



Fourth Quarter 2022 Earnings Supplement

Fourth Quarter & Full Year Highlights



FY 2022

Adj. NTI¹

\$1,468M

Adj. NTI/day^{1,2}

\$5.8

Normalized Adj. EPS¹

\$3.00

Adj. EBITDA¹

\$859M

Adj. EBITDA Margin^{1,3}

59%

Debt to LTM Adj. EBITDA¹

2.1x

4Q 2022

Adj. NTI¹

\$274M

Adj. NTI/day^{1,2}

\$4.4

Normalized Adj. EPS¹

\$0.37

Adj. EBITDA¹

\$125M

Adj. EBITDA Margin^{1,3}

46%

Debt to LTM Adj. EBITDA¹

2.1x

Notable Accomplishments

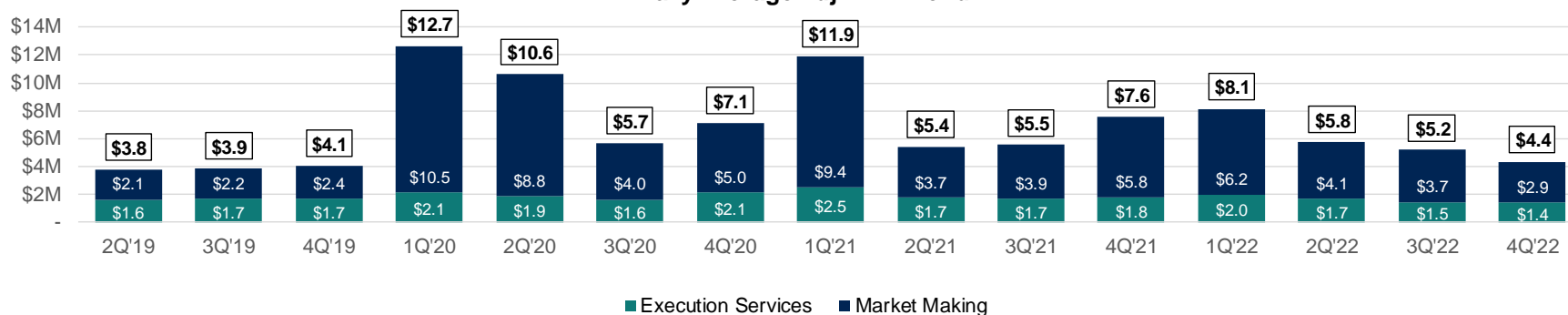
- **Organic growth initiatives generated \$579K per day of Adj. NTI¹ in 4Q 2022 (13% of firmwide Adj. NTI)**
 - FY 2022 Adj. NTI¹ per day of \$614K (11% of firmwide Adj. NTI)
 - +12% vs FY 2021
- **Repurchased 2.1M shares for \$45M in 4Q 2022**
 - Repurchased 16.2M shares for \$461M in FY 2022
 - Cumulative repurchases of 32.8M shares for \$910M, representing 13.1% of shares outstanding, net of issuances^{4,5}

Key Financial Metrics



(\$M)	Annual			Quarterly								Comparison		
	FY	FY	FY	FY 2021				FY'22				4Q 2022 v		FY'22 v
	2020	2021	2022	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	3Q'22	4Q'21	FY'21
Total Adjusted Net Trading Income^{1,2}	\$2,271	\$1,910	\$1,468	\$728	\$342	\$354	\$486	\$505	\$357	\$331	\$274	- 16%	- 43%	- 23%
<i>Daily Average Adj. NTI^{1,2}</i>	\$9.0	\$7.6	\$5.8	\$11.9	\$5.4	\$5.5	\$7.6	\$8.1	\$5.8	\$5.2	\$4.4			
Market Making Adj. NTI ¹	\$1,782	\$1,428	\$1,058	\$575	\$232	\$249	\$372	\$382	\$254	\$238	\$185	- 21%	- 50%	- 26%
<i>Market Making Daily Average Adj. NTI¹</i>	\$7.0	\$5.7	\$4.2	\$9.4	\$3.7	\$3.9	\$5.8	\$6.2	\$4.1	\$3.7	\$2.9			
Execution Services Adj. NTI ^{1,2}	\$489	\$482	\$409	\$153	\$110	\$106	\$114	\$123	\$104	\$93	\$89	- 2%	- 20%	- 15%
<i>Execution Services Daily Average Adj. NTI^{1,2}</i>	\$1.9	\$1.9	\$1.6	\$2.5	\$1.7	\$1.7	\$1.8	\$2.0	\$1.7	\$1.5	\$1.4			
Adjusted Cash Operating Expenses ¹	\$623	\$609	\$609	\$163	\$145	\$144	\$157	\$161	\$148	\$150	\$149	- 1%	- 5%	- 0%
Total Adjusted Operating Expenses ¹	\$690	\$677	\$675	\$180	\$161	\$160	\$175	\$179	\$164	\$167	\$165	- 2%	- 6%	- 0%
Adjusted EBITDA¹	\$1,648	\$1,301	\$859	\$565	\$197	\$211	\$328	\$344	\$209	\$181	\$125	- 31%	- 62%	- 34%
<i>Adjusted EBITDA Margin^{1,3}</i>	73%	68%	59%	78%	58%	59%	68%	68%	59%	55%	46%	- 9 pts	- 22 pts	- 10 pts
Long-Term Debt (at end of period)	\$1,670	\$1,630	\$1,824	\$1,667	\$1,632	\$1,633	\$1,630	\$1,829	\$1,826	\$1,824	\$1,824	+ 0%	+ 12%	+ 12%
<i>Debt / LTM Adjusted EBITDA¹</i>	1.0x	1.3x	2.1x	1.0x	1.2x	1.2x	1.3x	1.7x	1.7x	1.7x	2.1x	+ 24%	+ 69%	+ 69%
Normalized Adjusted EPS¹	\$5.76	\$4.57	\$3.00	\$2.04	\$0.63	\$0.70	\$1.19	\$1.27	\$0.73	\$0.61	\$0.37	- 39%	- 69%	- 34%

