

CMC Corporation (HOSE: CMG)

Interesting Growth Trajectory Ahead

We initiate coverage on CMG with at **REDUCE** as we expect current valuation will leave limited room for upside potential in near-term. This is due to the fact that FPT, a leading Tech company in Vietnam, is being traded at 30% discount to CMG based on FY22F P/E despite the fact that FPT's ROE and profit margins outperform CMG's. Having said that, we project that CMG will outgrow FPT going forward due to its relatively small current scale of key businesses (CMG's 5Y CAGR of 30% vs FPT's of 21%). Consequently, we believe CMG would be a great BUY on price weakness with **a target price of VND 36,400/share**, based on SoTP and DCF valuation methods, implying FY22F/FY23F forward P/E of **23.5x/17.3x**. Our investment rationales on CMG are as follows.

- **CMG's leading position in Vietnam's IT industry will enable growth given robust demand for digital adoption.** CMG is currently the second largest private tech company in Vietnam and a reputable partner for many IT, digital transformation and telecommunications projects of the Government and corporate clients in key domains such as Financials, Manufacturing and Real Estate.
- **High sustainable growth trajectory ahead.** The company has been transforming its business divisions toward digital services (DX, Cloud, ITO) from legacy IT services, which will not only drive revenue growth but also create significant potential for profit margin expansion. In fact, CMG has prepared the infrastructure as well as human resources to enhance the service delivery capabilities of the Telecom division and the Global Business division. This preparation helps CMG quickly address customers's digital needs, and realize prospective growth.
- **We forecast 5Y CAGR of revenue and NPAT at 17% and 30%, respectively,** implying that the net margin will improve from 3.8% in FY21 to 6.5% in FY26F as CMG increases the revenue proportion from Telecom and IT services, which yield higher profit margins compared to System integration services.

Key investment risks include: (1) weaker-than-expected IT spending will undermine the growth rate of Global Business division, (2) the VND appreciates against the currencies of the software export markets, (3) huge CAPEX for Hoa Lac and Da Nang complexes construction to affect CMG's free cash flow.

Key financial ratios

Y/E Mar (VND Bn)	FY2020	FY2021	FY2022F	FY2023F
Net revenue	5,181	6,290	7,195	8,324
%change	6,7%	21,4%	14,4%	15,7%
PAT	175	240	274	373
% change	15%	36,9%	14,3%	36,0%
Net margin (%)	3,4%	3,8%	3,8%	4,5%
ROA (%)	3,5%	3,8%	4,4%	5,0%
ROE (%)	8,9%	11,1%	12,7%	13,7%
EPS (VND)	889	1,320	1,550	2,107
Book value (VND)	19,620	19,862	19,862	20,823
Cash dividend (VND)	0	0	0	0
P/E (x)	9.0	20.6	19.5	14.4
P/BV (x)	0.6	1.9	1.8	1.7

Source: CMG, RongViet Securities

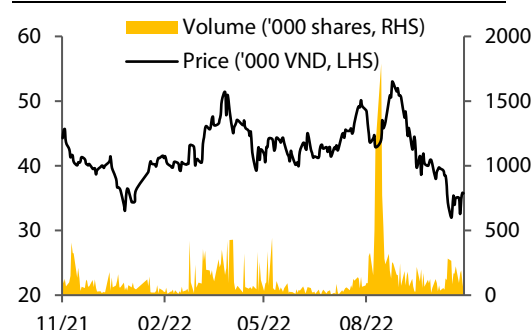
REDUCE

-8%

Market price (VND)	39,500
Target price (VND)	36,400

Stock Info

Sector	Technology
Market cap (VND bn)	5,355.0
Current Shares O/S (Million)	150.0
Beta	1.1
Free Float (%)	32
52 weeks High	53,000
52 weeks Low	32,000
Average trading volume (20 sessions)	118,300



Performance (%)

	3M	1Y	3Y
CMG	-28.8	-19.3	48.7
Technology	7.7	40.7	n.a
VN Index	-24.6	-34.4	0.8

Major shareholders (%)

Samsung SDS	30.0
MVI Investment Company Limited	13.5
PYN Elite Fund	5.1
Foreigner investor room (%)	49%

Tung Do

(084) 028 - 6299 2006 – Ext 2219

tung.dt@vdsc.com.vn

INVESTMENT RATIONALES

CMG's leading position in Vietnam's IT industry will enable growth given robust demand for digital adoption

CMC Corporation was established in 1993, with the core businesses of system integration, software solutions and computer assembly. By 2007, the company began to expand into telecommunication services, network security and ICT products distribution. CMC did not really succeed in computer assembly and ICT distribution services due to saturated market, and highly fierce competition. A restructuring process was carried out to exit from these two segments and by 2017, we see that CMG developed a reasonable strategy based on three main business pillars: System Integration (Solution & Technology Division), Telecom services, and Software outsourcing (Global Business Division). Industry positioning of CMG's main business pillars are as follows.

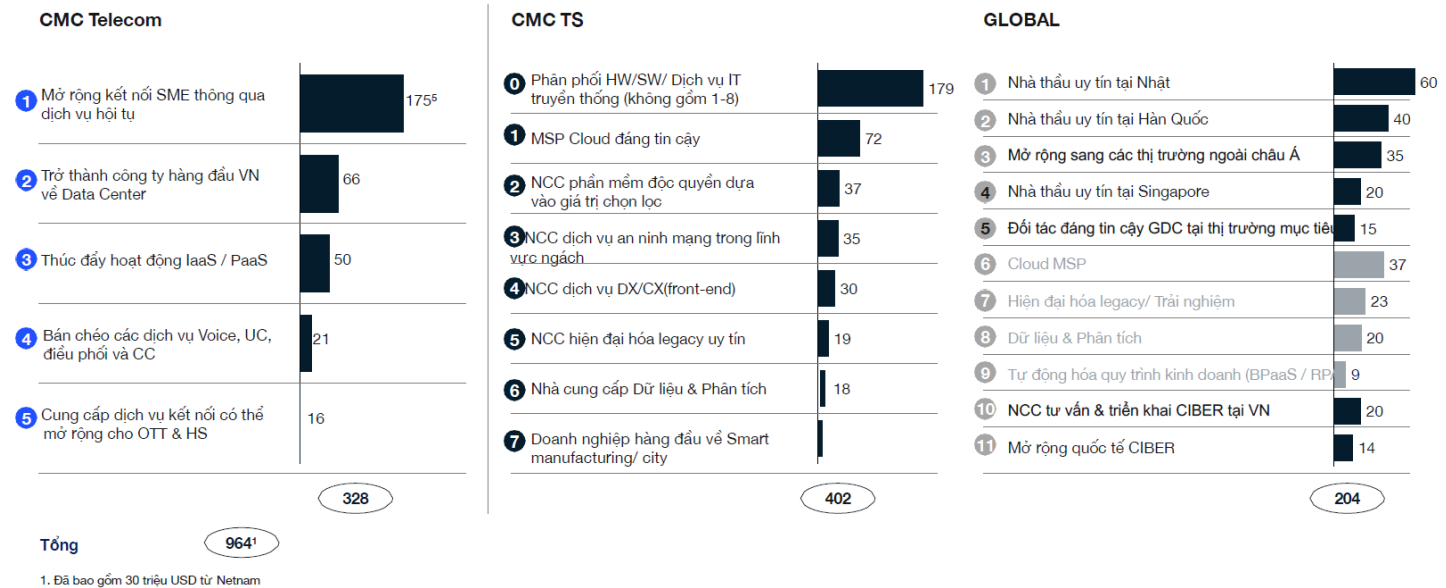
- **CMG has nearly 30 years of experience in providing System integration services.** This service group contributes the largest revenue to CMG, estimated at VND2,200 bn in the FY21 and accounts for 65% and 33% of CMG's Technology & solution division (T&S) revenue and the group's total revenue, respectively. With a revenue of about VND3,300 bn T&S, CMG accounts for about 22% of the market share of the domestic IT services market, worth about VND15 trillion per IDC's estimates, ranking second after FPT IS (a subsidiary of FPT) with estimated market share of about 40%.
- **For the Telecom division, CMG is one of the four largest enterprises providing comprehensive telecommunications solutions for businesses in Vietnam,** including broadband services, Data centers (DC), and Cloud managed service provider (Cloud MSP). This segment recorded sales of about VND2 trillion in the fiscal year 2021, about 30% lower than the revenue of the third largest company in the industry, FTI (a company under FPT Telecom).
- **CMG has started focusing on developing outsourcing services since 2017 by establishing the Global Business Segment - CMC Global.** Due to its modest size in the early stages, this sector recorded a high four-year compound growth rate of 74%. Currently, CMC is in the top 5 Vietnamese enterprises providing export services & technology solutions. The main international markets of CMC include Korea, Japan, and APAC.

Per Vietnam Report, CMG ranks 6th in the list of 10 most prestigious Vietnamese IT - Telecommunications Companies in 2021 and is the second largest private enterprise in this list. In addition, CMC Technology & Solutions Corporation (CMC TS) ranked second in Vietnam Report's Top 10 Prestigious Software Solutions & System Integration Service Providers in 2021. **In general, we believe that CMG's certain position in Vietnam's IT industry that can be leveraged to realize the market's growth potential.**

The billion-dollar ambition with "Big moves" strategy

In 2020, CMG started cooperating with McKinsey to deploy strategic consulting and digital transformation cooperation for the Group with 20 "Big moves" strategic initiatives for its IT services, aiming to achieve revenue goals of around USD 1 bn by 2025. Target revenue from the services of CMG's three main segments is shown below.

Figure 1: 20 strategic initiatives for each division per McKinsey's consultancy and target revenue by 2025



Source: CMG, RongViet Securities

This strategic goal is quite challenging as the Telecom/T&S/Global Business divisions will have to achieve a 4Y CAGR of 35%/30%/57%, respectively, over FY21-FY25. Except for the Global business division, which is growing rapidly from a low base, the targeted CAGR of the Telecom and T & S divisions are much higher than respective historical CAGR of 12% and -1 % in the last three years. However, CMC has also taken preparation steps to achieve this challenging target through capacity expansion investments, including investment in core technology R&D and ramping up human resources (the target of 10,000 employees by 2025 compared to 4,580 at the end of FY21). Recently, CMG has upgraded its Telecom infrastructure (expanding DC capacity in CMC building in Cau Giay, Hanoi and Tan Thuan, District 7, HCMC), invested in CMC University, and will be investing in new working campuses (CMC Creative Space Danang project and CMC - CMC Hoa Lac Complex).

Table 1: Investment (plan) of CMG by division (VND bn)

Division	2019	2020	2021	2022F
Technology & Solutions	37	6	33	83
Global business	23	11	65	122
Telecom division	292	224	708	573
Education & Research	0	0	3	96
Others	417	373	246	835
Total	769	614	1.054	1.708

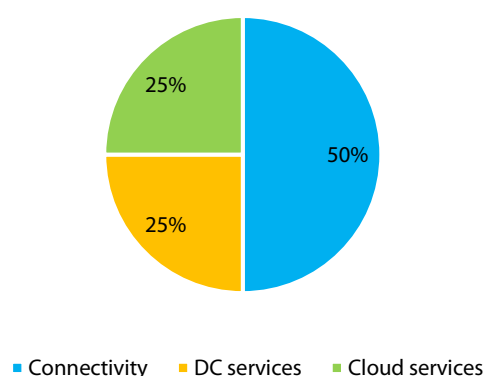
Source: CMG, RongViet Securities

Telecom division is poised to ride on the booming Cloud services market

Telecom division has been the largest contributor to CMG's PBT since 2015. The main entities of the division consist of a subsidiary - CMC Telecom (CMG owns 55%) - and an associate - Netnam (CMG owns 41%).

