

A row of digital signage kiosks is shown, each displaying a different company's logo and contact information. The kiosks are arranged in a line, and the background is a blurred view of the same kiosks. The text "Sectorwatch: Interactive Kiosk and Digital Signage" is overlaid in a large, bold, blue font. Below it, the date "November 2019" is written in a smaller, grey font.

Sectorwatch: Interactive Kiosk and Digital Signage

November 2019

Interactive Kiosk and Digital Signage

November 2019

- Sector Dashboard [4]
- Public Basket Performance [5]
- Operational Metrics [7]
- Valuation Comparison [10]
- Recent Deals [13]
- Appendix [14]

Overview

7MA provides Investment Banking & Advisory Services to the Business Services and Technology Industries globally. We advise on M&A and private capital transactions, and provide market assessments and benchmarking. As a close knit team with a long history together and a laser focus on our target markets, we help our clients sell their companies, raise capital, grow through acquisitions, and evaluate new markets. We publish our sectorwatch, a review of M&A and operational trends in the industries we focus.

Dashboard

- Summary metrics on the sector
- Commentary on market momentum by comparing the most recent 12-month performance against the last 3-year averages.



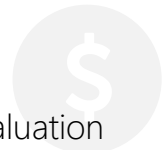
Public Basket Performance

- Summary valuation and operating metrics for a basket of comparable public companies



Valuation Comparison

- Graphical, detailed comparison of valuation multiples for the public basket



Recent Deals

- The most recently announced deals in the sector



Dashboard



Revenue Growth

↓ -4.9%

1 - year revenue growth compared to revenue growth average for last 3 years

Current revenue growth rate is less than the average of the last 3 years, indicating that the market may be flattening or declining

Pricing / Gross Margin Momentum

↑ 0.03%

1 - year gross profit % compared to gross profit % average for last 3 years

Current gross profit margin exceeds the average of the last 3 years gross profit margin by this amount, indicating supplier pricing power

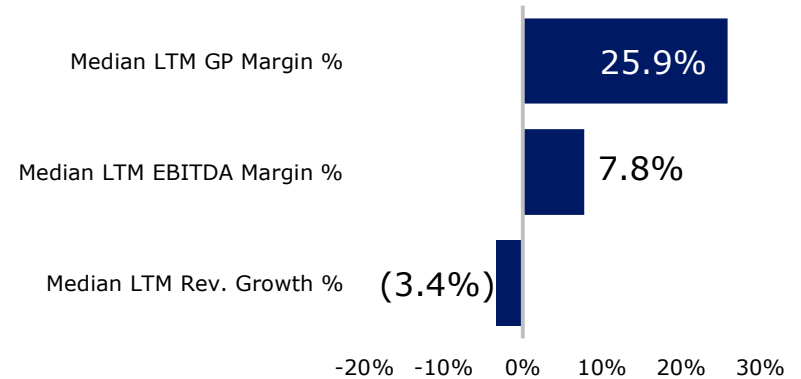
Profitability

↓ -1.6%

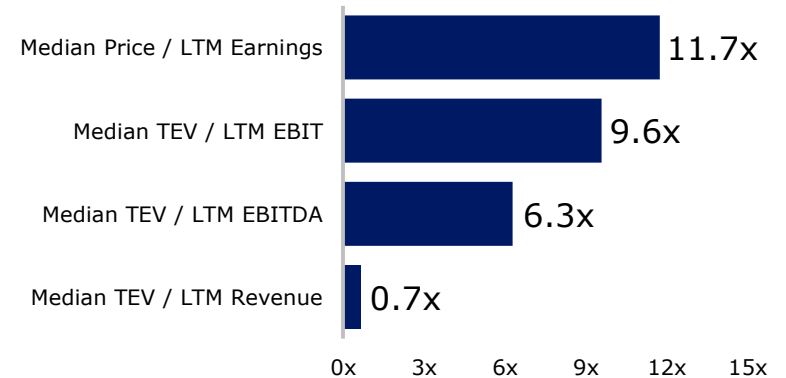
1 - year EBITDA % compared to EBITDA % average for last 3 years

Current EBITDA margin is less than the average of the last 3 years EBITDA margins, which may signal further consolidation

Operating Metrics



Valuation



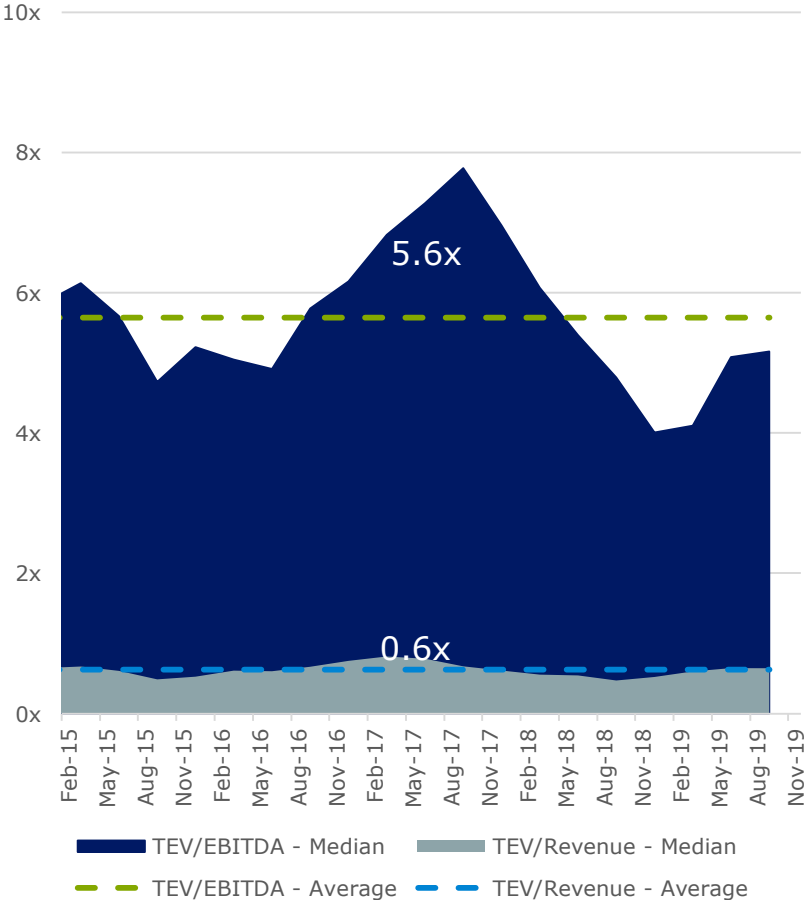
Public Basket



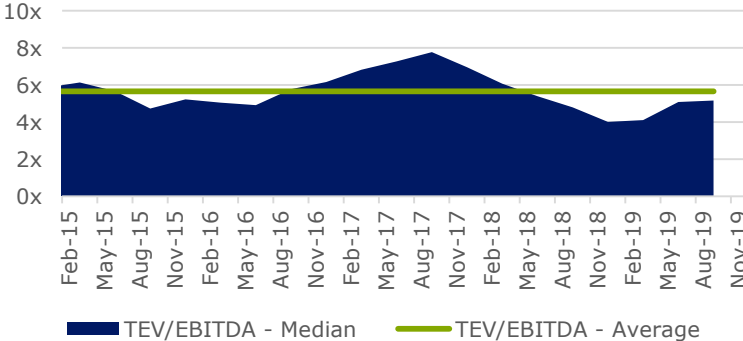
Company	TEV \$m	LTM Rev \$m	Rev Growth YoY	GP %	EBITDA %	TEV / Rev X	TEV / EBITDA X	# FTEs	Rev / FTE \$k
ClearOne, Inc.	24	26	-14%	47%	-25%	0.9	0.0	130	199
Diebold Nixdorf, Incorporated	2,743	4,547	0%	24%	8%	0.6	8.1	23,000	198
AU Optronics Corp.	3,906	9,138	-9%	2%	7%	0.4	5.7	-	NA
Flex Ltd.	7,998	25,413	-3%	6%	4%	0.3	7.2	200,000	127
NCR Corporation	8,370	6,830	7%	28%	13%	1.2	9.5	34,000	201
LG Display Co., Ltd.	14,674	20,023	-2%	11%	10%	0.7	6.9	-	NA
Panasonic Corporation	30,197	72,521	-4%	29%	8%	0.4	5.3	271,869	267
Samsung Electronics Co., Ltd.	228,192	191,699	-8%	38%	26%	1.2	4.5	-	NA
Average	37,013	41,274	-4%	23%	6%	0.7	5.9	66,125	198
Median	8,184	14,580	-3%	26%	8%	0.7	6.3	11,565	199