Daily Average Adj. NTI¹ Trend

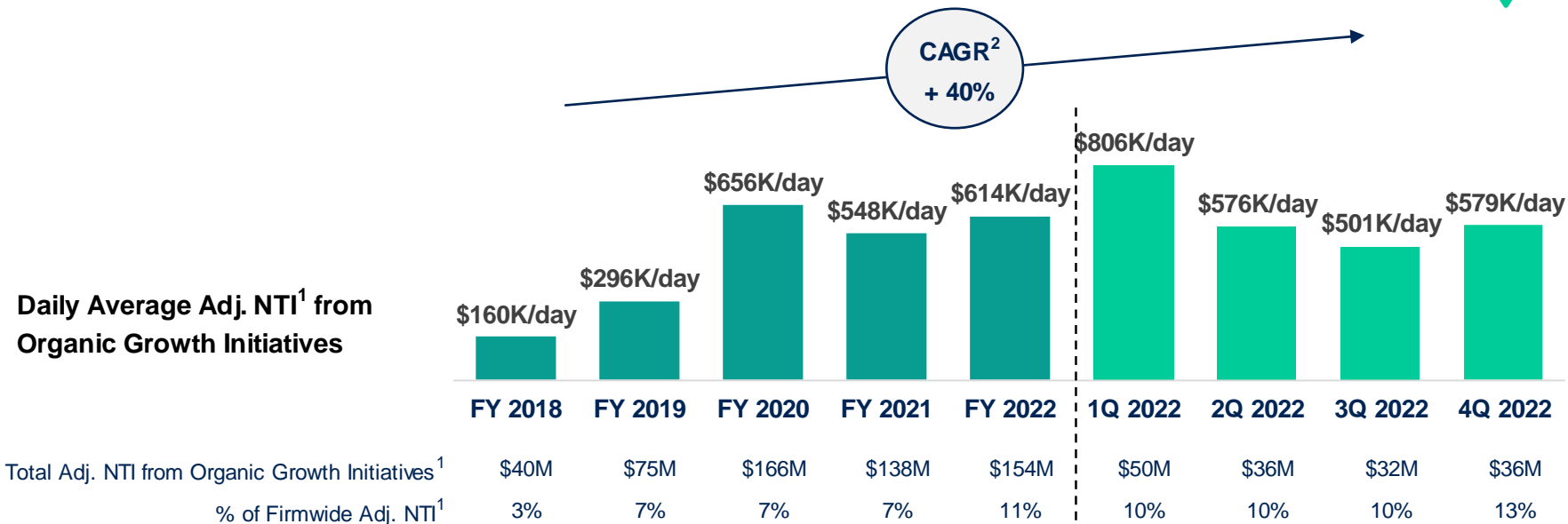


Major Market Metrics



	Annual			Quarterly								Comparison		
	FY 2020	FY 2021	FY 2022	FY 2021				FY'22				4Q 2022 v		FY'22 v
				1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	3Q'22	4Q'21	FY'21
Market Metrics (Average Daily)														
Volume Metrics														
US Equity Consolidated Volume (M shares)	10,924	11,404	11,874	14,650	10,559	9,763	10,782	12,880	12,585	10,899	11,174	+ 3%	+ 4%	+ 4%
US Equity Consolidated Notional Volume (\$B)	\$479	\$565	\$573	\$627	\$533	\$512	\$590	\$718	\$612	\$478	\$488	+ 2%	- 17%	+ 1%
IBKR Retail Equity Share Volume (M)	1,326	3,041	1,299	5,019	2,721	2,689	1,821	1,548	1,292	1,171	1,190	+ 2%	- 35%	- 57%
OCC ADV (M contracts)	30	39	41	42	36	38	41	42	39	40	44	+ 9%	+ 7%	+ 6%
CME FX ADV (K contracts)	861	798	989	850	770	776	800	905	950	1,096	1,000	- 9%	+ 25%	+ 24%
Hotspot ADV FX (\$B)	\$35	\$34	\$40	\$37	\$33	\$32	\$33	\$42	\$39	\$40	\$40	+ 0%	+ 23%	+ 20%
Volatility Metrics														
S&P 500 Average Implied Volatility (VIX)	29.3	19.7	25.6	23.2	18.0	18.3	19.3	25.4	27.4	24.8	25.0	+ 1%	+ 30%	+ 30%
S&P 500 Average Realized Volatility	30.4	13.0	24.0	15.8	11.2	11.1	14.0	21.4	28.6	21.3	24.8	+ 16%	+ 77%	+ 84%
Ratio: Realized Volatility / VIX	104%	66%	94%	68%	62%	61%	73%	84%	104%	86%	99%	+ 15%	+ 36%	+ 41%
S&P 500 Intraday Volatility	1.68%	0.96%	1.80%	1.26%	0.76%	0.80%	1.02%	1.83%	2.06%	1.63%	1.72%	+ 6%	+ 68%	+ 89%
SX5E Realized Volatility	30.1	14.8	22.7	13.6	12.9	14.6	17.9	30.8	23.0	19.1	18.3	- 4%	+ 2%	+ 54%
NKY Realized Volatility	24.1	18.5	20.2	20.1	19.1	16.2	18.8	25.0	19.7	18.6	17.8	- 4%	- 5%	+ 9%
CVIX Realized Volatility	66.7	29.3	54.3	32.1	25.0	30.3	29.8	61.9	55.0	58.4	42.1	- 28%	+ 42%	+ 86%

Organic Business Growth



- **Options Market Making:** We had another record year in options market making in 2022 as we continue to expand across venues, asset classes and geographies. We continue to view our investment in this business as a key long-term engine of growth.
- **ETF Block:** Revenues have maintained an upward trajectory as we continue to invest in fixed income and become a dealer in the corporate bond market in addition to our existing ETF Block business.
- **Crypto Market Making:** We continue to view crypto as a long-term growth opportunity, notwithstanding recent market events.
 - **EDX Markets:** Our venture with Citadel Securities, Fidelity Digital and Charles Schwab to develop a crypto ecosystem to serve the interests of global investors is proceeding nicely. We believe EDX will accelerate the institutional adoption of crypto assets by providing a stable and resilient medium for investing in crypto across established global brokerage platforms.

