

Medical Technology

Q4 Hip and Knee after payer utilization commentary

Industry Overview

Q4 medtech likely slightly elevated vs normal seasonality

We look at hip/knee Street estimates as payers are calling out higher Nov/Dec utilization. For medtech we think we'll see normal to slightly elevated seasonality in Q4'23. Q3'23 was slightly below (more vacations) and some of that likely shifted into Q4. But we do not think Q4 seasonality will be abnormally strong like we saw in Q1'23 as medtech markets have started to normalize at a healthy growth rate (see [Medtech markets in Q323](#)). We would note the Street models less of a Q4 seasonal uptick for JNJ hip/knee than it does for SYK/ZBH, suggesting JNJ's Q4 vs Street could be wider than SYK/ZBH Q4 vs street. See Exhibits 1 & 4.

JNJ/ZBH/SYK Q4'23 vs historical seasonality

Assuming normal seasonality, JNJ WW hips/knees likely beat, JNJ US knees likely come in roughly in-line to a slight miss, and JNJ US hips likely beat. For JNJ WW knees, the historical avg ex-2020 was 13% growth in Q4/Q3, the pre-covid avg was 14%, and Street is modeling 8% growth q/q in Q4'23. For JNJ US knees, the historical avg ex-2020 was 12.5% growth in Q4/Q3, the pre-covid avg was 12%, and Street is modeling 13% growth q/q in Q4'23. For JNJ WW hips, the historical avg ex-2020 was 10% growth in Q4/Q3, the pre-covid avg was 11%, and Street is modeling 6% growth q/q in Q4'23. For JNJ US hips, the historical avg ex-2020 was 10% growth in Q4/Q3, the pre-covid avg was 10.5%, and Street is modeling 7% growth q/q in Q4'23.

Assuming normal seasonality, ZBH WW hips/knees likely beat, ZBH US knees could miss, and ZBH US hips likely come in in-line to a slight miss. For ZBH WW knees, the historical avg ex-2020 was 15% growth in Q4/Q3, the pre-covid avg was 16%, and the Street is modeling 14% growth q/q in Q4'23. For ZBH US knees, the historical avg ex-2020 was 13% growth in Q4/Q3, the pre-covid avg was 13.5%, and Street is modeling 15% growth q/q in Q4'23. For ZBH WW hips, the historical avg ex-2020 was 10% growth in Q4/Q3, the pre-covid avg was 12%, and Street is modeling 9% growth q/q in Q4'23. For ZBH US hips, the historical avg ex-2020 was 8% growth in Q4/Q3, the pre-covid avg was 9%, and Street is modeling 9% growth q/ in Q4'23.

Assuming normal seasonality, SYK WW knees likely beat, SYK US hips/knees likely beat, and SYK WW hips likely come in roughly in-line. For SYK WW knees, the historical avg ex-2020 was 18% growth in Q4/Q3, the pre-covid avg was 18%, and Street is modeling 16% growth q/q in Q4'23. For SYK US knees, the historical avg ex-2020 was 19% growth in Q4/Q3, the pre-covid avg was 20%, and Street is modeling 15% growth q/q in Q4'23. For SYK WW hips, the historical avg ex-2020 was 10% growth in Q4/Q3, the pre-covid avg was 11%, and Street is modeling 10.5% growth q/q in Q4'23. For SYK US hips, the historical avg ex-2020 was 11% growth in Q4/Q3, the pre-covid avg was 13%, and Street is modeling 10% growth q/q in Q4'23.

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Tickers mentioned

JNJ = Johnson & Johnson
SYK = Stryker
ZBH = Zimmer Biomet

Acronym glossary

WW = worldwide
avg = average

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WW and US knees trends

For JNJ WW knees the Street is modeling 8% growth q/q Vs the historical avg ex-2020 was 13% growth in Q4/Q3 and the pre-covid avg was 14%. More recently JNJ WW knees saw 12% growth in 4Q'22 and 8% growth in 4Q'21. **For JNJ US knees** the Street is modeling 13% growth q/q Vs the historical avg ex-2020 was 12.5% growth in Q4/Q3 and the pre-covid avg was 12%. More recently JNJ US knees saw 14% growth in 4Q'22 and 13% growth in 4Q'21. On a 2yr stacked basis, Street Q4'23 ests. represent a 20bps deceleration for JNJ WW knees and a 20bps acceleration for JNJ US knees.

