

Thursday, July 25, 2019 | research report

Comarch: buy (reiterated)

CMR.PW; CMR.WA | TMT, Poland

An Undervalued Earnings Play

Comarch creates and implements software solutions for customers in Poland and worldwide (with global sales currently accounting for nearly 60% of total sales). The Company's flagship telco solutions are used by Telefónica, Vodafone, Orange, T-Mobile, and Thales, among others. The Comarch software range also includes ERP and solutions for the financial and retail industries. Comarch runs a well-balanced revenue strategy with more than 90% of sales coming from proprietary software, and more than half delivered as software-as-a-service (SaaS). Comarch looks on course to deliver record earnings in FY2019, with EBITDA expected to come in at PLN 226m, beating the current market consensus by a projected 8% and showing a year-over-year rebound of 29.1% compared to median growth of 8.0% expected in the IT sector. Meanwhile at 6.4x 2019E EV/EBITDA CMR stock is currently trading at a large, 32% discount to the peer group. After updating our valuation model to include first-quarter results and current peer multiples, we set our new 9-month price target for CMR stock at PLN 231.00 per share, indicating upside potential over 29% and a reiterated buy recommendation.

Strong Earnings Momentum

Comarch is expected to generate record revenue of PLN 1.53bn in 2019, a figure which would indicate the Company has grown its business by nearly 40% in the span of two years. The fast-paced expansion is driven by sustained investment in in-house software development capabilities, increasing global recognition, and a growing roster of leading household names on the customer list. Comarch stays on top of industry trends by offering subscription plans, building data centers, and selling cloud solutions. According to our forecasts (calculated pre-IFRS16 for comparability), in the 2018-2021 period the Company will grow yearly EBITDA at an average annual rate of 9.6%.

Healthy Cash Generation

Comarch reported having PLN 123m of net cash as of 30 June 2019 (PLN 53m pre-IFRS 16), a very creditable amount considering that it had just completed a major CAPEX push (data centers, offices) in 2018, alongside continued investment in in-house software capacity. The cash position is expected to increase going forward even with planned new CAPEX which includes a US data center and training facilities for the sponsored football club MKS Cracovia. We predict that FCFE in the medium term (ex. real-estate investment) will reach PLN 85-100m.

Dividend Prospects

Despite having ended FY2018 with a healthy balance sheet and higher earnings, Comarch decided to keep annual dividends at PLN 1.5 per share, offering low DivYield of 0.8%. Even though it can afford to at any time given its sound financial standing, we would not expect the Company to increase shareholder distributions until 2022. At any rate, the 2019 dividend yield was fully consistent with the industry median of 0.8%; when it comes to tech stocks, investors favor growth over dividends.

(PLN m)	2017	2018	2019E	2020E	2021E
Revenue	1 101.6	1 364.9	1 501.5	1 606.3	1 689.5
EBITDA	98.6	177.2	225.6	241.1	251.1
EBITDA margin	9.0%	13.0%	15.0%	15.0%	14.9%
EBIT	34.5	112.0	141.1	153.6	160.4
Net income	43.1	51.7	94.0	104.0	110.2
P/E	33.7	28.1	15.4	14.0	13.2
P/CE	13.5	12.4	8.1	7.6	7.2
P/B	1.6	1.7	1.5	1.4	1.3
EV/EBITDA	14.9	8.0	6.4	5.8	5.4
DPS	1.50	1.50	1.50	1.50	1.50
Dividend Yield	0.8%	0.8%	0.8%	0.8%	0.8%

Current Price	PLN 178.50
Target Price	PLN 231.00
Market Cap	PLN 1.45bn
Free Float	PLN 886m
ADTV (3M)	PLN 1.76m

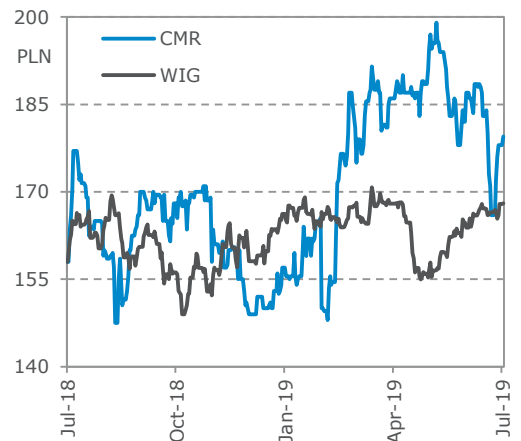
Ownership

Janusz Filipiak	24.55%
Elżbieta Filipiak	14.53%
NN PTE	10.41%
MetLife PTE	10.34%
Others	40.17%

Business Profile

Comarch is a software developer and integrator with a presence spanning over 100 countries on six continents. The Company has earned top marks in the Gartner Vendor Rating and the Truffle 100. Comarch operates its own data centers which support the delivery of services across various models, including SaaS, Cloud, and Managed Services.

CMR vs. WIG



Company	Target Price		Rating	
	new	old	new	old
Comarch	231.00	230.00	buy	buy

Company	Current Price	9MTP	Upside
Comarch	178.50	231.00	+29.4%

Forecast Update	2019E	2020E	2021E
Revenue	-1.4%	-0.2%	-0.2%
EBITDA	-0.1%	+1.2%	+0.3%
Net income	-4.6%	-5.2%	-6.1%

Analyst:

Paweł Szpigel
+48 22 438 24 06
pawel.szpigel@mbank.pl

Investment Risks

Increase in Labor Costs

Payroll accounts for a major part of Comarch's operating expenses. Salaries in the Polish IT sector are estimated to have increased by a further 5-8% in 2018 despite substantial raises already implemented in previous years. Comarch tries to mitigate pay pressures by taking on fresh graduates as interns and then hiring them full time. Internships offset staff attrition, however Comarch still faces risk of greater turnover and limited access to skilled tech specialists at its current pay rates.

Legislative Risk

Comarch's operations are governed by Polish laws and regulations, including in particular the Labor Law, which determines the size of the Company's payroll expenses. At the moment the Polish government wants to remove caps from the estimated annual salary (i.e. 30 times the expected national average salary for the year) used as a basis to calculate an employee's pension contributions. This means extra charges for employers after any pay hike offered to staff, a very real risk to the tech industry where salary demands are constantly increasing.

Investment in Real Estate and Non-Core Assets

Comarch has invested substantial amounts of money in its own office buildings and data centers, and while we agree that some of these ventures were necessary in case of others in our view the money would have been better spent on shareholder distributions. As a reminder, Comarch owns the MKS Cracovia football team, based in Krakow, for which it wants to build new training facilities at a cost of about PLN 40m. To be fair, Cracovia did get paid handsomely in 2018 for two of its players sold to foreign clubs.

Low Dividends

Comarch enjoys a healthy balance-sheet position with the pre-IFRS-16 net debt/EBITDA ratio expected to be -0.4x at the end of 2019 after net cash reported also in previous years. Despite also generating strong operating cash flow, this year Comarch is offering its shareholders very modest dividends of just PLN 1.50 per share.

Liquidated Damages

Comarch is always at risk of default under its many contracts with various customers. For example, in February 2019 the Company received notice of partial contract termination by Poland's social security administration (ZUS), demanding liquidated damages of PLN 24.2m. Negotiations on the payment are still ongoing.

Exchange Rate Risk

Comarch generates a substantial portion of revenues in euros and dollars, causing EBIT to fall any time the zloty, (which is the main currency in which the Company incurs expenses), strengthens vis-à-vis these currencies.

Public Procurement

Comarch's exposure to the public sector puts it at risk of low contract margins due to high competitive pressures, and results in slow periods in terms of new business acquisition. For example, back in 2017 Comarch outbid others in a PLN 374m tender for systems maintenance for a public authority with a price quote of PLN 242m compared to PLN 431m offered by the highest bidder. Despite having won the call, Comarch's shares fell after the announcement on rumors that at such a cheap price the contract left little by way of profit margin.

Risk Of Failed Acquisitions

Comarch buys other tech companies because it wants to gain access to new tools and new markets. In some cases the investments do not bring the desired benefits, as was the case with Thanks Again, a US-based travel loyalty company bought in 2015 for \$8 million and written off completely by 2018 after a string of failures.

Transparency In Market Communications

The way Comarch communicates with investors and analysts seems to us less transparent than practiced by listed tech peers like Asseco Poland and Asseco South Eastern Europe. While others share up-to-date and detailed backlog status on a regular basis, Comarch offers very little by way of specifics, as evidenced by the vague statement at the Q1'19 earnings conference that growth in the order book at the time had reached the "solid teens."

Valuation

Using DCF analysis and relative valuation, we set our new 9-month price target for Comarch at 231.00 per share.

(PLN)	weight	price
Relative Valuation	50%	238.22
DCF Analysis	50%	196.10
	price	217.16
9M target price		231.00

DCF Valuation

Assumptions:

- The forecast period is FY2019 through FY2028.
- The risk-free rate in the forecast period is 3.50%.
- We assume FCF after the forecast period will grow at a rate of 2.0%.
- Net debt is as of 31 December 2018, i.e. PLN 46.3m under IFRS16. leases. Accordingly, our future estimates

take into account any impairment of leased assets, but do not factor in lease payments.

- D&A expenses in the terminal period are equivalent to CAPEX and lease payments.
- Beta = 1.0x.