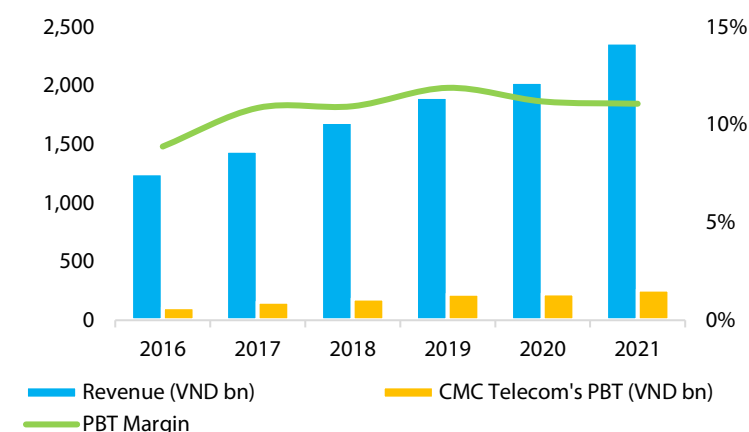
CMC Telecom provides three main service groups: Internet connectivity services, Data centers and Cloud services. The Internet connectivity services group plays the leading role, contributing 50% of the revenue, while the sales contribution of the other two groups are at roughly 25% each. Due to the highly competitive landscape of B2B broadband market, CMC Telecom's PBT ratio is rather low, maintaining around 11% since 2017 - when CMG put its North-South backbone fiber cable network into operation. Previously, CMC Telecom's PBT ratio was lower, fluctuating in 6%-9% range, due to internet lines outsourcing expenses.

Figure 2: Internet services are contributing the most to CMC Telecom's revenue



Source: CMG, RongViet Securities

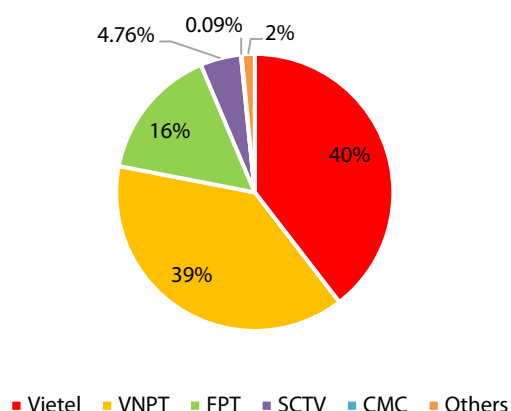
Figure 3: CMC Telecom's PBT margin has stabilized since its Backbone fiber cable network was operational in 2017



Source: CMG, RongViet Securities

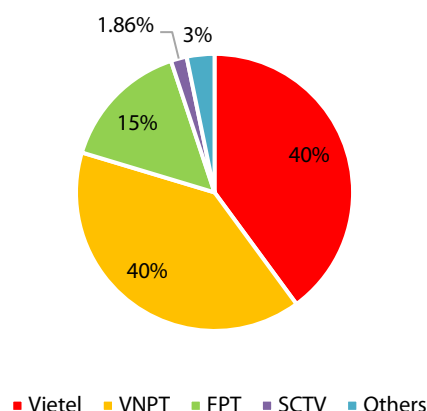
Customers of the Telecom division are mostly domestic enterprises operating in Financials sector and FDI enterprises. Previously, CMC Telecom approached individual customers group through internet services deployed on cable TV line infrastructure but ceased operation due to low business efficiency. Due to the focus on corporate customers, CMC Telecom's market share, based on the number of fixed broadband subscribers and revenue from providing fixed broadband services, is very low.

Figure 4: Market share of ground fixed wired broadband subscribers in 2020



Source: IT White paper 2021, RongViet Securities

Figure 5: Ground fixed broadband revenue share in 2020



Source: IT White paper 2021, RongViet Securities

The telecom infrastructure platform continues to be enhanced with the new data center coming into operation

Broadband cable network infrastructure: CMC Telecom owns the CVCS (Cross Vietnam Cable System) backbone network system, which directly connects with 5 international undersea cable routes, including

A-Grid (the cable route is owned by Time dotcom - a strategic shareholder of CMC Telecom), AAE1, APG, Unity and Faster.

Data Center Infrastructure (DC): In August 2022, CMG officially implemented the new Data Center (DC) in the CMC Creative Space complex in Tan Thuan, Ho Chi Minh City, mainly serving large banks, OTT providers, Cloud service providers. This is CMG's largest DC with a floor area of 10,000 m² and a scale of 1,200 rack cabinets, beside two existing DCs in Cau Giay, Hanoi (300 racks), and in the high-tech park, District 9, HCMC (300 racks). All CMG's DCs meet the Uptime Tier III standard, an important standard for evaluating a DC's stable and continuous operation (uptime up to 99.982%). Currently, CMC Telecom is the fourth largest telecom companies providing DC services in Vietnam, ranking behind Viettel IDC, FPT Telecom, and VNPT VDC.

Table 2: CMC Telecom is the fourth largest telecom companies providing DC services in Vietnam

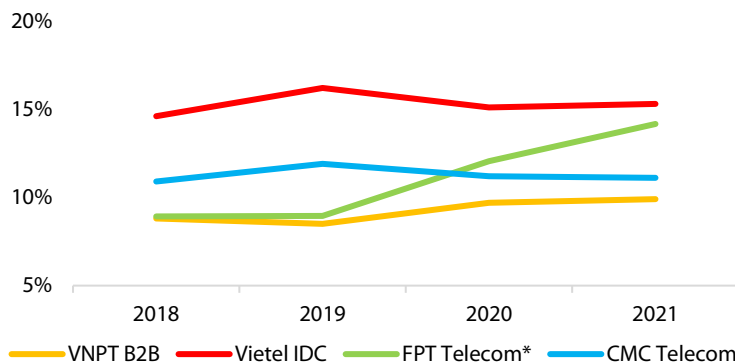
Company	Data center	Year of operation	No of rack cabinets	Size (m2)
Vietel IDC	Phap Van	2009	600	3,000
	Hoang Hoa Tham	2009	500	3,000
	Hoa Lac	2010	1,200	6,500
	Binh Duong	2011	1,600	10,000
	Danang	2014	100	500
	Total		4,000	23,000
FPT Telecom	DC Duy Tan	n.a	640	2,073
	DC Tan Thuan	2009	1,800	1,680
	FPT Fornix HN02	2020	1,500	1,221
	FPT Fornix High-tech Park Q9*	n.a	3,600	10,000
	Total		3,940	4,974
VNPT VDC	An Dong – Da Nang	2012	75	300
	The Internet Building	2015	237	1,700
	Nam Thang Long	2015	855	10,000
	Tan Thuan - District 7	2015	855	10,000
	Nguyen Thi Minh Khai	n.a	75	400
	Nguyen Trai	n.a	50	150
	Total		2,147	22,550
CMC Telecom	High-tech Park District 9	2012	300	500
	Cau Giay District, Hanoi	2019	300	500
	Tan Thuan – District 7	2022	1,200	3,100
	Total		1,800	4,100

Source: Data Center Map, RongViet Securities. * inactive

Upgrading the scale of telecom infrastructure with the new DC in Tan Thuan will help CMC Telecom improve its competitive position and capabilities in providing Cloud services, taking advantage of the rapid development of this market. In addition, directly owning DC in Vietnam is also an advantage in providing Infrastructure-as-a-Service (one model in Cloud services) compared to foreign Cloud providers such as Amazon, Microsoft, or Google. This is because foreign businesses do not directly own the data center in Vietnam, which means that all data that wants to be processed or stored in the cloud must go through international lines, which is more costly and limits connection speed.

Regarding profit margins, CMC Telecom's PBT margin is quite low compared to other telecommunications companies. We attribute this to CMC Telecom's highly competitive services prices compared to competitors.

Figure 6: PBT margin of CMC Telecom is lower than Viettel IDC and FPT Telecom



Source: Company Reports, RongViet Securities * Exclude Broadband service group

Ramping up Cloud services to capture huge potential demand

Among the major service groups of the Telecom division, **CMG will focus on promoting the Cloud services, aiming to contribute up to 50% of the Telecom division's revenue.** We consider this is the sound strategy to promote the growth of this division given the strong developing trend of the Cloud market in Vietnam.

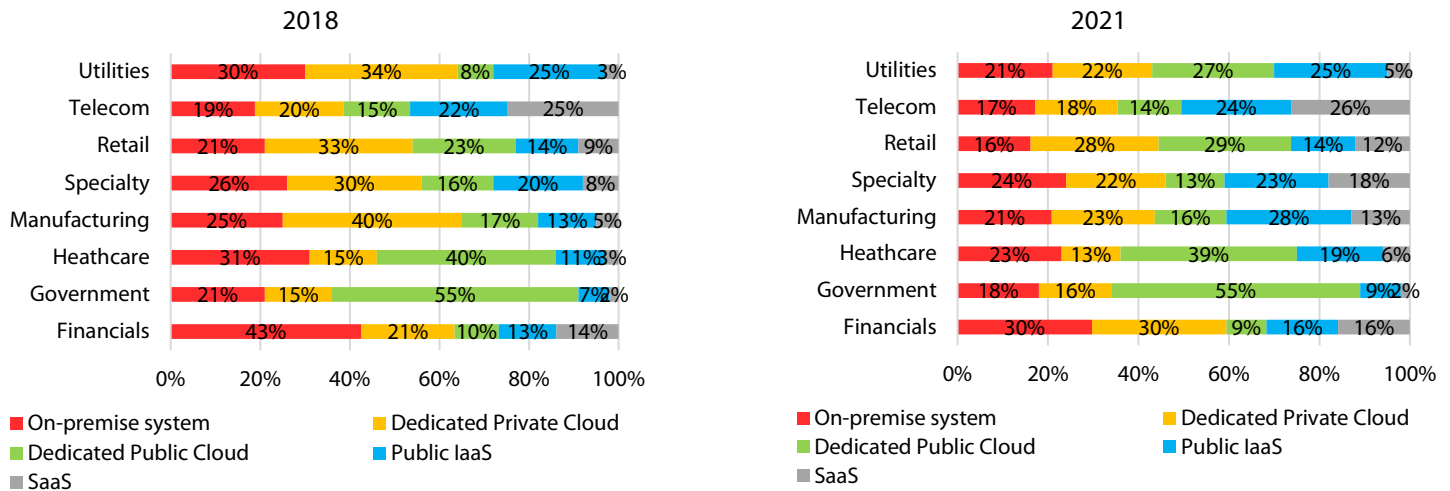
In fact, Cloud is considered a crucial technology platform in the digital transformation (DX) process of businesses because of the many economic benefits it brings. Basically, Cloud services allow businesses to solve the needs of data storage (Infrastructure-as-a-Service model) and application development (Platform-as-a-Service model), and using software (Software-as-a-Service model) based on digital infrastructure (data centers) of Cloud services providers namely Amazon, Microsoft, Google, etc. The cost of using Cloud services will also be paid by the "pay-as-you-go" basis, which means that businesses will only have to pay for the services and capacity they use, helping significantly reduce upfront investment costs for an on-site IT system. This also means that businesses can easily scale up / down depending on the usage demand in each period. Moreover, by using Cloud, businesses can be more flexible in their operations because they can access data or use applications remotely instead of being only usable on-premise, where the server is located, in the traditional way.

