# DXCM, help manage diabetes with CGM devices

December 21, 2020

# Recommend Buy, PT\$478.4, on the back of expected launch of G7 in 2021.

Closing Price (USD)	Target (USD)	<b>Upside potential</b>	Recommendation	M.cap.(USD mn)
333.39	478.4	43.5%	Strong Buy	31,939.4

# DXCM's G6 highly competitive, with G7 in pipeline

G6 helps diabetes patients control their blood sugar level by avoiding hypoglycemic events much better that its competitors. Moreover, the company's next generation product, G7, is being developed with the aim of cost reduction which is expected to be launched in 2H21.

# Market data Company name DexCom, Inc. Sector HealthCare NASDAQ Ticker DXCM Share count (mn) 97.5 Market Cap (USD mn) 31,939.4 52 Week H/L 456.23/182.07

## Accelerated growth in topline in out years

We believe that the current G6 and future G7 products will deliver a greater value to the patients in the form of better managing their condition which will drive topline growth both in US and international markets.

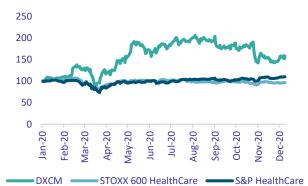
# **Key financials**

Particulars	2019	2020E	2021E
Sales	1,476.0	1,901.6	2,407.0
Adj. EBIT	257.5	442.4	558.1
Margin (%)	17.4	23.3	23.2
Adj EBITDA	306.2	508.6	666.4
EPS (Basic)	1.11	2.24	3.03
EPS (Diluted)	1.10	2.16	2.92
Source: Company reports se	If-elahorate		

#### Expansion into international market

The company has a significant potential for expansion in the international market. Although the incidence rate is lower in international markets, the size of the population affected by diabetes in developed markets provide a large growth opportunity.

#### DXCM vs STOXX 600 and S&P HealthCare



# High reimbursement from payors

The clinical conditions to switch from finger-pricks to CGMs are clear and widely accepted and, thus, the payors readily reimburse the costs associated with the use of CGMs. All company products are covered by the seven largest private payors in the US and G6 is covered by Medicare and Medicaid.

Source: Thomson Reuters Eikon, as on 10 Dec, 2020

## Valuation

We see the company as undervalued with price target of \$478.4 per share with upside potential of 43.5%. We believe that there is a significant potential for the company to expand in into international markets as well as T2D market. Expansion into developed markets of Europe and Asia-Pacific alone will lead to significant value accretion in stock price.

DXCM is currently is valued at an EV/EBIIT of 77.3x, though this seem to be overvalued on standalone basis, is undervalued compared to its peer average of 93.8x. We believe that market undervalues the company and is waiting for announcement on specification of its G7 product.

#### **Relative valuation**

Company	EV/EBIT	EV/EBITDA
DexCom Inc	77.3x	57.0x
Medtronic	19.9x	17.6x
Abbott Laboratories	21.6x	18.8x
Roche Holding	12.9x	10.5x
Insulet Corp	129.6x	95.0x
Tandem Diabetes	420.3x	75.2x
Boston Scientific	18.9x	16.3x
Edwards Lifesciences	33.3x	30.9x
Average	93.8x	37.8x

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# Company overview

DEXCOM, Inc. (NASDAQ: DXCM) is a medical device company that offers diabetes management solution. The company continuous glucose monitoring (CGM) divice is approved by FDA to be used as a part of integrated continuous glucose monitoring (iCGM). Its current product uses a proprietary algorithm which generates a glucose vale which is transmitted to the patient's mobile and wearable devices. These devices are covered under Medicare reimbursements and the company has established strategic partners with commercial payors. The company has a global presence, dominated by the US (contributing 79% of total sales), followed by its international market covering Africa, Asia, Europe, Latin America, Middle East, Australia, Canada, and New Zealand.

The company has conducted several studies to for its technology. One of the studies "DIaMonD Study" (Beck RW, 2017) indicated that use of company's Dexcom CGM device leads to 79% reduction in patients hypoglycemic<sup>1</sup> events and 40% reduction in

- hyperglycemic<sup>2</sup> events.
- compared to the industry 19.2% Reached EBITDA profitability in 2018

One of the first movers in CGM DXCM grew at CAGR 38%

> DXCM was incorporated in May 1999, which is currently headquartered in San Diego, California, and is listed at NASDAQ with a ticker 'DXCM' since April 14, 2005. As of December 2019, the company operates with a team of approximately 3,900 full-time employees and 1,300 contract and temporary employees.

# US market contributing 79% of 2019 revenue, with international market outpacing growth of US region

DXCM generated revenue of USD 1,476mn in 2019, growing at a CAGR of 38% through 2015-19 (industry grew at CAGR of 19.2%). In 2019, the company's revenue grew by 43% YoY, primarily driven by (i) growing traction in insulin-dependent population in T2D; (ii) expanding coverage in Medicare and (iii) stronger foothold of its product 'G6'. They continued their expansion into their target market by focusing on T2D population in 2020. Additionally, the company has partnered several diabetes managements companies, such as Onduo, Livongo, WellDoc, and Tandem; providing them with an opportunity to strengthen presence in market.