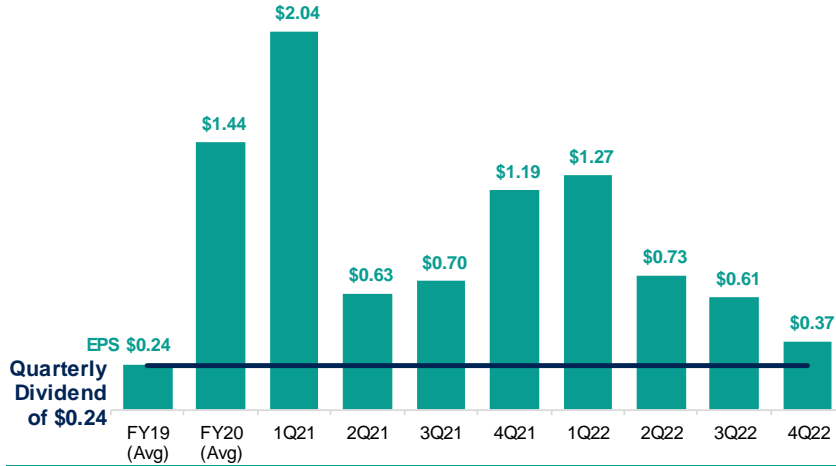
Capital Management



Ongoing share repurchases reduced share count by 2.1M to 171.8M

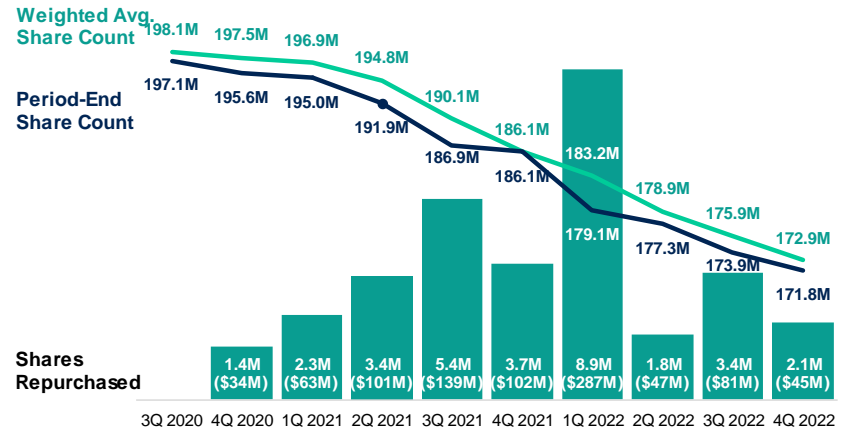
Steady Payout in All Environments

Dividends declared per share and Adjusted EPS¹, quarterly

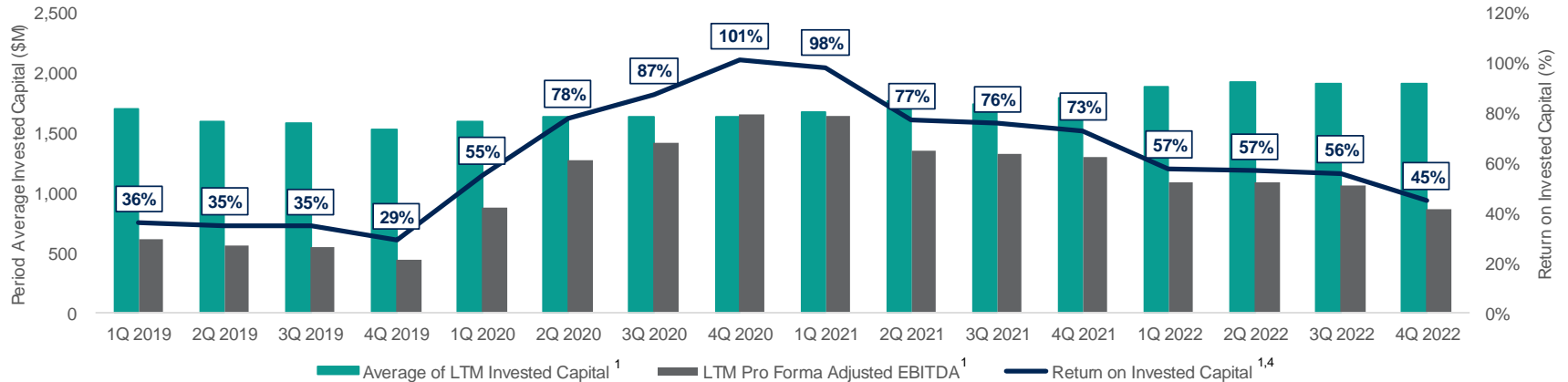


Share Buybacks^{2,3}

Shares outstanding and share repurchases, quarterly



Superior Return on Invested Capital^{1,4}

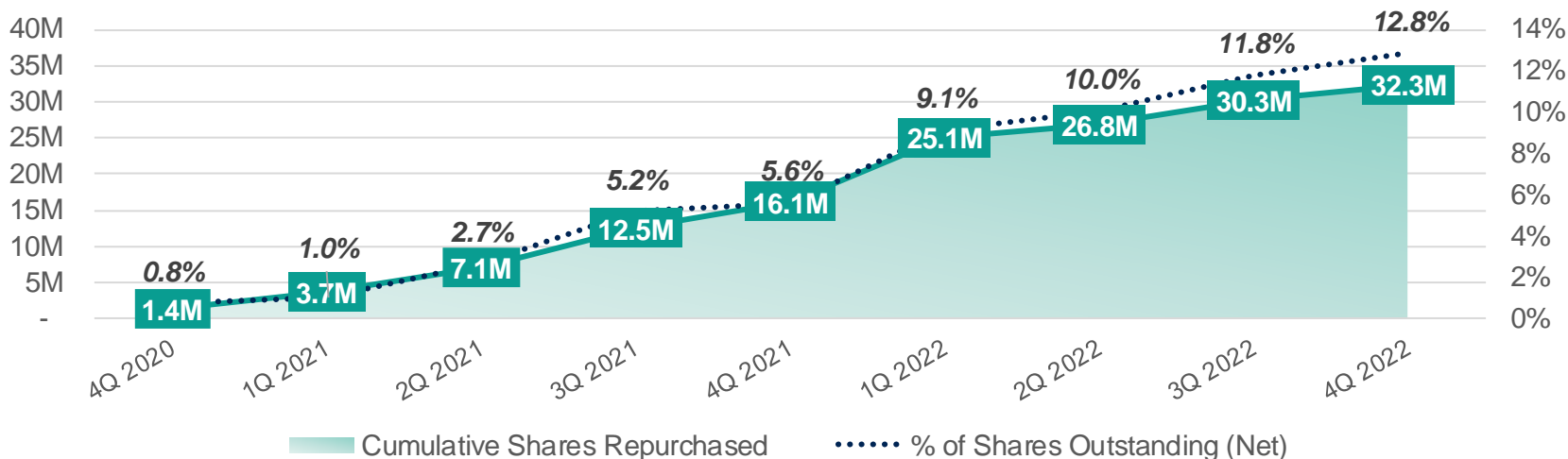


See endnotes at end of this supplement

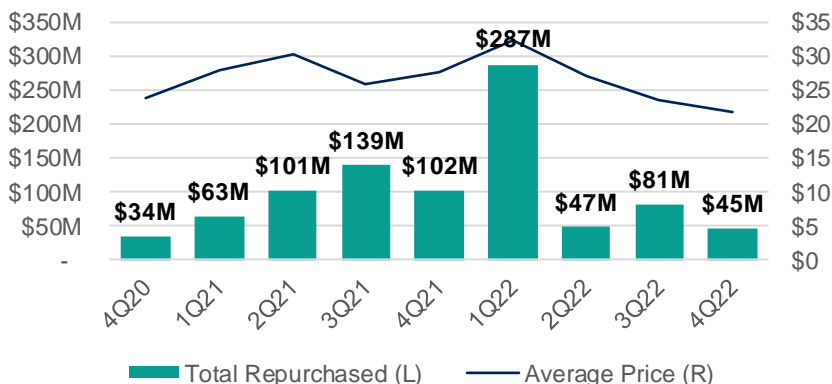
Update on Share Buybacks



Cumulative Shares Repurchased to Date¹



Total Buybacks per Quarter



Buyback Authorization ²	
Total Buyback Authorization	\$1,220M
Total Amount Repurchased	\$910M
<i>Shares Repurchased</i>	32.8M
<i>Average Price of Shares Repurchased</i>	\$27.70
Buyback Authorization Remaining	\$310M

See endnotes at end of this supplement

Operating Expenses and Long-Term Debt



Disciplined focus on expense management

Operating Expense Results

Adjusted Operating Expenses (\$M)	Annual				Quarterly							
	FY 2019 ²	FY 2020	FY 2021	FY 2022	2021 1Q	2021 2Q	2021 3Q	2021 4Q	2022 1Q	2022 2Q	2022 3Q	2022 4Q
Cash Compensation	\$230	\$321	\$314	\$315	\$90	\$70	\$70	\$84	\$88	\$79	\$84	\$65
Communications & Data Processing	209	214	212	220	52	53	56	52	56	56	53	55
Operations & Administrative	103	88	83	74	22	22	18	21	18	14	14	29
Adjusted Cash Operating Expenses¹	\$543	\$623	\$609	\$609	\$163	\$145	\$144	\$157	\$161	\$148	\$150	\$149
Depreciation & Amortization	66	67	68	66	17	16	17	18	17	16	17	16
Total Adjusted Operating Expenses¹	\$608	\$690	\$677	\$675	\$180	\$161	\$160	\$175	\$179	\$164	\$167	\$165
Cash Compensation Ratio	23.6%	14.2%	16.5%	21.5%	12.4%	20.6%	19.8%	17.3%	17.4%	22.1%	25.2%	23.7%