For SYK WW knees the Street is modeling 16% growth q/q Vs the historical avg ex-2020 was 18% growth in Q4/Q3 and the pre-covid avg was 18%. More recently SYK WW knees saw 15% growth in 4Q'22 and 19% growth in 4Q'21. **For SYK US knees** the Street is modeling 15% growth q/q Vs the historical avg ex-2020 was 19% growth in Q4/Q3 and the pre-covid avg was 20%. More recently SYK US knees saw 14% growth in 4Q'22 and 20.5% growth in 4Q'21. On a 2yr stacked basis, Street Q4'23 ests. represent a 220bps deceleration for SYK WW knees and a 310bps deceleration for SYK US knees.

For ZBH WW knees the Street is modeling 14% growth q/q Vs the historical avg ex-2020 was 15% growth in Q4/Q3 and the pre-covid avg was 16%. More recently ZBH WW knees saw 15% growth in 4Q'22 and 11% growth in 4Q'21. **For ZBH US knees** the Street is modeling 15% growth q/q Vs the historical avg ex-2020 was 13% growth in Q4/Q3 and the pre-covid avg was 13.5%. More recently ZBH US knees saw 15% growth in 4Q'22 and 11% growth in 4Q'21. On a 2yr stacked basis, Street Q4'23 ests. represent a 150bps acceleration for ZBH WW knees and a 170bps acceleration for ZBH US knees.

Exhibit 1: WW and US knee Q4/Q3 sequential growth trends relative to historical averages

For JNJ WW knees the Street is modeling 8% growth q/q Vs the historical avg ex-2020 was 13% growth in Q4/Q3 and the pre-covid avg was 14%. For JNJ US knees the Street is modeling 13% growth q/q Vs the historical avg ex-2020 was 12.5% growth in Q4/Q3 and the pre-covid avg was 12%.

WW Knees	3Q16A	4Q16A	3Q17A	4Q17A	3Q18A	4Q18A	3Q19A	4Q19A	3Q20A	4Q20A	3Q21A	4Q21A	3Q22A	4Q22A	3Q23A	4Q23E	2016-2019 avg.	Historical avg ex-2020
ZBH	631.5	721.0	622.9	731.0	627.9	729.0	651.9	761.0	648.7	726.1	647.9	720.1	657.0	753.6	706.3	803.6	16.1%	15.0%
q/q growth	(9.4%)	14.2%	(8.4%)	17.4%	(10.7%)	16.1%	(7.3%)	16.7%	73.4%	11.9%	(2.7%)	11.1%	(6.8%)	14.7%	(8.4%)	13.8%		
JNJ	355.0	395.0	343.0	397.0	341.0	392.0	344.0	395.0	308.0	345.0	316.0	342.0	317.0	354.0	338.0	365.0	14.2%	12.8%
q/q growth	(7.8%)	11.3%	(10.9%)	15.7%	(10.7%)	15.0%	(7.5%)	14.8%	77.0%	12.0%	(9.7%)	8.2%	(9.2%)	11.7%	(6.9%)	8.0%		
SYK	354.0	405.0	369.0	446.0	395.0	465.0	426.0	510.0	435.0	459.0	439.0	523.0	481.0	552.0	515.0	598.5	18.2%	17.8%
q/q growth	(4.3%)	14.4%	(5.1%)	20.9%	(6.4%)	17.7%	(3.2%)	19.7%	80.5%	5.5%	(7.4%)	19.1%	(3.8%)	14.8%	(8.4%)	16.2%		
SNN	213.0	247.0	228.0	266.0	232.0	269.0	240.0	279.0	219.0	237.0	207.0	232.0	210.0	234.0	223.0	248.5	16.2%	14.7%
q/q growth	(10.5%)	16.0%	(7.3%)	16.7%	(10.1%)	15.9%	(8.4%)	16.3%	59.9%	8.2%	(8.4%)	12.1%	(5.8%)	11.4%	(6.3%)	11.4%		
US Knees	3Q16A	4Q16A	3Q17A	4Q17A	3Q18A	4Q18A	3Q19A	4Q19A	3Q20A	4Q20A	3Q21A	4Q21A	3Q22A	4Q22A	3Q23A	4Q23E	2016-2019 avg.	Historical avg ex-2020
ZBH	397.5	444.0	381.5	443.0	384.6	433.0	399.2	454.0	383.4	425.8	363.1	403.7	389.7	447.4	413.3	474.1	13.5%	13.4%
q/q growth	(4.7%)	11.7%	(5.9%)	16.1%	(5.8%)	12.6%	(3.7%)	13.7%	77.9%	11.1%	(4.7%)	11.2%	(2.2%)	14.8%	(5.6%)	14.7%		
JNJ	223.0	247.0	220.0	246.0	215.0	239.0	209.0	239.0	205.0	216.0	184.0	208.0	203.0	231.0	207.0	234.5	12.0%	12.5%
q/q growth	(2.6%)	10.8%	(6.8%)	11.8%	(6.1%)	11.2%	(4.1%)	14.4%	89.8%	5.4%	(12.4%)	13.0%	(6.0%)	13.8%	(6.3%)	13.3%		
SYK	258.9	299.5	270.0	331.0	291.0	348.0	318.0	385.0	332.0	337.0	321.0	387.0	365.0	416.0	385.0	444.0	19.7%	18.9%
q/q growth	(1.8%)	15.7%	(4.3%)	22.6%	(4.3%)	19.6%	(1.9%)	21.1%	85.5%	1.5%	(8.0%)	20.5%	(0.7%)	14.0%	(5.2%)	15.3%		
SNN	111.1	133.6	115.5	139.0	117.8	140.4	119.8	148.1	110.7	124.8	97.9	119.9	108.7	128.0	107.3		20.9%	20.6%
q/q growth	(12.7%)	20.3%	(13.5%)	20.3%	(12.7%)	19.2%	(10.7%)	23.6%	62.7%	12.8%	(18.1%)	22.5%	(10.7%)	17.7%	(14.3%)			