share price as of 19Nov19

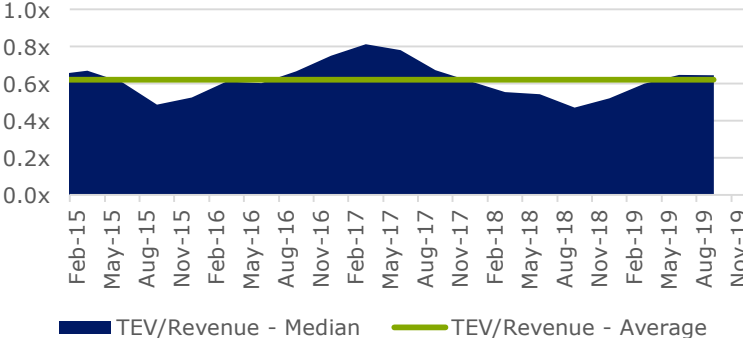
Public Basket Valuation Trends



Public EBITDA Multiples over Time



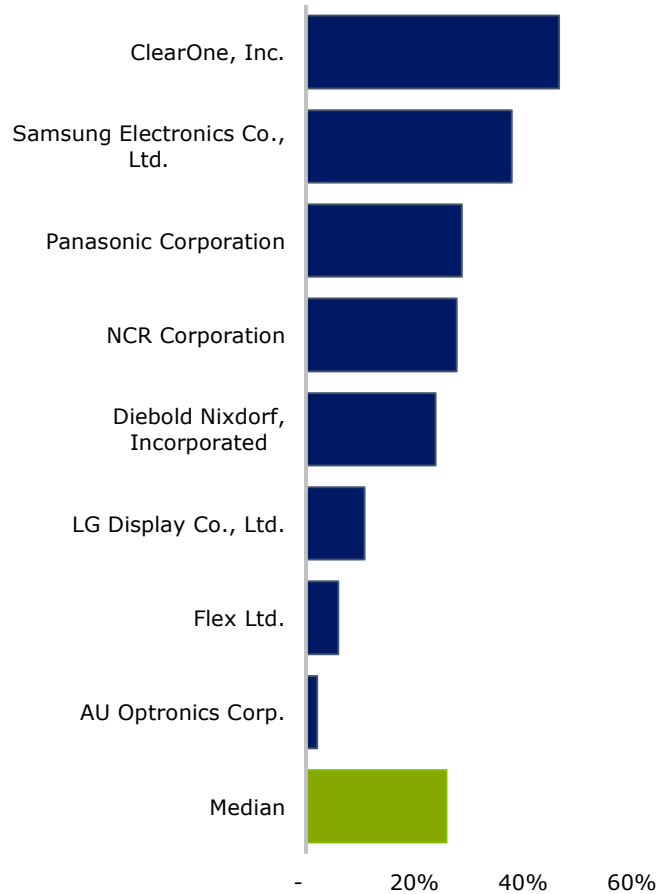
Public Revenue Multiples over Time



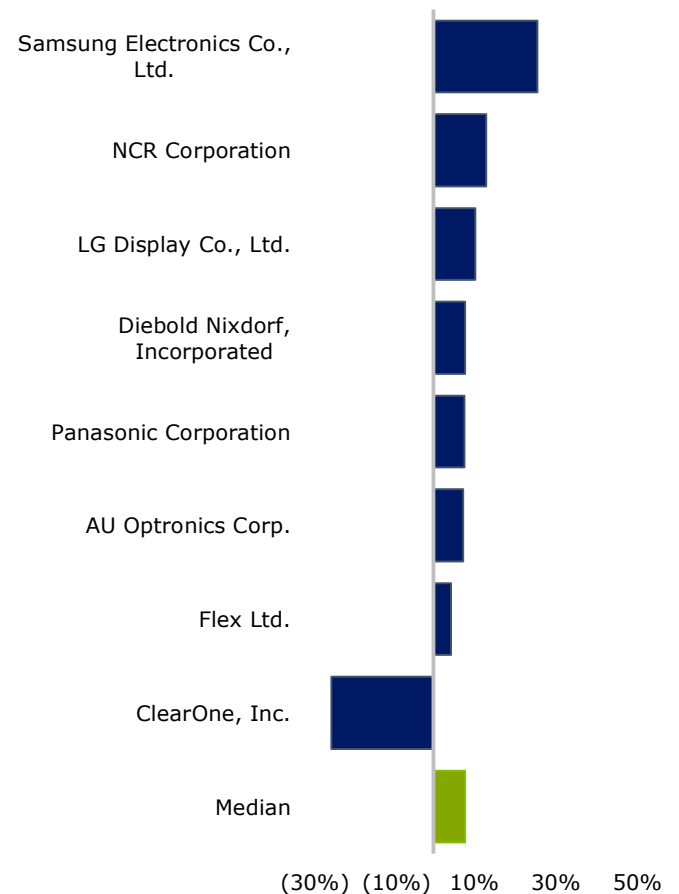
Operational Metrics



LTM Gross Profit Margin %



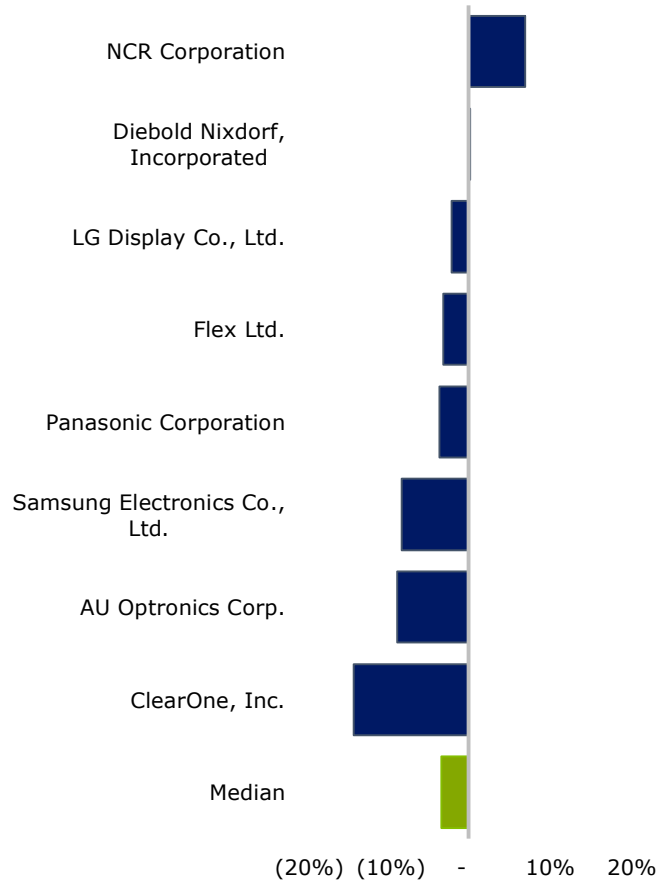
LTM EBITDA %



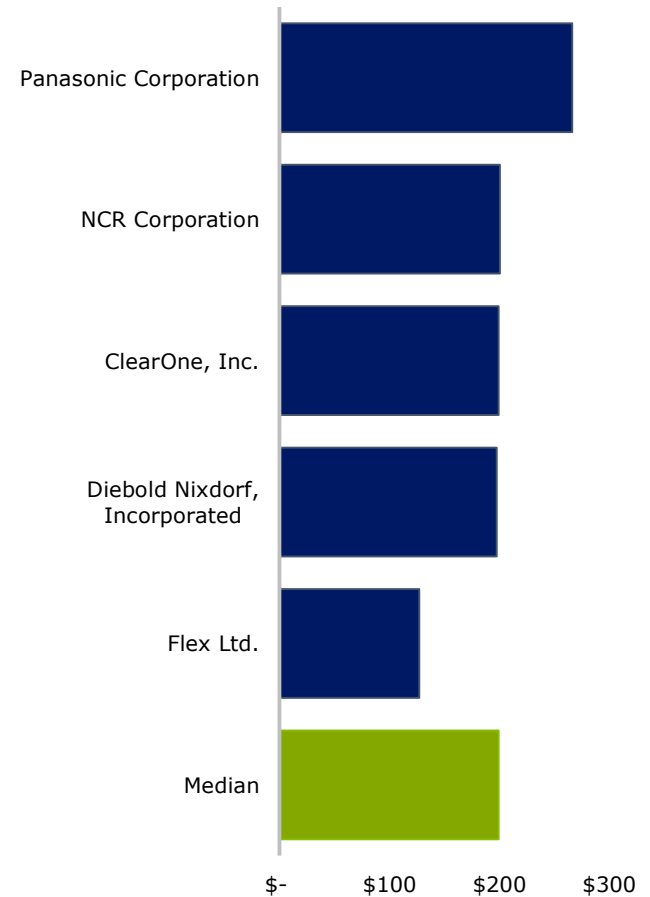
Operational Metrics



LTM Revenue Growth %



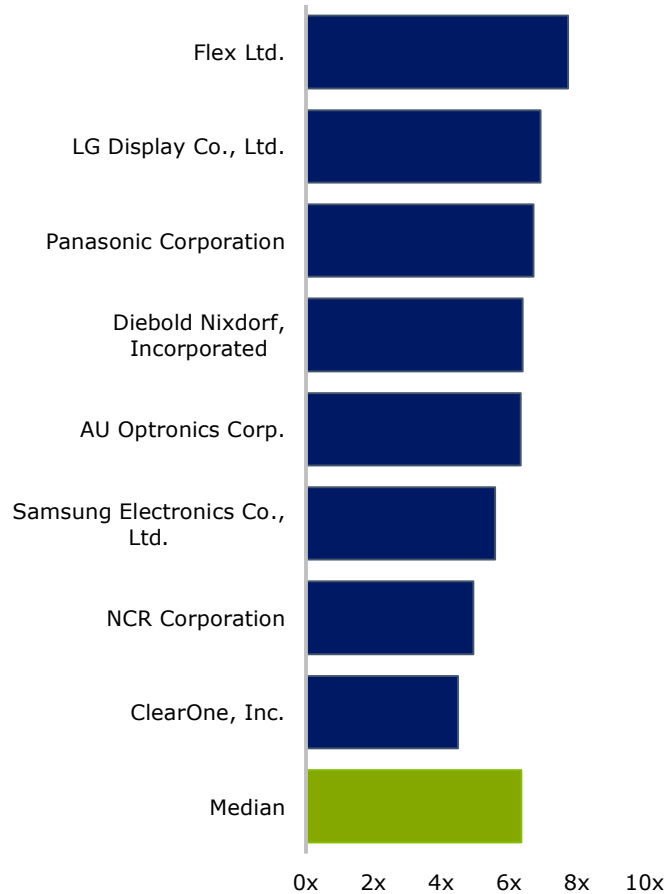
LTM Revenue per Full Time Employee x 000's