The company's majority of revenue (76%) was generated from its distribution channels and only 24% from direct channel. Management plans to focus on building its distribution channels to achieve higher cost efficiencies over time. We believe that management's strategy to expand its distribution channels through partnerships will lead to improvement in SG&A, reducing their efforts to capture attention of end -users. A lower operating expense would lead to improvement in operating margin leading to value attractions for its stakeholders.

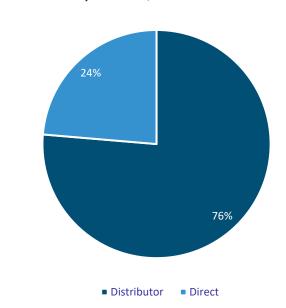
<sup>&</sup>lt;sup>1</sup> Hypoglycemia is when the blood sugar in a person's body drop below the recommended target level 70 mg/dL

<sup>&</sup>lt;sup>2</sup> Hyperglycemia is when the blood sugar in a person's body drop below the recommended target level 130 mg/d

Chart 1: Total revenue and YoY growth



Chart 2: Revenue by channel 3Q20

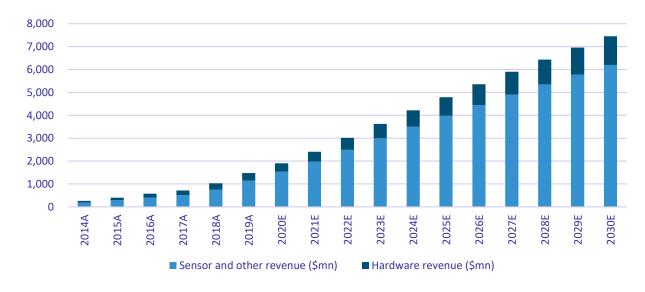


Source: Company reports, Self-elaborate

Source: Company reports, Self-elaborate

DXCM has three type of products, (i) sensors; (ii) transmitter and (iii) receiver. As of 2019, majority if revenue was generated from its 'sensors' segment, contributing 78% of the total revenue. This was flowed by transmitter's contributing 17% and receiver's 5%. We believe company will be able to unlock its potential by tapping into its distribution channel and expanding its sensors business. Moreover, with the increasing adoption of CGM devices for T2D (Tejaswi Kompala, 2019), there is a significant potential for the company to expand its customer base with both its distributor and direct channel.

Chart 3: DXCM revenue by components and growth 2014-30E



Source: Company reports, self-elaborate

# Strong potential for CGM in T2D market, backed by rising economic burden on healthcare system

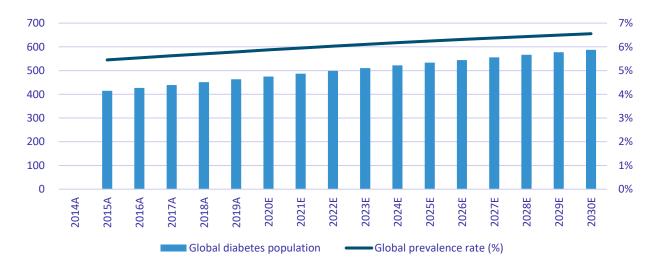
According to American Diabetes Association (ADA), glucose levels should be maintained between 70-180 mg/dL. A deviation from maintaining these recommended could lead to hypoglycemia and hyperglycemia which could lead to several life-threatening disorders. Over time, complications due to diabetes can lead to disorders affecting major organs such as heart, blood vessels, nerves, eyes and kidney. An article published by ADA (ADA, 2018), suggests that approximately 14% of the total medical spend can be directly linked to diabetes and its complications, which accounts for \$327bn. The increasing burden on the healthcare system due to diabetes and complications arising from diabetes is expected to rise of the back of continued increase in prevalence of diabetes is the US.

 G6 significantly reduces hypo/hyperglycaemic events frequency

Significant opportunity in T2D market

To ascertain company's target addressable market, we do not limit ourselves to insulindependent population but look at potential of CGM in total diabetes market. We believe that company's CGM device can be combined across different therapy treatments, providing them with a broad base for its product. As of 2019, the total diabetes prevalence stood at 463mn (IDF, 2019), approximate 12mn increase per year since 2015. The potential addressable market is expected to grow at a CAGR of 2.3% trough 2019-30E (self-elaborate based on IDF figures), driven by increase in population, higher prevalence rate and changing lifestyle.

Chart 4: US diabetes population and prevalence rate



Source: ADA, Self-elaborate

We believe, growing prevalence of diabetes coupled with high contribution of T2D and increasing importance of CGM devices in T2D will support the company's top-line growth. According to Centers for Disease Control and Prevention (CDC) report,

"National Diabetes Statistics Report 2020 - Estimates of Diabetes and Its Burden in the United States", T2D accounts for 90-95% (T1D - 5-10%) of the total diabetes market. Adoption of CGM in the T2D has unlocked a significant potential for the company to expand. We see the company as well poised to capitalize this opportunity with its well-established distribution channel.