Total Compensation Ratio	28.8%	16.8%	19.4%	26.1%	14.1%	24.2%	23.4%	20.9%	20.1%	27.4%	30.7%	29.7%

Debt Structure at December 31, 2022

Debt Description (\$M)	Maturity	Effective Rate	Balance	Annual Interest
First Lien Debt - Floating ³	Jan 2029	S + 3.00%	\$275	\$20
First Lien Debt - Fixed with 4.560% swap ^{3,4}	Jan 2029	4.560%	\$1,000	\$46
First Lien Debt - Fixed with 4.460% swap ^{3,5}	Jan 2029	4.460%	\$525	\$23
Japannext ⁶	Jan 2026	5.00%	\$24	\$1
Total⁷		4.95%	\$1,824	\$90
LTM Adjusted EBITDA¹			\$859	
Debt / LTM Adjusted EBITDA¹				2.1x



GAAP Reconciliations and Other Information



GAAP Balance Sheet



Assets (\$M)	12/31/2022
Cash and cash equivalents	\$982
Cash and securities segregated under regulations and other	57
Securities borrowed	1,188
Securities purchased under agreements to resell	337
Receivables from broker-dealers and clearing organizations	1,115
Trading assets, at fair value	4,631
Receivables from customers	81
Property, equipment and capitalized software, net	85
Operating lease right-of-use assets	187
Goodwill	1,149
Intangibles (net of accumulated amortization)	321
Deferred taxes	147
Other assets	304
Total Assets	\$10,583

Liabilities and Equity (\$M)	12/31/2022
Short-term borrowings, net	\$4
Securities loaned	1,060
Securities sold under agreements to repurchase	628
Payables to broker-dealers and clearing organizations	274
Payables to customers	47
Trading liabilities, at fair value	4,197
Tax receivable agreement obligations	239
Accounts payable and accrued expenses and other liabilities	465
Operating lease liabilities	239
Long-term borrowings, net	1,796
Total Liabilities	\$8,949
Equity	1,635
Total Liabilities and Equity	\$10,583