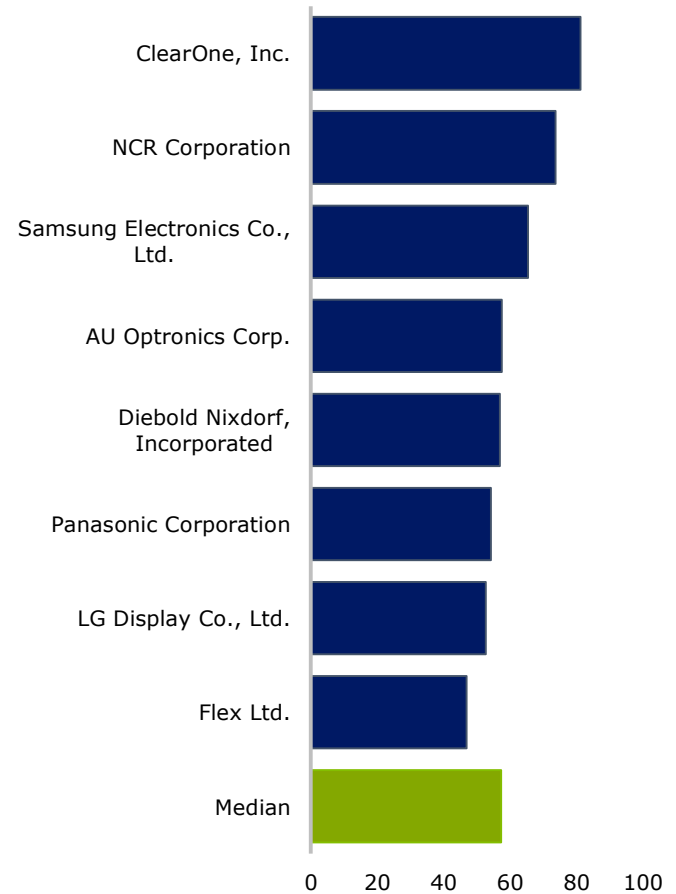
Operational Metrics



Accounts Receivable Turnover



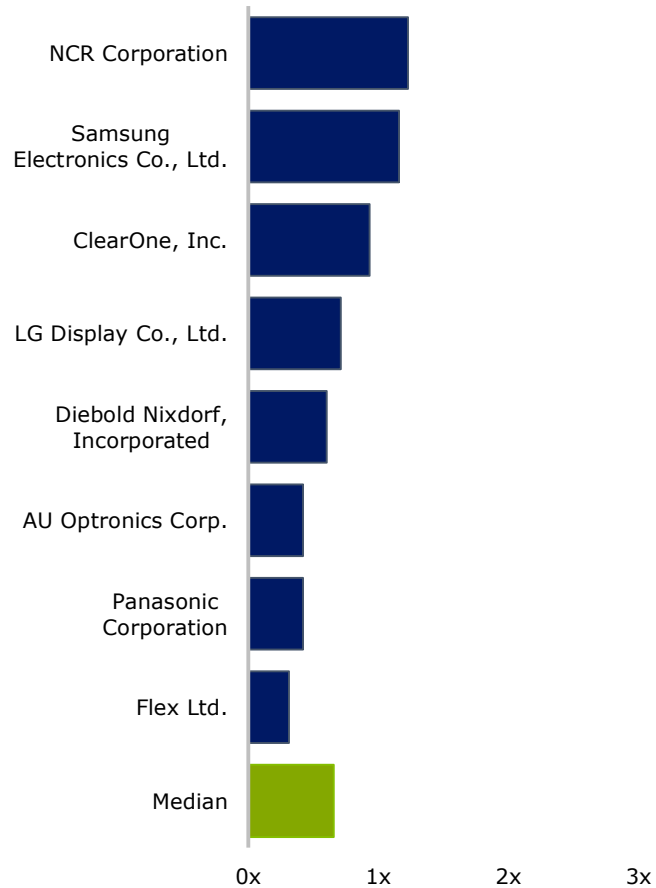
Average Days Sales Outstanding



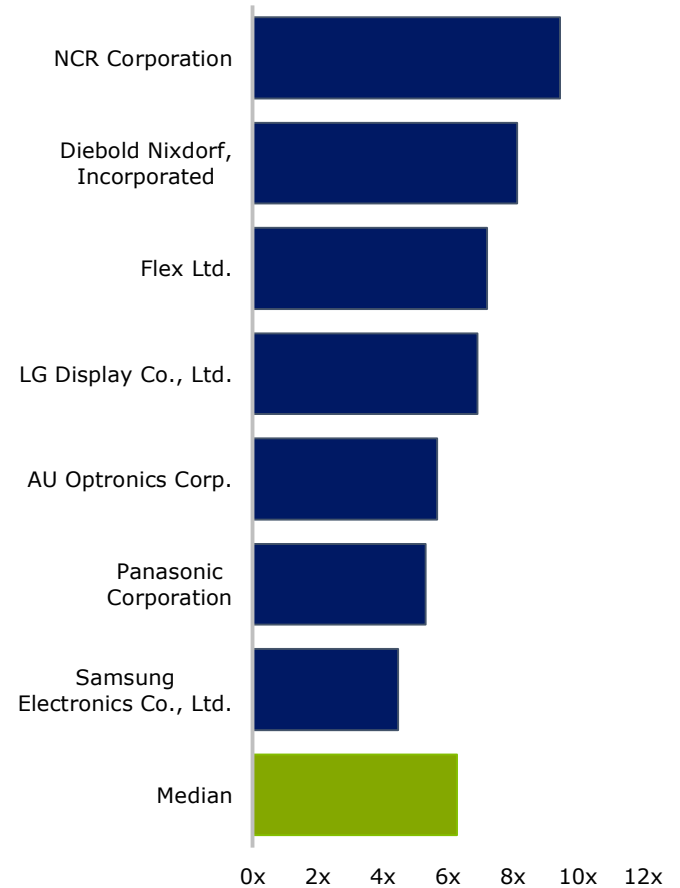
Valuation



TEV / LTM Revenue



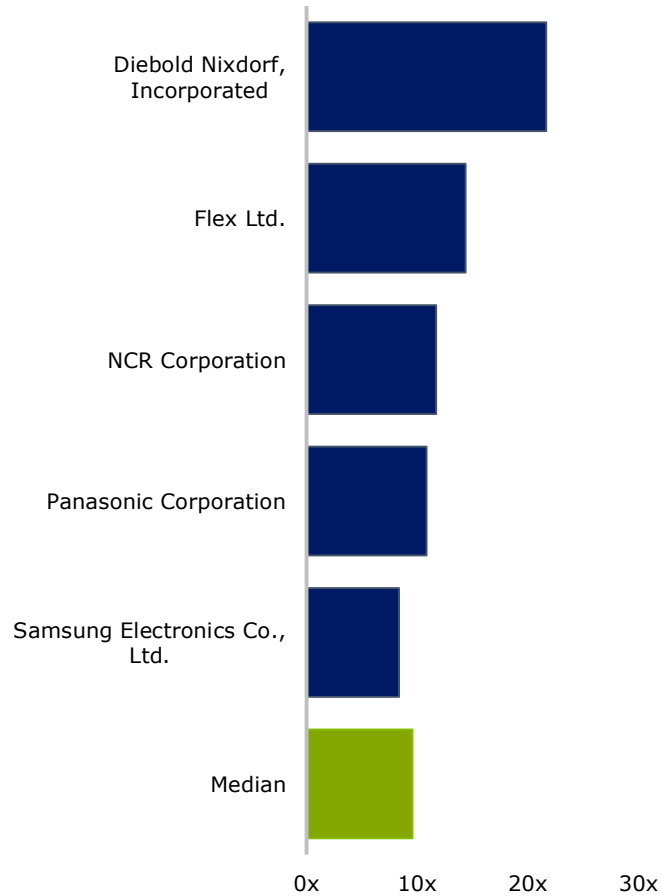
TEV / LTM EBITDA



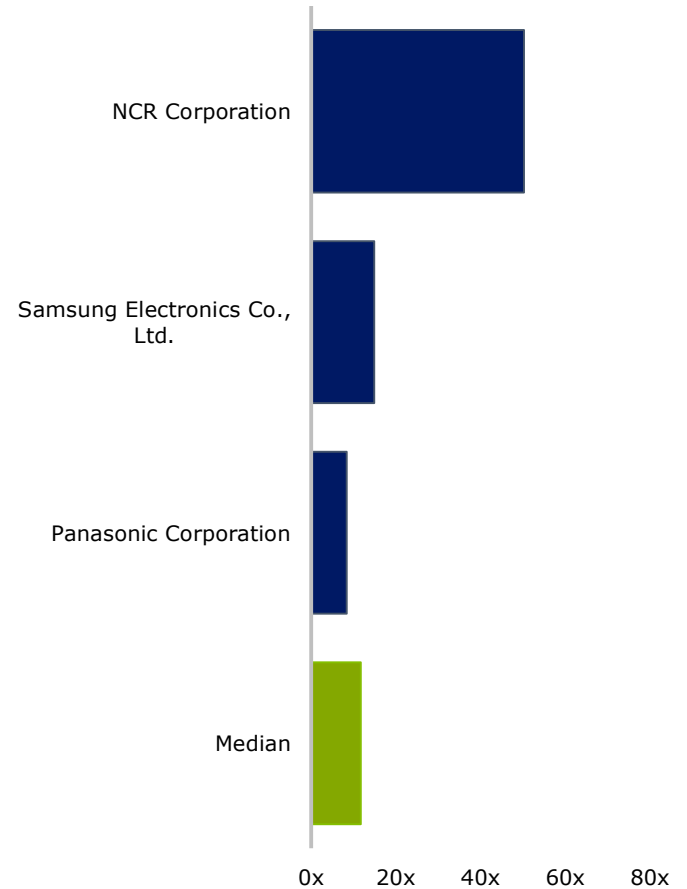
Valuation



TEV / LTM EBIT



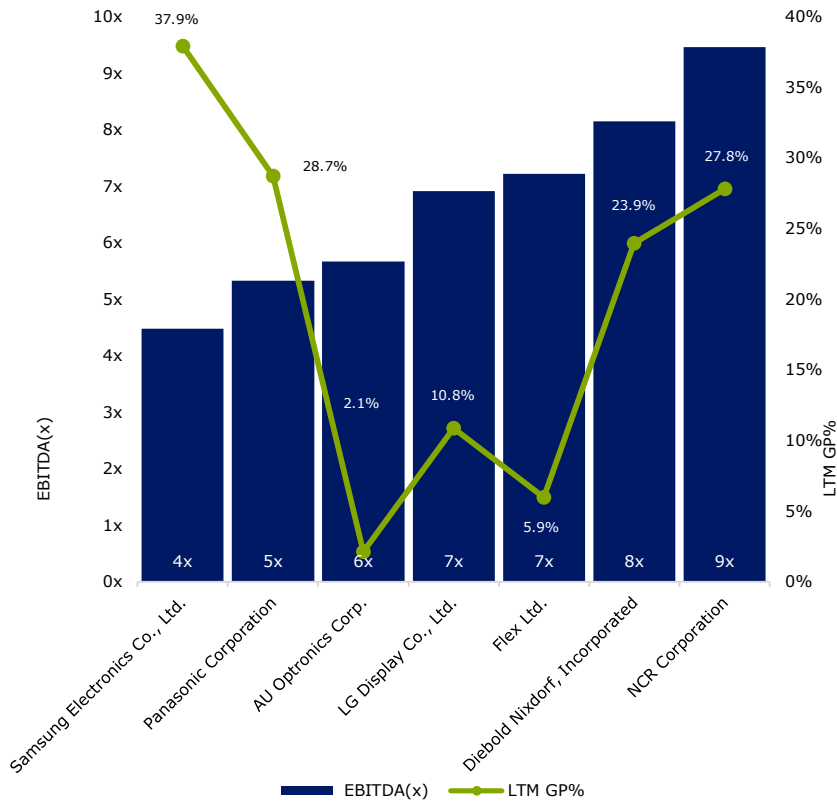
Price / LTM Earnings



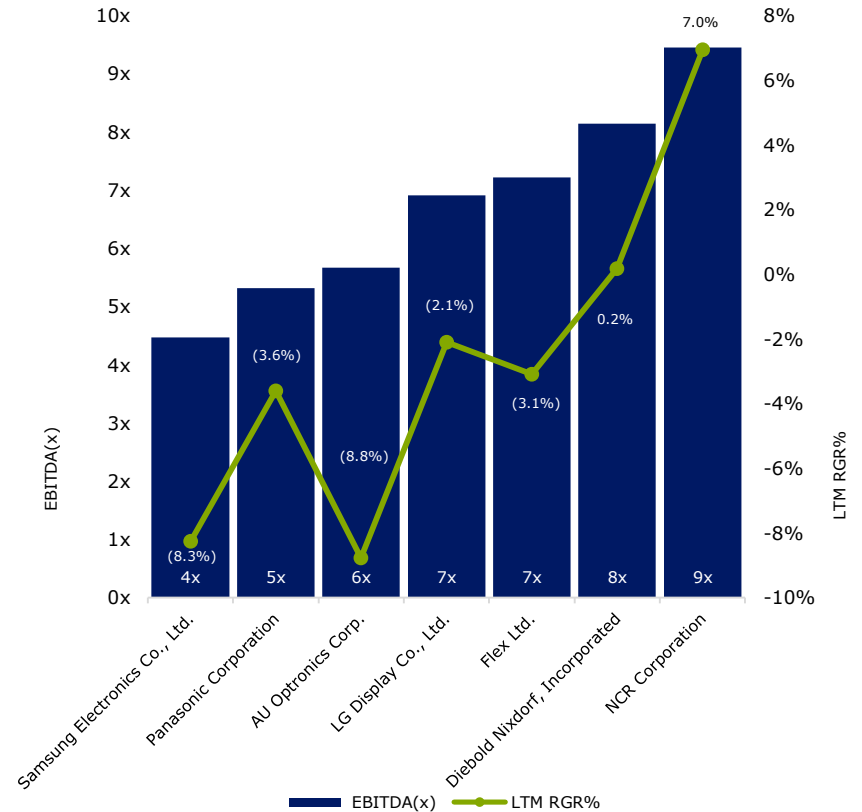
Valuation



Historical Valuation Multiples versus Gross Profit



Historical Valuation Multiples versus Revenue Growth Rate



Recent Transactions



Date	Target	Buyer / Investor	Total Transaction Value	Target Revenue	TEV / Revenue	TEV / EBITDA
10Oct19	Gaуди BV	ZetaDisplay AB (publ)	7.22	4.97	1.5x	8.7x
16Sep19	Visual Art Sweden AB	Ocean Outdoor Limited	69.28	27.93	2.5x	14.3x
11Jun19	VACAN, Inc.	Shimizu Corporation; T-Gaia Corporation; Nippon Telegraph and Telephone East Corporation; Scrum Ventures; JR East Start UP Co., Ltd.	72.76	-	-	-
7Mar19	INVENTIA SRL	CRIF S.p.A.	-	-	-	-
5Feb19	Four Winds Interactive, LLC	Vista Equity Partners LLC	-	-	-	-
7Jan19	Hyundai Bioscience Co., Ltd.	CnPharm Co., Ltd.	6.26	28.48	-	-
12Dec18	Digital Cruise Inc.	Mizuho Capital Co., Ltd.; Mynavi Corporation; Mizuho Seicho Shien Fund 2; Nagoya TV-Ventures LLC; Free Bank Co. Ltd. (nka:Free Bank Capital Co., Ltd.); Tokyo Kanagawa Innovation Support Fund 1	2.65	-	-	-
23Nov18	Evoke Creative Limited	Business Growth Fund Limited	7.68	-	-	-
10Oct18	Dj-Matic Nv	Stingray Digital Group Inc. (nka:Stingray Group Inc.)	12.48	-	-	-
18Sep18	Delphi Display Systems, Inc.	Decathlon Capital Partners, LLC	-	-	-	-
17Sep18	Vivonet Inc.	Infor, Inc.	-	-	-	-
30Jul18	Beabloo SL	-	0.05	-	-	-
17Jul18	Brightbox, Inc.	KwikBoost	-	-	-	-
12Jun18	Nextep Systems, Inc.	SICOM Systems, Inc.	-	-	-	-