# CGM combating diabetes with real-time glucose data

Diabetes patients, T1D or T2D, need to check their blood glucose levels for their hemoglobin A1c (HbA1c) levels, to be maintained between 70-130mg/dL in order to avoid adverse events. Traditionally patients were required to use a small needle or a scalpel to make an incision usually in the fingertip area to draw blood for analysis. The limited surface area of fingertips and frequent blood drawings makes the procedure painful and the patients may feel disturbance during other day to day activities. Due this the adherence of checking glucose levels was limited. In December 2016, FDA approved the first CGM, 'Dexcom G5' (USFDA, 2016), that replaced traditional finger-stick testing, and this changed the landscape of glucose monitoring market.

Later in May 2018, the company received approval for its 'Dexcom G6' (USFDA, 2018). This new and improved product is (i) comfortable and easy to wear under clothing, (ii) provides 43% longer wear time, (iii) has an 80bps higher accuracy, and (iv) does not require any calibration, when compared to G5. Moreover, the sensor is in the form of a thin wire, which minimizes potential discomfort during insertion and is virtually unnoticeable wearing experience.

DXCM is continuously focused product innovation, in order to combat stiff competition in the market. Currently they are developing G7, which is expected, as per management, to be significantly better that its predecessor G6 in terms of accuracy, sensor size and production costs. Per management, the company is expected to commercially launch this G7 in 2021. We believe that with launch of G7 company will see an increase in its market share.

# G7 expected to improve DXCM's competitive position

In 2019, Roy Beck, an epidemiologist and director at Jaeb Center for Health Research, in his presentation at ADA, explained that CGM is expected to become at standard care for all T1D patients. During his presentation, he compared the four key players in the US CGM market, viz. Medtronic (MDT), DXCM, Abbott (ABT), and Senseonics.(SENS) This comparison indicated that, DXCM's G6 in better than ABT's Libre in controlling hypoglycemic events by 50bps. Whereas when compared to an overall accuracy, Libre beats G6 by 40bps. Due to this clinical superiority the company faces a stiff competition from ABT.

DXCM's primary competitor in the US as well as in the international markets is ABT. The company's FreeStyle Libre 1 and Libre 2 products are virtually same, with a minor difference, i.e., Libre 2 has a blood glucose alert function. However, this function only

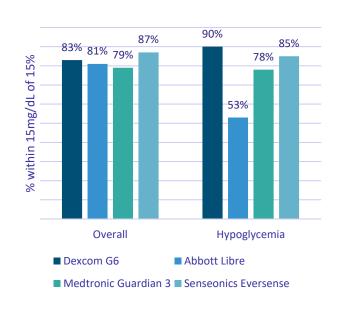
- G6 offers real-time monitoring, alerts and predictive analytics
- G7 in clinical studies and expected to hit the market in 2H2021

alerts the user without providing the reading on the glucose level. To obtain the glucose level a patient needs to manually scan the sensor. Whereas Dexcom's G6 provides the alerts and the glucose levels simultaneously. Detailed comparison can be found in the table below (Chart 5: G6 Vs Libre1/2):

Chart 5: G6 Vs Libre1/2

Abbot FreeStyle Device Dexcom G6 Libre 1/2 Type of Real-time "Flash" monitoring Sensor longevity 10 days 14 days Acceptable but Acceptable but worse at measuring better at measuring **Accuracy** at lower glucose at lower glucose ranges ranges Glucose level Available only with Present alerts Lihre 2 Not required but Not required, User calibration impossible possible

Chart 6: CGM sensor accuracy\*



Source: Company reports, Self-elaborate

Source: ADA annual meeting presentation, 2019; Note: \*within 15mg/dL for <100mg/dL and 15% for  $\ge 100mg/dL$ 

We believe that with the launch of G7 the company will be able to gain a competitive edge over ABT. The new G7 is expected to be price competitive and much smaller device as compared to ABT' Libre 1/2/3, with clinical significance at par with G6 or higher. We see this combination to be of a turning point for the company to gain incremental market share.

# Relentless focus on R&D and building patent portfolio

DXCM has a strong track record of innovation in the CGM market. It was the first to offer a smartphone app as a receiver device which made dedicated receivers unnecessary, potentially reducing costs while increasing the user-friendliness of the device. Current generation product, G6, does not require a calibration by the user, and is easy to start using. This also can alert the user about potential hypo- and hyper-glycemic events 10 to 20 minutes prior using its predictive analytics technology. Next device in the product pipeline, G7, is being developed with aim of both increasing the effectiveness and reducing the overall costs.