Source: Company filings, Bloomberg

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Exhibit 2: WW and US knee sequential growth trends

For JNJ WW knees the Street is modeling 8% growth q/q in 4Q'23 vs 12% growth in 4Q'22 and 8% growth in 4Q'21. For JNJ US knees the Street is modeling 13% growth q/q in 4Q'23 vs 14% growth in 4Q'22 and 13% growth in 4Q'21.

WW Knees	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	614.3	665.6	647.9	720.1	662.8	704.9	657.0	753.6	762.5	771.4	706.3	803.6
q/q growth	(15.4%)	8.4%	(2.7%)	11.1%	(8.0%)	6.4%	(6.8%)	14.7%	1.2%	1.2%	(8.4%)	13.8%
JNJ	317.0	350.0	316.0	342.0	339.0	349.0	317.0	354.0	368.0	363.0	338.0	365.0

Exhibit 2: WW and US knee sequential growth trends

For JNJ WW knees the Street is modeling 8% growth q/q in 4Q'23 vs 12% growth in 4Q'22 and 8% growth in 4Q'21. For JNJ US knees the Street is modeling 13% growth q/q in 4Q'23 vs 14% growth in 4Q'22 and 13% growth in 4Q'21.

WW Knees	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
q/q growth	(8.1%)	10.4%	(9.7%)	8.2%	(0.9%)	2.9%	(9.2%)	11.7%	4.0%	(1.4%)	(6.9%)	8.0%
SYK	412.0	474.0	439.0	523.0	464.0	500.0	481.0	552.0	566.0	562.0	515.0	598.5
q/q growth	(10.2%)	15.0%	(7.4%)	19.1%	(11.3%)	7.8%	(3.8%)	14.8%	2.5%	(0.7%)	(8.4%)	16.2%
SNN	212.0	226.0	207.0	232.0	231.0	223.0	210.0	234.0	237.0	238.0	223.0	248.5
q/q growth	(10.5%)	6.6%	(8.4%)	12.1%	(0.4%)	(3.5%)	(5.8%)	11.4%	1.3%	0.4%	(6.3%)	11.4%
US Knees	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	339.6	381.2	363.1	403.7	379.5	398.4	389.7	447.4	448.2	437.7	413.3	474.1
q/q growth	(20.2%)	12.2%	(4.7%)	11.2%	(6.0%)	5.0%	(2.2%)	14.8%	0.2%	(2.3%)	(5.6%)	14.7%
JNJ	185.0	210.0	184.0	208.0	201.0	216.0	203.0	231.0	226.0	221.0	207.0	234.5
q/q growth	(14.4%)	13.5%	(12.4%)	13.0%	(3.4%)	7.5%	(6.0%)	13.8%	(2.2%)	(2.2%)	(6.3%)	13.3%
SYK	294.0	349.0	321.0	387.0	345.0	367.5	365.0	416.0	416.0	406.0	385.0	444.0
q/q growth	(12.8%)	18.7%	(8.0%)	20.5%	(10.8%)	6.5%	(0.7%)	14.0%	0.0%	(2.4%)	(5.2%)	15.3%
SNN	98.4	119.5	97.9	119.9	109.9	121.8	108.7	128.0	121.0	125.2	107.3	
q/q growth	(21.2%)	21.5%	(18.1%)	22.5%	(8.3%)	10.8%	(10.7%)	17.7%	(5.5%)	3.5%	(14.3%)	