31Dec17	Street Meet, Inc.	-	-	-	-	-
6Jun18	MedAvail Technologies Inc.	Express Scripts Holding Company; Deerfield Management Company, L.P.; Adage Capital Management, L.P.; Redmile Group, LLC; Pura Vida Investments, LLC; Lewis & Clark Venture Capital, LLC	12.85	-	-	-
27May18	Webpro AS	ZetaDisplay AB (publ)	6.11	2.93	2.1x	-
16May18	Lighthouse Digital Limited	Tomizone New Zealand Limited	-	-	-	-
3May18	ONELAN Limited	Uniguest Inc.	-	-	-	-
31Mar18	Altabox S.A.	Econocom Group SE	-	11.12	-	-
16Apr18	FrappeCom Suisse SA	ESH Editions Suisses Holding SA	-	-	-	-
2Apr18	RMG Networks Holding Corporation	-	17.50	35.07	0.4x	NM
28Mar18	10 Foot Wave, LLC	Spectrio, LLC	-	-	-	-

Interactive Kiosk and Digital Signage

November 2019

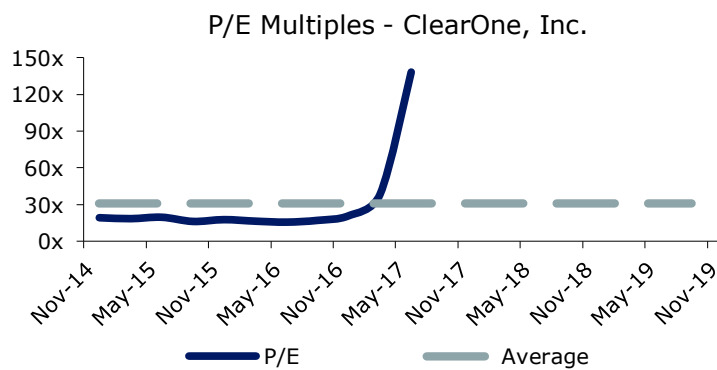
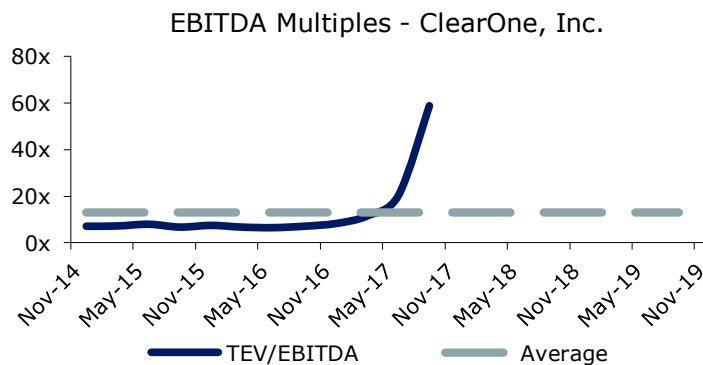
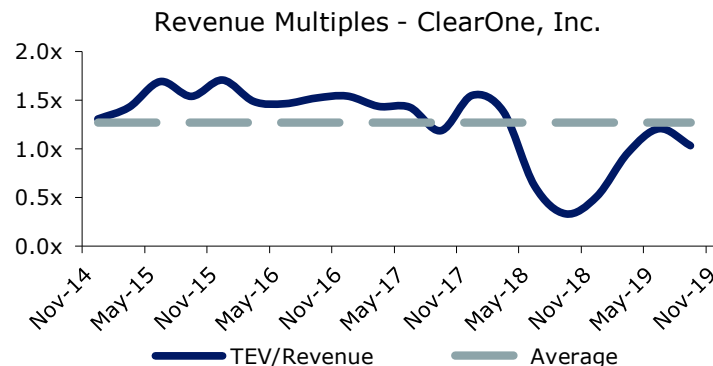
APPENDIX:
Public Basket
Constituents

Public Basket



ClearOne, Inc.

ClearOne, Inc., together with its subsidiaries, designs, develops, and sells conferencing, collaboration, streaming, and digital signage solutions for voice and visual communications in the United States and internationally. The company offers various professional audio communication products, including professional conferencing and sound-reinforcement products for use in enterprise, healthcare, education and distance learning, government, legal, and finance organizations; mid-tier premium conferencing products for smaller rooms, and small and medium businesses, which interface with video and Web conferencing systems; and professional microphones for use in various applications. It also provides unified communications audio end points comprising traditional tabletop conferencing phones used in conference rooms and offices; and personal conferencing products that could be used with PCs, laptops, tablets, smartphones, and other