We believe that the company will continue to invest approximately 17% of its future sales in its R&D, to support its innovation strategy and remain competitive in market. Additionally, we see the company's being well protected from immediate threats to its

technology due to its strong portfolio of patents and trademarks. As of FY19 the company held 516 patents in the US and 50 patents in Europe.

Chart 7: R&D investment & margin 2014-30E

1,400 40% 35% 1,200 30% 1,000 25% 800 20% 600 15% 400 10% 200 5% 0 ■ R&D (\$ mn) R&D Margin (%)

Chart 8: No of patents and trademarks as of FY19

Pate	ents
US	516
EU	50
Tradei	marks
US	31
EU	21

Source: Company reports, Self-elaborate

Source: Company reports, Self-elaborate

# G4/G5/G6 covered by seven largest private payors in the US

As the CGM devices gained FDA approval and proved their superiority compared to traditional fingerstick methods. Healthcare payors, be it private insurers or Medicare/Medicaid, typically readily reimburse the costs related to transitioning and usage of CGM devices. Medicare/Medicaid usually covers 80% of the total costs, the patient paying the remaining 20% out of pocket, which is about \$50 per months for G6 device.

In December 2016, USFDA approved use of G5 mobile system and are currently being reimbursed by Medicare and Medicaid. In addition to coverage from CMS, the company has built a network of private third-party payers that would reimburse the company's products. As of December 2019, the company's product was reimbursed by seven of the largest players in the US private payor market. Per management, the company is expected to continue its efforts to build its payor network to increase coverage of their products. This would lead to a decrease in out-of-pocket expenditure for out-patients, i.e., patients that are not currently covered by the company's network payors.

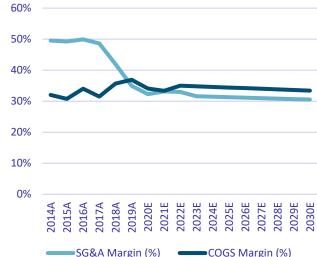
#### Continued improvement in margins backed operational efficiencies

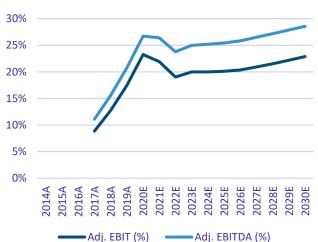
DXCM has witnessed a significant improvement in its Adj. EBIT and EBITDA margin, from 9% in FY17 to 17% in FY19 and 11% in FY17 to 21% in FY19, respectively. This was primarily driven by improvement in SG&A margins and was partially offset a rise in COGS margin. Improvement in SG&A margin was largely related to marketing and promotion expenses. The company is in the process of significantly increasing the size of the sales team which will put a pressure on SG&A margins in 2021 and 2022, to support its launch of G7. After that, we expect a marginal improvement in SG&A expenses as the company improves its marketing and sales efficiency reaching around 31% which is in line with current SG&A figures of Abbot and Medtronics. COGS margins are also expected to improve marginally mainly due to economies of scale and G7's projected lower cost of production. However, during the initial ramp up of G7 production the COGS are expected to increase and, subsequently, the company should be able to improve the COGS margins to historical levels. We expected that this continuous improvement in SG&A and COGS margin will drive the adj. margins for the company.

Chart 10: Adj. EBIT and Adj. EBITDA margin

Chart 9: COGS and SG&A margin

35% 30% 25% 20%





Source: Company reports, Self-elaborate

Source: Company reports, Self-elaborate

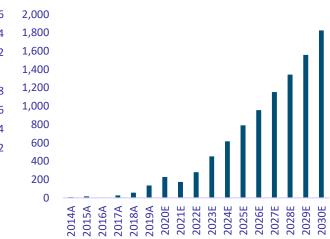
# Strong FCF leading to limited dependence on external financing

As of 3Q20, the company had USD 1,646mn in senor convertible notes and long-term lease obligations. Senior convertible notes were issued in November 2018 and May 2020 and are due by December 2023 and November 2025 respectively. The first tranche has a conversion price much lower than the projected share price; we assume that the note will be converted and the second will be paid in cash. Thus, as the company has reached Net Income profitability by the end of 2019 and is projected to maintain that, we assume that the company will not need to issue any significant amount of debt in the forecasting period.

Chart 11: Debt & D/E 2014-30E



Chart 12: Free cash flow 2014-30E



Source: Company reports, Self-elaborate

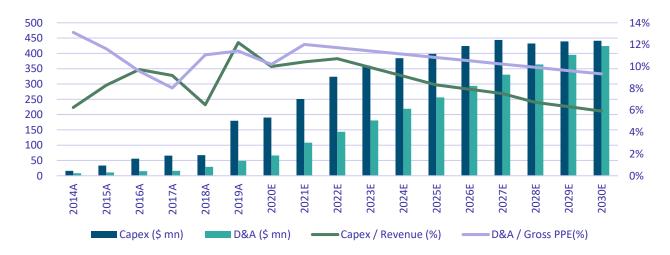
Source: Company reports, Self-elaborate

# Capex expected to rise in FY21 &FY22, on the back of G7 setup

In 2019 the company doubled its capacity for it G6 production, with an effort to meet the rising demand in the market. We believe that DXCM will continue to invest in expansion of capacity with the expected launch of G7 in 2021, post which we believe the will continue with its maintenance capex.

