy change on the other hand. In the event of a full placement of the current capital increase, the Company will also be able to borrow more capital.

## FORECASTS AND VALUATION

in €m	FY 2017	FY 2018e	FY 2019e	FY 2020e
Revenue	0.06	0.56	0.98	1.42
Total Income	4.16	5.82	5.14	5.54
EBIT	3.01	3.31	3.47	3.52
Net profit	2.99	1.98	3.42	3.81

Source: GBC AG

### Forecasts and model assumptions

The real estate portfolio currently located within the subsidiaries initially forms the basis of our formulated forecasts and model assumptions as set out below. At the same time, we included the planned capital increase of up to €16 million in the short to medium-term forecasts, assuming typical investment figures for this purpose.

It is important to note that Coreo AG until now does not consolidate the property companies. The after-tax result of the property companies is consequently only reported as investment income in the financial result of Coreo AG. We are “moving up” this net income position to the gross profit of Coreo AG, which means that the property income will be part of the operating result (EBITDA, EBIT).

Another peculiarity is the accounting of the properties until now purely according to the German Commercial Code (HGB), using the conservative acquisition and production cost principle. In our opinion, the considerable hidden reserves resulting from this calculation indicate high valuation potential, which is not immediately visible on the basis of HGB accounting. We performed quasi-balancing at the property level in our forecasts in accordance with the fair value principles of IFRS in order to disclose hidden reserves immediately. We used the value report on the current real estate portfolio commissioned by Coreo AG to Jones Lang LaSalle SE, which was published in the context of the securities prospectus, as a starting point. Working from this basis, we have identified further valuation potential for the coming financial years, in line with our investment forecasts and taking market valuation factors into account. These are reflected in the investment result of Coreo AG (earnings after taxes at subsidiary level).

Property purchases are financed at the level of the property companies and have a typical mix of equity and debt capital. As usual with this structure, Coreo AG, as the parent company, provides the property companies with capital that can be flanked by bank financing. For this purpose, Coreo AG has a 10% option bond with a volume of €20 million in 2018 (outstanding volume: €18 million). The cash raised were allocated to the subsidiaries (primarily Hydra and Göttingen property companies) with a similar interest rate, covering the financing costs of Coreo AG.

Coreo AG also has a total of little more than 2 million MagForce shares as of 31 August 2018, which corresponds to an investment value of around €12.5 million based on the share price on the aforementioned reporting date. By disposing of the MagForce shares, the company could achieve a significant increase in available liquidity, thereby securing the financing of significant investments. In our model we assume a continuously divestment process over the next 4 years.

In principle, Coreo AG pursues a buy-and-hold strategy, during the course of which the further development of the assets (reduction of vacancies, revitalisation measures, etc.) is planned. However, the business model also includes the opportunistic sale of properties that enable the rapid realisation of value increases. In addition, after portfolio acqui-

sitions, sales of properties not matching a medium to long-term holding perspective should take place.

### ***Strategy Hydra-Portfolio***

Good examples of portfolio streamlining are the sale of three commercial buildings in Trier, Marburg and Flensburg, which were originally acquired as part of the Hydra portfolio. The Company has split the properties acquired through the Hydra acquisition into two subsidiaries (Coreo Solo and Coreo Han) with different investment strategies. The properties of Coreo Solo UG & Co. KG account for around 25% (€5.24 million) of the total investment volume and are to be sold in the near future. The funds released including a profit margin are to be used for the renovation of the properties to be leased, with a longer holding intention (Coreo Han UG & Co. KG). According to the corporate planning, the planned costs for the renovation, expansion and new letting of the properties amount to €5.5 million. Following the conversion and partial reallocation of the former bank counter halls, it is planned to hold the properties for the purpose of generating long-term rental income. According to our findings, the reconstruction measures should extend into mid-2020.