With the above benefits and Cloud's central role in the DX revolution, the Cloud market size is forecasted to continue to grow rapidly going forward. IDC estimates that global spending on Cloud services as a whole reached USD706 billion in 2021 and is projected to USD1.3 trillion by 2025, implying a CAGR of 16.9%. In particular, the public Cloud (including IaaS, PaaS, and SaaS models) will continue to be the largest and fastest growth driver for the entire Cloud industry with a total spending of USD385 billion by 2021 and will post a CAGR of over 21% through 2025, reaching USD809 billion.

Vietnam still has a huge opportunity to promote cloud services as the DX trend is inevitable.

Government agencies or businesses in banking, finance and insurance sectors in Vietnam, per McKinsey, are the sectors that have experienced the fastest DX pace, leading to the growth of cloud adoption and reducing the need for on-premise IT infrastructure. Moreover, state management agencies also have orientations in prioritizing the Cloud services adoption: the goal is that by 2025, 100% of government agencies will leverage Cloud computing, and 70% of Vietnamese enterprises will be using local Cloud services.

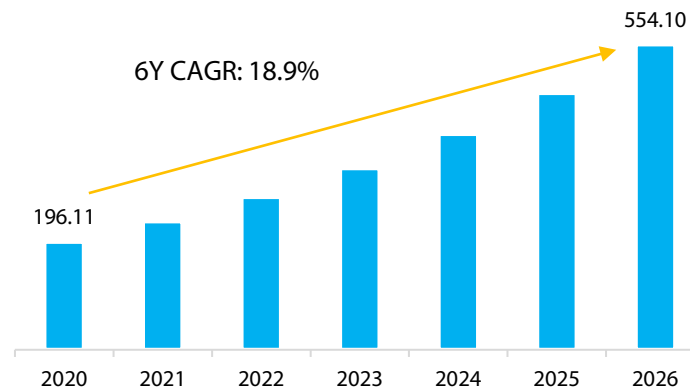
Figure 7: The trend of “Cloudization” is gradually replacing on-premise infrastructure



Source: McKinsey, RongViet Securities

With rapid pace DX, TechSci Research forecasts that this Cloud market in Vietnam will grow at a CAGR of 18.9% until 2026, from a size of nearly USD200 mn in 2020.

Figure 8: Vietnam’s cloud market is forecasted to grow with a CAGR of 19% over 2020-2026 (USD mn)



mn)

Source: TechSci Research, RongViet Securities

Currently, more than 40 enterprises are providing Cloud services in Vietnam, per Viettel IDC, including (1) foreign providers such as Amazon, Google, and Microsoft and (2) four large-scale domestic telecom enterprises namely Viettel IDC, VNPT, CMG, FPT and (3) some startups offering SaaS. Foreign cloud service providers are leading the market with nearly 75% market share thanks to the advantage of experience as well as leading core technology, in which Amazon Web Services (AWS) accounts for 33%, while Google and Microsoft each account for 21%. Meanwhile, Vietnamese enterprises, on the one hand, are also partners of foreign Cloud service providers and, on the other hand, provide their own "local cloud". For example, CMC Telecom is now an Advanced Tier Services Partner of Amazon Web Service (AWS), a Premier Partner of Google Cloud and a Gold Partner of Microsoft while also developing the its own CMC Cloud platform.

Similar to other "local cloud" platforms, CMC Cloud will have advantages compared to foreign Cloud providers, such as (1) cheaper costs owing to connecting to local internet cable system, (2) handling issue more quickly, minimizing the delay, (3) the ability to consult and support services faster. More importantly, Decree 53/2022/ND-CP, came into from October 1, 2022, guiding the Cybersecurity Law, also stipulates that: Personal information of service users; Service users’ relationship data; Data generated by service users in Vietnam, all must be stored domestically. Therefore, **the role of the "local**

cloud" platform, supported by the domestic DC infrastructure platform, will become increasingly important as businesses start their Cloud journey. This will also promote the trend of "multi-cloud" (combining cloud services of many providers) and sales of CMC Cloud in the future.

With the above potential trends, we believe that focusing on Cloud services, with supports from DCs infrastructure, will significantly cement the Telecom division's growth profile, expected at 20% p.a in the next few years.

Global business segment: Lucrative growth prospects

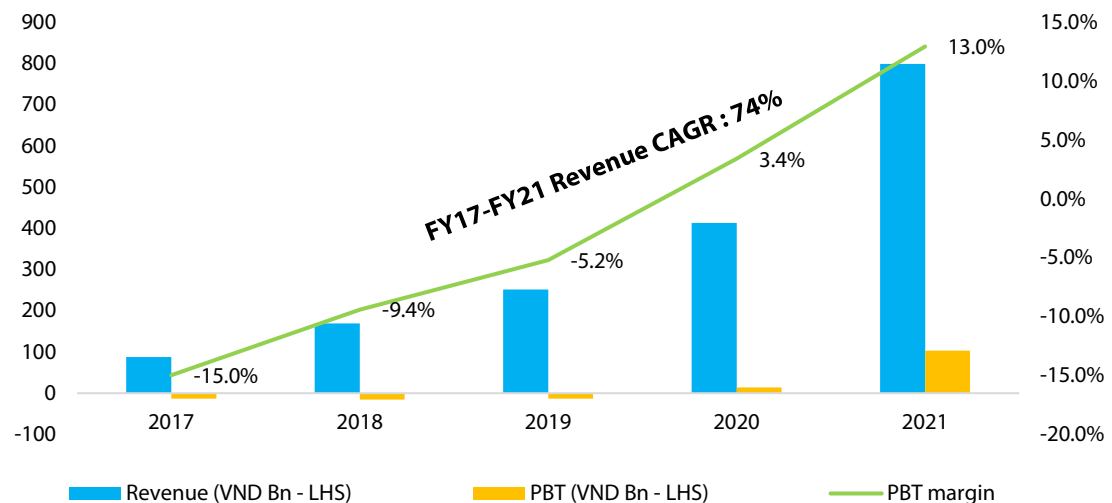
CMG established the global business segment in 2017, which is formerly a department specializing in software developing and outsourcing of the Technology & Solutions division. **We believe this is a strategic step and shows more emphasis in providing software solutions to global markets.**

With the establishment of CMC Japan in August 2017, Japan was the first market that CMC Global chose to penetrate. In the following years, CMC Global has also expanded to Singapore, Korea, Australia and EU markets.

At the beginning, the main services of CMC global mostly are traditional services such as software outsourcing (including Software development outsourcing and Business processing outsourcing), System integration, and testing. Recently, services related to DX using core technologies such as AI, Blockchain, Cloud, Big data, and RPA were also gradually deployed. These are all important core technologies of the Industrial Revolution 4.0, which have been focused on developing over the past five years. Therefore, **although starting later than other large tech enterprises like FPT Software, we believe that CMC Global still has the latecomers' advantages when it still can quickly catch up with suitable new technologies in line with the current global DX trend.**

The continuous expansion of new markets and customer base in recent years, plus the accelerated DX pace amid Covid-19 in 2020-21, helped **CMC Global progress rapid in terms of sales, with a CAGR of 74% from FY17-FY21.** The larger workload has also helped this division gradually increase economies of scale and improve profit margins (Figure 9). In the FY21, the division's revenue reached nearly VND800 billion, accounting for 12% of CMG's total revenue, and contributed more than VND100 billion in PBT, making up 24% of the Group's PBT structure.

Figure 9: CMC Global's earnings quickly prospered after breaking even since 2020



Source: CMG, RongViet Securities

CMG also concentrates on developing human resources for the Global Business division to meet the rapidly increasing workload. Especially in FY21, this group more than doubled its staff to more than 2,200 people as CMC Global expands its operations in many new markets, such as APAC and EU. As a result, CMC Global's number of staff accounted for nearly half of the whole group's. The CAGR of human

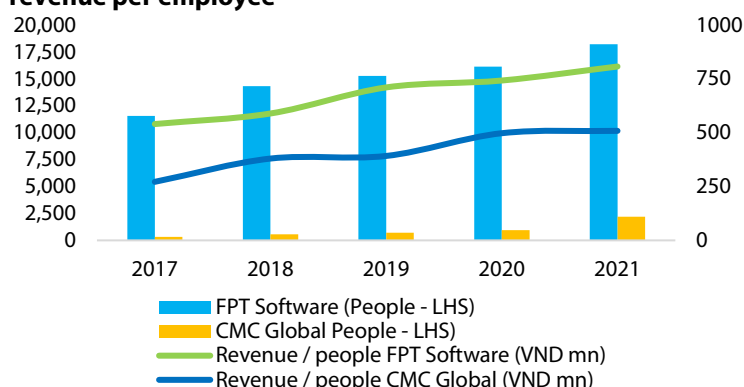
resources in the period FY17-FY21 reached 61%, lower than the 74% CAGR of revenue over the same period. While this implies an improvement in revenue per employee, **this performance level is still about 40% lower than that of FPT Software**. The most likely reason is that CMC Global is still providing legacy services (System Integration, ITO), while FPT Software mainly provides services related to DX and, especially, DX consulting (after acquiring Intellinet in 2018).

Table 3: The global business segment has the most rapid employee growth rate in the FY21

Business segment	2017	2018	2019	2020	2021
T&S	1.045	1.105	940	782	1.000
YoY %	n.a	6%	-15%	-17%	28%
Weight	43%	39%	32%	26%	21%
Global	322	569	717	945	2.200
YoY %	n.a	77%	26%	32%	133%
Weight	13%	20%	25%	32%	47%
Telecom	996	1.077	1.114	1.028	1.000
YoY %	4%	8%	3%	-8%	-3%
Weight	41%	38%	38%	35%	21%
Others	75	113	85	196	454
Total	2.438	2.864	2.900	2.951	4.654
YoY %	21%	17%	1%	2%	58%

Source: CMG, RongViet Securities

Figure 10: CMC Global underperformed F-Soft in terms of revenue per employee



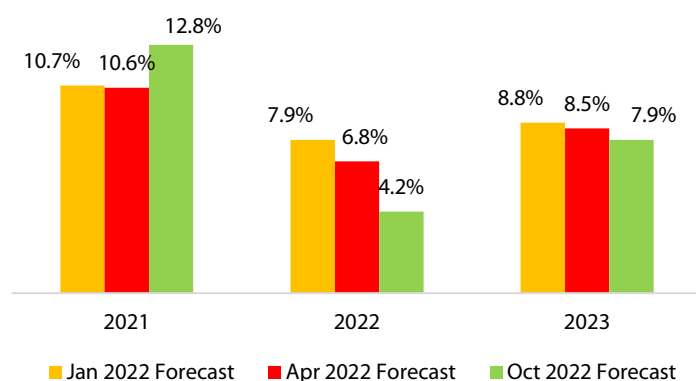
Source: FPT, CMG, RongViet Securities

Regarding the outlook for the IT services market, including software outsourcing, Gartner has revised its growth forecast for 2022 to 4.2% YoY in October compared to 7.9% from its forecast in early 2022 (Figure 11), while the growth rate of 2023 is forecasted at around 8% amid global economic recession and rapid inflation.

The positive point is that instead of cutting spending on IT services, including DX solutions, businesses often tend to delay the investment, indicating the resilient demand of the IT services. Furthermore, we believe that Vietnamese technology enterprises like CMG, with their existing advantages of competitive developer costs (Figure 12) and young workforce with knowledge of novel core technologies, will still be an attractive option for global corporate clients amid the economic downturn.