DCF Model

(PLN m)	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2028E+
Revenue	1,501	1,606	1,690	1,764	1,840	1,918	1,992	2,058	2,122	2,187	
change	10.0%	7.0%	5.2%	4.4%	4.3%	4.2%	3.9%	3.3%	3.1%	3.1%	
EBITDA	225.6	241.1	251.1	259.9	268.7	277.5	285.5	292.0	297.7	303.3	
EBITDA margin	15.0%	15.0%	14.9%	14.7%	14.6%	14.5%	14.3%	14.2%	14.0%	13.9%	
EBIT	141.1	153.6	160.4	165.9	171.3	176.5	180.7	183.2	184.8	186.3	
EBIT margin	9.4%	9.6%	9.5%	9.4%	9.3%	9.2%	9.1%	8.9%	8.7%	8.5%	
Tax on EBIT	45.8	48.3	48.8	49.7	50.7	51.6	52.2	52.2	52.0	51.8	
Effective tax rate	32.4%	31.4%	30.4%	29.9%	29.6%	29.2%	28.9%	28.5%	28.2%	27.8%	
NOPLAT	95.4	105.3	111.6	116.3	120.6	124.9	128.6	131.0	132.8	134.5	
CAPEX	-77.4	-87.6	-115.4	-112.1	-93.9	-87.4	-90.6	-93.4	-96.2	-99.1	
Working capital	-24.2	-14.5	-17.6	-17.2	-18.1	-19.0	-19.2	-18.8	-19.0	-19.9	
FCF	78.3	90.7	69.3	80.9	106.0	119.6	123.6	127.6	130.5	132.4	135.1
WACC	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	
discount factor	96.7%	89.1%	82.1%	75.7%	69.7%	64.3%	59.2%	54.6%	50.3%	46.4%	
PV FCF	75.6	80.8	56.9	61.2	73.9	76.8	73.2	69.6	65.7	61.4	
WACC	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Cost of debt	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Risk-free rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Risk premium	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Effective tax rate	32.4%	31.4%	30.4%	29.9%	29.6%	29.2%	28.9%	28.5%	28.2%	27.8%	28.2%
Net debt / EV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cost of equity	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Risk premium	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Beta	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

FCF growth after the forecast period	2.0%
Terminal value	2,078
Present value of terminal value	964
Present value of FCF in the forecast period	695
Enterprise value	1,659
Net debt (eop 2018 under IFRS16)	46
Other noncore assets	0
Minority interests	18
Million shares outstanding (adj.)	8.13
Equity value per share (PLN)	196.1
9M cost of equity	6.4%
Target Price (PLN)	208.6

EV/EBITDA('19) at target price	6.9
P/E('19) at target price	16.0
TV / EV	61%

Sensitivity Analysis

	FCF growth in perpetuity				
	0.0%	1.0%	2.0%	3.0%	4.0%
WACC +1.0 p.p.	221.4	233.4	247.5	264.5	285.3
WACC +0.5 p.p.	204.9	214.9	226.4	240.1	256.5
WACC	190.7	199.0	208.6	219.8	233.0
WACC -0.5 p.p.	178.3	185.3	193.3	202.6	213.4
WACC -1.0 p.p.	167.4	173.3	180.1	187.8	196.8

Relative Valuation

We compared Comarch with a peer group based on forward P/E and EV/EBITDA multiples. Each of the forecast years 2019, 2020, and 2021, is assigned an equal weight.

Multiples Comparison

	EV/EBITDA			P/E		
	2019E	2020E	2021E	2019E	2020E	2021E
Sap AG	18.4	15.8	14.0	23.5	20.9	18.7
Oracle Corp	11.6	10.9	10.5	16.9	15.0	13.9
CAP Gemini	9.8	9.3	8.9	17.6	16.0	14.8
Sage Group PLC	18.4	17.2	15.8	27.0	25.3	23.3
Atos	8.6	8.2	8.1	9.2	8.6	8.0
Software AG	6.7	7.1	6.9	11.0	11.5	11.0
Indra Sistemas	5.9	5.5	5.2	10.3	9.1	8.2
Fiserv INC	16.9	14.8	16.0	28.2	23.9	19.8
Computacenter PLC	9.0	8.7	8.5	16.6	16.0	15.4
Asseco Poland	5.6	5.3	5.0	14.0	13.1	13.0
Maximum	18.4	17.2	16.0	28.2	25.3	23.3
Minimum	5.6	5.3	5.0	9.2	8.6	8.0
Median	9.4	9.0	8.7	16.7	15.5	14.4
Comarch	6.4	5.8	5.4	15.4	14.0	13.2
Premium / discount	-31.8%	-35.7%	-37.8%	-7.8%	-9.9%	-8.4%

Implied Valuation

Value per share (PLN)	271.0	282.8	289.0	193.5	198.1	194.8
Multiple weight	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%

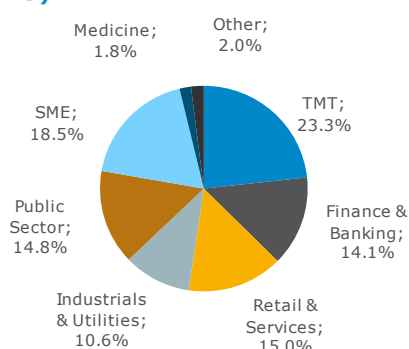
Equity value per share (PLN)	238.2
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Business Model & Strategy

Business Model

Comarch develops software used in various industries worldwide. The Company generates annual revenue over PLN 1.4bn (1Q'19 LTM), and it delivers solutions to government agencies, banks, accounting firms, FMCG companies, airlines, the automotive industry, the healthcare sector, manufacturers, public utilities, capital markets, telecoms, insurance companies, higher education institutions, retailers, transport companies, fuel suppliers, brokerage firms, e-commerce companies, and factoring providers. Comarch's core markets are telecoms (>23% of sales) and SMEs (~19% of sales), however the Company has a well-diversified revenue stream.

Revenue breakdown by type of customer (Q2'18-Q1'19)



Source: Comarch

Overview of Select Solutions

Comarch's broad range of software solutions includes Enterprise Resource Planning (ERP), accounting software, Customer Relationship Management (CRM), loyalty software, sales support and document management software, electronic banking solutions, network management for telecommunications companies, billing solutions, business intelligence, and cyber security solutions.

Telecommunications

Comarch's portfolio of telco solutions includes Internet of Things (IoT), from the IoT Billing module to IoT Connectivity Management for mobile operators, the IoT Analytics Platform for real-time large-volume data processing, and business and operations support systems (BSS/OSS) to enhance customer experience. Notable telco accounts include KPN B.V., Orange Polska, Telia Finland, Vodafone Procurement Company, and Gemalto Arabia. Recently the Company inked a deal with Korea's mobile carrier LG U+ to implement a complete stack of solutions consolidating existing network tools into one unified, scalable platform in the areas of mobile and fixed networks in preparation for LG U+'s planned rollout of one of the first commercial 5G networks in the world.

Finance & Banking

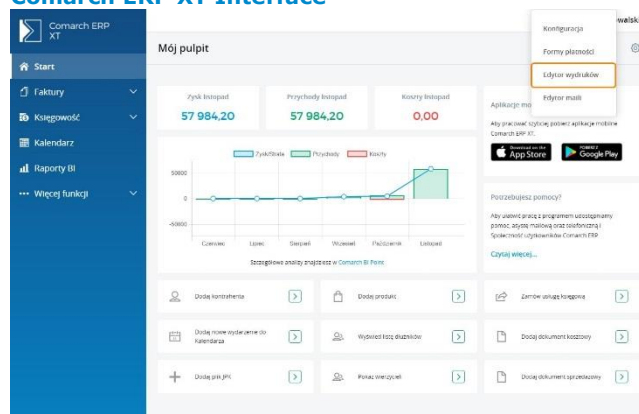
For its Finance & Banking customers, Comarch has developed Corporate Banking solutions for transaction and cash management, Comarch Digital Insurance to help automate sales processes for insurance agents and brokers, Comarch Wealth Management for the private banking segment, and Comarch Anti-Money Laundering to

facilitate fraud detection by financial institutions. Comarch counts top Polish and global finance organizations among its customers, including ING Bank Śląski, Alior Bank, Santander Bank Polska, BNP Paribas Bank Polska, Siam Commercial Bank PCL, and Raiffeisen Bank Polska. Recently the Company agreed to perform system integration for the asset manager Aviva Investors Poland TFI to support future management of the 'PPK' employer-based retirement savings schemes currently being set up by Polish corporations as part of the latest pension reform.

ERP Solutions

Comarch is a major player in enterprise solutions in Poland, with ERP providing over PLN 200m in revenue in 2018, set to increase to over PLN 0.5bn by 2024. The Company invests heavily in developing its ERP development capabilities (ca. PLN 54m in 2016). Flagship products in this category include Comarch ERP Altum (a platform supporting all key business processes at small to mid-sized companies), Comarch ERP XL (the most popular ERP solution in Poland used by over 5,000 mid- to large enterprises across various industries), and Comarch ERP XT dedicated to small businesses.

Comarch ERP XT Interface



Source: Comarch

Loyalty Management & Customer Experience

Comarch's range of services includes B2B and B2C loyalty management products helping companies to launch multiple loyalty programs on a single platform (Comarch Loyalty Management for Retail), and systems for cost-effective design, planning, and measurement of marketing campaigns (Comarch Campaign Management). Comarch's loyalty management solutions are used all over the world, with customers such as BP Europe, True Digital and Media Platform Company, NN Re Netherlands, Philip Morris Sales and Marketing, and Nationale-Nederlanden.

Data Centers

Comarch provides comprehensive data center services for business that do not want to invest in costly infrastructure. Aside from its own four data centers, the Company has partnered with 11 data centers worldwide. Services include collocation and disaster recovery.

Comarch Data Center in Krakow



Source: Comarch

Other Products

Comarch is known for developing solutions for the public sector (these are mainly custom designs and e-invoicing applications), hospitals and other healthcare facilities, and municipal and regional governments. The Company is also developing the remote medical e-Care platform which receives and processes data from multiple measuring devices that control specific medical parameters. Comarch hopes to monetize the platform on a larger scale in the future.