Source: Company filings, Bloomberg

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Exhibit 3: WW and US knees 2-year stacked sequential acceleration/deceleration

On a 2-year stacked basis, for JNJ WW knees the Street is modeling a 20bps deceleration in 4Q'23 and for JNJ US knees the Street is modeling a 20bps acceleration in 4Q'23.

	Y/Y Growth											
WW Knees	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	-3.7%	72.2%	-0.7%	0.4%	9.7%	11.2%	7.2%	12.3%	17.2%	11.0%	8.8%	6.6%
2 yr avg	-5.8%	15.4%	-0.3%	-2.0%	3.0%	41.7%	3.3%	6.4%	13.5%	11.1%	8.0%	9.5%
JNJ	-11.8%	94.2%	2.1%	3.8%	8.8%	3.3%	4.9%	7.0%	11.5%	4.6%	5.7%	3.1%
2 yr avg	-7.3%	24.0%	-4.1%	-6.7%	-1.5%	48.8%	3.5%	5.4%	10.2%	4.0%	5.3%	5.1%
SYK	-5.0%	92.2%	0.3%	14.9%	14.6%	8.7%	13.4%	9.0%	23.2%	13.2%	8.4%	8.4%
2 yr avg	-3.1%	25.6%	1.5%	2.0%	4.8%	50.5%	6.9%	12.0%	18.9%	11.0%	10.9%	8.7%
SNN	-13.3%	57.8%	-6.5%	4.9%	12.2%	4.2%	7.4%	5.5%	5.0%	7.8%	5.7%	6.2%
2 yr avg	-9.9%	8.9%	-7.3%	-8.6%	-0.6%	31.0%	0.5%	5.2%	8.6%	6.0%	6.6%	5.9%
Total	-7.1%	79.4%	-0.7%	5.4%	11.2%	8.0%	8.5%	9.5%	16.0%	10.0%	7.7%	6.4%
2-Yr Stacked Sequential Accel/Decel:												
	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E	
ZBH	21.2%	-15.7%	-1.7%	5.0%	38.7%	-38.5%	3.1%	7.1%	-2.4%	-3.1%	1.5%	
JNJ	31.3%	-28.0%	-2.7%	5.2%	50.3%	-45.3%	1.9%	4.8%	-6.2%	1.4%	-0.2%	
SYK	28.7%	-24.1%	0.5%	2.8%	45.7%	-43.6%	5.1%	7.0%	-8.0%	0.0%	-2.2%	
SNN	18.8%	-16.2%	-1.3%	8.0%	31.6%	-30.6%	4.8%	3.4%	-2.6%	0.6%	-0.7%	
Average	25.0%	-21.0%	-1.3%	5.2%	41.5%	-39.5%	3.7%	5.6%	-4.8%	-0.3%	-0.4%	
Y/Y Growth												
US Knees	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	-3.6%	77.0%	-5.3%	-5.2%	10.4%	4.5%	7.3%	12.3%	17.1%	10.3%	7.6%	6.0%
2 yr avg	-5.9%	16.8%	-0.3%	-1.9%	3.4%	40.8%	1.0%	3.6%	13.8%	7.4%	7.5%	9.1%
JNJ	-15.4%	93.9%	-9.8%	-0.2%	8.6%	2.9%	9.8%	11.0%	12.8%	2.4%	2.3%	1.5%
2 yr avg	-9.5%	21.5%	-5.9%	-6.9%	-3.4%	48.4%	0.0%	5.4%	10.7%	2.7%	6.1%	6.3%
SYK	-7.3%	95.2%	-3.3%	14.6%	17.5%	5.3%	13.7%	7.5%	19.6%	10.4%	6.8%	6.7%
2 yr avg	-4.1%	25.2%	0.7%	1.1%	5.1%	50.3%	5.2%	11.1%	18.6%	7.9%	10.3%	7.1%
SNN	-17.9%	74.6%	-11.6%	2.0%	11.7%	3.4%	11.1%	6.8%	10.1%	2.8%	-1.3%	
2 yr avg	-12.2%	12.7%	-9.6%	-7.9%	-3.1%	39.0%	-0.3%	4.4%	10.9%	3.1%	4.9%	
2-Yr Stacked Sequential Accel/Decel:												
	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E	
ZBH	22.7%	-17.0%	-1.7%	5.3%	37.4%	-39.8%	2.6%	10.2%	-6.4%	0.0%	1.7%	
JNJ	30.9%	-27.3%	-1.0%	3.5%	51.8%	-48.4%	5.4%	5.3%	-8.1%	3.4%	0.2%	
SYK	29.3%	-24.6%	0.4%	4.1%	45.2%	-45.1%	5.9%	7.5%	-10.7%	2.4%	-3.1%	
SNN	24.9%	-22.3%	1.8%	4.8%	42.1%	-39.3%	4.7%	6.5%	-7.8%	1.8%		
Average	26.9%	-22.8%	-0.1%	4.4%	44.1%	-43.1%	4.6%	7.4%	-8.2%	1.9%	-0.4%	