As for depreciation we believe that the company will maintain its D&A to gross PPE ratio in range of 9-12%, with historical average being 10.8% over 2014-19.

Chart 13: Capital expenditure and D&A 2014-30E



Source: ADA, Self-elaborate

# **Valuation**

We see the company as undervalued and have ascertained price target at \$478.4 per share with price of \$333 per share (as on December 10, 2020) with upside potential of 43.5%. The price target is calculated by discounting future cashflows in two stages. First phase, 2020-30E, we compute free cash flow using adjusted EBIT, adjusting it for tax benefit, capital expenditure, depreciation & amortization and change in working capital. Whereas in second phase we have assumed a marginal slowdown in growth through 2031-35E in free cash flow. DXCM is expected to see a value accretion based on (i) growing traction in insulin-dependent population in T2D; (ii) expanding coverage in Medicare and (iii) stronger foothold of its product G6 and launch of G7.

We have made following assumptions to compute the final price target:

- Debt/equity As mentioned earlier DXCM is expected to paydown it's notes in 2023 and 2025. Thus, we have assumed a 0% debt.
- ii. Tax rate applied effective tax rate for the company as of 2019 till the company turns profitable. Post which, 2022-30E, we have applied a weighted average effective tax for US (19.7%) and UK (19%) ((OECD), 2020)
- iii. Rf 0.8%. 10 Year US Treasury Rate
- iv. Rm 5.23; based on risk premium of the US.
- v. Beta 0.6. Computed based on 5-Yr rolling monthly beta against MSCI All Country World Index.
- vi. Terminal Growth 1%

Chart 14: DXCM beta Jan 2011 - Dec 2020

**Table 1: Sensitivity analysis** 



				WACC								
		2.88%	3.08%	3.28%	3.48%	3.68%	3.88%	4.08%				
_	-0.50%	458.6	439.7	422.8	407.6	393.8	381.3	369.9				
Growth	0.00%	484.8	460.8	439.7	421.0	404.3	389.4	375.9				
Ğ	0.50%	527.1	494.7	467.0	443.0	422.0	403.5	387.0				
Terminal	1.00%	597.8	550.3	511.2	478.4	450.4	426.4	405.5				
lerm	1.50%	727.2	647.6	586.0	536.8	496.7	463.3	435.1				
	2.00%	1,014.5	843.9	726.8	641.3	576.3	525.1	483.7				
	2.50%	2,086.1	1,395.1	1,059.7	861.6	730.8	637.9	568.7				

Source: Thomson Reuters Eikon, Self-elaborate

Source: Self-elaborate

**Table 2: DXCM DCF valuation** 

(In US\$ mn)	Dec-2020	Dec-2021	Dec-2022	Dec-2023	Dec-2024	Dec-2025	Dec-2026	Dec-2027	Dec-2028	Dec-2029	Dec-2030	Dec-2031	Dec-2032	Dec-2033	Dec-2034	Dec-2035
Adj. EBIT	442	528	575	725	843	963	1,089	1,235	1,386	1,543	1,706					
Marginal tax rate	9.8%	19.6%	19.6%	19.6%	19.6%	19.6%	19.6%	19.6%	19.6%	19.6%	19.6%					
EBIT*(1-t)	399	424	462	583	678	775	876	993	1,114	1,241	1,372					
Add: Depreciation & amortization	66	108	144	181	219	256	294	331	364	395	424					
Less: Net capex	190	251	324	360	384	399	424	444	432	439	441					
Less: Change in working capital	-55	-96	-2	54	91	126	159	223	247	311	421					
Net Cash Flow	330	378	284	351	421	506	587	656	799	885	934	971	999	1,019	1,028	1,03
Growth (%)			-24.9%	23.6%	20.1%	20.1%	15.9%	11.9%	21.7%	10.9%	5.4%	4.0%	3.0%	2.0%	1.0%	1.09
Time period (Years)	0.06	1.06	2.06	3.06	4.06	5.06	6.06	7.06	8.06	9.06	10.06	11.06	12.06	13.06	14.06	15.0
Discounting factor	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.90	0.89	0.88	0.87	0.8
Discounted cash Flow	330	374	278	340	405	481	552	612	737	809	845	869	886	894	894	89
Terminal Value																42,34
Discounted Terminal Value	36,450															
Stage 1 Discounted Value of Net Cash Flow	5,764															
Stage 2 Discounted Value of Net Cash Flow	4,438															
Total Enterprise Value	46,652															
Terminal Value to Total DCF Value	78.1%															
Net Debt	0															
Equity Value	46,652															
Diluted no. of shres	98															
Target price	\$478.4															
Current market price	\$333.4															
% upside/(downside)	43.5%															
WACC																
Cost of Debt	5 129/	<- effective c	act of dobt as	nor books IN	CORRECT											
Tax Rate	19.60%		ost oj debi as	per books iiv	CORRECT											
Post tax cost of debt	4.12%															
		<- industry d	eht propertio	n												
Managetian of daht	0.0%	~ industry u	ebt propertion	1												
% Proportion of debt	100.0%															
% Proportion of debt % Proportion of equity	100.0%															
•	100.0%															
% Proportion of equity		<-10 year T y	ield													
% Proportion of equity  Cost of Equity	0.80%			m for US												
% Proportion of equity  Cost of Equity  Risk free rate (Rf)	0.80%	<-10 year T ye		m for US												
% Proportion of equity  Cost of Equity  Risk free rate (Rf)  Equity market premium (Rm)	0.80% 5.23% 4.43%	<-10 year T ye	ın risk premiu		:W/											
% Proportion of equity  Cost of Equity  Risk free rate (Rf)  Equity market premium (Rm)  (Rm-Rf)	0.80% 5.23% 4.43%	<-10 year T yı <- Damodard <- 5 year moi	ın risk premiu		swi											