### ***Strategy Göttingen Portfolio***

The Göttingen portfolio, which was acquired in April 2018, is a residential real estate portfolio consisting of 432 micro apartments spread over 12 apartment buildings. As the subsidiary Coreo Göttingen Residential UG & Co. KG does not yet have a 100% ownership quote in the remaining five properties, the company intends to acquire four of five apartment blocks in full through acquisitions or exchanges. Once this ratio has been achieved, the properties will be refurbished to realise rent increases and hidden reserves. The equity portion of the planned CAPEX could be covered by the cash inflow from the sale of seven apartment blocks in the Göttingen portfolio.

In our forecasts formulated below, we have therefore assumed a steady inflow from the disposal of around 16 residential units over the next 1.5 years. We will orientate ourselves to local conditions for this purpose.

### ***Mannheim portfolio strategy***

The Mannheim portfolio is a good example of the company's value-creating growth strategy. The portfolio acquired in the 2017 financial year consists of storage and office space and includes some areas which have already been developed. Based on the purchase price, the rented buildings generate a rental yield of more than 10.5%.

The high rental yield but, and in particular, the significant potential for optimisation make Mannheim real estate particularly interesting. The vacant parts of the building and unused land could be rebuilt, expanded or rented according to a variety of usage concepts. Against this background, the sale of buildings or land also seems a likely option. Here, for example, the marketing of a new construction project involving a 2,500m<sup>2</sup> office building has been initiated. Construction work is set to begin once a pre-defined pre-letting quota is reached. In our forecasts, we have assumed income from the development of free-standing space and proceeds from sales, in addition to rental income. According to company information, a planned reduction in space amounting to more than 50% should lead to a reduction of capital tied up to 15%.

### **Bruchsal and Bad Köstritz Strategy Portfolios**

The properties in Bruchsal (commercial real estate) and Bad Köstritz (four residential buildings) should, in our understanding, remain as rental-generating properties. With rental yields of 11.6% (Bad Köstritz) and 8.7% (Bruchsal), the properties will generate relatively high and steady rental income.

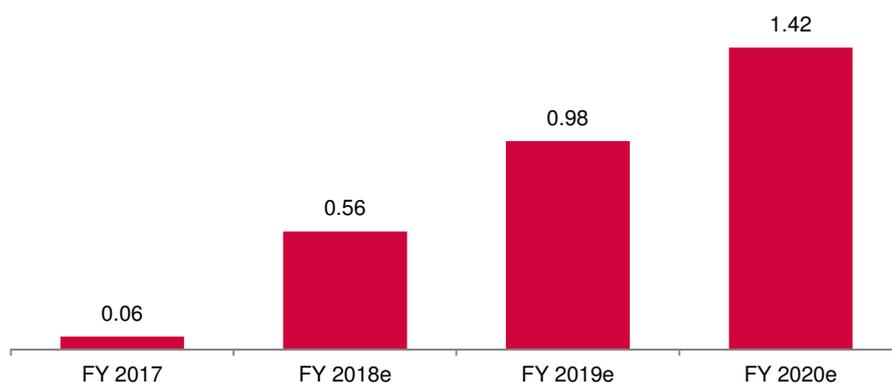
### **New investments from capital increase funds**

Assuming a successful capital increase, Coreo AG should receive gross proceeds of €16.00 million through the full placement of the new shares. The company plans to use the full issue proceeds to invest in new projects. We have assumed a comparatively conservative loan-to-value (LTV) of 60%, enabling Coreo AG to bear new investments financially totalling up to €40 million (GBC forecast: until 2020). For our sales and earnings forecasts, we have assumed a cross-section of the multiples in the property acquisitions made to date for this investment volume. The new investments are expected to generate proceeds and increase rental income and hidden reserves. We have taken this into account at the level of the property companies and as a residual value for the parent company Coreo AG.