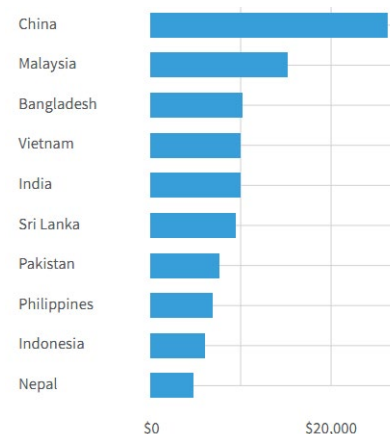
In addition, Vietnam also has a geographical proximity, and the nearly similar time zone to countries with high demand for IT services like Japan, South Korea, or Singapore, thereby helping Vietnamese IT services firms quickly respond to customers' needs and solve problems. In fact, CMG has constructed two business development centers located in Japan and Singapore to rapidly realize the potential of these regions. This, coupled with the fact that CMG's ITO business is still in the early stages of development, leads us to believe in ample headroom for Global Business Division's growth going forward. We expect this segment's revenue and PBT to maintain a CAGR of 30%-40% over the next three years.

Figure 11: Global IT services spending growth forecast is continuously revised downward for 2022 and 2023



Source: Gartner, RongViet Securities

Figure 12: Vietnam belongs to the group of 7 countries with the lowest average salary for programmers



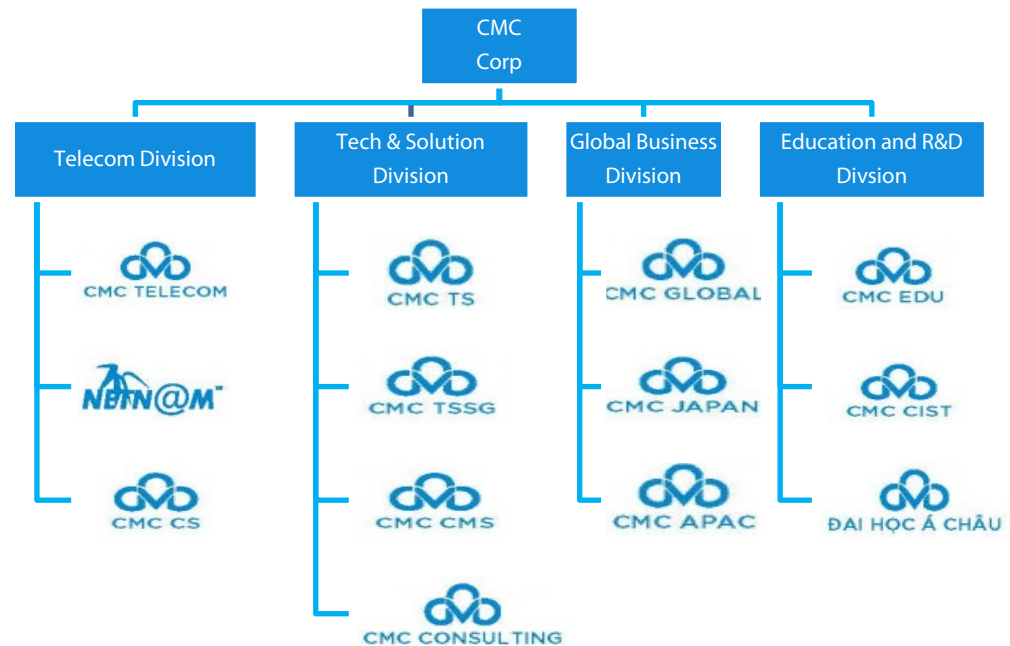
Source: Stackoverflow, RongViet Securities

COMPANY OVERVIEW

CMC Corp operates on four main business pillars: Telecommunications, Technology & Solutions, Global Business and Education & Research. CMC has most businesses similar to FPT, including System integration, Software, Telecom services and Education, but on a smaller scale.

The current business model is the result of a restructuring processed nearly a decade ago, aimed at reducing reliance on low-margin services such as System integration, Computer assembly and IT product distribution while focusing on high-margin businesses such as software and telecommunications.

Figure 13 Operational structure of CMG



Source: CMG, RongViet Securities

In 2021, most of CMG's PBT was from Telecom division (60%), followed by Global Business and Technology & Solutions division, respectively, while Education division has yet to incurred significant financial results due to its early phase of investment. These divisions' results are contributed mostly by main subsidiaries as follows.

- 1. CMC Telecom:** CMG started to enter the telecom industry in 2007. Since entering the market much later than its major competitors, the company tries to penetrate the industry in the niche market that focuses on providing services for corporate clients namely Data centers, Cloud computing - instead of competing in the market of providing internet services for households. CMC Telecom is the only Internet Service Provider in Vietnam to have foreign shareholder named TIME dotcom – Top 2 Malaysia Internet Service Provider. CMC Telecom, along with Netnam – an associate - is the main source of profit of CMG, accounting for 50%-80% of PBT over the 2015-2018 period.
- 2. CMC Technology & Solutions:** This subsidiary contributed the most to total revenue of CMG (around 50%) but only 12% to total PBT in 2021, implying a PBT margin of 1.5%. We attribute this thin profit margin to the large proportion of legacy IT services such as System integration services. However, this division has recently developed DX consulting and implementation services, Security solutions to improve its profit margin. Key clients are local enterprises, governments' agencies.
- 3. CMC Global** was originally a division of CMG specializing in providing software outsourcing services and was turned into a separate subsidiary in 2017. This is a strategic move to further

enter global IT services market. CMC Global provides a wide variety of IT Solutions & Services, ranging from Traditional services (Custom Software Development, Software maintenance, Legacy migration and Testing) to DX (Cloud, AI, RPA, IoT). This segment contributed 13% and 24% to consolidated revenue and PBT of CMG. It's noteworthy that after becoming profitable in 2020, CMC Global's profit grew rapidly in 2021 (more than 7x).

- 4. Education and Research:** In Feb 2022, CMG, through its wholly owned subsidiary named CMC Education, acquired 66% stake in Asia University of Arts and Design, and then renamed this university into CMC University. This university will start enrolling in 2022, orienting to become a technology university with key majors in computer science, information systems, electronics - telecommunications, and targeting to have 20-30 thousand students by 2039.

Table 4: CMG's subsidiaries and affiliates

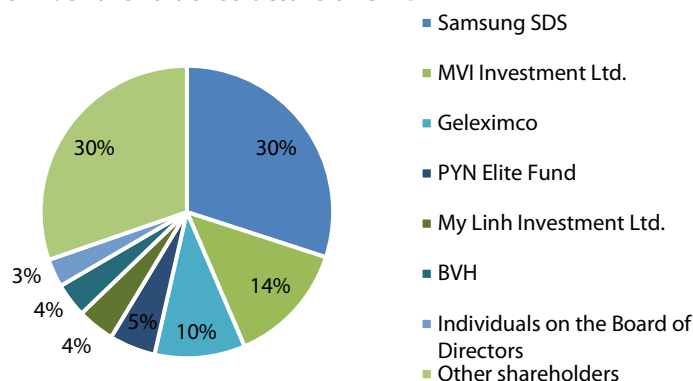
Company	Charter capital (VND bn)	Established	Core business	CMG's ownership rate
Subsidiaries				
CMC Technology and Solution	270	1996	IT solutions, system integration	100%
CMC Telecom	756	2007	Telecommunication - Internet services	55%
CMC Global	130	2017	Software outsourcing services	100%
CMC Education	250	2022	University education	100%
CMC Institute of Science and Technology	5	2014	Research, deploy new ICT technology	100%
CMC Production and Trading	100		IT product distribution	100%
CMC Manufacturing and Services	50	1999	Produce, assemble, distribute computers	100%
CMC Da Nang	100		Software services	100%
CMC Consulting	20	2008	Software services	51%
CMC Blue France (*)	5		BPO, ITO outsourcing service provider	100%
Indirect subsidiaries				
CMC Technology and Solution Saigon	90	2011	Provide IT solution	100%
CMC Cyber Security	40	2008	Provide cyber security solution	100%
CMC Japan	87,731,000 JPY	2017	Software services	100%
CMC - APAC	300,000 SGD		Software services	100%
Affiliate				
Netnam	50		Telecommunication - Internet services	41%

Source: CMG, RongViet Securities (*) suspended operation

Shareholder structure

CMG currently has three groups of major shareholders accounting for 70% of total outstanding shares including: (1) Strategic investor Samsung SDS (30%); (2) A group of institutional shareholders related to the management such as MVI Investment Limited Company (related to the late President Ha The Minh), and My Linh Investment Company Limited (related to current President Nguyen Trung Chinh) and individuals in the BOD hold about 3%; (3) Other financial investors include PYN Elite Fund (5%), and Geleximco (10%).

Figure 14: Shareholder structure of CMG



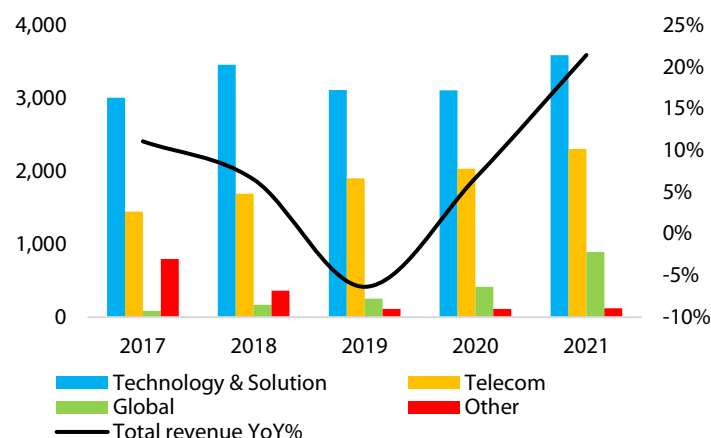
Source: CMG, RongViet Securities

FINANCIAL ANALYSIS

Revenue

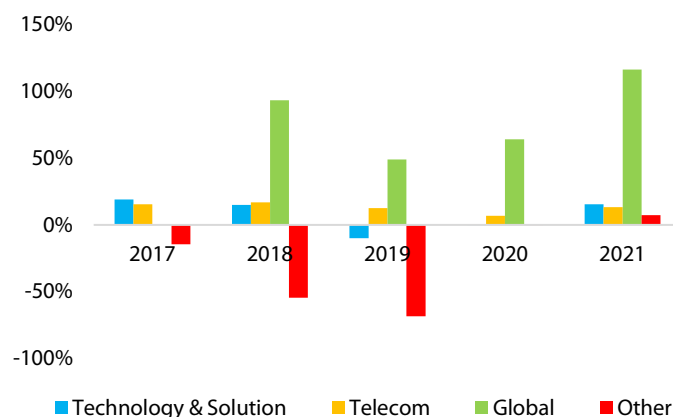
CMG posted a rather low revenue growth rate in revenue over the FY16-FY21 period, implying a 5Y CAGR of only 7% as the company went through a business model restructuring process, in which CMG (1) scaled down its distribution and computer assembly divisions (low margin businesses) over FY14-FY19 period and (2) restructured its Technology & Solution in 2019. Meanwhile, the Global business division has continuously delivered high growth since its establishment in 2017 as CMC Global rapidly expanded its footprint. Telecom division, on the other hand, has steadily grown with a 5Y CAGR of 14% from FY16 to FY21, which is equal to FPT Telecom's over the same period, on the back of sustainable demand from corporate clients for Internet services, DC and, recently, Cloud services.