Terminal Growth Rate Source: Self-elaborate

Terminal Growth Rate

1.00%

# Risks to valuation

# Highly saturated market

The company operates in a highly competitive market. They have to indirectly compete with traditional insulin delivery methods and directly with CGM producers. Additionally, there are several companies, such as Abbot, Medtronic and Senseonics Eversense that have or are currently developing CGM systems. If the company is not able to keep up with the new technology, then it could affect the company's sales negatively.

# Technology risk

The company is under a constant risk of being outdated, due to continuous innovations. Innovations may come both within and outside of the industry: competitors may develop a better product and/or a cheap/reliable cure for diabetes might be developed. With the patents expiring in the late 2020s and early 2030s there is a constant pressure on the company to continuously invest in R&D. Only by ensuring constant flow of innovations the company can maintain and expand its market share.

# Regulatory risk

DXCM has to comply with several federal, state, and local regulatory bodies, which exposes the industry to increased risk while possibly significantly impacting day-to-day business operations. As for the US companies, they need to follow the regulatory requirements set by (i) judgement based during Myriad case for licensing, (ii) the United States Food and Drug Administration's (USFDA) digital health software Precertification (Pre-Cert) pilot program, (iii) government and private payers, (iv) HIPAA.

## Privacy and cybersecurity

One of most daunting risks to DXCM is of privacy and cybersecurity. With growing awareness among end-user customers, for their data privacy rights through Health Insurance Portability and Accountability Act (HIPAA), there has been a rise in lawsuits after cases of data leak. As the sector is privy to a huge amount of personal and financial data, they must uphold the highest level of data and security measure.

#### Litigation risk

Industry is exposed to litigation risks due to heavy regulatory requirements and technology failure. If a patient gets injured due to malfunction in technology or human error or hacking, then the industry may face serious setback both in reputational and financial terms.