### **2018 - 2020 revenue forecasts**

Coreo AG's revenues in its unconsolidated presentation will continue to be restricted to the revenues associated with the services rendered to the real estate companies. These are services related to management, administration, consulting, marketing or borrowing. The growth strategy will therefore also be reflected in the revenues of Coreo AG as more comprehensive services are used as the real estate portfolio grows or property investment increases:

#### **Revenue forecasts 2018 - 2020**



Source: GBC AG

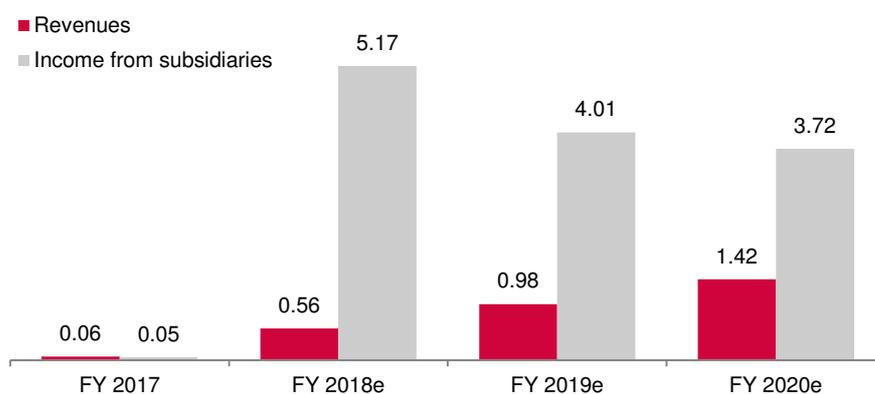
In accordance with the procedure described, in which the property companies until now are not fully consolidated, investment income (net income of the property companies) is generated at a notable level. We have prepared the investment income forecast on the basis of the portfolio-related strategy described before. In the current financial year, we anticipate a jump in investment income to €5.20 million, compared with €0.05 million in the previous year.

For the first time, we have included a quasi-application of IFRS accounting in the investment income at the level of the property companies, which results in the disclosure of hidden reserves. We have used the current valuation report on the overall portfolio of

Coreo AG, which is a component of the current securities prospectus, as the basis for this. According to appraisals, the properties have a total market value of €45.58 million. This is offset by the acquisition costs of approximately €41.6 million, which results in hidden reserves of around €4.0 million. Our forecasts will also include a full disclosure of the hidden reserves at the level of the property companies during the current financial year.

Along the same lines as the planned investments (Hydra portfolio: €5.5 million; Göttingen-Portfolio: €8.9 million), we have also included fair-value adjustments for subsequent years.

### Forecast total income 2018 - 2020



Source: GBC AG

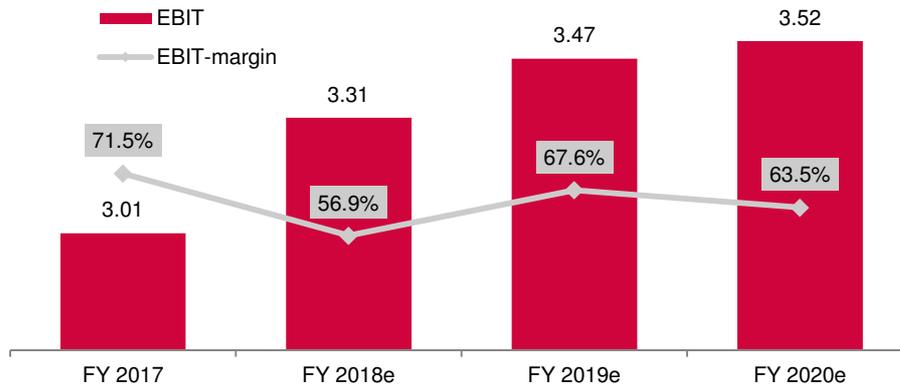
In addition to the market value adjustments, the significant increase in rental income and planned sales proceeds will also have a positive effect on the results of the property companies. For the current financial year 2018, we have assumed the predominantly profitable sale of the properties owned by subsidiary Coreo Solo. This is realistic, as the properties in Trier, Marburg and Flensburg representing 85 % of Coreo Solo's property volume have already been sold. During the coming financial year, the Göttingen sub-portfolio, some of which is classified as being available for sale, is also expected to be sold at a profit.

As the investment income represents the sum of the after-tax results for the property companies, the financing costs (bank liabilities, shareholder loans) are already included. After deduction of tax expenses, these are residual amounts, which is why Coreo AG has comparatively high profit margins, as most of the costs are taken into account at the level of the property companies.