Figure 15: Revenue breakdown* by division (VND Bn)



Source: CMG, RongViet Securities * Including internal transactions

Figure 16: Revenue growth* by division

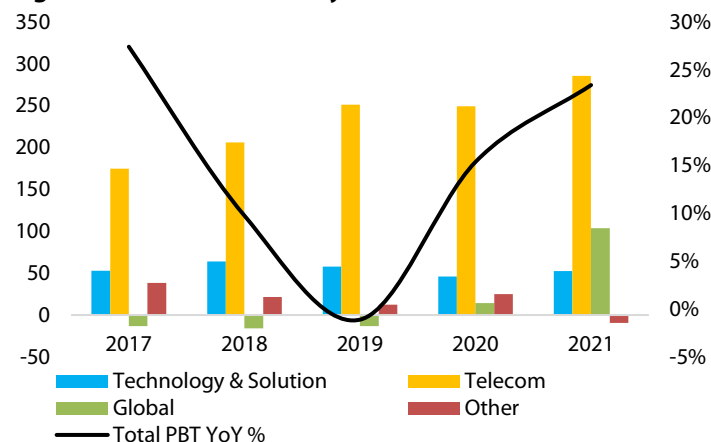


Source: CMG, RongViet Securities * Including internal transactions

Profitability and cash conversion cycle

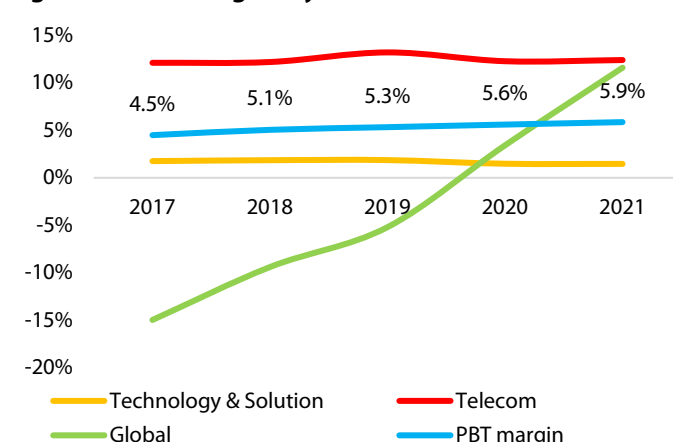
The Telecom division contributes the most to CMG's profit structure in the fiscal year 2021, followed by the Global business division. The Global business division, after surpassing the break-even point in 2020, has grown rapidly in profit, thereby supporting the expanding trend of PBT of the whole group.

Figure 17: PBT structure* by division



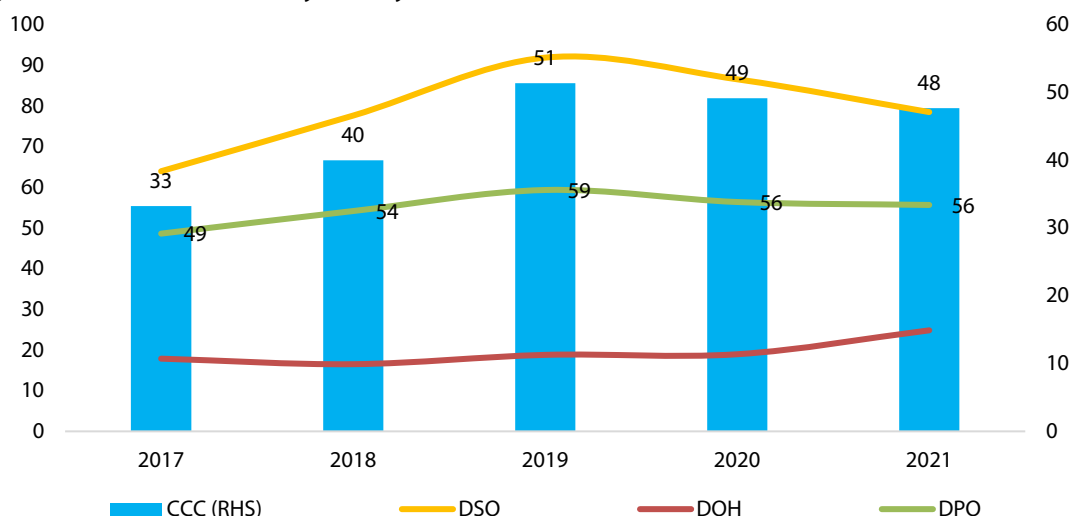
Source: CMG, RongViet Securities * Including internal transactions

Figure 18: PBT margin* by division



Source: CMG, RongViet Securities * Including internal transactions

The cash conversion cycle tends to improve slightly, mainly due to a decrease in the number of receivable days since 2019 while the deferred payment policy has not changed much in recent years with the number of payable days hovering around over 50 days.

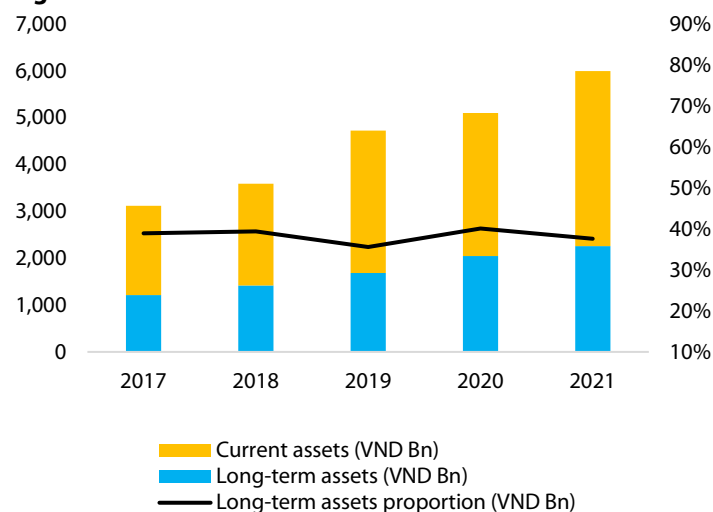
Figure 19: Cash conversion cycle (day)


Source: CMG, RongViet Securities

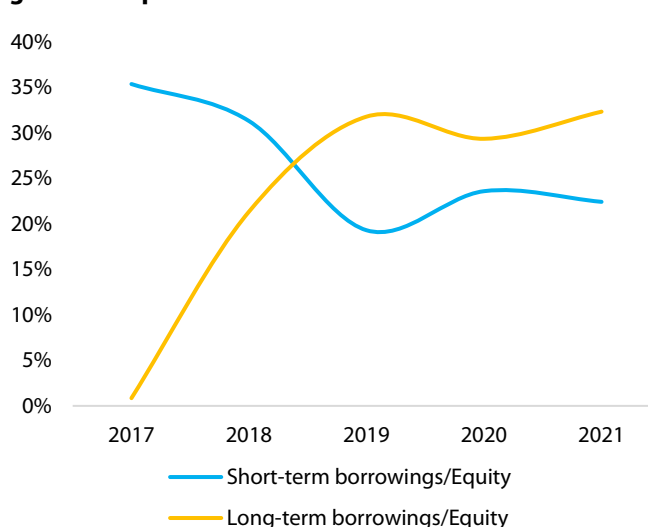
Assets and financial structure

The short-term assets accounted for a large part of total assets, hovering around 60% within recent five years. The most of current assets are cash and cash equivalent (accounting for 27% of total assets) and account receivables (accounting for 20% of total assets). Long-term assets are mainly fixed assets, consisting of building and telecom infrastructures.

In terms of debts, the long-term borrowings to Equity ratio surged since 2017 when CMG started to invest in the “CMC Creative Space” Project in HCMC and stayed at around 30% in recent years. Also, total borrowings to Equity are stable at 50% in the last three years.

Figure 20: Assets structure


Source: CMG, RongViet Securities

Figure 21: Capital structure


Source: CMG, RongViet Securities

Comparing business activities to FPT

CMG is currently the second largest private IT enterprise in Vietnam, behind FPT, according to the VNR500 ranking. However, FPT outperforms CMG in most of the main businesses by a large gap in terms of revenue scale as well as profit margins. In which, System integration and Telecom are the two main divisions of CMG since its inception, with a revenue scale smaller than FPT by about 80% and 40%, respectively, while the division of Global Business, since it just started into business in 2017, has a scale of 1/10 compared to FPT Software. In terms of profitability, FPT also has a significantly higher PBT margin

than CMG in all areas due to the advantage of economies-of-scale as well as the difference in services provided. (Hinh 23)

Figure 22: CMG's core businesses in comparison with FPT: 2021* Sales by division (VND Bn)

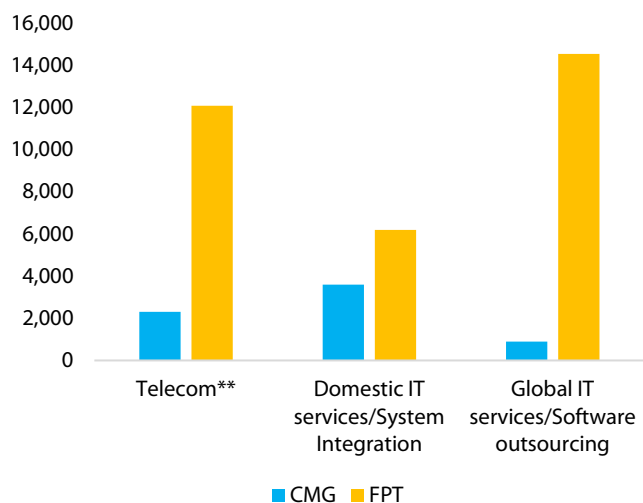
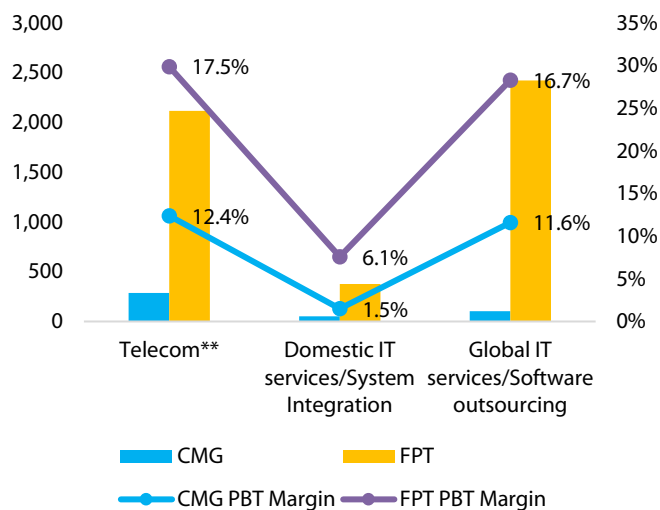


Figure 23: CMG's core businesses in comparison with FPT: 2021* PBT by division (VND Bn)



Source: CMG, FPT, RongViet Securities * CMG's fiscal year ends Mar 31st 2022, ** Excluding online advertising sales and PBT for FPT

FORECASTS

With above analysis, we estimate CMG's FY22F/FY23F revenue could reach VND 7,195 billion (+14.4 % YoY)/ VND 8,324 billion (+15.7% YoY). PBT in FY22F is estimated at VND419 billion (+13.6% YoY), vs PBT guidance of VND370 billion, before growing by 36.8% YoY in FY23F to VND573 billion. FY22F/FY23F NPAT-MI is estimated at VND 274 billion (+14.3% YoY)/ VND 373 billion (36% YoY), equivalent to EPS of VND 1,550/VND2,107.