Source: Company filings, Bloomberg

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WW and US hips trends

For JNJ WW hips the Street is modeling 6% growth q/q Vs the historical avg ex-2020 was 10% growth in Q4/Q3 and the pre-covid avg was 11%. More recently JNJ WW hips saw 9% growth in 4Q'22 and 6% growth in 4Q'21. For JNJ US hips the Street is modeling 7% growth q/q Vs the historical avg ex-2020 was 10% growth in Q4/Q3 and the pre-covid avg was 10.5%. More recently JNJ US hips saw 10% growth in 4Q'22 and 8% growth in 4Q'21. On a 2yr stacked basis, Street Q4'23 ests. represent a 40bps deceleration for JNJ WW hips and a 120bps deceleration for JNJ US hips.

For SYK WW hips the Street is modeling 10.5% growth q/q Vs the historical avg ex-2020 was 10% growth in Q4/Q3 and the pre-covid avg was 11%. More recently SYK WW hips saw 8% growth in 4Q'22 and 7% growth in 4Q'21. For SYK US hips the Street is modeling 10% growth q/q Vs the historical avg ex-2020 was 11% growth in Q4/Q3 and the pre-covid avg was 13%. More recently SYK US hips saw 6% growth in 4Q'22 and 8.5% growth in 4Q'21. On a 2yr stacked basis, Street Q4'23 ests. represent a 100bps acceleration for SYK WW hips and a 30bps acceleration for SYK US hips.

For ZBH WW hips the Street is modeling 9% growth q/q Vs the historical avg ex-2020 was 10% growth in Q4/Q3 and the pre-covid avg was 12%. More recently ZBH WW hips saw 4% growth in 4Q'22 and 6% growth in 4Q'21. For ZBH US hips the Street is modeling 9% growth q/q Vs the historical avg ex-2020 was 8% growth in Q4/Q3 and the pre-covid avg was 9%. More recently ZBH US hips saw 7.5% growth in 4Q'22 and 7% growth in 4Q'21. On a 2yr stacked basis, Street Q4'23 ests. represent a 100bps acceleration for ZBH WW hips and a 90bps acceleration for ZBH US hips.

Exhibit 4: WW and US hip Q4/Q3 sequential growth trends relative to historical averages

For JNJ WW hips the Street is modeling 6% growth q/q Vs the historical avg ex-2020 was 10% growth in Q4/Q3 and the pre-covid avg was 11%. For JNJ US hips the Street is modeling 7% growth q/q Vs the historical avg ex-2020 was 10% growth in Q4/Q3 and the pre-covid avg was 10.5%.