Comarch Senior Medical Assistant (SMA) kit

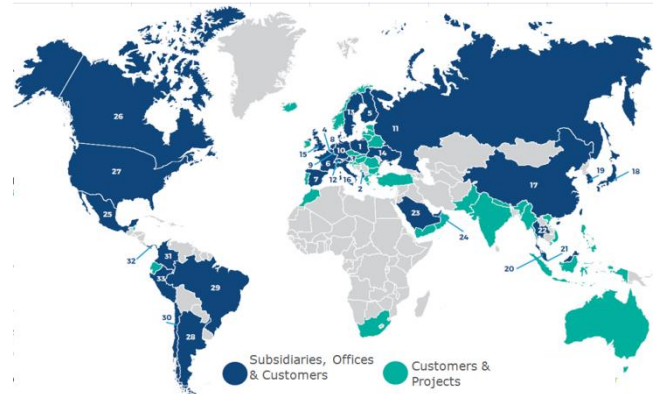


Source: Comarch

Geographic Presence

Comarch relies primarily on organic growth (with the last major deal completed in 2008 with the acquisition of SoftM in Germany), and a strategy of expansion into global markets which in 2013-2016 brought measurable results in the form of substantial topline growth. The international expansion has continued since with the establishment in 2018 of offices in Mexico City, Seoul, and Bangkok, and further ventures planned in 2019 as the Company moves toward a truly global presence.

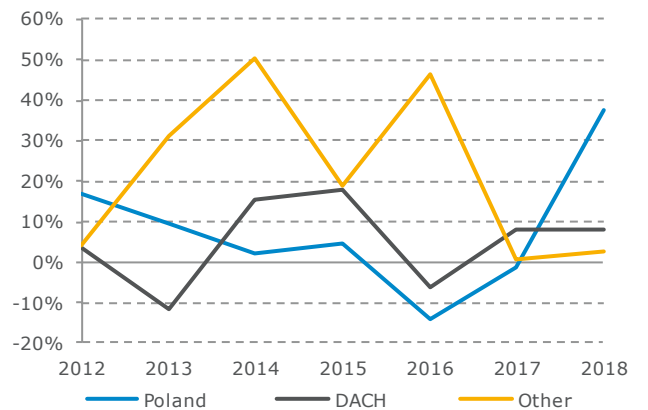
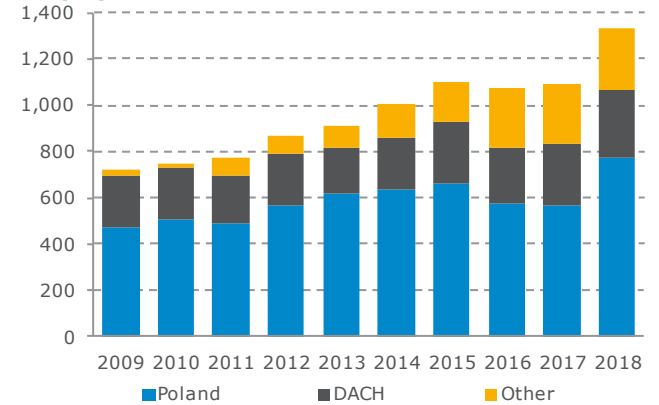
Comarch's geographic presence



Source: Comarch

The geographic distribution of Comarch's revenues changes depending on where the Company is able to secure the most business from year to year. For example, revenue in Poland increased 37.5% in 2018 after the completion of a major portion of a government contract (a system for digital court recordings as part of e-Justice).

Geographic revenue breakdown of Comarch

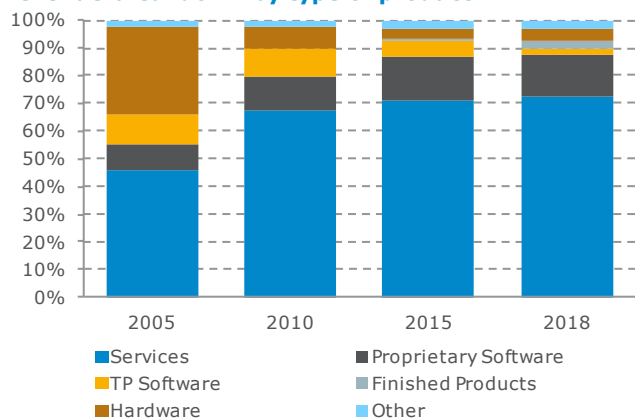


Source: Comarch

Business Strategy

Comarch's strategy is to offer solutions and services based on proprietary software which generates higher profit margins as compared to third-party vendor solutions. Between 2015 and 2018, the Company increased sales of proprietary software from 9.4% to 15.1% of total, with the proportion for services boosted from 45.9% to 72.5%. To keep up with globalization, Comarch focuses on building a presence across the world so as to be able to reach prospective customers wherever they are.

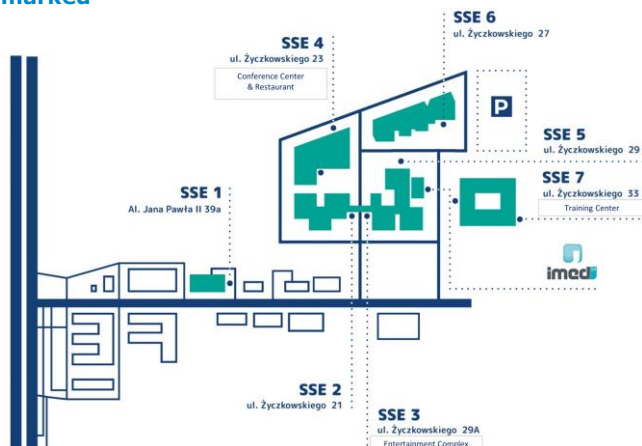
Revenue breakdown by type of product



Source: Comarch, Dom Maklerski mBanku

Comarch tries to forge close relationships with various academic institutions, in particular in the home town of Krakow where its HQ are a short distance away from the Krakow University of Technology, ripe with candidates to join the Company's internship program and later possibly contribute full time as part of a highly-educated and well-trained teams.

Comarch's Krakow HQ with Special Economic Zones marked

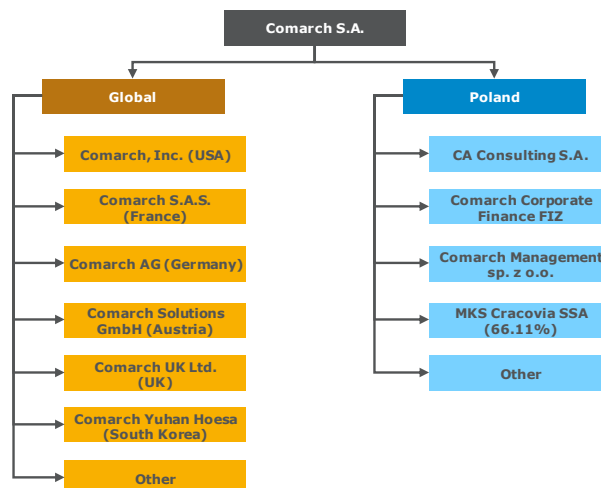


Source: Comarch

Organizational Structure

The Comarch Group consists of the parent company, Comarch S.A., and 57 subsidiaries in 93 locations in 33 countries spread across six continents. The parent company accounts for 69.5% of total revenue (as of Q1'19), and it operates 17 offices in Poland and one in Albania. Further, Comarch runs 15 data centers across the world, including four which it has built itself in Krakow, Warsaw, Dresden, and Lille, France, and spaces rented in Chicago, Columbus, Kuala Lumpur, Montreal, Moscow, Beijing, Singapore, Strassen, Shanghai, and Toronto.

Simplified organizational chart of Comarch

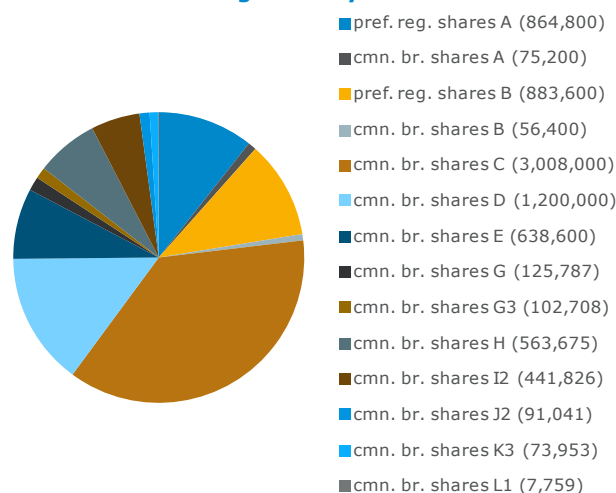


Source: Comarch, Dom Maklerski mBanku

Ownership

Comarch's share capital is divided into 8.13 million shares with a nominal value of 1 zloty each. The shares are grouped under 12 classes (A, B, C, D, E, G, G3, H, I2, J2, K3, and L1), of which class A and B shares are registered preferred stock having 5 votes each. Comarch allows for the conversion of registered shares into bearer stock subject to the loss of preference.

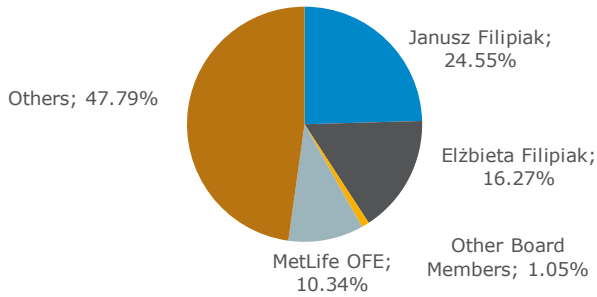
Comarch outstanding stock by class of shares



Source: Comarch; registered preferred stock and common bearer stock

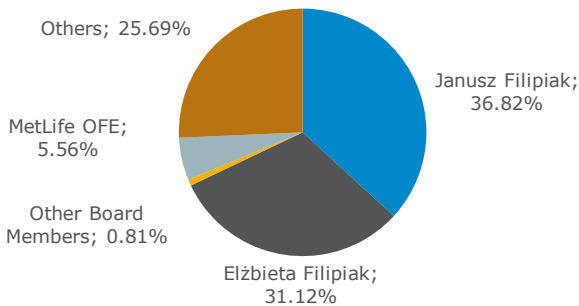
Comarch's founder, Janusz Filipiak, jointly with his spouse Elżbieta Filipiak hold 3.18 million shares in the Company, representing 39.1% of all shares outstanding and carrying 10.13 million votes.