Table 5: Business results forecasts

Unit: VND Bn	FY21	FY22F	YoY %	FY23F	YoY %
Revenue	6,291	7,196	14%	8,325	16%
Technology & Solution	3,364	3,422	2%	3,717	9%
Global Business	799	1,199	50%	1,619	35%
Telecom	2,369	2,904	23%	3,430	18%
PBT	369	419	14%	573	37%
Technology & Solution	51	51	2%	56	9%
Global Business	104	144	39%	210	46%
Telecom	286	298	4%	408	37%
NPAT-MI	240	274	14%	373	36%
Adjusted EPS	2,220	1,550	-30%	2,107	36%

Source: RongViet Securities

Key assumptions for the FY24F-FY26F period:

- **We assume revenue will grow at a CAGR of 19%.** The main growth driver is the Global business division (CAGR 35%), as we expect it will win more contracts with increasing value of signed revenue after ramping up human resources and business development centres in key markets. Additionally, we expect the Telecom division to maintain a CAGR of 20%, driven by healthy demand for DC and Cloud services from corporate customers, domestic banks, and Government agencies. Meanwhile, Technology & Solutions is expected to maintain a CAGR of 9% after transforming its core service of System Integration into digital services.
- **In terms of profit, we forecast that PBT will sustain a CAGR of 31%** mainly on the back of expanding profit margins. We expect the corporation's PBT margin to increase to 10% from the current 6%, mainly due to the Telecom and Global Business division achieving economies of scale when Tan Thuan DC is fully utilized, and the volume of newly signed ITO/BPO contracts grow steadily. Notably, since CMC Global is enjoying a preferential CIT rate of 5% from FY21 to the end of FY29, the increased profit contribution of Global business division (estimated to account for 40% of the Group's PBT from FY25F) will also reduce the overall effective CIT rate, and cement the growth rate of net profit in the long run. **We project that NPAT-MI's 5Y CAGR at 30% over FY21-FY26F.**

VALUATION AND RISK

We believe CMG is on an interesting growth journey ahead with revenue growth and profit expansion potentials driven by increased contribution of high-margin services. Hence, we use the Sum-of-the-parts and DCF methods with respective weight of 25% and 75% since we believe in CMG's profit growth profile in the long-term.

Table 6: Valuation Summary

Method	Valuation	Weight	Average target price
FCFE (Ke: 15.7%, g: 3.0%)	36,100	75%	27,100
SoTP	37,300	25%	9,300
Target price		100%	36,400
P/E FY22F			23.5x
P/E FY23F			17.3x
Market price			39,500
Expected rate of return			-8%

Source: RongViet Securities

We estimate the fair value for CMG at **VND36,400/share**, equivalent to an expected return rate of -8%, as of November 29th, 2022, with the following key assumptions:

- For the FCFE method, we apply a Cost of Equity of 15.7% and a terminal growth rate of 3.0%.

Table 7: FCFE forecast (VND Bn)

Unit: VND Bn	FY22F	FY23F	FY24F	FY25F	FY26F
Net profit	274	373	502	663	889
+ Depreciation	245	301	318	335	368
- Change in working capital	-23	33	42	49	65
- CAPEX	100	200	200	400	400
+ Net borrowing	-63	-36	-4	-62	-8
FCFE	380	406	574	487	784

Source: RongViet Securities

Table 8: DCF model's main assumptions

Chi phí sử dụng vốn CSH	FCFE	Tỷ đồng
Beta	1.0	Cumulative Present Value of 5Y FCFE
Lãi suất phi rủi ro	4.7%	PV of Terminal Value
Phần bù rủi ro vốn chủ sở hữu	11.0%	(+) Cash & Cash Equivalents
Chi phí vốn chủ sở hữu	15.7%	Equity Value
Tốc độ tăng trưởng cuối kỳ	3.0%	Outstanding shares (million)
	TP (VND/share)	36,100

Source: RongViet Securities

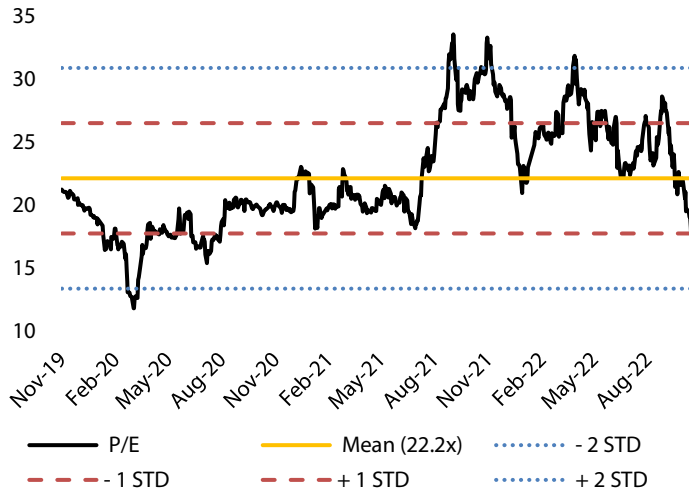
- For the method, we apply a target P/E ratio for CMG's main business divisions at relatively lower multiples than their respective of 5Y CAGR.

Table 9: Sum-of-the-parts valuation summary

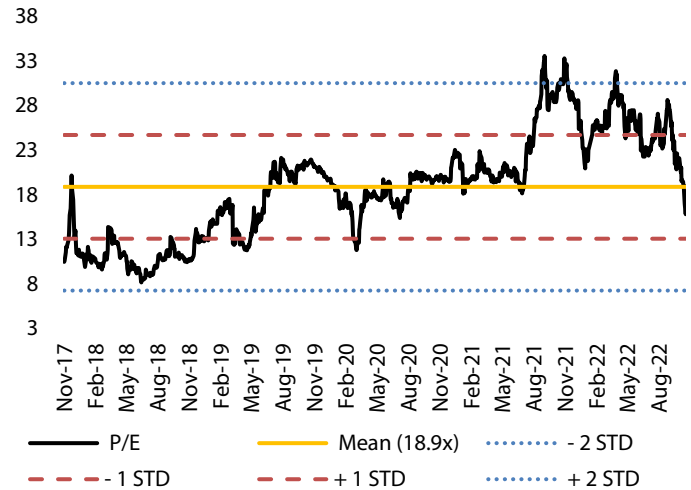
Unit: VND Bn	FY22F NPAT	5Y CAGR	P/E target	Fair value
1. Technology & Solution	35	14%	10x	349
2. Global Business	116	44%	25x	2,904
3. Telecom	102	24%	20x	2,038
4. Netnam	25	5%	10x	252
5. Cash				310
Total				5,602
Number of shares outstanding (millions)				150.0
Target price (VND/share)				37,300

Source: RongViet Securities

CMG's TP implies a FY22F P/E of 23.5x (vs 3Y mean of 22.3x) and a FY23F P/E of 17.3x (more than 1 standard deviation below the 3-year average). We believe this valuation is justified given CMG's improved growth profile (with a 5Y CAGR of 30% over FY21-FY26F compared to FY16-FY21 of 14%) and better competitive position of CMG, and equivalent to a 5Y PEG of 0.67x.

Figure 24: CMG's 3Y historical P/E band


Source: Bloomberg, RongViet Securities

Figure 25: CMG's 5Y historical P/E band


Source: Bloomberg, RongViet Securities

However, we do not expect the stock price to perform well in the near term due to its relative overvaluation. CMG is trading with a large premium compared to the industry leader FPT in term of FY22F P/E (19.5x vs 13.7x), while underperforming in terms of ROE and profit margins. This is our key downside risk to the current valuation.

Table 10: Peers comparison

Company	Country	Market cap (USD mn)	FY21			3Y CAGR (%)			2021 ROE (%)	Dividend yield	P/E		
			Revenue (USD mn)	PBT (USD mn)	PBT margin	Revenue	EPS	PBT			Curr.	FY22F	FY23F
CMC CORP	VN	222	275.0	17.1	6%	6.6	8.2	5.7	14.6	0	18.2	19.5	14.4
FPT CORP	VN	3,157	1,554.8	276.3	18%	15.4	17.5	17.4	28.3	2.6	14.9	13.7	11.6
Telecom													
PLDT Inc	PH	5,995	3,922	749	19%	5.9	11.7	18.8	32.9	7.4	9.9	15.7	11.2
Telekom Malaysia	MA	4,542	2,781	333	12%	-0.8	79.5	11.2	14.3	2.6	19.2	16.4	14.4
True Corp	TH	4,599	4,496	-78	-2%	-3.9	n.a	-2.2	-9.2	1.4	n.a	n.a	n.a
Tata communications	IN	4,510	2,245	263	12%	0.4	n.a	8.0	278.5	1.6	24.9	21.6	19.7
Time dotcom	MA	1,967	337	129	38%	12.4	9.4	34.3	13.5	7.4	21.3	21.7	18.4
FPT Telecom	VN	641	553	104	19%	12.9	19.8	18.1	30.2	2.1	9.8	11.3	n.a
Thaicom PCL	TH	346	103	7	7%	-18.2	-13.4	7.9	3.9	2.6	30.5	25.6	30.4
Median		4,510	2,245	129	12%	0.4	11.7	11.2	14.3	2.6	20.3	19.0	18.4
Average		3,229	2,063	215	15%	1.2	21.4	13.7	52.0	3.6	19.3	18.7	18.8
ITO & BPO													
Conduent	US	833.5	4,140.0	55.0	1%	-8.4	n.a	-0.2	5.1	n.a	15.8	14.0	14.0
Mphasis	IN	4,373	1,606	247	15%	15.7	10.9	15.8	20.5	2.4	24.9	21.0	18.1
Persistent Systems	IN	3,424	767	126	16%	19.3	27.1	14.0	22.7	0.8	40.6	30.4	25.3
Coforge	IN	2,815	863	116	13%	20	18.5	13.5	28.0	1.4	31.0	28.1	23.1
DHC Software	CH	2,737	1,688	59	4%	8.7	-17.7	6.1	2.5	0.8	74.6	43.6	33.9
China Transinfo Technology	CH	2,065	1,594	106	7%	12.3	-4.5	8.9	1.6	n.a	n.a	31.0	19.0
Shenzhen Das Intellitech	CH	916	491	-60	-12%	7.8	n.a	1.4	-15.1	n.a	n.a	31.2	26.4
Median		2,737	1,594	106	7%	12.3	10.9	8.9	5.1	1.1	31.0	30.4	23.1
Average		2,452	1,593	93	6%	10.8	6.9	8.5	9.3	1.4	37.4	28.5	22.8

 Source: Bloomberg, RongViet Securities, data on November 22nd, 2022

In addition, other downside risks associated with our valuation model include:

- (1) Slower-than-expected Revenue growth rate and profit margin expansion of the Global business and telecom divisions due to the slowdown of IT spending amid global macroeconomic downturn.
- (2) The appreciation of VND against JPY, KRW, or SGD to slow down Global Business revenue growth rate.
- (3) Huge CAPEX for construct working campuses to affect free cash flow. In FY22 AGM, CMG proposed a plan to build two complexes for core technology R&D and a training center respectively in Hoa Lac Hi-Tech Park and Da Nang. Though these projects will be invested in multiple phases, the total CAPEX demand is still substantial, about more than VND 11 trillion, compared to the current total assets of about

VND6,500 billion of CMG. We have not yet reflected these projects in our valuation model as CMG has not yet received Investment Certificates for these projects.