Invested Capital (\$M)	As of:									
	12/31/19	12/31/20	3/31/21	6/30/21	9/30/21	12/31/21	3/31/22	6/30/22	9/30/22	12/31/22
Trading Capital¹	\$1,604	\$2,075	\$2,266	\$2,089	\$1,984	\$2,165	\$2,116	\$2,178	\$2,188	\$2,180
(-) Cash reserved for operations, taxes payable, and other accrued and unpaid liabilities ²	(77)	(338)	(418)	(246)	(180)	(319)	(206)	(173)	(171)	(195)
Invested Capital	\$1,527	\$1,737	\$1,848	\$1,843	\$1,804	\$1,846	\$1,910	\$2,005	\$2,017	\$1,985

GAAP Income Statement



Income Statement (\$mm)	Annual				
	FY 2018	FY 2019 ¹	FY 2020	FY 2021	FY 2022
Trading income, net	\$1,267	\$912	\$2,493	\$2,105	\$1,629
Commissions, net and technology services	184	499	601	614	530
Interest and dividends income	88	109	62	75	159
Other, net	340	(2)	83	16	47
Total Revenues	\$1,879	\$1,517	\$3,239	\$2,811	\$2,365
Brokerage, exchange, clearance fees and payments for order flow, net	376	387	759	745	619
Communications and data processing	176	209	214	212	220
Employee compensation and payroll taxes	216	384	394	376	391
Interest and dividends expense	142	158	126	140	231
Operations and administrative	67	104	95	88	86
Depreciation and amortization	61	66	67	68	66
Amortization of purchased intangibles and acquired capitalized software	26	71	74	70	65
Termination of office leases	23	66	10	28	7
Debt issue cost related to debt refinancing and prepayment	12	41	29	7	30
Transaction fees and expenses	11	26	3	1	1
Financing interest expense	72	122	88	80	92
Total Operating Expenses	\$1,182	\$1,633	\$1,856	\$1,815	\$1,808
Income (Loss) Before income taxes	\$696	\$(116)	\$1,383	\$997	\$557
Provision for income taxes (benefit)	76	(12)	262	170	88
Net Income (Loss)	\$620	\$(104)	\$1,121	\$827	\$468

	Quarterly							
	FY 2021				FY 2022			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
	\$813	\$385	\$394	\$513	\$522	\$396	\$397	\$313
	192	143	136	144	155	136	121	118
	7	10	10	49	21	31	44	64
	1	11	4	(1)	3	42	(1)	3
	\$1,013	\$549	\$544	\$706	\$701	\$605	\$561	\$498
	259	171	159	157	150	157	169	143
	52	53	56	52	56	56	53	55
	105	84	85	103	103	99	103	86
	24	25	27	64	43	49	62	78
	26	22	18	22	25	14	14	33
	17	16	17	18	17	16	17	16
	18	18	17	17	16	16	16	16
	1	4	0	23	1	1	0	5
	2	2	1	2	26	1	1	1
	(0)	(0)	0	1	0	1	0	0
	19	20	20	20	21	22	23	25
	\$523	\$414	\$399	\$479	\$460	\$431	\$459	\$458
	\$490	\$135	\$145	\$227	\$242	\$174	\$102	\$40
	81	26	22	41	42	25	22	0
	\$409	\$109	\$123	\$186	\$200	\$149	\$80	\$40

Share Count Roll Forward



<i>(M shares)</i>	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	2021 Total	1Q 2022	2Q 2022	3Q 2022	4Q 2022	2022 Total	Grand Total
Beginning of Period Shares	197.1	195.6	195.0	191.9	186.9	195.6	186.1	179.1	177.3	173.9	186.1	197.1
Shares Repurchased	- 1.44	- 2.28	- 3.36	- 5.40	- 3.67	- 14.71	- 8.90	- 1.76	- 3.44	- 2.15	- 16.25	- 32.40
Net Shares Issued	- 0.05	+ 1.70	+ 0.19	+ 0.43	+ 2.84	+ 5.16	+ 1.90	- 0.00	+ 0.00	+ 0.08	+ 1.97	+ 7.09
End of Period Shares	195.6	195.0	191.9	186.9	186.1	186.1	179.1	177.3	173.9	171.8	171.8	171.8
<i>Cumulative Repurchases as % of Shares Outstanding</i>	<i>0.8%</i>	<i>1.0%</i>	<i>2.7%</i>	<i>5.2%</i>	<i>5.6%</i>	<i>5.6%</i>	<i>9.1%</i>	<i>10.0%</i>	<i>11.8%</i>	<i>12.8%</i>	<i>12.8%</i>	<i>12.8%</i>
<i>Weighted Avg. Adj. Shares</i>	<i>197.5</i>	<i>196.9</i>	<i>194.8</i>	<i>190.1</i>	<i>186.1</i>	<i>192.0</i>	<i>183.2</i>	<i>178.9</i>	<i>175.9</i>	<i>172.9</i>	<i>177.7</i>	
<i>Weighted Avg. Basic Shares</i>	<i>122.8</i>	<i>122.1</i>	<i>119.7</i>	<i>115.8</i>	<i>112.0</i>	<i>117.3</i>	<i>109.3</i>	<i>105.0</i>	<i>102.3</i>	<i>99.5</i>	<i>104.0</i>	
<i>Weighted Avg. Diluted Shares</i>	<i>123.5</i>	<i>123.4</i>	<i>121.2</i>	<i>116.6</i>	<i>112.6</i>	<i>118.4</i>	<i>110.1</i>	<i>105.5</i>	<i>102.6</i>	<i>99.7</i>	<i>104.4</i>	