Comarch shareholders by equity stake



Source: Comarch, as of 29 April 2019

Comarch shareholders by voting stake



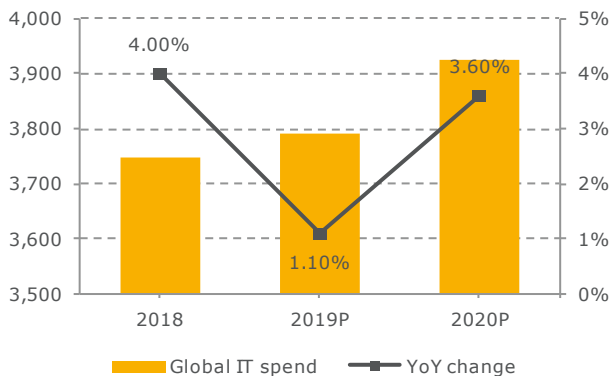
Source: Comarch, as of 29 April 2019

Market Overview

Global IT Market

According to an April 2019 market report by Gartner, global IT spending is set to increase 1.1% in 2019 to \$3.79 trillion, representing a slower pace than in 2018, when spending grew 4% to \$3.75 trillion, and a downward revision from Gartner's earlier prediction of 3.2% growth from three months before. The slashed forecast was caused by greater economic and political uncertainty, underpinned by tensions between the US and China, and by an appreciation in the US dollar. By 2020, world IT spend as forecast by Gartner will reach \$3.93tn after rebounding 3.6%.

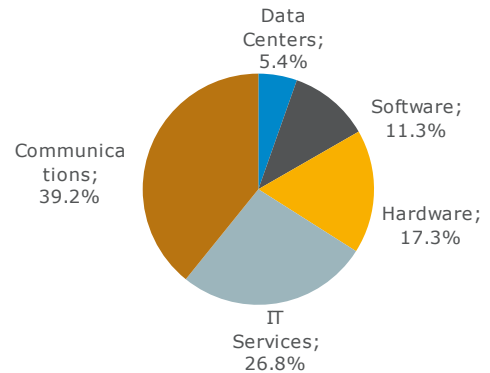
Global IT expenditure forecast (US\$ billions)



Source: Gartner

When it comes to 2019 expenditures, telecoms are expected to spend the most at 39.2% of total, with 26.8% of the overall investment going into services.

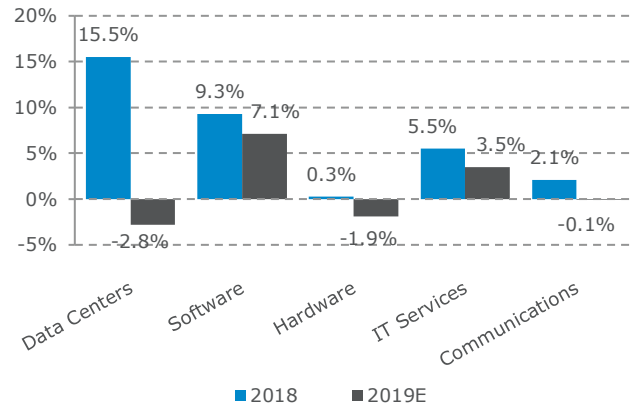
Breakdown of 2019E IT expenditure



Source: Gartner

Data Centers were the fastest-growing segment of the market in 2018, and in 2019 expenses on data centers are expected to decrease by 2.8% in part as a result of lower average selling prices as buyers shift away from costly on-premise equipment to more workloads into a pay-as-you-go model in the cloud. On the other hand, investment in enterprise software is expected to grow 7.1% in 2019 after increasing 9.3% last year, driven by the same shift to cloud. The increasing use of artificial intelligence is set to be a major driver of IT spend in the coming years.

2019 IT spend growth forecast by segment



Source: Gartner

IT Market in Poland

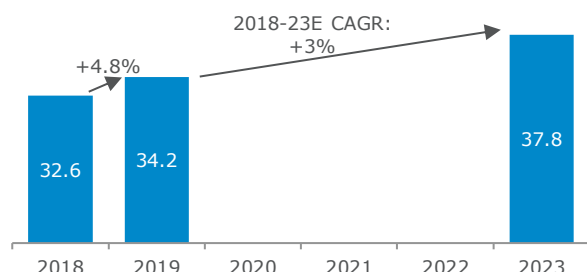
An August 2018 study by PMR Research estimated that total IT expenditures in Poland would increase by 5.5% to PLN 32.6bn in 2018, with regulatory changes such as the implementation of GDPR requirements and the introduction of a mandatory split payment mechanism listed as the key spending drivers. The prediction for 2019 is for a 4.8% rise in expenditures to an estimated PLN 34.2bn. Between 2018 and 2023, the Polish market is expected to grow at an average annual rate of ca. 3%, with a large portion of spending allocated to SaaS solutions.

Polish tech companies are noticing the strong demand, with 75 out of 100 big firms predicting further improvement in 2019. A trend toward more in-sourcing of IT services has emerged in the Polish market, with more and more businesses opting for in-house development teams to achieve better flexibility and safety, and reduce costs.

Another characteristic of the Polish market are constant pay pressures underpinned by a shortage of highly-skilled

programmers. According to Hays salary insights, the average salary in the IT sector, where earnings are already among the highest in the country, increased by 5-8% in 2018. The types of specialists who can count on the biggest raises include process automation engineers and technology consultants.

Growth forecast for Polish IT spending (PLN bn)



Source: PMR, Dom Maklerski mBanku

The banking industry has generated the highest demand for IT services for the last four years. In 2018, vendors delivered solutions worth a total of PLN 3.65bn to financial institutions (*Computerworld TOP200* report), up >20.0% from 2017. This compares to total government orders of approximately PLN 2.3bn, with the public administration falling behind banks and the retail industry (where spend in 2018 was up a whopping 36% at PLN 2.5bn) in terms of annual spend even though the number of tenders held last year recovered from a 10% drop the year before.

By size, sales to large enterprises increased by 27.4% in 2018, while sales to SMEs fell 13.4%, with corporations making up a market for IT solutions five times the size of smaller businesses. By type of customer, vendors in 2018 registered slight declines in sales to the power industry (-1%) and the farming and food processing industry (-4.6%), accompanied by more severe pullback in sales to the transportation sector (-16.1%) and the education sector (-10.7%).

Comarch's Position In the Polish Market

The 2019 edition of the *Computerworld TOP200* IT market report, Comarch ranked 6th among the largest IT Capital Groups operating in Poland in 2018, and the parent company was ranked 9th among all IT firms in terms of earnings. The Company also moved up two notches to #13 among the largest IT firms operating in Poland. In terms of sales, Comarch was ranked the #1 largest provider of integration services and cloud services, and it came second among vendors catering to the retail industry, telecoms, and large enterprises, and among IT firms with the largest staff and vendors providing data center services. Comarch was also the third-largest provider of ERP systems in Poland in 2018.

Financial Results

Switch from IAS to IFRS

The adoption of IFRS 15 in 2018 and IFRS16 in 2019 has had a noticeable impact on Comarch's earnings as presented in annual and interim financial statements. IFRS15, which replaced former IAS 18 and 11, requires the Company to assess whether its contracts with customers contain significant financing components and allocate the loan portion of the consideration separately from revenue from contracts with customers. In other words, revenues

from a contract should reflect the goods and services delivered to the customer. The adoption of IFRS15 added about PLN 22.6m to Comarch's EBITDA and net profit for 2017, but on the other hand in 2018 the Company did not recognize partial revenues from license sales in an approximate amount of PLN 29.4m.

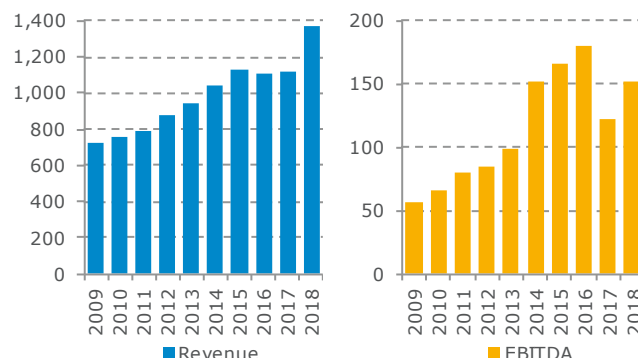
IFRS 16 replaces IAS 17, and it requires companies to recognize off-balance sheet operating leases as finance leases. The switch has the most impact on EBITDA; in case of Comarch this can be quantified as ca. PLN 18m a year. Assets under IFRS 16 increased by about PLN 70m after the recognition of lease liabilities and lease assets.

Earnings History To 2018

Comarch consistently grows its revenues and earnings, which in the 2009-2018 period increased at respective average annual rates of 6.5% and 10.5%. The two main drivers fueling the growth included geographic expansion and an increasing share of high-margin proprietary solutions.

Comarch experiences significant fluctuations in profits from year to year depending on the size of contracts completed during each year. Profits are also influenced by movements in exchange rates (mostly EUR/PLN, but USD/PLN, GBP/PLN, and BRL/PLN also play a role) and pay pressures. On the whole, however, Comarch has been able to deliver creditable growth consistently over the last several years.

10Y growth in annual revenues and EBITDA (PLN m)



Source: Notoria, Dom Maklerski mBanku, 2017 figures restated to IFRS 15

In 2018 Comarch posted a strong, 21.7% topline rebound owed in a large part to the completion of milestones under a big e-Justice contract, which in a segmental breakdown beefed up the revenue from public administration by a staggering 207%. Unless the Company is able to secure comparable contracts in size and value, it is not likely to see a repeat of the 2018 revenues in the public administration segment in the future.