WW Hips	3Q16A	4Q16A	3Q17A	4Q17A	3Q18A	4Q18A	3Q19A	4Q19A	3Q20A	4Q20A	3Q21A	4Q21A	3Q22A	4Q22A	3Q23A	4Q23E	2016-2019 avg.	Historical avg ex-2020
ZBH	440.6	482.0	432.8	499.0	444.8	498.0	459.2	511.0	484.1	504.1	453.8	480.7	468.0	488.7	465.3	506.1	12.0%	9.7%
q/q growth	(7.7%)	9.4%	(7.5%)	15.3%	(8.6%)	12.0%	(4.0%)	11.3%	46.8%	4.1%	(4.4%)	5.9%	(3.9%)	4.4%	(7.7%)	8.8%		
JNJ	320.0	350.0	328.0	364.0	330.0	365.0	336.0	377.0	345.0	372.0	356.0	378.0	352.0	385.0	375.0	396.6	10.8%	9.8%
q/q growth	(8.3%)	9.4%	(6.3%)	11.0%	(8.3%)	10.6%	(7.7%)	12.2%	52.7%	7.8%	(9.2%)	6.2%	(9.3%)	9.4%	(5.5%)	5.8%		
SYK	310.0	334.0	313.0	348.0	316.0	353.0	332.0	372.0	334.0	340.0	328.0	352.0	347.0	375.0	362.0	399.9	10.7%	9.7%
q/q growth	(4.0%)	7.7%	(2.8%)	11.2%	(6.0%)	11.7%	(3.2%)	12.0%	54.6%	1.8%	(7.1%)	7.3%	(4.7%)	8.1%	(7.9%)	10.5%		
SNN	138.0	153.0	140.0	157.0	142.0	160.0	145.0	160.0	156.0	162.0	145.0	151.0	136.0	150.0	141.0	156.1	11.5%	10.1%
q/q growth	(9.8%)	10.9%	(6.7%)	12.1%	(9.0%)	12.7%	(7.1%)	10.3%	39.3%	3.8%	(9.9%)	4.1%	(8.7%)	10.3%	(7.2%)	10.7%		
US Hips	3Q16A	4Q16A	3Q17A	4Q17A	3Q18A	4Q18A	3Q19A	4Q19A	3Q20A	4Q20A	3Q21A	4Q21A	3Q22A	4Q22A	3Q23A	4Q23E	2016-2019 avg.	Historical avg ex-2020
ZBH	239.0	254.0	226.6	256.0	240.0	259.0	249.0	267.0	252.2	250.1	223.6	239.2	235.6	253.2	242.5	264.0	8.6%	8.1%
q/q growth	(3.8%)	6.3%	(6.9%)	13.0%	(4.0%)	7.9%	(1.7%)	7.2%	53.2%	(0.8%)	(7.3%)	7.0%	(4.8%)	7.5%	(4.6%)	8.9%		
JNJ	190.0	208.0	195.0	215.0	201.0	220.0	204.0	230.0	221.0	229.0	210.0	227.0	228.0	250.0	239.0	256.5	10.5%	9.9%
q/q growth	(3.6%)	9.5%	(6.3%)	10.3%	(4.7%)	9.5%	(5.6%)	12.7%	61.3%	3.6%	(10.3%)	8.1%	(5.0%)	9.6%	(4.4%)	7.3%		
SYK	193.6	211.6	194.0	219.0	198.0	228.0	211.0	239.0	223.0	213.0	199.0	216.0	225.0	239.0	231.0	254.0	12.6%	10.9%
q/q growth	(2.6%)	9.3%	(4.4%)	12.9%	(4.3%)	15.2%	(3.7%)	13.3%	59.3%	(4.5%)	(10.0%)	8.5%	(2.2%)	6.2%	(7.2%)	10.0%		
SNN	64.1	61.4	64.1	62.0	68.0	63.8	69.5	66.3	76.3	69.2	72.5	66.6	75.1	70.3	77.8		(4.6%)	(5.5%)
q/q growth	(7.6%)	(4.3%)	(6.7%)	(3.4%)	(4.9%)	(6.1%)	(1.5%)	(4.6%)	52.1%	(9.3%)	(10.4%)	(8.1%)	(4.3%)	(6.4%)	(5.0%)			

Source: Company filings, Bloomberg

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Exhibit 5: WW and US hip sequential growth trends

For JNJ WW hips the Street is modeling 6% growth q/q in 4Q'23 vs 9% growth in 4Q'22 and 6% growth in 4Q'21. For JNJ US hips the Street is modeling 7% growth q/q in 4Q'23 vs 10% growth in 4Q'22 and 8% growth in 4Q'21.