Adjusted EBITDA & Normalized Adjusted EPS



Adj. EBITDA/ Adj. EPS (\$M)	FY 2018	FY 2019 ¹	FY 2020	FY 2021	FY 2022
Income (Loss) Before income taxes	\$696	\$(116)	\$1,383	\$997	\$557
(+) Financing interest expense	72	122	88	80	92
(+) Debt issue cost related to debt refinancing and prepayment	12	41	29	7	30
(+) Depreciation and amortization	61	66	67	68	66
(+) Amortization of purchased intangibles and acquired capitalized software	26	71	74	70	65
EBITDA	\$867	\$183	\$1,640	\$1,221	\$810
<i>EBITDA Margin²</i>	<i>85%</i>	<i>19%</i>	<i>72%</i>	<i>64%</i>	<i>55%</i>
(+) Severance	11	103	10	6	8
(+) Transaction fees and expenses	11	26	3	1	1
(+) Termination of office leases	23	66	10	28	7
(+) Share-based compensation	35	51	60	56	67
(+) Other	(328)	3	(75)	(11)	(34)
Adjusted EBITDA	\$620	\$432	\$1,648	\$1,301	\$859
<i>Adjusted EBITDA Margin³</i>	<i>61%</i>	<i>44%</i>	<i>73%</i>	<i>68%</i>	<i>59%</i>
(-) Financing interest expense	72	122	88	80	92
(-) Depreciation and amortization	61	66	67	68	66
Normalized Adjusted Pre-Tax Income	\$487	\$244	\$1,494	\$1,153	\$701
(-) Normalized provision for income taxes	112	59	358	277	168
Normalized Adjusted Net Income	\$375	\$186	\$1,135	\$876	\$533
Weighted average fully diluted shares outstanding	191	193	197	192	178
Normalized Adjusted EPS	\$1.96	\$0.96	\$5.76	\$4.57	\$3.00

	FY 2021				FY 2022			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
	\$490	\$135	\$145	\$227	\$242	\$174	\$102	\$40
	19	20	20	20	21	22	23	25
	2	2	1	2	26	1	1	1
	17	16	17	18	17	16	17	16
	18	18	17	17	16	16	16	16
	\$546	\$192	\$200	\$283	\$323	\$230	\$159	\$98
	75%	56%	56%	58%	64%	64%	48%	36%
	2	1	2	2	2	1	1	4
	0	(0)	0	1	0	1	0	0
	1	4	0	23	1	1	0	5
	13	13	13	17	14	19	18	16
	3	(12)	(4)	2	4	(42)	2	2
	\$565	\$197	\$211	\$328	\$344	\$209	\$181	\$125
	78%	58%	59%	68%	68%	59%	55%	46%
	19	20	20	20	21	22	23	25
	17	16	17	18	17	16	17	16
	\$528	\$161	\$174	\$290	\$305	\$171	\$141	\$84
	127	39	42	70	73	41	34	20
	\$402	\$122	\$132	\$221	\$232	\$130	\$107	\$64
	197	195	190	186	183	179	176	173
	\$2.04	\$0.63	\$0.70	\$1.19	\$1.27	\$0.73	\$0.61	\$0.37

Adjusted Net Trading Income Reconciliation

Operating Segments



Adjusted Net Trading Income Reconciliation (\$M)	Total											
	1Q 2020	2Q 2020	3Q 2020	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q 2022
Trading income, net	\$802	\$744	\$441	\$505	\$813	\$385	\$394	\$513	\$522	\$396	\$397	\$313
Commissions, net and technology services	171	148	134	148	192	143	136	144	155	136	121	118
Brokerage, exchange, clearance fees and payment for order flow, net	(174)	(204)	(196)	(185)	(259)	(171)	(159)	(157)	(150)	(157)	(169)	(143)
Interest and dividends, net	(15)	(20)	(16)	(13)	(17)	(15)	(17)	(15)	(22)	(18)	(18)	(14)
Adjusted Net Trading Income	\$784	\$669	\$362	\$456	\$728	\$342	\$354	\$486	\$505	\$357	\$331	\$274

Adjusted Net Trading Income Reconciliation (\$M)	Market Making											
	1Q 2020	2Q 2020	3Q 2020	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q 2022
Trading income, net	\$803	\$745	\$442	\$466	\$801	\$381	\$389	\$508	\$516	\$390	\$392	\$309
Commissions, net and technology services	1	(1)	9	43	14	9	9	9	9	11	11	11
Brokerage, exchange, clearance fees and payment for order flow, net	(137)	(173)	(178)	(176)	(223)	(145)	(135)	(132)	(124)	(131)	(147)	(123)
Interest and dividends, net	(15)	(19)	(16)	(12)	(17)	(13)	(15)	(13)	(20)	(17)	(18)	(13)
Adjusted Net Trading Income	\$652	\$552	\$257	\$321	\$575	\$232	\$249	\$372	\$382	\$254	\$238	\$185

Adjusted Net Trading Income Reconciliation (\$M)	Execution Services											
	1Q 2020	2Q 2020	3Q 2020	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q 2022
Trading income, net	\$ (0)	\$ (1)	\$ (1)	\$ 39	\$ 11	\$ 4	\$ 5	\$ 5	\$ 6	\$ 6	\$ 5	\$ 5
Commissions, net and technology services	170	148	124	105	178	134	127	135	146	125	110	107
Brokerage, exchange, clearance fees and payment for order flow, net	(37)	(31)	(19)	(9)	(36)	(26)	(24)	(25)	(27)	(26)	(22)	(20)
Interest and dividends, net	(0)	(0)	(0)	(0)	0	(3)	(2)	(1)	(1)	(1)	(1)	(2)
Adjusted Net Trading Income	\$132	\$117	\$105	\$135	\$153	\$110	\$106	\$114	\$123	\$104	\$93	\$89

Adjusted Net Trading Income Reconciliation

Organic Growth Initiatives



Adjusted Net Trading Income Reconciliation (\$M)	Organic Growth Initiatives										
	Annual			Quarterly							
	2018	2019	2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q 2022
Trading income, net	\$36	\$77	\$246	\$62	\$35	\$28	\$23	\$53	\$41	\$43	\$44
Commissions, net and technology services	7	11	23	13	7	7	10	11	6	6	5
Brokerage, exchange, clearance fees and payment for order flow, net	(2)	(9)	(88)	(12)	(7)	(7)	(6)	(5)	(5)	(9)	(11)
Interest and dividends, net	(1)	(4)	(15)	(6)	(4)	(5)	(1)	(9)	(7)	(8)	(2)
Adjusted Net Trading Income	\$40	\$75	\$166	\$57	\$32	\$23	\$26	\$50	\$36	\$32	\$36