# Appendix

Table 3: Financials summary

Particulars (In US\$ mn)	2014A	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Income Statement																	
Revenue, net	259	402	573	719	1,032	1,476	1,902	2,407	3,019	3,625	4,216	4,793	5,354	5,902	6,436	6,954	7,454
Growth (%)		55%	43%	25%	44%	43%	29%	27%	25%	20%	16%	14%	12%	10%	9%	8%	7%
Cost of revenue	(83)	(124)	(195)	(226)	(368)	(545)	(648)	(803)	(1,057)	(1,262)	(1,459)	(1,649)	(1,831)	(2,007)	(2,175)	(2,337)	(2,489)
Margin (%)	32%	31%	34%	32%	36%	37%	34%	33%	35%	35%	35%	34%	34%	34%	34%	34%	33%
Research and development	(69)	(138)	(156)	(185)	(200)	(274)	(337)	(414)	(519)	(624)	(725)	(825)	(921)	(1,015)	(1,107)	(1,196)	(1,282)
Margin (%)	27%	34%	27%	26%	19%	19%	18%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Selling, general and administrative	(128)	(198)	(286)	(349)	(433)	(516)	(613)	(798)	(996)	(1,145)	(1,325)	(1,499)	(1,667)	(1,829)	(1,984)	(2,134)	(2,276)
Margin (%)	50%	49%	50%	49%	42%	35%	32%	33%	33%	32%	31%	31%	31%	31%	31%	31%	31%
EBIT	(21)	(57)	(64)	(43)	31	142	303	392	447	595	707	820	935	1,052	1,169	1,288	1,406
Margin (%)	8%	14%	11%	6%	-3%	-10%	-16%	-16%	-15%	-16%	-17%	-17%	-17%	-18%	-18%	-19%	-19%
EBITDA	(13)	(46)	(49)	(26)	60	191	369	500	590	776	926	1,077	1,229	1,382	1,533	1,683	1,830
Margin (%)	5%	12%		4%	-6%	-13%	-19%	-21%	-20%	-21%	-22%	-22%	-23%	-23%	-24%	-24%	-25%
EPS (Basic)	(0.30)	(0.72)	(0.78)	(0.58)	(1.44)	1.11	2.24	2.78	3.30	4.71	5.84	7.06	8.32	9.54	10.81	12.13	13.50
EPS (Diluted)	(0.30)	(0.72)	(0.78)	(0.58)	(1.44)	1.10	2.16	2.67	3.17	4.53	5.63	6.80	8.01	9.19	10.41	11.68	13.00
Balance Sheet																	
Cash and cash equivalents	72	86	95	442	1,137	446	737	910	1,181	935	1,503	1,270	2,160	3,237	4,495	5,957	7,676
Current assets	146	231	280	745	1,700	1,969	3,318	3,714	4,272	4,160	4,829	4,661	5,582	6,626	7,826	9,165	10,648
Property and equipment, net	31	. 55	109	146	183	321	494	636	816	995	1,160	1,303	1,433	1,546	1,615	1,659	1,676
Total assets	185	292	403	904	1,916	2,395	3,947	4,495	5,244	5,316	6,155	6,135	7,190	8,350	9,621	11,006	12,508
Current liabilities	41	67	102	139	222	360	516	652	949	1,143	1,340	1,536	1,731	1,925	2,117	2,307	2,494
Total liabilities	44	71	119	485	1,253	1,512	2,348	2,517	2,863	2,406	2,636	1,899	2,126	2,352	2,575	2,796	3,013
Total stockholders' equity	140	221	284	419	663	883	1,599	1,977	2,381	2,910	3,520	4,236	5,064	5,999	7,046	8,210	9,495
Total liabilities and stockholders' equity	185	292	403	904	1,916	2,395	3,947	4,495	5,244	5,316	6,155	6,135	7,190	8,350	9,621	11,006	12,508
Cashflow Statement																	
Net cash used in operating activities	24	49	56	92	123	315	418	424	604	813	1,001	1,189	1,380	1,598	1,776	1,997	2,266
Net cash provided by investing activities	(17)	(52)	(56)	(144)	(140)	(1,015)	(1,045)	(251)	(324)	(360)	(384)	(399)	(424)	(444)	(432)	(439)	(441)
Net cash provided by financing activities	22	17	8	399	710	11	917	0	(10)	(699)	(48)	(1,023)	(67)	(77)	(86)	(96)	(105)