### Earnings forecasts 2018 - 2020

We assume that Coreo AG will continue to benefit from its comparatively lean cost structures in the years to come, which should give the company a relatively high level of profitability. Once the situation has stabilised, Coreo AG may even achieve an EBIT margin of 65%. As shown, this is only possible because there are no costs associated with the investment income:

**EBIT (in €m) und EBIT-margin (in %)**



Source: GBC AG

Since the borrowed capital raised by Coreo AG is generally promptly forwarded to the property companies on comparable terms, Coreo AG is likely to show a balanced financial result. An example of this is the transfer of the €18 million raised from the issue of the warrant bond to the companies in the Göttingen portfolio and Hydra portfolio at an interest rate of 10.0% - 11.0%. The warrant bears interest at 10%, allowing interest payments to be fully covered by interest income.

Accordingly, EBIT (net of tax expenses) is expected to have an almost full impact on earnings after tax. We have taken into account the remaining loss carry-forwards amounting to approximately €26 million (€12.5 million corporation tax, €13.5 million trade tax) in the specific estimation period and the DCF valuation model.

## BEWERTUNG

### Model assumptions

Coreo AG was rated by us using a three-stage DCF model. Beginning with the specific estimates for 2018 - 2020 during the first phase, the forecast for the value drivers will be made in the second phase from 2021 to 2025. We expect increases in revenue of 2.5%. We have set 63.9% as the target EBITDA margin. We have included the tax rate in phase 2 at 15%, based on the remaining losses carried forward. Additionally, a residual value is determined in the third phase by using the perpetual annuity after the end of the forecast horizon. As the final value, we assume a growth rate of 2.0%.

### Determining the capital costs

Coreo AG's weighted average cost of capital (WACC) is calculated on the basis of the cost of equity and borrowing costs. The market premium, the company-specific beta as well as the risk-free rate have to be determined in order to determine the equity costs.

The risk-free interest rate is derived from the current structured interest rate curves for risk-free bonds in accordance with the recommendations of the Fachausschuss für Unternehmensbewertung und Betriebswirtschaft (FAUB, Special Committee for Business Valuation and Business Management) of the Institut der Wirtschaftsprüfer in Deutschland e.V. (Institute of Public Auditors in Germany). This is based on the zero bond interest rates published by the German Bundesbank calculated using the Svensson Method. In order to compensate for short-term market fluctuations, the average returns for the previous three months are used and the result is rounded up to the nearest 0.25 basis points. **The value currently used for the risk-free interest rate is 1.25%.**

We set the historical market premium of 5.50% as a reasonable expectation of the market premium. This is supported by historical analyses of equity market returns. The market premium reflects in a percentage the improved return expected from equity markets relative to low-risk government bonds.

According to GBC estimates, a beta of 1.49 is currently determined.

The cost of equity of 9.46 % (beta multiplied by the risk premium plus risk-free interest rate) was calculated using the assumptions made. Since we assume a sustainable weighting of the equity costs of 70%, the resulting weighted average costs of capital (WACC) amount to 8.76%.

### Valuation results

The discounting of future cash flows is based on the entity approach. In our calculation, the result for the corresponding weighted average cost of capital (WACC) is 8.76%. **The resulting fair value per share at the end of the 2019 financial year corresponds to the stock price target of €3.10.** This is a post-money valuation that takes into account a capital inflow from the current capital increase of €16 million. In addition to the capital inflow, the current corporate action also involves higher sales and earnings estimates.