portable devices. The company's audio communication products and unified communications audio end points enhance communication during a conference call by eliminating echo and background noise. In addition, it offers visual communication products, such as video conferencing products; streaming products, which deliver the Internet protocol (IP) A/V experience by streaming time sensitive high definition audio and video and control over TCP/IP networks; and digital signage systems. ClearOne, Inc. was founded in 1983 and is headquartered in Salt Lake City, Utah.



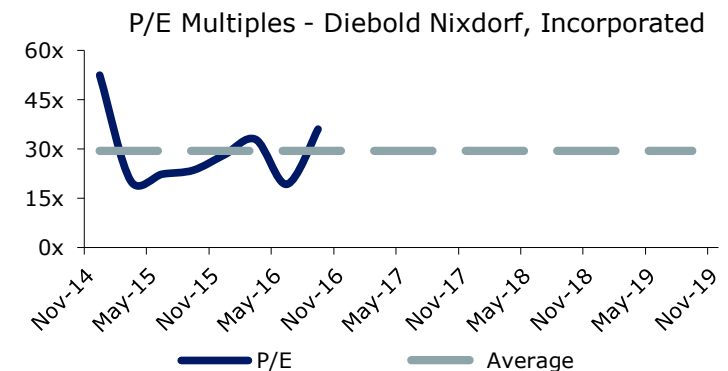
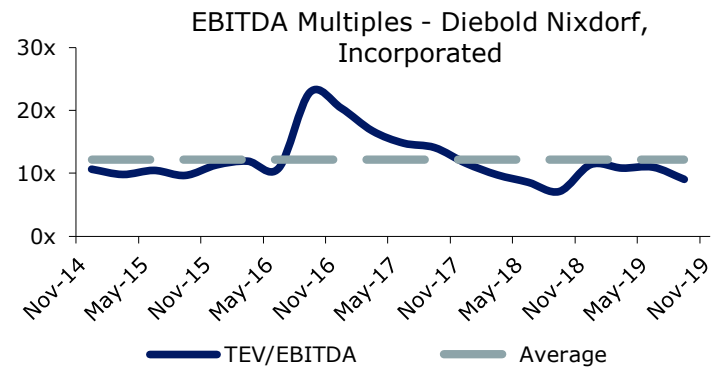
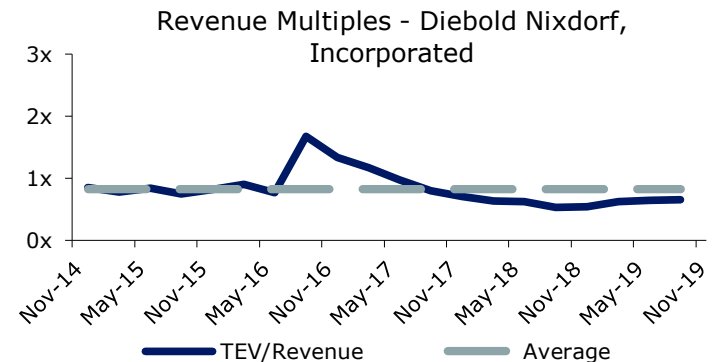
Public Basket



Diebold Nixdorf, Incorporated

Diebold Nixdorf, Incorporated provides connected commerce solutions to financial institutions and retailers in North America, the Asia Pacific, Europe, the Middle East, Africa, and Latin America. The company operates through two segments, Banking and Retail. The Banking segment offers cash recyclers and dispensers, intelligent deposit terminals, teller automation tools, and kiosk technologies, as well as physical security solutions; and front-end applications for consumer connection points and back-end platforms that manage channel transactions, operations and integration and facilitate omnichannel transactions, endpoint monitoring, remote asset management, customer marketing, merchandise management, and analytics. This segment also provides banking product-related services comprising proactive monitoring and rapid resolution of incidents through remote service capabilities or an on-site visit; and first and second line maintenance, preventive maintenance and on-demand, and managed and outsourcing services. Diebold Nixdorf, Incorporated was founded in 1859 and is headquartered in North Canton, Ohio.