Adjusted Operating Expense Reconciliation



Adjusted Operating Expenses Reconciliation (\$M)	Annual			Quarterly							
	FY	FY	FY	FY 2021				FY'22			
	2020	2021	2022	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Employee compensation and payroll taxes	\$394	\$376	\$391	\$105	\$84	\$85	\$103	\$103	\$99	\$103	\$86
Operations and administrative	95	88	86	26	22	18	22	25	14	14	33
Communications and data processing	214	212	220	52	53	56	52	56	56	53	55
Depreciation and amortization	67	68	66	17	16	17	18	17	16	17	16
Less:											
Severance	(10)	(6)	(8)	(2)	(1)	(2)	(2)	(2)	(1)	(1)	(4)
Share-based compensation	(60)	(56)	(67)	(13)	(13)	(13)	(17)	(14)	(19)	(18)	(16)
Other	(8)	(6)	(13)	(4)	0	(0)	(2)	(8)	(0)	(1)	(5)
Adjusted Operating Expenses	\$690	\$677	\$675	\$180	\$161	\$160	\$175	\$179	\$164	\$167	\$165

Disclaimer



Cautionary Statement Regarding Forward Looking Statements

This presentation may contain “forward-looking statements” made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Statements regarding Virtu Financial, Inc.’s (“Virtu’s”, the “Company’s” or “our”) business that are not historical facts are forward-looking statements. Forward-looking statements should not be read as a guarantee of future performance or results, and will not necessarily be accurate indications of the times at, or by which, such performance or results will be achieved. The Company assumes no obligation to update forward-looking statements to reflect actual results, changes in assumptions or changes in other factors affecting forward-looking information, and if the Company does update one or more forward-looking statements, no inference should be drawn that the Company will make additional updates with respect thereto or with respect to other forward-looking statements. Forward-looking statements are based on information available at the time and/or management’s good faith belief with respect to future events, and is subject to risks and uncertainties, some or all of which are not predictable or within Virtu’s control, that could cause actual performance or results to differ materially from those expressed in the statements. Those risks and uncertainties include, without limitation: risks relating to the COVID-19 pandemic, including the possible effects of the economic conditions worldwide resulting from the COVID-19 pandemic and governmental and other responses thereto; fluctuations in trading volume and volatilities in the markets in which we operate; the ability of our trading counterparties and various clearing houses to perform their obligations to us; the performance and reliability of our customized trading platform; the risk of material trading losses from our market making activities; swings in valuations in securities or other instruments in which we hold positions; increasing competition and consolidation in our industry; the risk that cash flow from our operations and other available sources of liquidity will not be sufficient to fund our various ongoing obligations, including operating expenses, short term funding requirements, margin requirements, capital expenditures, debt service and dividend payments; regulatory and legal uncertainties and potential changes associated with our industry, particularly in light of increased attention from media, regulators and lawmakers to market structure and related issues including but not limited to the retail trading environment, wholesale market making and off exchange trading more generally and payment for order flow arrangements; potential adverse results from legal or regulatory proceedings; our ability to remain technologically competitive and to ensure that the technology we utilize is not vulnerable to security risks, hacking and cyber-attacks; risks associated with third party software and technology infrastructure. For a discussion of the risks and uncertainties which could cause actual results to differ from those contained in forward-looking statements, see Virtu’s Securities and Exchange Commission filings, including but not limited to Virtu’s Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K filed with the SEC.

GAAP and Non-GAAP Results

This presentation includes or may include certain non-GAAP financial measures, including Adjusted EPS, Normalized Adjusted EPS, Adjusted Net Trading Income, Normalized Adjusted Net Income, Normalized Adjusted Pre-Tax Income, EBITDA, Adjusted EBITDA, EBITDA Margin, Adjusted EBITDA Margin, Trading Capital, Invested Capital, Adjusted Operating Expense and Adjusted Compensation Expense. Non-GAAP financial measures should be considered only as supplemental to, and not as superior to, financial measures prepared in accordance with GAAP. Other companies may use similarly titled non-GAAP financial measures that are calculated differently from the way we calculate such measures. Accordingly, our non-GAAP financial measures may not be comparable to similar measures used by other companies. We caution investors not to place undue reliance on such non-GAAP measures, but instead to consider them with the most directly comparable GAAP measure. Non-GAAP financial measures have limitations as analytical tools, and should not be considered in isolation, or as a substitute for our results as reported under GAAP. A reconciliation of non-GAAP measures to the most directly comparable financial measure prepared in accordance with GAAP is included at the end of this presentation.

End Notes



These notes refer to metrics and/or defined terms presented on:

Slide 2 Fourth Quarter & Full Year Highlights

1. This reflects a non-GAAP measure. Please refer to slides at the end of this presentation for reconciliation to the equivalent GAAP measure. Prior period reconciliations available <https://ir.virtu.com/financials-and-filings/quarterly-results/default.aspx>.
2. Full Year and 4Q 2022 Adj. Net Trading Income per day calculated using 251 and 63 trading days, respectively.
3. Adj. EBITDA Margin is calculated as Adjusted EBITDA divided by Adjusted Net Trading Income.
4. Shares repurchased calculated on a settlement date basis as of 1/25/2023.
5. Percentage of shares repurchased, net of issuances, is calculated compared to shares outstanding on 9/30/2020 (Share Repurchase Program was inception in November 2020).

Slide 3 Key Financial Metrics

1. This reflects a non-GAAP measure. Please refer to slides at the end of this presentation for reconciliation to the equivalent GAAP measure. Prior period reconciliations available <https://ir.virtu.com/financials-and-filings/quarterly-results/default.aspx>.
2. Includes MatchNow revenues prior to sale in July 2020.
3. Adj. EBITDA Margin is calculated as Adjusted EBITDA divided by Adjusted Net Trading Income.

Note: # of trading days used in per day calculations: 253, 252, 251, 61, 63, 64, 64, 62, 62, 64, and 63 for FY 2020, FY 2021, FY 2022, 1Q21, 2Q21, 3Q21, 4Q21, 1Q22, 2Q22, 3Q22, and 4Q22, respectively.