Table 11: Major prospective projects

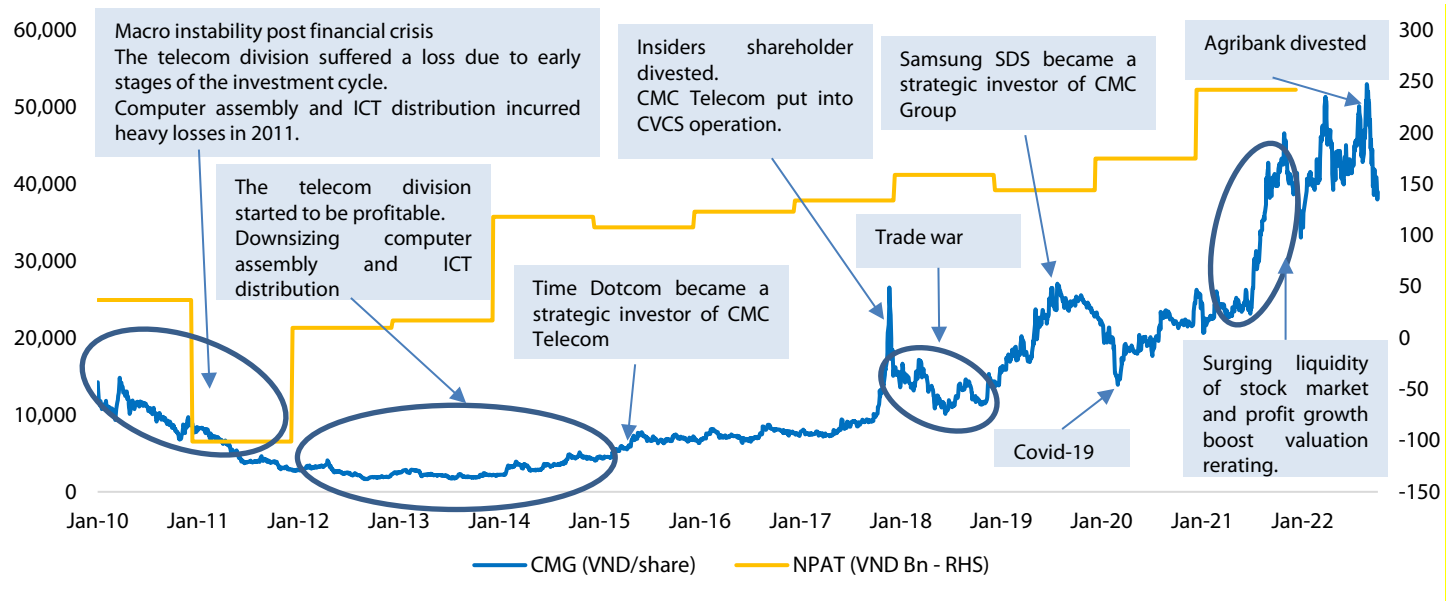
Project	Location	Scale	Purpose	Total investment (VNDbn)	Execution time
Hoa Lac CCS	Hoa Lac Hi-Tech Park, Thach That, Hanoi	3.9 ha	Developing R&D complex for core technology, development, information security, Cloud, digital infrastructure.	2,287	50 years since receiving the land allocation decision
Da Nang CCS	Xuan Hoa ward, Cam Le district, Da Nang	17.3 ha	Developing a complex of creative spaces, training and developing human resources for R&D, digital infrastructure in the Central region	8,922	50 years since project approval

Source: CMG, RongViet Securities

Stock price movement analysis

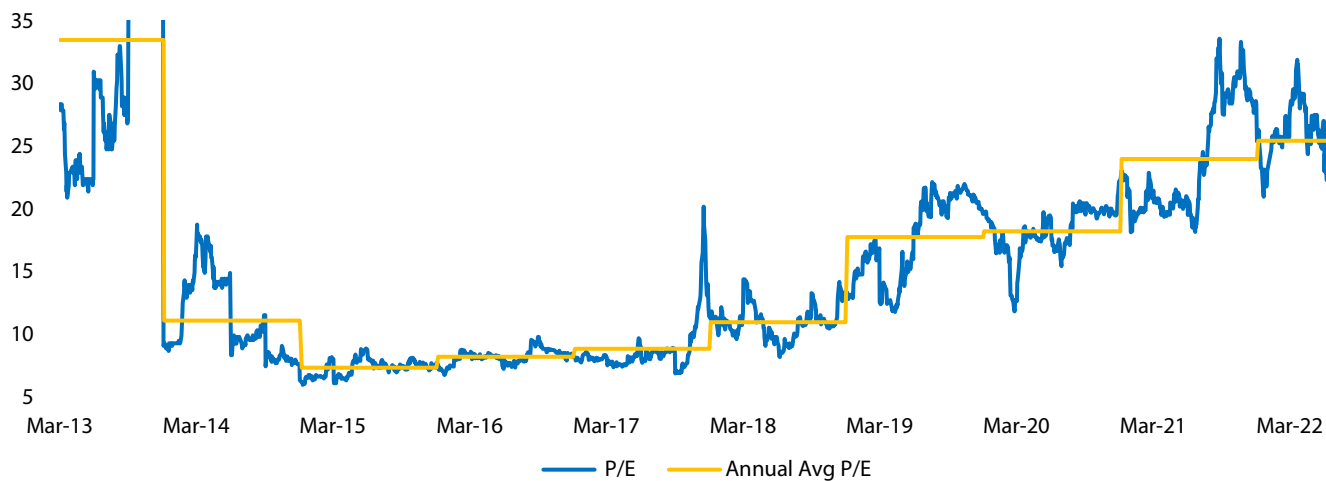
CMG was listed on HOSE in 2010. During the period of 2010-2011, the stock performance was weak as business activities faced headwinds from macro environment (high lending interest rates), along with losses of newly invested Telecom division, Computer assembly and ICT distribution businesses. The stock price bottomed in the period 2012-2014 thanks to the gradual recovery of the company's profit when the Telecom division began to be profitable, along with the restructuring orientation (cutting the hardware businesses). CMG did not see many changes in valuation from 2014 to 2017, although CMC Telecom received a strategic investment from Time dotcom, the 2nd largest telecom company in Malaysia, which brought about the synergy of accessing international undersea internet cable network in Southeast Asia. At the end of 2017, CMC Telecom officially put the Cross Vietnam backbone internet cable network into operation, helping the company limit lines outsourcing expenses. This radical change has largely rerated CMG's valuation. Additionally, we believe that recent outperformance is driven by the strong DX trend combined with the corporation's sound restructuring strategy including (1) Concentration on Global business development, (2) Commitment to telecom digital infrastructure investment, which cements a solid foundation to provide high-margin services (DC, Cloud services), (3) continue to streamline inefficient businesses.

Figure 26: Stock price movements vs NPAT and key events



Source: Bloomberg, RongViet Securities

Figure 27: The historical of CMG's P/E valuation



Source: Bloomberg, RongViet Securities

Unit: VND billion

PROFIT & LOSS STATEMENT	FY2020	FY2021	FY2022E	FY2023F
Revenue	5,181	6,290	7,195	8,324
COGS	4,275	5,107	5,839	6,672
Gross profit	906	1,183	1,356	1,652
Selling expenses	372	465	540	624
G&A expenses	283	364	432	499
Financial income	90	93	132	166
Financial expense	77	75	123	147
Other income/loss	4	-29	0	0
Gain/(loss) from joint ventures	22	24	25	26
Profit Before Tax	290	367	419	573
Tax expense	49	51	61	83
Minority interests	66	76	83	117
Profit After Tax	175	240	274	373
EBIT	251	354	384	528
EBITDA	474	590	629	830

FINANCIAL RATIOS	FY2020	FY2021	FY2022E	FY2023F
Growth				
Revenue	6.7%	21.4%	14.4%	15.7%
EBITDA	11.8%	24.5%	6.7%	31.8%
EBIT	7.7%	41.0%	8.6%	37.5%
PAT	20.9%	36.9%	14.3%	36.0%
Total assets	7.2%	25.6%	10.4%	9.0%
Total equity	2.3%	10.3%	10.7%	13.2%
Profitability				
Gross margin	17.5%	18.8%	18.8%	19.8%
EBITDA margin	9.1%	9.4%	8.7%	10.0%
EBIT margin	4.8%	5.6%	5.3%	6.3%
Net margin	3.4%	3.8%	3.8%	4.5%
ROA	3.5%	3.8%	4.0%	5.0%
ROIC	8.3%	9.6%	8.9%	11.6%
ROE	8.9%	11.1%	11.4%	13.7%
Efficiency				
Receivables turnover	4.2	4.3	5.0	5.0
Inventories turnover	18.2	11.1	14.7	14.7
Payables turnover	3.2	2.8	3.3	3.3
Liquidity				
Current	1.5	1.4	1.6	1.6
Quick	1.3	1.2	1.4	1.5
Finance Structure				
Total debt/equity	61.1%	75.8%	65.9%	56.9%
ST debt/equity	30.9%	34.5%	35.6%	36.4%
LT debt/equity	30.2%	41.3%	30.2%	20.5%

Unit: VND billion

BALANCE SHEET	FY2020	FY2021	FY2022E	FY2023F
Cash and cash equivalents	158	351	1,030	1,267
Short-term investments	1,070	1,155	1,617	1,779
Accounts receivable	1,235	1,463	1,439	1,665
Inventories	235	461	398	455
Other current assets	163	84	92	102
Property, plant & equipment	1,584	1,964	1,838	1,762
Acquired intangible assets (Inc. Goodwill)	145	401	534	529
Long term investments	126	68	77	86
Other non-current assets	267	310	295	300
Total assets	4,983	6,257	7,320	7,944
Accounts payable	1,345	1,816	1,752	2,002
Short-term borrowings	606	747	854	989
Long-term borrowings	593	895	725	555
Other non-current liabilities	99	75	83	91
Bonus and Welfare fund	17	33	38	51
Technology-science development fund	0	0	27	65
Total liabilities	2,660	3,566	3,479	3,752
Common stock and APIC (additional paid in capital)	1,600	1,690	2,100	2,100
Treasury stock	0	0	0	0
Retained earnings	228	245	477	794
Other comprehensive income	134	230	230	230
Investment and Development Fund	0	0	0	0
Total equity	1,962	2,165	2,808	3,124
Minority Interest	361	525	1,034	1,069
CASH FLOW STATEMENT	FY2020	FY2021	FY2022E	FY2023F
Profit before tax	290	369	419	573
Depreciation	215	210	245	301
Adjustments	(16)	-	-	-
Change in Working capital	(141)	48	(47)	(125)
Net Operating CFs	348	627	617	749
Change in Fixed Asset	(208)	(470)	(486)	(606)
Change in Deposit, equity	(139)	(431)	9	9
Interest, dividend, cash profit	22	24	-	-
Net Investing CFs	(325)	(877)	(477)	(597)
Change in Capital	-	-	-	-
Change in Debt	83	443	277	304
Dividend paid & other	(161)	-	250	(220)
Net Financing CFs	(78)	443	528	84
Beginning cash & equivalents	213	158	362	1,030
Change in cash & equivalents	(55)	193	668	237
Ending cash & equivalents	168	362	1,030	1,267

Initial Coverage

This report is created for the purpose of providing investors with an insight into the discussed company that may assist them in the decision-making process. The report comprises analyses and projections that are based on the most up-to-date information with the objective that is to determine the reasonable value of the stock at the time such analyses are performed. Through this report, we strive to convey the complete assessment and opinions of the analyst relevant to the discussed company. To send us feedbacks and/or receive more information, investors may contact the assigned analyst or our client support department.

RATING GUIDANCE

Ratings	BUY	ACCUMULATE	REDUCE	SELL
Total Return including Dividends in 12-month horizon	>20%	5% to 20%	-20% to -5%	<-20%

ABOUT US

RongViet Securities Corporation (RongViet) was established in 2006, licensed to perform the complete range of securities services including brokerage, financial investment, underwriting, financial and investment advisory and securities depository. RongViet now has an operating network that spreads across the country. Our major shareholders, also our strategic partners, are reputable institutions, i.e Eximbank, Viet Dragon Fund Management, etc... Along with a team of the professional and dynamic staffs, RongViet has the man power as well as the financial capacity to bring our clients the most suitable and efficient products and services. Especially, RongViet was one of the very first securities firms to pay the adequate attention to the development of a team of analysts and the provision of useful research report to investors.

The **Analysis and Investment Advisory Department** of RongViet Securities provides research reports on the macro-economy, securities market and investment strategy along with industry and company reports and daily and weekly market reviews.