Date	Key Development Headline
9/24/19	Temenos AG (SWX:TEMN) completed the acquisition of Kony, Inc. from Diebold Nixdorf, Incorporated (NYSE:DBD) and others.
8/27/19	Temenos AG (SWX:TEMN) agreed to acquire Kony, Inc. from Diebold Nixdorf, Incorporated (NYSE:DBD) and others for \$580 million.



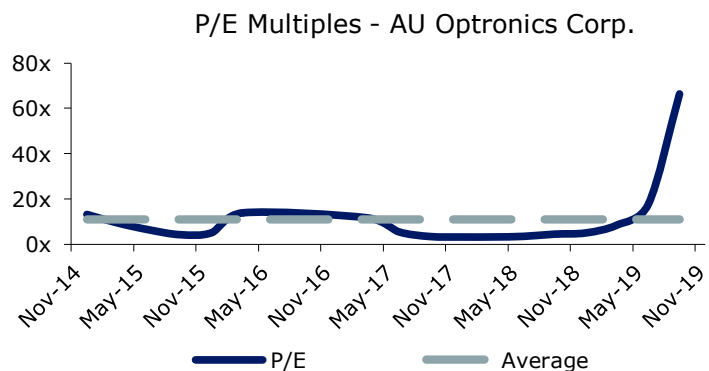
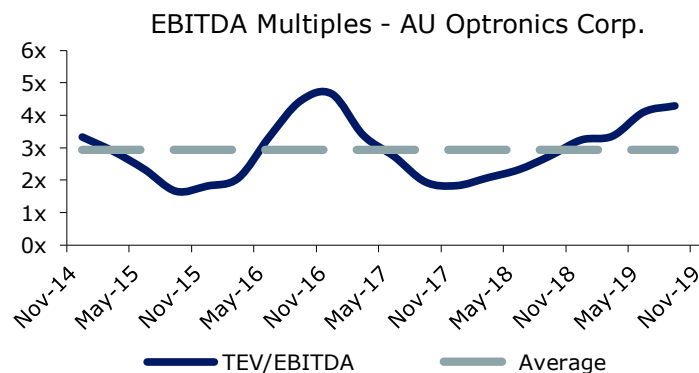
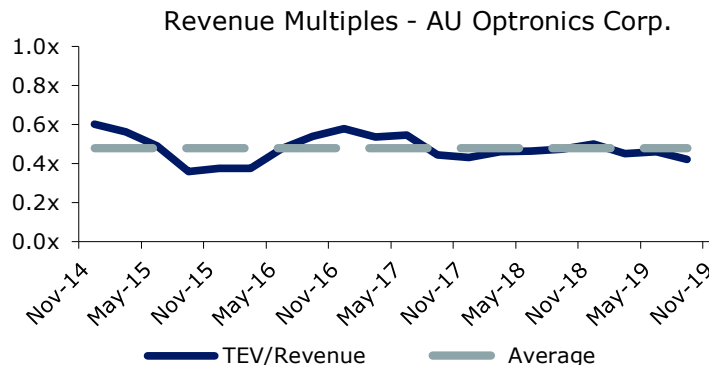
Public Basket



AU Optronics Corp.

AU Optronics Corp. researches, develops, produces, and sells thin film transistor liquid crystal displays and other flat panel displays. The company operates through two segments, Display and Solar. The Display segment designs, develops, manufactures, assembles, and markets flat panel displays for use in televisions (TVs), TV sets, and other related products; desktop monitors; mobile PCs, such as notebooks and tablets; mobile phones; and commercial and other applications, including displays for automobiles, industrial PCs, automated teller machines, point of sale terminals, pachinko machines, medical equipment, and others. This segment serves original equipment manufacturing service providers; and brand companies. The Solar segment manufactures and sells solar materials, including ingots, solar wafers, and solar modules, as well as provides technical engineering and maintenance services for solar system projects. AU Optronics Corp. was founded in 1996 and is headquartered in Hsinchu, Taiwan.

Date	Key Development Headline
12/17/18	AU Optronics Corp. (TSEC:2409) enter into a share exchange agreement to acquire the remaining 3.98% stake in AUO Crystal Corp. from Konly Venture Corporation for approximately TWD 490 million.
4/26/18	AU Optronics Corp. (TSEC:2409) acquired an additional 7.56% stake in Qisda Corporation (TSEC:2352) from CDIB Capital Group for TWD 3.4 billion.



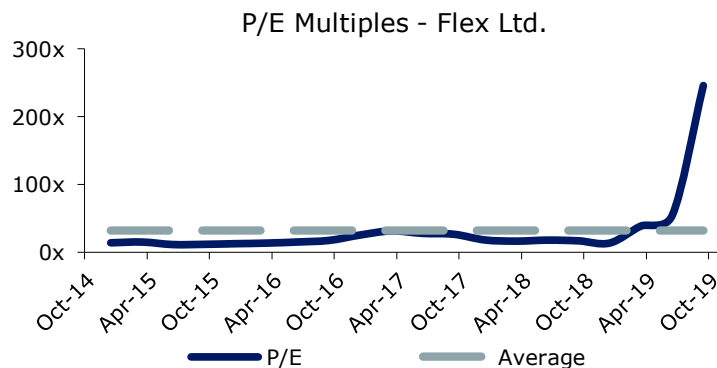
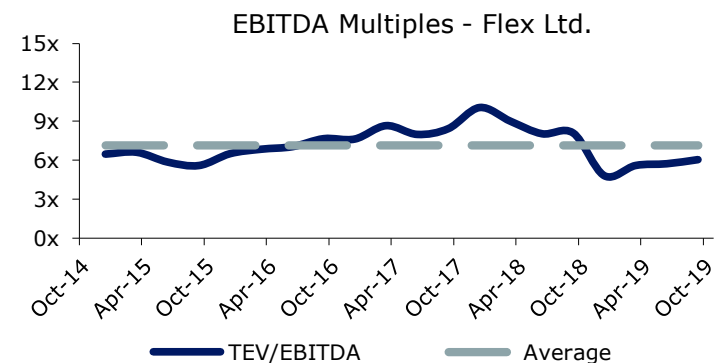
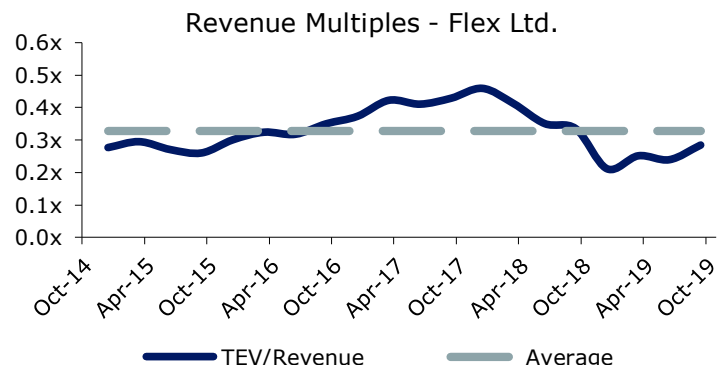
Public Basket



Flex Ltd.

Flex Ltd. provides design, engineering, manufacturing, and supply chain services and solutions to original equipment manufacturers worldwide. It operates through Communications & Enterprise Compute, Consumer Technologies Group, Industrial and Emerging Industries, and High Reliability Solutions segments. The company offers various services, including innovations labs for supporting customer design and product development services from early concept stages; collective innovation platform, an ecosystem of technology solutions; Lab IX, a startup accelerator program; centers of excellence solutions in critical areas; interconnect technology center for printed circuits; and CloudLabs that enable customers to accelerate a spectrum of cloud, converged infrastructure, and datacenter strategies. Flex Ltd. was founded in 1990 and is based in Singapore.

Date	Key Development Headline
8/20/19	Flex Ltd. (NasdaqGS:FLEX) agreed to acquire Plant in Libertyville, Ill. from AptarGroup, Inc. (NYSE:ATR).
7/18/19	Flex Partners with Cap Vista to Promote Startup Ecosystem in Singapore
12/9/18	RIB Software SE (DB:RIB) agreed to acquire the remaining stake in Y TWO Formative from Flex Ltd. (NasdaqGS:FLEX) for approximately \$48 million.