Slide 4 Major Market Metrics

Note: # of trading days used in per day calculations: 253, 252, 251, 61, 63, 64, 64, 62, 62, 64, and 63 for FY 2020, FY 2021, FY 2022, 1Q21, 2Q21, 3Q21, 4Q21, 1Q22, 2Q22, 3Q22, and 4Q22, respectively.

Slide 5 Organic Business Growth

1. This reflects a non-GAAP measure. Please refer to slides at the end of this presentation for reconciliation to the equivalent GAAP measure. Prior period reconciliations available <https://ir.virtu.com/financials-and-filings/quarterly-results/default.aspx>.
2. Organic Growth Initiatives CAGR measures the annually-compounded rate of return of Organic Growth Initiatives Daily Average Adjusted Net Trading Income over the 4-year period from FY 2018 to FY 2022.

Note: # of trading days used in per day calculations: 251, 252, 253, 252, 251, 62, 62, 64, and 63 for FY 2018, FY 2019, FY 2020, FY 2021, FY 2022, 1Q 2022, 2Q 2022, 3Q 2022, and 4Q 2022, respectively.

End Notes—continued



These notes refer to metrics and/or defined terms presented on:

Slide 6 Capital Management

1. This reflects a non-GAAP measure. Please refer to slides at the end of this presentation for reconciliation to the equivalent GAAP measure. Prior period reconciliations available <https://ir.virtu.com/financials-and-filings/quarterly-results/default.aspx>.
2. Weighted average fully diluted shares assumes that (1) holders of all vested and unvested non-voting common interest units in Virtu Financial (“Virtu Financial Units”) (together with corresponding shares of the Company’s Class C common stock, par value \$0.00001 per share (the “Class C Common Stock”)) have exercised their right to exchange such Virtu Financial Units for shares of Class A Common Stock on a one-for-one basis, (2) holders of all non-voting Virtu Financial Units (together with corresponding shares of the Company’s Class D common stock, par value \$0.00001 per share (the “Class D Common Stock”)) have exercised their right to exchange such Virtu Financial Units for shares of the Company’s Class B common stock, par value \$0.00001 per share (the “Class B Common Stock”) on a one-for-one basis, and subsequently exercised their right to convert the shares of Class B Common Stock into shares of Class A Common Stock on a one-for-one basis. Includes additional shares from dilutive impact of options, restricted stock units and restricted stock awards outstanding under the Amended and Restated 2015 Management Incentive Plan and the Amended and Restated ITG 2007 Equity Plan as well as warrants issued in connection with the Founder Member Loan Facility (as defined in Virtu’s Annual Report on Form 10-K).
3. Shares repurchased calculated on a settlement date basis.
4. Return on Invested Capital is calculated as LTM Pro Forma Adjusted EBITDA divided by LTM Invested Capital. For periods post-ITG acquisition, LTM Invested Capital is calculated as the average of beginning-of-period and end-of-period Invested Capital. For periods pre-ITG acquisition, LTM Invested Capital is calculated as end-of-period Invested Capital. Pro Forma Adjusted EBITDA and Invested Capital are non-GAAP measures. Please refer to slides at the end of this presentation for reconciliation to the equivalent GAAP measures. Prior period reconciliations available <https://ir.virtu.com/financials-and-filings/quarterly-results/default.aspx>.

Slide 7 Update on Share Buybacks

1. Percentage of Shares Outstanding is calculated net of share issuances, and is calculated compared to shares outstanding on 9/30/2020 (Share Repurchase Program was inception in November 2020).
2. Shares repurchased calculated on a settlement date basis as of 1/25/2023.

Slide 8 Operating Expenses and Long-Term Debt

1. This reflects a non-GAAP measure. Please refer to slides at the end of this presentation for reconciliation to the equivalent GAAP measure. Prior period reconciliations available <https://ir.virtu.com/financials-and-filings/quarterly-results/default.aspx>.
2. ITG revenues and expenses included in financials beginning on March 1, 2019 close date.
3. Interest Expense includes a floor on SOFR of 0.5%.
4. Virtu entered into a fixed-for-floating interest rate swap ending February 2025.
5. Virtu entered into a fixed-for-floating interest rate swap ending October 2024.
6. 3.5 billion JPY.
7. Blended rate.

End Notes—continued



These notes refer to metrics and/or defined terms presented on:

Slide 10 GAAP Balance Sheet

1. This reflects a non-GAAP measure, and it reflects the assets bracketed above less the liabilities bracketed above. Prior period reconciliations available at <https://ir.virtu.com/financials-and-filings/quarterly-results/default.aspx>.
2. Comprises cash anticipated to be used in the operations of the business, including cash anticipated to be paid to satisfy tax and compensation liabilities, payments of debt pursuant to debt covenants, as well as dividends and other distributions to equity owners.

Slide 11 GAAP Income Statement

1. ITG revenues and expenses included in financials beginning on March 1, 2019 close date.

Slide 12 Share Count Roll Forward

Note: Assumes that (1) holders of all vested and unvested non-voting Virtu Financial Units (together with corresponding shares of the Company's Class C Common Stock) have exercised their right to exchange such Virtu Financial Units for shares of Class A Common Stock on a one-for-one basis, (2) holders of all non-voting Virtu Financial Units (together with corresponding shares of the Company's Class D Common Stock) have exercised their right to exchange such Virtu Financial Units for shares of the Company's Class B Common Stock on a one-for-one basis, and subsequently exercised their right to convert the shares of Class B Common Stock into shares of Class A Common Stock on a one-for-one basis. Does not include diluted shares (e.g. options, warrants), and reflects shares outstanding at a prior point in time or projected to be outstanding as of a future point in time, as opposed to a weighted average over a period.

Slide 13 Adjusted EBITDA & Normalized Adjusted EPS

1. ITG revenues and expenses included in financials beginning on March 1, 2019 close date.
2. EBITDA Margin is calculated as EBITDA divided by Adjusted Net Trading Income.
3. Adj. EBITDA Margin is calculated as Adjusted EBITDA divided by Adjusted Net Trading Income.