The other segment which enjoyed strong sales growth (18% y/y) in 2018 were telco solutions, owing to new projects delivered to customers in Asia and Western Europe, most notably solutions related to 5G. Note that due to the adoption of IFRS15 part of the revenues billed during 2018 were not recognized in the revenues for 2019. The segment of SME solutions as well experienced fast-paced revenue expansion in 2018, driven by strong demand for ERP software.

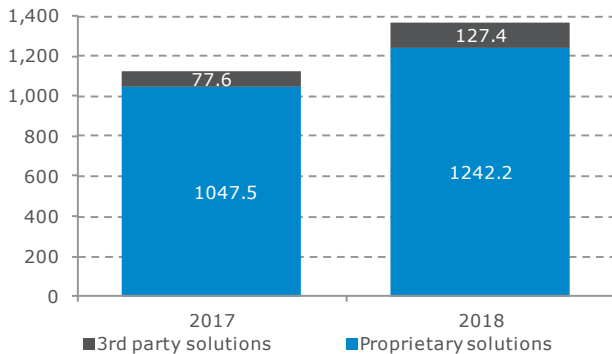
Breakdown of 2017 and 2018 sales by operating segment

(PLN m)	2017	2018	Y/Y
TMT	264.9	316.4	19.5%
Finance	187.2	204.5	9.3%
Banking	187.2	202.4	8.1%
Retail & Services	143.1	138.3	-3.3%
Manufacturing	143.1	138.3	-3.3%
Public Administration	64.0	193.0	201.5%
SME Poland	136.1	160.9	18.2%
SME DACH	99.8	99.6	-0.2%
Healthcare	16.0	27.4	70.7%
Other	26.7	27.1	1.6%

Source: Comarch, Dom Maklerski mBanku

Comarch derives the majority of its revenues from proprietary solutions. The share of third-party solutions in 2018 increased to 9.3% from 6.9% the year before, but this was due solely to the one large e-Justice contract which required a substantial amount of hardware. This year the ratio of in-house to third-party solutions should go back to the 2017 level.

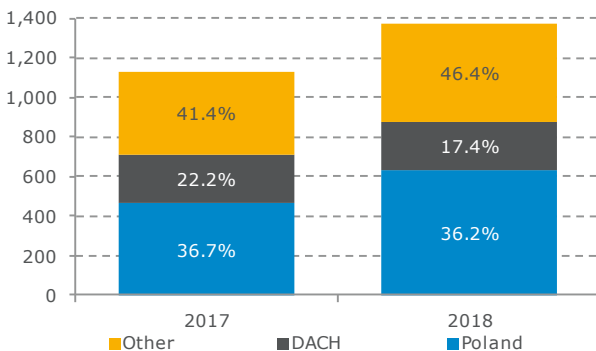
Revenue breakdown by in-house and third-party solutions



Source: Comarch, Dom Maklerski mBanku

In 2018, Comarch experienced a shift in the geographic distribution of its revenues led by the big e-Justice job, combined with flat sales in South America. As a result, Poland grew from 41.1% to 46.4% as a proportion of total revenues, but its share in future years is likely to decrease in favor of international markets.

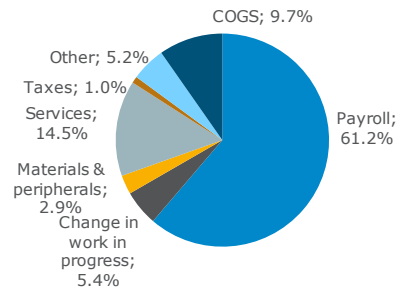
Geographic revenue breakdown, 2017 vs. 2018



Source: Comarch, Dom Maklerski mBanku

When it comes to expenses, in 2018 Comarch incurred 61.2% of total operating costs ex. D&A on payroll, followed by services (14.5%), which include the fees of B2B contractors.

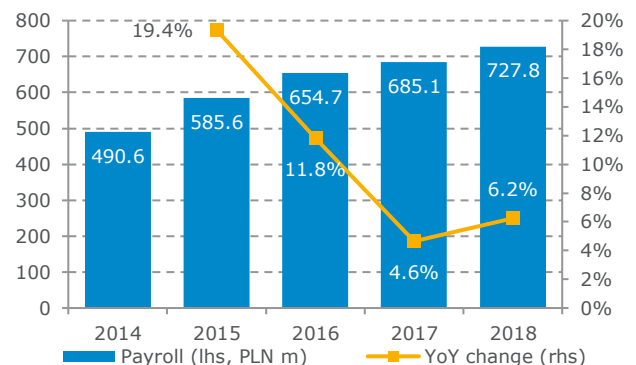
Breakdown of operating costs ex. D&A



Source: Comarch, Dom Maklerski mBanku

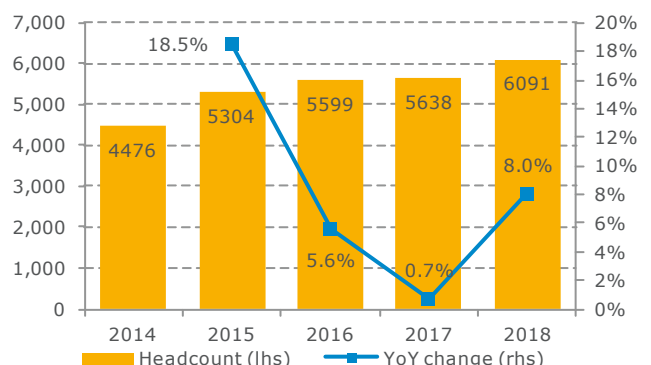
At PLN 727.9m, payroll costs in 2018 were only 6.2% higher than in the previous year. At the same time, the average headcount last year was 6,040, up >8.0% over the 2017 average of 5,541, indicating a reduction in the average payroll expenses per employee. This was a result of seasoned staff leaving the Company in search of new challenges, and being replaced by interns. 78.8% of Comarch's staff in 2018 was working in production or in consulting capacity. Management staff accounted for 8.1% of total and sales and marketing teams made up 4.9% of the total headcount.

Payroll expenses in 2014-18



Source: Comarch, Dom Maklerski mBanku

Employment in 2014-2018

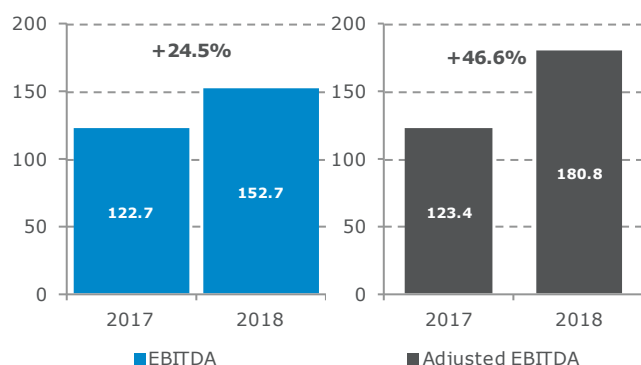


Source: Comarch, Dom Maklerski mBanku

Comarch generated EBITDA of PLN 152.0m in 2018, up 24.5% on the comparable year-ago figure of PLN 78.6m under IFRS 15. Note that earnings last year and the year before were heavily affected by one-time events which resulted in a boost of PLN 28.1m in 2018 and PLN 0.7m in 2017. In addition, in the final financial statements for FY2018 Comarch disclosed a reserve of PLN 24.2m for possible liquidated damages under a partially canceled

government contract. Adjusted for all this, EBITDA for 2018 would have come in at PLN 180.1m, showing year-over-year growth of a staggering 46.6%.

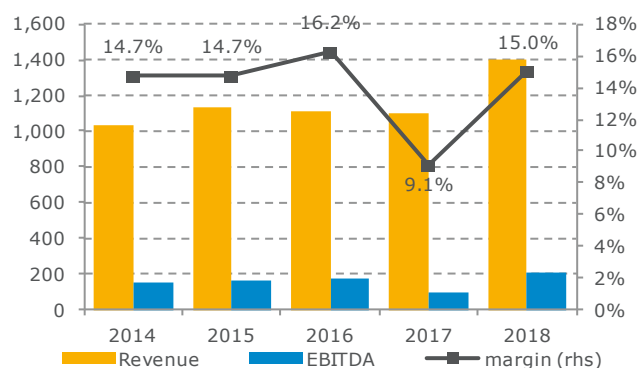
2018 EBITDA growth



Source: Comarch, Dom Maklerski mBanku

Note further that the adoption of IFRS 15 resulted in PLN 29.4m of license revenue not being recognized in the 2018 topline. Not restated to IFRS 15, last year's adjusted EBITDA at approximately PLN 210.2m would have been more than twice the comparable earnings posted in 2017. In short, Comarch delivered stellar financials for 2018 regardless of the reporting standard used.

Annual financial results of Comarch ex-IFRS15



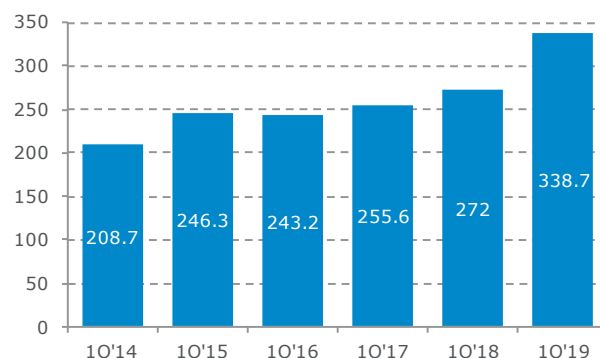
Source: Comarch, Dom Maklerski mBanku

EBIT came in at PLN 87.5m in 2018, but after a PLN 8.8m loss on FX operations and a PLN 8.0m impairment loss on financial instruments and investments, combined with relatively high tax of PLN 30.0m (due in part to IFRS15), the bottom-line profit for the year was low at PLN 30.6m.