ANALYSIS & INVESTMENT ADVISORY DEPARTMENT

Lam Nguyen

Head of Research

lam.ntp@vdsc.com.vn
 + 84 28 6299 2006 (1313)
 • Market Strategy
 • Industrial Park

Vu Tran

Senior Manager

vu.thx@vdsc.com.vn
 + 84 28 6299 2006 (1512)
 • O&G
 • Fertilizer

Tam Pham

Manager

tam.ptt@vdsc.com.vn
 + 84 28 6299 2006 (1530)
 • Bank
 • Insurance
 • Construction materials

Tung Do

Manager

tung.dt@vdsc.com.vn
 + 84 28 6299 2006 (1521)
 • Aviation
 • Logistics
 • Market Strategy

An Nguyen

Senior Analyst

an.ntn@vdsc.com.vn
 + 84 28 6299 2006 (1541)
 • Food & Beverage
 • Automotive & Spare parts

Anh Tran

Senior Analyst

anh.tk@vdsc.com.vn
 + 84 28 6299 2006 (1544)
 • Market Strategy
 • Residential RE
 • Construction

Loan Nguyen

Analyst

loan.nh@vdsc.com.vn
 + 84 28 6299 2006 (1531)
 • Retails
 • Fishery
 • F&B

Thao Nguyen

Analyst

thao.nn@vdsc.com.vn
 + 84 28 6299 2006 (1524)
 • Utilities
 • Bank

Quan Cao

Analyst

quan.cn@vdsc.com.vn
 + 84 28 6299 2006 (2223)
 • Sea ports
 • Pharmaceuticals

Ha Tran

Assistant

ha.ttn@vdsc.com.vn
 + 84 28 6299 2006 (1526)

Hung Le

Analyst

hung.ltq@vdsc.com.vn
 + 84 28 6299 2006 (1546)
 • Industrial RE
 • Market Strategy

Bernard Lapointe

Senior Consultant

bernard.lapointe@vdsc.com.vn
 + 84 28 6299 2006

Ha My Tran

Senior Consultant

my.tth@vdsc.com.vn
 + 84 28 6299 2006
 • Macroeconomics

Hoai Trinh

Analyst

hoai.ttt@vdsc.com.vn
 + 84 28 6299 2006 (1545)
 • Utilities
 • Textiles

Trang Tran

Assistant

trang.tnt@vdsc.com.vn
 + 84 28 6299 2006 (1522)

DISCLAIMERS

This report is prepared in order to provide information and analysis to clients of Rong Viet Securities only. It is and should not be construed as an offer to sell or a solicitation of an offer to purchase any securities. No consideration has been given to the investment objectives, financial situation or particular needs of any specific. The readers should be aware that Rong Viet Securities may have a conflict of interest that can compromise the objectivity this research. This research is to be viewed by investors only as a source of reference when making investments. Investors are to take full responsibility of their own decisions. VDSC shall not be liable for any loss, damages, cost or expense incurring or arising from the use or reliance, either full or partial, of the information in this publication.

The opinions expressed in this research report reflect only the analyst's personal views of the subject securities or matters; and no part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or opinions expressed in the report.

The information herein is compiled by or arrived at Rong Viet Securities from sources believed to be reliable. We, however, do not guarantee its accuracy or completeness. Opinions, estimations and projections expressed in this report are deemed valid up to the date of publication of this report and can be subject to change without notice.

This research report is copyrighted by Rong Viet Securities. All rights reserved. Therefore, copy, reproduction, republish or redistribution by any person or party for any purpose is strictly prohibited without the written permission of VDSC. Copyright 2022 Viet Dragon Securities Corporation.

IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report was prepared by Viet Dragon Securities Corp. ("VDSC"), a company authorized to engage in securities activities in Vietnam. VDSC is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act").

Additional Disclosures

This research report is for distribution only under such circumstances as may be permitted by applicable law. This research report has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient, even if sent only to a single recipient. This research report is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to in this research report. Neither VDSC nor any of its directors, officers, employees or agents shall have any liability, however arising, for any error, inaccuracy or incompleteness of fact or opinion in this research report or lack of care in this research report's preparation or publication, or any losses or damages which may arise from the use of this research report.

VDSC may rely on information barriers, such as "Chinese Walls" to control the flow of information within the areas, units, divisions, groups, or affiliates of VDSC.

Investing in any non-U.S. securities or related financial instruments (including ADRs) discussed in this research report may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the U.S. Securities and Exchange Commission. Information on such non-U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the United States.

The value of any investment or income from any securities or related financial instruments discussed in this research report denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments.

Past performance is not necessarily a guide to future performance and no representation or warranty, express or implied, is made by VDSC with respect to future performance. Income from investments may fluctuate. The price or value of the investments to which this research report relates, either directly or indirectly, may fall or rise against the interest of investors. Any recommendation or opinion contained in this research report may become outdated as a consequence of changes in the environment in which the issuer of the securities under analysis operates, in addition to changes in the estimates and forecasts, assumptions and valuation methodology used herein.

No part of the content of this research report may be copied, forwarded or duplicated in any form or by any means without the prior.

RESEARCH DISCLOSURES

Third Party Research

This is third party research. It was prepared by Rong Viet Securities Corporation (Rong Viet), with headquarters in Ho Chi Minh City, Vietnam. Rong Viet is authorized to engage in securities activities according to its domestic legislation. This research is not a product of Tellimer Markets, Inc., a U.S. registered broker-dealer. Rong Viet has sole control over the contents of this research report. Tellimer Markets, Inc. does not exercise any control over the contents of, or the views expressed in, research reports prepared by Rong Viet.

Rong Viet is not registered as a broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to "major U.S. institutional investors" and other "U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act").

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through Tellimer Markets, Inc., located at 575 Fifth Avenue, 27th Floor, New York, NY 10017. A representative of Tellimer Markets, Inc. is contactable on +1 (212) 551 3480. Under no circumstances should any U.S. recipient of this research report effect any transaction to buy or sell securities or related financial instruments through Rong Viet. Tellimer Markets, Inc. accepts responsibility for the contents of this research report, subject to the terms set out below, to the extent that it is delivered to a U.S. person other than a major U.S. institutional investor.

None of the materials provided in this report may be used, reproduced, or transmitted, in any form or by any means, electronic or mechanical, including recording or the use of any information storage and retrieval system, without written permission from.

Rong Viet is the employer of the research analyst(s) responsible for the content of this report and research analysts preparing this report are resident outside the U.S. and are not associated persons of any U.S. regulated broker-dealer. The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA") and may not be an associated person of Tellimer Markets, Inc. and, therefore, may

not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

Tellimer Markets, Inc. or its affiliates has not managed or co-managed a public offering of securities for the subject company in the past 12 months, has not received compensation for investment banking services from the subject company in the past 12 months, and does not expect to receive or intend to seek compensation for investment banking services from the subject company in the next three months. Tellimer Markets, Inc. has never owned any class of equity securities of the subject company. There are no other actual, or potential, material conflicts of interest of Tellimer Markets, Inc. at the time of the publication of this report. As of the publication of this report, Tellimer Markets, Inc. does not make a market in the subject securities.

About Tellimer

Tellimer is a registered trade mark of Exotix Partners LLP. Exotix Partners LLP and its subsidiaries ("Tellimer") provide specialist investment banking services to trading professionals in the wholesale markets. Tellimer draws together liquidity and matches buyers and sellers so that deals can be executed by its customers. Tellimer may at any time, hold a trading position in the securities and financial instruments discussed in this report. Tellimer has procedures in place to identify and manage any potential conflicts of interests that arise in connection with its research. A copy of Tellimer's conflict of interest policy is available at www.tellimer.com/regulatory-information.

Distribution

This report is not intended for distribution to the public and may not be reproduced, redistributed or published, in whole or in part, for any purpose without the written permission of Tellimer. Tellimer shall accept no liability whatsoever for the actions of third parties in this respect. This report is for distribution only under such circumstances as may be permitted by applicable law.

This report may not be used to create any financial instruments or products or any indices. Neither Tellimer, nor its members, directors, representatives, or employees accept any liability for any direct or consequential loss or damage arising out of the use of all or any part of the information herein.

United Kingdom: Distributed by Exotix Partners LLP only to Eligible Counterparties or Professional Clients (as defined in the FCA Handbook). The information herein does not apply to, and should not be relied upon by, Retail Clients (as defined in the FCA Handbook); neither the FCA's protection rules nor compensation scheme may be applied.

UAE: Distributed in the Dubai International Financial Centre by Exotix Partners LLP (Dubai) which is regulated by the Dubai Financial Services Authority ("DFSA"). Material is intended only for persons who meet the criteria for Professional Clients under the Rules of the DFSA and no other person should act upon it.

Other distribution: The distribution of this report in other jurisdictions may be restricted by law and persons into whose possession this document comes should inform themselves about, and observe, any such restriction.

Disclaimers

Tellimer and/or its members, directors or employees may have interests, or long or short positions, and may at any time make purchases or sales as a principal or agent of the securities referred to herein. Tellimer may rely on information barriers, such as "Chinese Walls" to control the flow of information within the areas, units, divisions, groups of Tellimer.

Investing in any non-U.S. securities or related financial instruments (including ADRs) discussed in this report may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the U.S. Securities and Exchange Commission. Information on such non-U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the United States. The value of any investment or income from any securities or related financial instruments discussed in this report denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments.

Frontier and Emerging Market laws and regulations governing investments in securities markets may not be sufficiently developed or may be subject to inconsistent or arbitrary interpretation or application. Frontier and Emerging Market securities are often not issued in physical form and registration of ownership may not be subject to a centralised system. Registration of ownership of certain types of securities may not be subject to standardised procedures and may even be effected on an ad hoc basis. The value of investments in Frontier and Emerging Market securities may also be affected by fluctuations in available currency rates and exchange control regulations. Not all of these or other risks associated with the relevant company, market or instrument which are the subject matter of the report are necessarily considered.

OPERATING NETWORK

HEADQUARTER IN HO CHI MINH CITY

Floor 1-2-3-4, Viet Dragon Tower, 141 Nguyen Du, Ben Thanh Ward, District 1, Ho Chi Minh City

T (+84) 28 6299 2006 **E** info@vdsc.com.vn
F (+84) 28 6291 7986 **W** www.vdsc.com.vn

Tax code 0304734965

HANOI BRANCH

10th floor, Eurowindow Tower, 2 Ton That Tung, Trung Tu Ward, Dong Da District, Hanoi

T (+84) 24 6288 2006
F (+84) 24 6288 2008

NHA TRANG BRANCH

7th floor, 76 Quang Trung, Loc Tho Ward, Nha Trang City, Khanh Hoa

T (+84) 25 8382 0006
F (+84) 25 8382 0008

CAN THO BRANCH

8th floor, Sacombank Tower, 95-97-99, Vo Van Tan, Tan An Ward, Ninh Kieu District, Can Tho City

T (+84) 29 2381 7578
F (+84) 29 2381 8387

VUNG TAU BRANCH

2nd floor, VCCI Building, 155 Nguyen Thai Hoc, Ward 7, Vung Tau City, Ba Ria – Vung Tau Province

T (+84) 25 4777 2006

BINH DUONG BRANCH

3rd floor, Becamex Tower, 230 Binh Duong Avenue, Phu Hoa Ward, Thu Dau Mot City, Binh Duong Province

T (+84) 27 4777 2006

DONG NAI BRANCH

8th floor, TTC Plaza, 53-55 Vo Thi Sau, Quyet Thang Ward, Bien Hoa City, Dong Nai Province

T (+84) 25 1777 2006