Source: Company reports, Self-elaborate

Table 4: Global revenue model

Revenue Model (In US\$ mn)	2014A	2015A	2016A 201	17A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Global Market Model	2014A	2013A	2010A 20.	1/1	2010A	2013A	20201	ZUZIL	20222	20231	20242	20231	20201	20272	Z020L	2023E	2030E
Global Population	7,295.3	7,379.8	7,464.0	7,547.9	7,631.1	7,713.5	7.794.8	7.875.0	7.954.0	8.031.8	8.108.6	8.184.4	8.259.3	8.333.1	8.405.9	8.477.7	8.548.5
· ·																	
US Population (in Mn)	318.7	320.9	323.0	325.1	327.1	329.1	331.0	332.9	334.8	336.7	338.5	340.4	342.3	344.1	345.9	347.8	349.6
OUS Population (in Mn)	6,976.6	7,058.9	7,141.0	7,222.8	7,304.0	7,384.4	7,463.8	7,542.1	7,619.1	7,695.1	7,770.1	7,844.0	7,917.0	7,989.0	8,059.9	8,129.9	8,198.8
Prevalence rate (%)																	
US	0.0%	9.4%	9.8%	10.1%	10.5%	10.8%	11.1%	11.5%	11.8%	12.1%	12.4%	12.8%	13.1%	13.4%	13.8%	14.1%	14.4%
bps increase			34.0	33.8	33.5	33.4	33.3	33.2	33.2	33.1	33.1	33.0	33.0	32.9	32.9	32.8	32.8
ous	0.0%	5.4%	5.5%	5.6%	5.7%	5.8%	5.9%	6.0%	6.0%	6.1%	6.2%	6.2%	6.3%	6.4%	6.4%	6.5%	6.6%
bps increase			8.7	8.5	8.4	8.3	8.2	7.9	7.7	7.4	7.2	6.9	6.7	6.4	6.2	5.9	5.7
Prevalence of Diabetes																	
Global		415.0	427.0	439.0	451.0	463.0	475.0	487.0	498.7	510.4	521.9	533.3	544.5	555.6	566.5	577.2	587.8
US		30.3	31.6	32.9	34.2	35.5	36.8	38.1	39.5	40.8	42.1	43.5	44.9	46.2	47.6	49.0	50.4
OUS				406.1	416.8	427.5					479.7						537.3
OUS		384.7	395.4	406.1	416.8	427.5	438.2	448.8	459.3	469.6	4/9./	489.8	499.6	509.3	518.8	528.2	557.5
Sensor and other revenue																	
Penetration (%)																	
us	NA	0.3%	0.4%	0.4%	0.6%	0.9%	1.2%	1.4%	1.8%	2.2%	2.5%	2.9%	3.1%	3.4%	3.7%	3.9%	4.1%
bps increase			8.9	5.9	16.6		29.7	40.0	40.0	37.0	34.0	31.5	29.0	27.0	25.0	23.0	21.0
ous	NA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%
bps increase	l va	0.070	0.3	0.2	0.4	0.070	0.0%	0.3	0.3	0.03	0.3	0.3	0.3	0.170	0.170	0.3	0.170
bps increase			0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.3
Number of subscribers ('000s)	76	114	158	192	272	397	533	694	888	1,082	1,273	1,463	1,652	1,840	2,027	2,212	2,394
US	54	82	113	137	200	309	430	546	723	898	1,071	1,243	1,412	1,580	1,746	1,910	2,071
OUS	21	32	45	54	72	88	103	148	166	183	202	221	240	260	280	301	323
Cost per patient	\$2,463	\$2,533	\$2,605	\$2,691	\$2,792	\$2,891	\$2,862	\$2,834	\$2,806	\$2,777	\$2,750	\$2,722	\$2,695	\$2,668	\$2,641	\$2,615	\$2,589
Inflation Impact (%)	3.2%	2.8%	2.8%	3.2%	3.6%	3.6%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
Sensor and other revenue	186	288	411	516	758	1,149	1,540	1,975	2,493	3,004	3,500	3,983	4,452	4,909	5,353	5,783	6,196
Hardware revenue																	
Penetration (%)																	
US	NA	0.9%	1.1%	1.3%	1.5%	1.7%	1.8%	2.0%	2.4%	2.8%	3.1%	3.5%	3.9%	4.2%	4.6%	4.9%	5.2%
bps increase	""	0.570	28.1	13.0	24.6	15.6	9.5	21.1	40.0	39.0	38.0	37.0	36.0	35.0	34.0	33.0	32.0
OUS	NA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%			0.1%	
bps increase	IVA	0.0%	0.0%	0.0%	1.1		0.0%	0.1%	1.0	0.1%	0.1%	0.1%				0.1%	0.1%
bps increase			0.4	0.7	1.1	0.5	0.5	0.0	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2
Number of units subscribed	198	298	413	501	651	752	833	1,011	1,247	1,487	1,730	1,976	2,225	2,475	2,726	2,977	3,228
US	172	259	359	416	517	592	648	752	936	1,127	1,324	1,528	1,737	1,952	2,172	2,398	2,628
OUS	26	39	55	85	135	160	184	259	311	360	406	449	488	523	553	579	600
Cost per unit	\$370	\$381	\$392	\$405	\$420	\$435	\$431	\$426	\$422	\$418	\$414	\$409	\$405	\$401	\$397	\$393	\$389
Inflation Impact (%)	3.2%	2.8%	2.8%	3.2%	3.6%	3.6%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
Hardware revenue	73	114	162	203	274	327	362	432	526	621	716	809	902	993	1,083	1,171	1,257

Source: Company reports, Self-elaborate

# References

(OECD), O. f. E. C.-o. a. D., 2020. Statutory Corporate Income Tax Rates. [Online]

Available at: https://stats.oecd.org/Index.aspx?DataSetCode=CTS\_CIT\_

[Accessed 8 November 2020].

ADA, 2018. American Diabetes Association. [Online]

Available at: https://www.diabetes.org/resources/statistics/cost-

diabetes#:~:text=People%20with%20diagnosed%20diabetes%20incur,in%20the%20absence%20of%20diabetes.

[Accessed Saturday November 2020].

Beck RW, R. T. R. K. e. a., 2017. Effect of Continuous Glucose Monitoring on Glycemic Control in Adults With Type 1 Diabetes Using Insulin Injections: The DIAMOND Randomized Clinical Trial. *JAMA*.

IDF, 2019. International Diabetes Federation. [Online]

Available at: https://diabetesatlas.org/en/

[Accessed 22 November 2020].

Tejaswi Kompala, M., A. N. M. F., 2019. A New Era: Increasing Continuous Glucose Monitoring Use in Type 2 Diabetes. *American Journal of Managed Care*, 25(4).

USFDA, 2016. USFDA. [Online]

Available at: https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpma/pma.cfm?id=P120005S041

[Accessed 09 December 2020].

USFDA, 2018. FDA authorizes first fully interoperable continuous glucose monitoring system, streamlines review pathway for similar devices. [Online]

Available at: <a href="https://www.fda.gov/news-events/press-announcements/fda-authorizes-first-fully-interoperable-continuous-glucose-monitoring-system-streamlines-review">https://www.fda.gov/news-events/press-announcements/fda-authorizes-first-fully-interoperable-continuous-glucose-monitoring-system-streamlines-review</a>

[Accessed 09 December 2020].