2019 First-Quarter Results and Predictions for the Second Quarter

Comarch generated revenue of PLN 338.7m in Q1 2019, up >25% year on year, thanks to material contracts acquired during 2018 (especially in the telco segment, where sales increased by 28%, the retail segment, with a 29% rebound, and the manufacturing segment, up 54% on the year). The Company benefits from strong demand for loyalty management software. Quarterly revenue in the segment of public administration registered a surprisingly robust y/y rebound of 122% after the completion of a big hardware order close to PLN 15m.

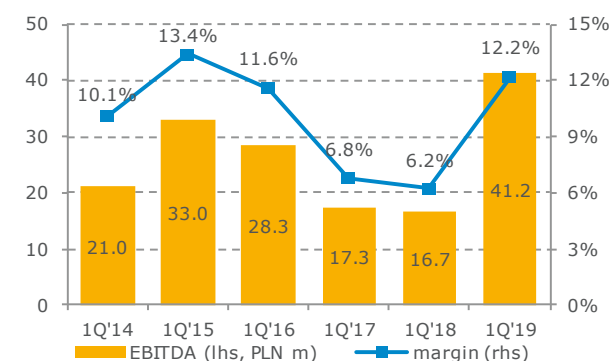
Quarterly revenues of Comarch



Source: Comarch, Dom Maklerski mBanku

The sales margin increased by 3.0pp to 23.8% in Q1, driven by strong sales with a higher share of proprietary software (19.3% vs. 13.4% in Q1'18), supported by IFRS15 (i.e. the postponed recognition of a portion of telco software licenses billed in 2019). SG&A expenses in Q1 totaled PLN 54.9m. Comarch incurred one-time charges of PLN 4.7m in the period vs. PLN 6.6m a year ago.

Quarterly EBITDA of Comarch



Source: Comarch, Dom Maklerski mBanku

At PLN 41.2m, 2019 Q1 EBITDA showed a y/y boost of 146% fueled in part by IFRS 16 accounting, which added about PLN 4.5m to the quarterly earnings. Pre-IFRS 16 EBITDA would have approximated PLN 36.7m, which would have represented year-over-year growth of 119%. FX movements did not affect first-quarter results in a material way. Tax for the quarter was relatively high at PLN 8.7m, stemming from the tax regimes governing Comarch's international subsidiaries in Germany.

The bottom line showed a net profit of PLN 7.0m in Q1 2019 vs. a net loss of PLN 6.2m booked a year ago.

Comarch generated high operating cash flow of PLN 104.4m in Q1, thanks mainly to payments received under bills issued in 2018 (> PLN 46m). The first quarter of 2019 marked a noticeable improvement for Comarch in terms of profits compared to previous quarters.

Forecast of 219 Q2 results

(PLN m)	2Q'19P	2Q'18	y/y
Revenue	344.1	332.0	4%
EBITDA	47.7	54.7	-13%
EBITDA margin	13.8%	16.5%	
EBIT	27.4	34.4	-21%
Pre-tax income	29.4	14.7	100%
Net income	18.7	10.5	78%

Source: Comarch, Dom Maklerski mBanku

Comarch is scheduled to release second-quarter earnings on 30 August 2019. On estimated revenue of PLN 344.1m (+3.6% y/y), we expect EBITDA to come in at PLN 47.7m (-13%), and we anticipate a net profit of PLN 19.4m (+100% y/y). The underlying assumptions are as follows:

- The trends seen in Q1 continued into Q2, incl. high revenues from telco solutions (up 30% y/y at PLN 82.5m) boosted by license receipts carried over from 2018, and from retail solutions (+20% y/y) where demand for ERP will have stayed strong.
- With the e-Justice contract now fully delivered, revenue from public sector contracts is likely to drop to PLN 36.7m from PLN 63.0m in Q2'18.
- The quarterly gross margin might post a y/y decline of 1.5pp to 24.6%.
- SG&A expenses will be flat at PLN 56.8m w 2Q'19 vs. PLN 55.4m in 2Q'18.
- IFRS 16 might produce a gain of PLN 4.6m.
- Other operating activity will have a neutral effect.
- We expect an effective tax rate of 23.0%.

Pre-IFRS 16 EBITDA at an estimated PLN 43.2m will register a 21% fall from the year-ago figure. However keep in mind that the year-ago comparable base is high due to the e-Justice contract, plus pre-IFRS 16 EBITDA for the first half of the year assuming our Q2 estimates pan out will come in at PLN 79.9m, i.e. 12% above the earnings for H1 2018. In short, we believe Comarch is on track to achieve record earnings in 2019.

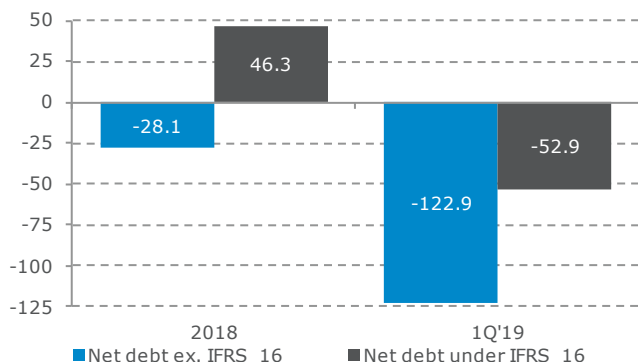
Balance-Sheet Position, CAPEX, Dividends

Comarch held total assets worth PLN 1.76bn as of 31 March 2019, including fixed assets with a carrying value of PLN 807m and current assets of PLN 956m. Fixed assets consist of PP&E (PLN 543m), and current assets are made up of trade debtors (PLN 361m) and cash (PLN 332m).

Equity at the end of March was PLN 886m, of which PLN 698m retained earnings. Bank borrowings at the time amounted to PLN 206m.

Net debt at the end of 2018 stood at PLN 46.3m, but by the end of March 2019 it turned into net cash of PLN 52.9m. Not including leases and IFRS 16 the 2018 eop balance would also have shown net cash of PLN 28.1m (PLN 122.9m as of Mar'19).

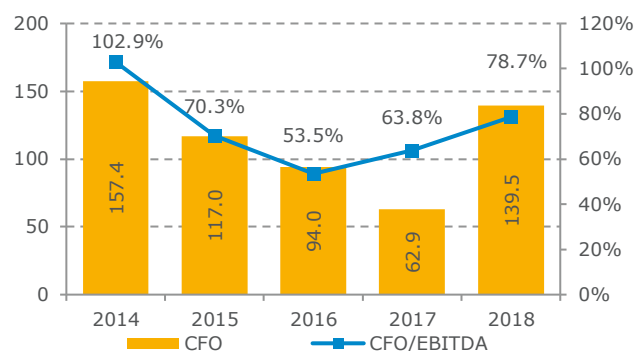
Net debt of Comarch (PLN m)



Source: Comarch, Dom Maklerski mBanku

Comarch generates high operating cash flow, with the OCF/EBITDA ratio in the last five years at an average 74%.

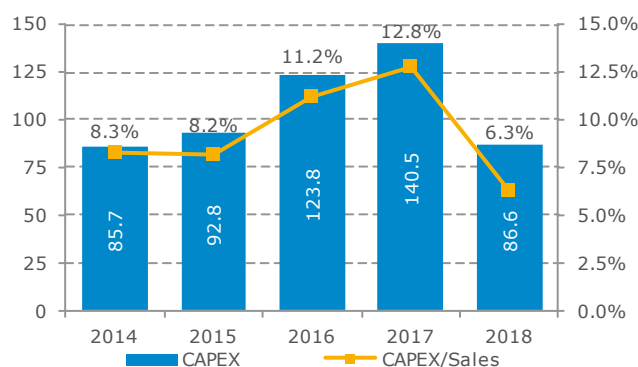
Operating cash flow in 2014-2018 (PLN m)



Source: Comarch, Dom Maklerski mBanku

Comarch spent substantial amounts on infrastructure in 2015-2017, including the SS7 office building in Krakow, a data center in Lille, France, and an Internet of Things Lab in the SSE6 building in Krakow. In 2018 CAPEX was much lower. We estimate Comarch's organic CAPEX at ca. PLN 70m, including expenses on hardware for SaaS customers (ca. PLN 20-30m a year). Comarch also invests in research and development.

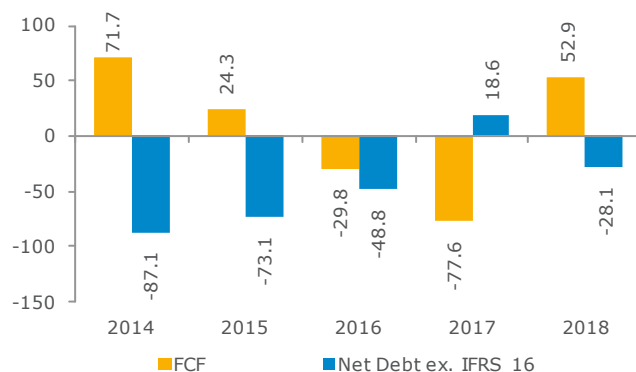
CAPEX in 2014-2018 (PLN m)



Source: Comarch, Dom Maklerski mBanku

Comarch decided to freeze dividends during the period of heavy investment even though it could have afforded to make distributions to shareholders given its low level of debt (PLN 1.50 DPS would make for a total outlay of PLN 12.2m, an amount which the Company can easily afford).