WW Hips	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	447.0	474.6	453.8	480.7	451.0	487.2	468.0	488.7	492.8	504.3	465.3	506.1
q/q growth	(11.3%)	6.2%	(4.4%)	5.9%	(6.2%)	8.0%	(3.9%)	4.4%	0.8%	2.3%	(7.7%)	8.8%
JNJ	357.0	392.0	356.0	378.0	389.0	388.0	352.0	385.0	390.0	397.0	375.0	396.6

Exhibit 5: WW and US hip sequential growth trends

For JNJ WW hips the Street is modeling 6% growth q/q in 4Q'23 vs 9% growth in 4Q'22 and 6% growth in 4Q'21. For JNJ US hips the Street is modeling 7% growth q/q in 4Q'23 vs 10% growth in 4Q'22 and 8% growth in 4Q'21.

WW Hips	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
q/q growth	(4.0%)	9.8%	(9.2%)	6.2%	2.9%	(0.3%)	(9.3%)	9.4%	1.3%	1.8%	(5.5%)	5.8%
SYK	309.0	353.0	328.0	352.0	327.0	364.0	347.0	375.0	375.0	393.0	362.0	399.9
q/q growth	(9.1%)	14.2%	(7.1%)	7.3%	(7.1%)	11.3%	(4.7%)	8.1%	0.0%	4.8%	(7.9%)	10.5%
SNN	154.0	161.0	145.0	151.0	149.0	149.0	136.0	150.0	152.0	152.0	141.0	156.1
q/q growth	(4.9%)	4.5%	(9.9%)	4.1%	(1.3%)	0.0%	(8.7%)	10.3%	1.3%	0.0%	(7.2%)	10.7%
US Hips	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	217.4	241.3	223.6	239.2	224.6	247.5	235.6	253.2	252.3	254.3	242.5	264.0
q/q growth	(13.1%)	11.0%	(7.3%)	7.0%	(6.1%)	10.2%	(4.8%)	7.5%	(0.4%)	0.8%	(4.6%)	8.9%
JNJ	210.0	234.0	210.0	227.0	225.0	240.0	228.0	250.0	241.0	250.0	239.0	256.5
q/q growth	(8.3%)	11.4%	(10.3%)	8.1%	(0.9%)	6.7%	(5.0%)	9.6%	(3.6%)	3.7%	(4.4%)	7.3%
SYK	186.0	221.0	199.0	216.0	202.0	230.0	225.0	239.0	236.0	249.0	231.0	254.0
q/q growth	(12.7%)	18.8%	(10.0%)	8.5%	(6.5%)	13.9%	(2.2%)	6.2%	(1.3%)	5.5%	(7.2%)	10.0%
SNN	73.7	80.9	72.5	66.6	74.9	78.5	75.1	70.3	81.3	81.9	77.8	
q/q growth	6.4%	9.8%	(10.4%)	(8.1%)	12.5%	4.8%	(4.3%)	(6.4%)	15.7%	0.7%	(5.0%)	

Source: Company filings, Bloomberg

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Exhibit 6: WW and US hips 2-year stacked sequential acceleration/deceleration

On a 2-year stacked basis, for JNJ WW hips the Street is modeling a 40bps deceleration in Q4'23 and for JNJ US hips the Street is modeling a 120bps deceleration in Q4'23.