## DCF-Modell

### Coreo AG - Discounted Cashflow (DCF) model scenario

Value driver of the DCF - model after the estimate phase:

consistency - phase		final - phase	
Revenue growth	2.5%	Eternal growth rate	2.0%
EBITDA-Margin	63.9%	Eternal EBITA - margin	62.0%
Depreciation to fixed assets	0.2%	Effective tax rate in final phase	15.0%
Working Capital to revenue	13.5%		

#### three phases DCF - model:

phase in €m	estimate			consistency					final value
	FY 18e	FY 19e	FY 20e	FY 21e	FY 22e	FY 23e	FY 24e	FY 25e	
Total Income (TI)	5.82	5.14	5.54	5.67	5.82	5.96	6.11	6.26	
TI change	38.4%	-11.8%	7.8%	2.5%	2.5%	2.5%	2.5%	2.5%	2.0%
Total income to fixed assets	0.95	0.52	0.39	0.33	0.33	0.33	0.33	0.33	
EBITDA	3.32	3.49	3.54	3.62	3.72	3.81	3.90	4.00	
EBITDA-Margin	57.1%	67.9%	63.9%	63.9%	63.9%	63.9%	63.9%	63.9%	
EBITA	3.31	3.47	3.52	3.60	3.69	3.78	3.88	3.97	
EBITA-Margin	56.9%	67.6%	63.5%	63.5%	63.4%	63.4%	63.4%	63.4%	62.0%
Taxes on EBITA	-0.32	-0.27	-0.05	-0.18	-0.37	-0.57	-0.58	-0.60	
Taxes to EBITA	9.8%	7.8%	1.5%	5.0%	10.0%	15.0%	15.0%	15.0%	15.0%
EBI (NOPLAT)	2.99	3.20	3.46	3.42	3.32	3.21	3.29	3.38	
Return on capital	281.0%	52.3%	33.5%	23.1%	18.6%	17.6%	17.6%	17.6%	17.1%
Working Capital (WC)	0.00	0.50	0.75	0.77	0.79	0.81	0.83	0.85	
WC to Total income	0.0%	9.7%	13.5%	13.5%	13.5%	13.5%	13.5%	13.5%	
Investment in WC	-0.22	-0.50	-0.25	-0.02	-0.02	-0.02	-0.02	-0.02	
Operating fixed assets (OAV)	6.12	9.85	14.05	17.09	17.52	17.96	18.40	18.86	
Depreciation on OAV	-0.01	-0.02	-0.02	-0.02	-0.03	-0.03	-0.03	-0.03	
Depreciation to OAV	0.2%	0.2%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	
Investment in OAV	-4.85	-3.74	-4.21	-3.07	-0.45	-0.46	-0.48	-0.49	
Capital employed	6.12	10.35	14.80	17.86	18.31	18.76	19.23	19.71	
EBITDA	3.32	3.49	3.54	3.62	3.72	3.81	3.90	4.00	
Taxes on EBITA	-0.32	-0.27	-0.05	-0.18	-0.37	-0.57	-0.58	-0.60	
Total investment	-5.07	-4.24	-4.46	-3.08	-0.47	-0.48	-0.50	-0.51	
Investment in OAV	-4.85	-3.74	-4.21	-3.07	-0.45	-0.46	-0.48	-0.49	
Investment in WC	-0.22	-0.50	-0.25	-0.02	-0.02	-0.02	-0.02	-0.02	
Investment in Goodwill	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Free cashflows	-2.07	-1.03	-0.98	0.36	2.87	2.76	2.83	2.90	43.96

Value operating business (due date)	30.11	33.77
Net present value explicit free Cashflows	5.69	7.22
Net present value of terminal value	24.42	26.56
Net debt	-26.99	-26.20
Value of equity	57.10	59.98
Minority interests	0.00	0.00
Value of share capital	57.10	59.98
Outstanding shares in m	19.36	19.36
Fair value per share in €	2.95	<b>3.10</b>

#### Cost of capital:

Risk free rate	1.3%
Market risk premium	5.5%
Beta	1.49
Cost of equity	9.5%
Target weight	70.0%
Cost of debt	10.0%
Target weight	30.0%
Taxshield	28.7%
WACC	<b>8.8%</b>

Return on capital	WACC				
	6.8%	7.8%	8.8%	9.8%	10.8%
15.1%	3.61	3.20	2.92	2.71	2.55
16.1%	3.76	3.31	3.01	2.78	2.61
17.1%	3.90	3.43	<b>3.10</b>	2.86	2.68
18.1%	4.05	3.54	3.19	2.93	2.74
19.1%	4.19	3.65	3.28	3.01	2.80

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