FCF and net debt in 2014-2018 (PLN m)

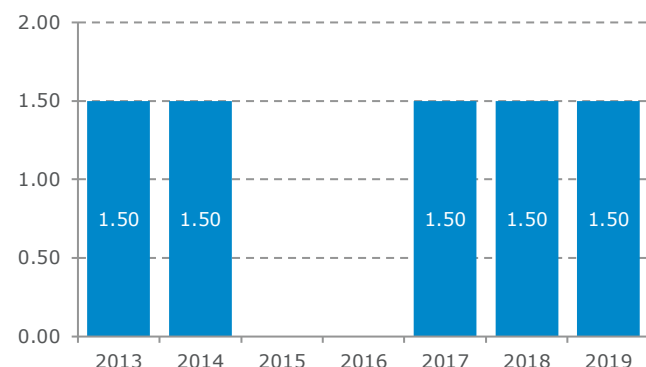


Source: Comarch, Dom Maklerski mBanku

With the major capital projects now finished, Comarch is back to generating free cash flows. Unfortunately the dividends offered this year at PLN 1.50 per share are the same as the amount paid in the two years prior. We hope Comarch will increase shareholder distributions in future

years as low dividends are one of the main risk factors from the point of view of potential investors.

Annual per-share dividends at Comarch (PLN)

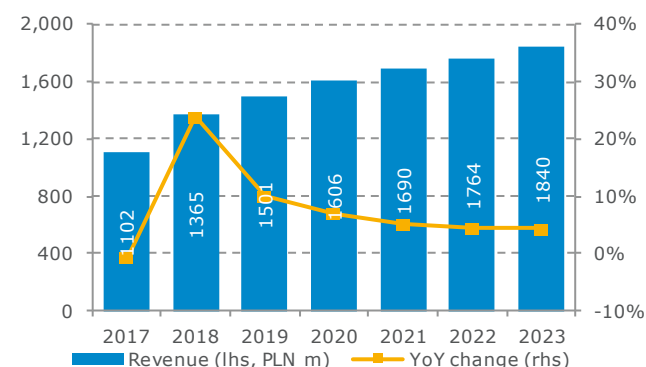


Source: Comarch, Dom Maklerski mBanku

Future Outlook

We expect Comarch to generate revenue of PLN 1,523m in 2019, indicating an increase of 11.6% over 2018. In March the Company shared that its FY backlog at the time was 15% higher than at the same time last year, and in May it confirmed over-10% growth. We anticipate the strongest revenue growth in the segments of telecommunications and retail, Comarch sees high demand at the moment from customers in Asia. The segments of industrials and SMEs are also doing well this year.

2019-2023 revenue forecast (PLN m)



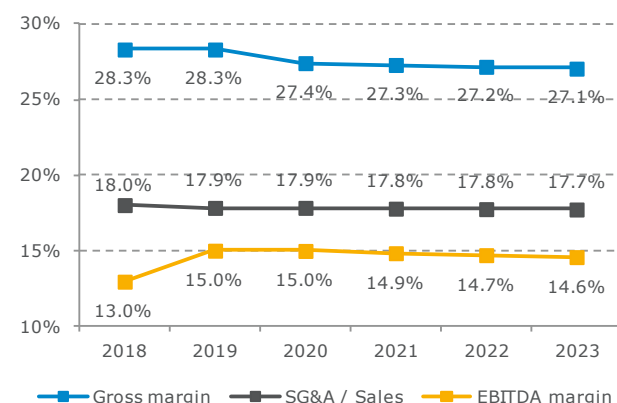
Source: Dom Maklerski mBanku

We expect to see higher proportions this year of international sales and proprietary solutions as a percentage of total sales, resulting in a slightly higher sales margin of an estimated 28.9% (+0.6pp y/y), which would imply 10.6% higher direct selling expenses.

Going forward, we assume conservatively that Comarch's sales margins will decline from year to year to reach 27.0% in the terminal period, in line with increasing pay pressures. The SG&A/Sales ratio is expected to be 17.5%-18.0% in 2019 vs. 18% in 2018.

After substantial gains and losses on other operating activity recognized in recent periods, we predict one-offs in a negative amount of PLN 9m in 2019 and zero noncash events in 2020. The EBITDA margin for 2019 is estimated at 14.8%, followed by a decline to a target 14.1% in the terminal period. This year's operating margin growth from 13.0% in 2018 was owed in part to the application of IFRS16.

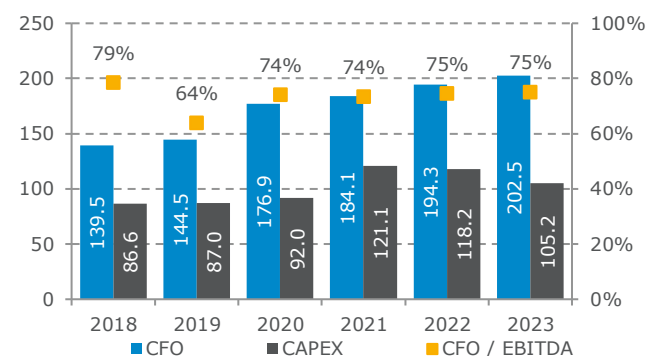
2019-2023 margin forecast



Source: Dom Maklerski mBanku

We assume no major impact of financing activity on future profits (however keep in mind that exchange-rate fluctuations do affect hedging gains and therefore the total earnings). The effective tax rate is likely to be 34.4% in 2019 and 29.3% in the terminal period.

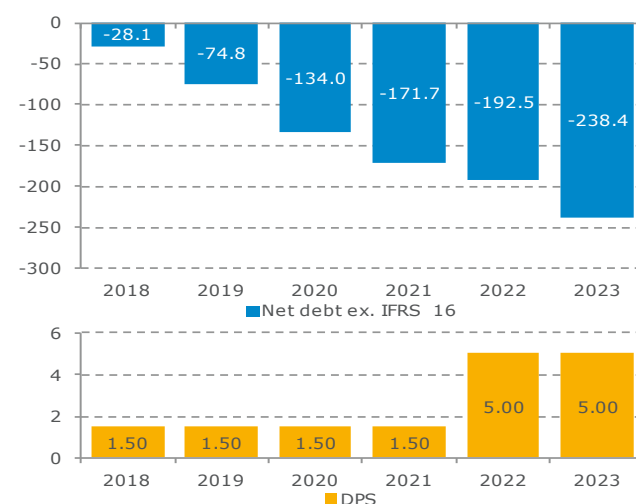
OCF and CAPEX forecast (PLN m)



Source: Dom Maklerski mBanku

Comarch's future operating cash flow should be high. The Company announced plans for new capital projects this year, including a data center in the US at an estimated cost of \$5-10m and MKS Cracovia training facilities with a budget of PLN 35-40m. Consequently we assume CAPEX in 2020-2021 will increase to about PLN 120m a year, but we believe Comarch can finance CAPEX from cash on hand while continuing to report a net cash position in the period.

2018-2023 net debt and dividend forecast



Source: Dom Maklerski mBanku

Comarch will probably use the capital projects as an excuse not to raise dividends in the next two years, even though it has the means to do so without overburdening the balance sheet. We assume the annual distributions will finally go up in 2022 to a projected PLN 5.00 per share.

Income Statement*

(PLN m)	2017	2018	2019P	2020P	2021P	2022P	2023P
Revenue	1,101.6	1,364.9	1,501.5	1,606.3	1,689.5	1,764.0	1,840.1
change	-0.6%	23.9%	10.0%	7.0%	5.2%	4.4%	4.3%
Cost of sales	833.4	978.4	1,076.3	1,165.8	1,228.3	1,284.6	1,342.2
Gross profit	268.2	386.5	425.2	440.4	461.2	479.4	497.9
Other operating income	17.5	19.2	4.0	0.0	0.0	0.0	0.0
Sales and marketing costs	133.7	137.7	145.4	155.6	163.7	170.9	178.3
Administrative expenses	98.2	108.5	122.6	131.2	137.1	142.6	148.3
Other operating charges	19.3	47.6	20.0	0.0	0.0	0.0	0.0
EBIT	34.5	112.0	141.1	153.6	160.4	165.9	171.3
margin	3.1%	8.2%	9.4%	9.6%	9.5%	9.4%	9.3%
D&A expenses	64.2	65.2	84.5	87.5	90.6	93.9	97.4
EBITDA	98.6	177.2	225.6	241.1	251.1	259.9	268.7
margin	9.0%	13.0%	15.0%	15.0%	14.9%	14.7%	14.6%
Financing activity	31.8	-13.9	-2.0	-2.0	-2.0	-2.0	-2.0
Share in profits/losses of associates	-3.1	-11.1	0.0	0.0	0.0	0.0	0.0
Pre-tax income	63.2	87.0	139.1	151.6	158.4	163.9	169.3
margin	5.7%	6.4%	9.3%	9.4%	9.4%	9.3%	9.2%
Tax	18.5	33.4	45.1	47.6	48.2	49.1	50.1
Net income	43.1	51.7	94.0	104.0	110.2	114.9	119.2
margin	3.9%	3.8%	6.3%	6.5%	6.5%	6.5%	6.5%
Shares outstanding at eop (millions)	8.13	8.13	8.13	8.13	8.13	8.13	8.13
EPS	5.30	6.35	11.56	12.78	13.55	14.12	14.66
CEPS	13.19	14.37	21.95	23.54	24.70	25.67	26.63
ROAE	4.9%	5.9%	10.3%	10.4%	10.0%	9.7%	9.5%
ROAA	2.9%	3.2%	5.2%	5.4%	5.3%	5.3%	5.2%

*IFRS15 from 2017, IFRS16 from 2019;
P – projections by Dom Maklerski mBanku

Balance Sheet*

(PLN m)	2017	2018	2019P	2020P	2021P	2022P	2023P
ASSETS	1,503.1	1,740.3	1,870.2	2,005.3	2,132.2	2,231.9	2,336.3
Fixed assets	733.0	821.2	832.1	850.2	892.9	929.1	943.7
Property, plant and equipment	554.8	551.1	562.2	579.5	617.7	650.2	663.6
Investment property	15.4	32.7	32.7	32.7	32.7	32.7	32.7
Goodwill	42.2	42.2	42.2	42.2	42.2	42.2	42.2
Other intangible assets	63.6	59.4	59.1	60.0	64.4	68.2	69.3
Noncurrent prepayments	3.2	2.8	2.8	2.8	2.8	2.8	2.8
Deferred income tax assets	34.2	35.0	35.0	35.0	35.0	35.0	35.0
Other (incl. leases)	19.6	98.0	98.0	98.0	98.0	98.0	98.0
Current assets	766.2	919.1	1038.1	1155.0	1239.3	1302.8	1392.7
Inventory	114.1	97.2	108.0	118.1	125.7	132.8	140.1
Trade and other receivables	393.1	435.4	483.4	520.7	551.4	579.6	608.8
Long-term contract receivables	40.5	134.8	148.3	158.6	166.9	174.2	181.7
Other	10.6	5.8	5.8	5.8	5.8	5.8	5.8
Cash	208.0	245.9	292.6	351.8	389.5	410.3	456.2