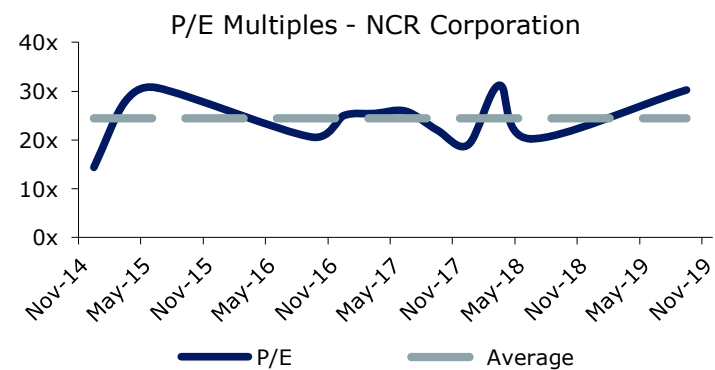
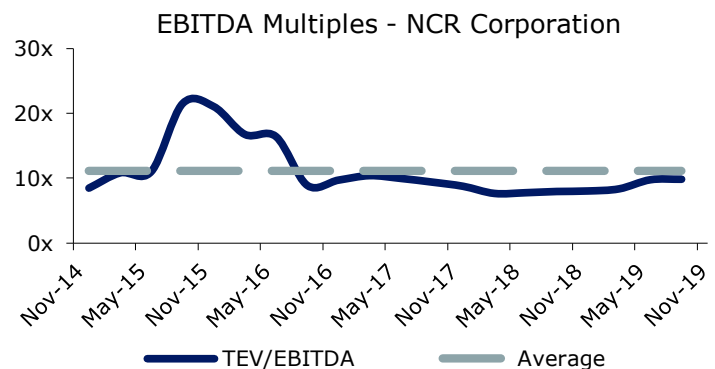
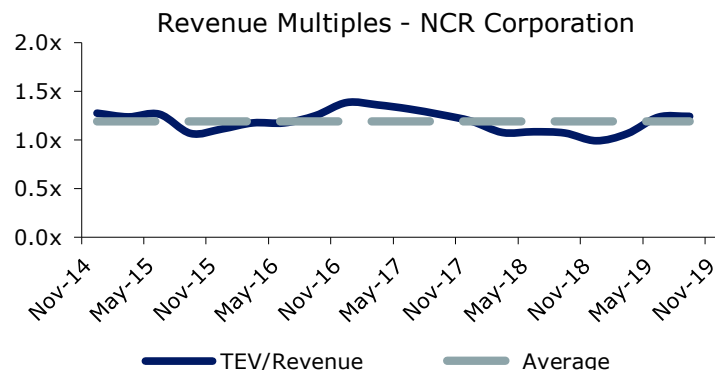
Public Basket



NCR Corporation

NCR Corporation provides software and services for the financial, retail, hospitality, telecommunications, and technology industries worldwide. The company's Software segment offers industry-based software platforms, applications, and application suites for the financial services, retail, hospitality, and small business industries; and cash management software, video banking software, fraud and loss prevention, check and document imaging, remote-deposit capture, and customer-facing mobile and digital banking applications for the financial services industry. NCR Corporation was founded in 1884 and is headquartered in Atlanta, Georgia.

Date	Key Development Headline
10/6/19	NCR Corporation (NYSE:NCR) acquired Midwest POS Solutions, Inc.
7/30/19	NCR Corporation Intends To Seek Acquisitions
7/1/19	NCR Corporation (NYSE:NCR) acquired D3 Technology Inc. for approximately \$80 million.
6/9/19	NCR Corporation (NYSE:NCR) entered into an agreement to acquire an unknown minority stake in NCR Brasil Industria de Equipamentos para Automacao Ltda. from Banco Bradesco S.A. (BOVESPA:BBDC4).
6/5/19	NCR Corporation (NYSE:NCR) signed definitive agreement to acquire IT services and select software assets for financial, retail and other industries of OKI Brasil Indústria e Comércio de Produtos e Tecnologia em Automação S.A.

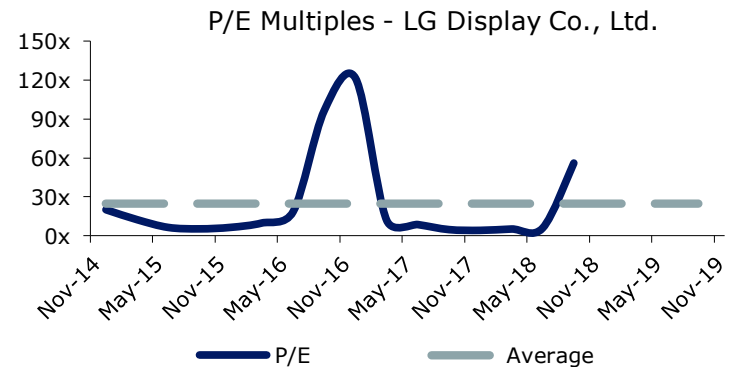
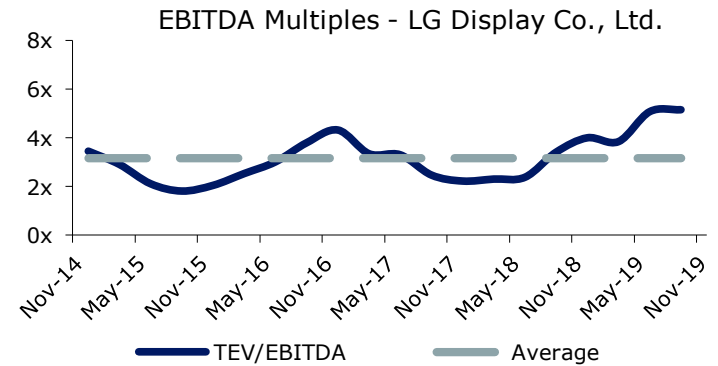
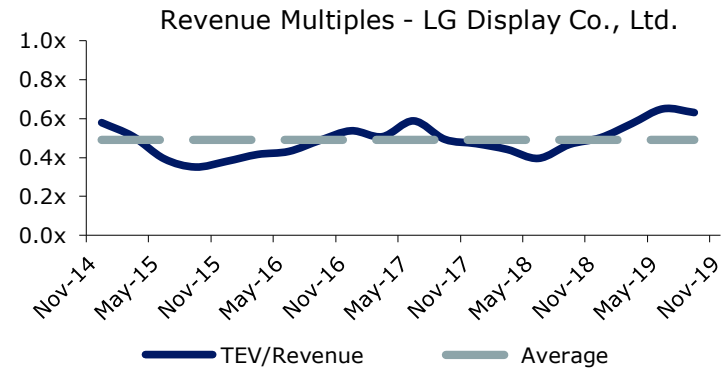


Public Basket



LG Display Co., Ltd.

LG Display Co., Ltd. manufactures and sells thin-film transistor liquid crystal display and organic light-emitting diode (OLED) technology-based display panels in the Republic of Korea, China, Europe, rest of Asia, the United States, and internationally. It offers various display panels primarily for use in televisions, notebook computers, desktop monitors, tablet computers, and mobile devices. The company also provides panels for industrial and other applications, including entertainment systems, automotive displays, portable navigation devices, and medical diagnostic equipment. It serves end-brand customers and their system integrators. The company was formerly known as LG.Philips LCD Co., Ltd. and changed its name to LG Display Co., Ltd. in February 2008. LG Display Co., Ltd. was founded in 1985 and is headquartered in Seoul, South Korea.