					Y/Y Growth							
WW Hips	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	1.8%	39.9%	-6.6%	-2.8%	3.2%	8.6%	10.5%	9.9%	11.9%	5.4%	0.9%	3.6%
2 yr avg	5.0%	4.6%	-1.1%	-3.1%	2.5%	24.3%	2.0%	3.6%	7.6%	7.0%	5.7%	6.7%
JNJ	1.3%	67.7%	2.3%	6.7%	11.3%	2.7%	3.5%	5.4%	2.9%	3.1%	5.8%	3.0%
2 yr avg	-1.8%	15.2%	2.1%	0.0%	6.3%	35.2%	2.9%	6.1%	7.1%	2.9%	4.7%	4.2%
SYK	-3.2%	58.7%	-2.3%	4.0%	8.6%	7.6%	11.3%	12.5%	17.1%	9.3%	5.9%	6.6%
2 yr avg	-4.8%	11.2%	-1.2%	-2.6%	2.7%	33.2%	4.5%	8.3%	12.9%	8.5%	8.6%	9.6%
SNN	6.1%	36.2%	-7.9%	-0.1%	-0.7%	-2.2%	-1.0%	4.9%	4.6%	3.4%	3.5%	4.1%
2 yr avg	-0.8%	4.7%	-0.4%	-1.3%	2.7%	17.0%	-4.5%	2.4%	2.0%	0.6%	1.3%	4.5%
Total	0.9%	51.1%	-3.3%	1.8%	6.3%	5.4%	7.5%	8.8%	9.7%	5.6%	3.8%	4.3%
2-Yr Stacked Sequential Accel/Decel:												
	2Q21A	3Q21A	4Q21A		1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	-0.4%	-5.7%	-2.0%		5.6%	21.8%	-22.3%	1.6%	4.0%	-0.6%	-1.3%	1.0%
JNJ	17.0%	-13.1%	-2.1%		6.3%	28.9%	-32.3%	3.2%	1.1%	-4.2%	1.8%	-0.4%
SYK	16.0%	-12.4%	-1.4%		5.3%	30.5%	-28.7%	3.8%	4.6%	-4.4%	0.2%	1.0%
SNN	5.4%	-5.1%	-0.9%		4.0%	14.3%	-21.5%	6.9%	-0.5%	-1.4%	0.7%	3.2%
Average	9.5%	-9.1%	-1.6%		5.3%	23.9%	-26.2%	3.8%	2.3%	-2.6%	0.3%	1.2%
Y/Y Growth												
US Hips	1Q21A	2Q21A	3Q21A	4Q21A	1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	3.0%	46.6%	-11.3%	-4.4%	2.0%	2.6%	5.3%	7.4%	11.3%	3.2%	4.5%	4.3%
2 yr avg	-2.2%	8.5%	-0.6%	-1.5%	2.5%	24.6%	-3.0%	1.5%	6.7%	2.9%	4.9%	5.8%
JNJ	0.5%	70.1%	-5.3%	4.4%	7.3%	3.4%	9.1%	8.9%	7.7%	4.1%	4.9%	2.6%
2 yr avg	-1.2%	16.6%	1.7%	-0.2%	3.9%	36.8%	1.9%	6.7%	7.5%	3.8%	7.0%	5.8%
SYK	-5.8%	57.0%	-10.6%	1.6%	8.5%	4.5%	12.4%	11.3%	15.2%	8.8%	4.5%	6.3%
2 yr avg	-6.5%	10.6%	-2.7%	-4.8%	1.4%	30.8%	0.9%	6.5%	11.9%	6.7%	8.5%	8.8%
SNN	8.5%	60.3%	-5.0%	2.2%	1.7%	-1.5%	3.6%	5.5%	8.5%	4.3%	3.6%	
2 yr avg	2.1%	15.7%	2.4%	2.3%	5.1%	29.4%	-0.7%	3.9%	5.1%	1.4%	3.6%	
2-Yr Stacked Sequential Accel/Decel:												
	2Q21A	3Q21A	4Q21A		1Q22A	2Q22A	3Q22A	4Q22A	1Q23A	2Q23A	3Q23A	4Q23E
ZBH	10.7%	-9.1%	-0.9%		4.0%	22.1%	-27.6%	4.5%	5.2%	-3.8%	2.0%	0.9%
JNJ	17.8%	-14.9%	-1.9%		4.1%	32.9%	-34.9%	4.8%	0.8%	-3.8%	3.3%	-1.2%
SYK	17.1%	-13.2%	-2.1%		6.1%	29.4%	-29.9%	5.6%	5.4%	-5.2%	1.8%	0.3%
SNN	13.7%	-13.3%	-0.1%		2.8%	24.3%	-30.1%	4.6%	1.3%	-3.7%	2.2%	
Average	14.8%	-12.6%	-1.2%		4.2%	27.2%	-30.6%	4.8%	3.2%	-4.1%	2.3%	0.0%

Source: Company filings, Bloomberg

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