(PLN m)	2017	2018	2019P	2020P	2021P	2022P	2023P
EQUITY & LIABILITIES	1,503.1	1,740.3	1,870.2	2,005.3	2,132.2	2,231.9	2,336.3
Equity	880.4	876.1	957.9	1,049.7	1,147.7	1,221.9	1,300.4
Non-current liabilities	237.5	287.3	287.3	287.3	287.3	287.3	287.3
Loans and borrowings	185.6	175.0	175.0	175.0	175.0	175.0	175.0
Provision for deferred income tax	6.9	43.6	43.6	43.6	43.6	43.6	43.6
Financial liabilities at fair value	0.7	1.3	1.3	1.3	1.3	1.3	1.3
Other financial obligations (incl. leases)	0.4	57.5	57.5	57.5	57.5	57.5	57.5
Other liabilities	43.8	9.8	9.8	9.8	9.8	9.8	9.8
Current liabilities	385.2	576.9	625.0	668.3	697.2	722.7	748.6
Trade and other payables	172.8	182.5	198.8	213.1	222.3	230.2	238.1
Current income tax liabilities	5.5	9.0	9.0	9.0	9.0	9.0	9.0
Revenue billed under long-term contracts	30.8	163.8	180.2	195.2	205.7	215.1	224.7
Loans and borrowings	39.1	40.3	40.3	40.3	40.3	40.3	40.3
Financial liabilities at fair value	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Other financial obligations (incl. leases)	0.2	17.6	17.6	17.6	17.6	17.6	17.6
Provisions for other liabilities and charges	136.3	163.3	178.7	192.6	201.9	210.1	218.4
Debt	226.6	217.8	217.8	217.8	217.8	217.8	217.8
Net Debt	-	46.3	-0.4	-59.6	-97.3	-118.1	-164.0
Net Debt pre-IFRS 16	18.6	-28.1	-74.8	-134.0	-171.7	-192.5	-238.4
Pre-IFRS 16 Net Debt / Equity	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2
Net Debt / EBITDA**	0.2	-0.2	0.0	-0.2	-0.4	-0.5	-0.6
BVPS	108.2	107.7	117.8	129.1	141.1	150.2	159.9

*IFRS15 from 2017, IFRS16 from 2018; ** 2018 ratio is pre-IFRS 16
P – projections by Dom Maklerski mBanku

Cash Flow*

(PLN m)	2017	2018	2019P	2020P	2021P	2022P	2023P
Cash flow from operating activities	61.1	180.6	156.3	179.0	185.3	193.6	200.5
Net income	43.1	51.7	94.0	104.0	110.2	114.9	119.2
D&A expenses	64.2	65.2	84.5	87.5	90.6	93.9	97.4
Financing activity	-31.8	13.9	2.0	2.0	2.0	2.0	2.0
Change in working capital and other	-14.4	49.9	-24.2	-14.5	-17.6	-17.2	-18.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash flow from investing activities	-140.5	-86.6	-77.4	-87.6	-115.4	-112.1	-93.9
CAPEX	-140.5	-86.6	-77.4	-87.6	-115.4	-112.1	-93.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash flow from financing activities	69.5	-35.5	-32.2	-32.2	-32.2	-60.7	-60.7
Debt	49.9	-9.4	0.0	0.0	0.0	0.0	0.0
Share issue	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dividends/Buyback	-12.2	-12.2	-12.2	-12.2	-12.2	-40.7	-40.7
Other (incl. lease payments)	31.8	-13.9	-20.0	-20.0	-20.0	-20.0	-20.0
Change in cash	-9.9	58.6	46.7	59.2	37.7	20.8	45.9
Cash at eop	208.0	245.9	292.6	351.8	389.5	410.3	456.2
DPS (PLN)	1.5	1.5	1.5	1.5	1.5	5.0	5.0
FCF	-79.4	94.1	78.9	91.4	69.9	81.5	106.6
(CAPEX/Sales)	12.8%	6.3%	5.2%	5.5%	6.8%	6.4%	5.1%

*IFRS15 from 2017, IFRS16 from 2019
P – projections by Dom Maklerski mBanku

Trading Multiples*

	2017	2018	2019P	2020P	2021P	2022P	2023P
P/E	33.7	28.1	15.4	14.0	13.2	12.6	12.2
P/CE	13.5	12.4	8.1	7.6	7.2	7.0	6.7
P/B	1.6	1.7	1.5	1.4	1.3	1.2	1.1
P/S	1.3	1.1	1.0	0.9	0.9	0.8	0.8
FCF/EV	-5.4%	6.6%	5.4%	6.6%	5.2%	6.1%	8.3%
EV/EBITDA**	14.9	8.0	6.4	5.8	5.4	5.1	4.8
EV/EBIT**	42.6	12.7	10.3	9.1	8.4	8.0	7.5
EV/S**	1.3	1.0	1.0	0.9	0.8	0.8	0.7
Dividend Yield	0.8%	0.8%	0.8%	0.8%	0.8%	2.8%	2.8%
Price (PLN)	178.5	178.5	178.5	178.5	178.5	178.5	178.5
Shares outstanding at eop (millions)	8.1	8.1	8.1	8.1	8.1	8.1	8.1
MC (PLN m)	1,452	1,452	1,452	1,452	1,452	1,452	1,452
EV (PLN m)	1,470	1,424	1,451	1,392	1,355	1,334	1,288

*IFRS15 from 2017, IFRS16 from 2019 (from 2018 for balance-sheet positions); ** 2018 ratios are pre-IFRS 16
P – projections by Dom Maklerski mBanku

List of abbreviations and ratios contained in the report:

EV – net debt + market value
EBIT – Earnings Before Interest and Taxes
EBITDA – EBIT + Depreciation and Amortisation
P/CE – price to earnings with amortisation
MC/S – market capitalisation to sales
EBIT/EV – operating profit to economic value
P/E – (Price/Earnings) – price divided by annual net profit per share
ROE – (Return on Equity) – annual net profit divided by average equity
P/BV – (Price/Book Value) – price divided by book value per share
Net debt – credits + debt papers + interest bearing loans – cash and cash equivalents
EBITDA margin – EBITDA/Sales

OVERWEIGHT (OW) – a rating which indicates that we expect a stock to outperform the broad market
NEUTRAL (N) – a rating which indicates that we expect the stock to perform in line with the broad market
UNDERWEIGHT (UW) – a rating which indicates that we expect the stock to underperform the broad market

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mBank issued the following investment recommendations for Comarch in the 12 months prior to this publication

Rating	buy	buy	hold	accumulate	accumulate
Rating date	2019-04-17	2019-03-05	2019-02-04	2018-12-05	2018-10-01
Target price (PLN)	230.00	195.00	160.80	173.30	180.50
Price on rating day	181.00	162.50	155.00	160.00	167.00

Dom Maklerski mBanku

Senatorska 18
00-082 Warszawa
<http://www.mbank.pl/>

Research Department

Kamil Kliszc
director
+48 22 438 24 02
kamil.kliscz@mbank.pl
energy, power generation

Jakub Szkopek
+48 22 438 24 03
jakub.szkopek@mbank.pl
industrials, chemicals, metals

Aleksandra Szklarczyk
+48 22 438 24 04
aleksandra.szklarczyk@mbank.pl
construction, real-estate development

Michał Marczak
+48 22 438 24 01
michal.marczak@mbank.pl
strategy

Paweł Szpigiel
+48 22 438 24 06
pawel.szpigiel@mbank.pl
media, IT, telco

Piotr Poniatowski
+48 22 438 24 09
piotr.poniatowski@mbank.pl
industrials

Michał Konarski
+48 22 438 24 05
michal.konarski@mbank.pl
banks, financials

Piotr Bogusz
+48 22 438 24 08
piotr.bogusz@mbank.pl
retail, gaming

Mikołaj Lemańczyk
+48 22 438 24 07
mikolaj.lemanczyk@mbank.pl
financials

Sales and Trading**Traders**

Piotr Gawron
director
+48 22 697 48 95
piotr.gawron@mbank.pl

Jędrzej Łukomski
+48 22 697 49 85
jedrzej.lukomski@mbank.pl

Tomasz Galanciak
+48 22 697 49 68
tomasz.galanciak@mbank.pl

Krzysztof Bodek
+48 22 697 48 89
krzysztof.bodek@mbank.pl

Adam Prokop
+48 22 697 47 90
adam.prokop@mbank.pl

Magdalena Bernacik
+48 22 697 47 35
magdalena.bernacik@mbank.pl

Tomasz Jakubiec
+48 22 697 47 31
tomasz.jakubiec@mbank.pl

Andrzej Sychowski
+48 22 697 48 46
andrzej.sychowski@mbank.pl

Sales, Foreign Markets

Marzena Łempicka-Wilim
deputy director
+48 22 697 48 82
marzena.lempicka@mbank.pl

Bartosz Orzechowski
+48 22 697 48 47
bartosz.orzechowski@mbank.pl

Private Client Sales

Kamil Szymański
director
+48 22 697 47 06
kamil.szymanski@mbank.pl

Jarosław Banasiak
deputy director
+48 22 697 48 70
jaroslaw.banasiak@mbank.pl