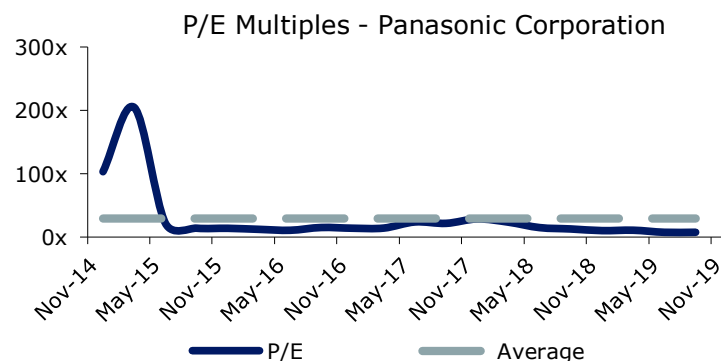
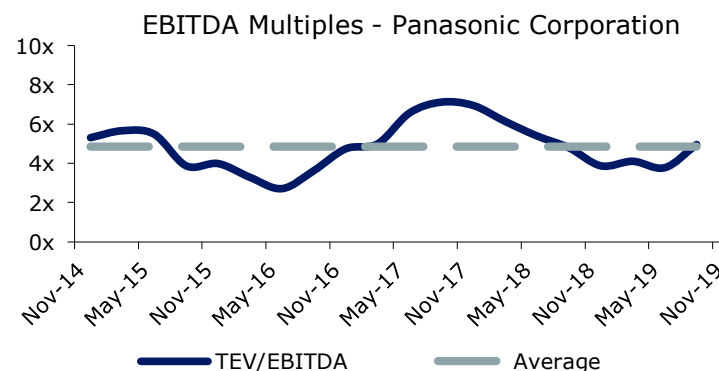
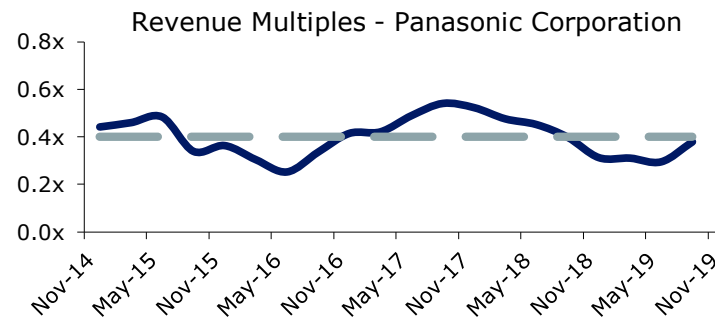


Public Basket



Panasonic Corporation

Panasonic Corporation, together with its subsidiaries, develops, produces, sells, and services electrical and electronic products under the Panasonic brand name worldwide. It operates through Appliances, Eco Solutions, Connected Solutions, Automotive & Industrial Systems, and Other segments. The Appliances segment offers air conditioners, TVs, refrigerators, washing machines, personal care products, microwave ovens, digital cameras, home audio equipment, video equipment, fixed-phones, vacuum cleaners, rice cookers, show cases, compressors, fuel cells, etc. Panasonic Corporation was founded in 1918 and is headquartered in Kadoma, Japan.



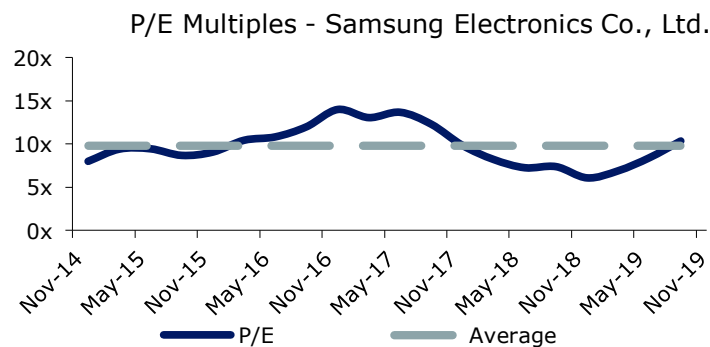
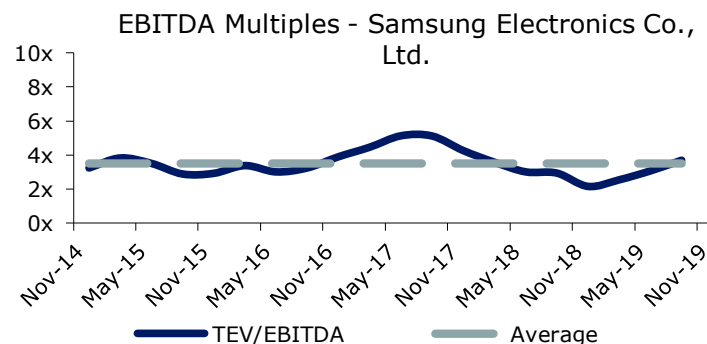
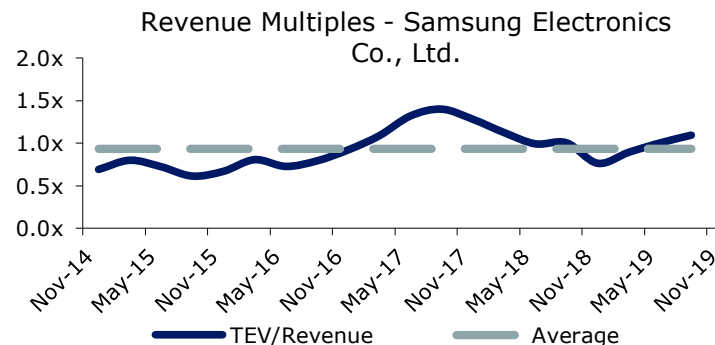
Date	Key Development Headline
10/27/19	Panasonic Corporation to Form Partnership with Welcome Air-Tech
6/17/19	Panasonic Corporation Signs Joint Business Development Agreement with Linkwiz, Inc. to Enhance Welding Processes in Manufacturing
5/31/19	Panasonic Corporation Announces Strategic Co-Investment with Polaris Capital Group Co., Ltd
5/30/19	Polaris Private Equity Fund IV, L.P. managed by Polaris Capital Group Co., Ltd. signed an agreement to acquire 80% stake in Security Systems Business Division from Panasonic Corporation (TSE:6752).
5/9/19	Panasonic and Toyota Announce Establishing Joint Venture Related to Town Development Business

Public Basket



Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. engages in the consumer electronics, information technology and mobile communications, and device solutions businesses worldwide. It offers mobile phones, tablets, wearables, virtual reality, and audio products; TVs, and home theaters; LCD and OLED panels; laptops, computers, chrome books, HDM, memory and system LSI products, monitors, and printers; and home appliances, such as refrigerators, air conditioners, ovens, air purifiers, cooktops and hoods, microwaves, dishwashers, washers, dryers, vacuum cleaners, and heating products, as well as TV and home theater accessories. It also provides security and monitoring, trackers, Wi-Fi routers, hubs, sensors, outlets, and buttons. Samsung Electronics Co., Ltd. was founded in 1938 and is based in Suwon, South Korea.



Date	Key Development Headline
7/10/19	Samsung Selects Wisilica as Ecosystem Partner for IoT Lighting Solutions
6/29/19	Samsung Electronics Co. Ltd. (KOSE:A005930) completed the acquisition of the PLP Business of Samsung Electro-Mechanics Co., Ltd. (KOSE:A009150).
5/21/19	Mastercard Expands Digital Identity Commitment with Samsung Electronics
4/29/19	Samsung Electronics Co., Ltd. (KOSE:A005930) agreed to acquire PLP Business of Samsung Electro-Mechanics Co., Ltd. (KOSE:A009150) for approximately KRW 790 billion.
2/25/19	Marvell and Samsung Extend Strategic Partnership for 5G Global Infrastructure

CONTACT INFO

7MA provides Investment Banking & Advisory Services to the Business Services and Technology Industries globally. We advise on M&A and private capital transactions and provide market assessments and benchmarking. As a close-knit team with a long history together and a laser focus on our target markets, we help our clients sell their companies, raise capital, grow through acquisitions, and evaluate new markets. Securities offered through 7M Securities LLC.

Leroy Davis, Partner	704.899.5962	leroy@7mileadvisors.com
Tripp Davis, Partner	704.899.5762	tripp@7mileadvisors.com
Andy Johnston, Partner	704.899.5961	andy@7mileadvisors.com
Ben Lunka, Managing Director	704.496.2995	ben@7mileadvisors.com
Jeff Stoecklein, Managing Director	312.796.9330	jeff@7mileadvisors.com
Mark Landry, Managing Director	561.972.0609	mark@7mileadvisors.com
Kristina Sergueeva, Director	704.899.5149	kristina@7mileadvisors.com
Neil Churman, Director	281.742.9340	neil@7mileadvisors.com
John Cooper, Director	704.973.3996	john@7mileadvisors.com
Tim Frye, Director	704.973.3994	tim@7mileadvisors.com
Ben Garber, Vice President	412.626.7898	ben.garber@7mileadvisors.com
Nicholas Prendergast, Financial Analyst	704.973.3995	nicholas@7mileadvisors.com
Ariail Siggins, Marketing Director	704.981.2908	ariail@7mileadvisors.com
Emily Halstenberg, Marketing & Sales Coordinator	704.409.9912	emily@7mileadvisors.com
Sydney Larese, Associate	704.973.3998	sydney@7mileadvisors.com
Marty Johnson, Associate	704.973.3999	marty@7mileadvisors.com
Rory Julyan, Associate	704.981.2520	rory@7mileadvisors.com
Garth Martin, Associate	704.973.3997	garth.martin@7mileadvisors.com
Dennis Fox, Associate	704.706.9168	dennis@7mileadvisors.com
Steve Buffington, Associate	704.960.1828	steve@7mileadvisors.com