DUFF&PHELPS

Protect, Restore and Maximize Value

Japan Transactions Insights



Overview

The impact from COVID-19 and resulting restriction measures will likely decrease Japan's real GDP. Japan tourist numbers saw a sharp decline due to government-imposed travel restrictions which negatively impacted the tourism, restaurants, amusement parks and other relevant industries. ¹

On March 24, 2020, the president of the International Olympic Committee (IOC), Thomas Bach and the prime minister of Japan, Abe Shinzo, held a conference call to discuss the constantly changing environment with COVID-19 and the Olympic Games Tokyo 2020. The below statement was made during the discussion:

"It was concluded that the Games of the XXXII Olympiad in Tokyo will be rescheduled to a date beyond 2020 but not later than 2021, to safeguard the health of the athletes, everybody involved in the Olympic Games and the international community".1

Further, COVID-19 will disrupt industrial production as supply chains are impacted by a weakening labor force due to shorter working hours and other restrictive measures. ¹

In 2019, 4,088 M&A transactions, including domestic, inbound and outbound, were completed, once again surpassing the prior year's transaction count.¹

The IPO activity in 2019 was steady with 86 companies that went public, compared to 90 companies in both 2018 and 2017. The application software industry was the leader with 34 IPOs in 2019.¹

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Executive Summary

COVID-19 Impact

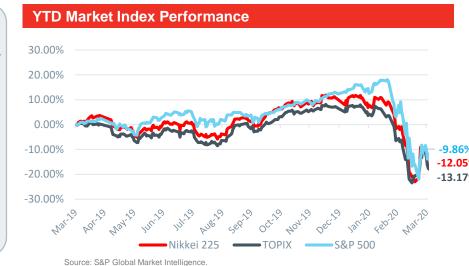
- As of April 18, 2020, there are 10,219 confirmed cases of COVID-19, with 1,159 recoveries and 161 deaths.
- Travel restrictions have been put in place for those entering Japan from 73 countries.
- Any passenger who has boarded an airplane or ship arriving from China, Republic of Korea, Europe, Egypt, the United States, Indonesia, Singapore, Thailand, Philippines, Brunei Darussalam, Viet Nam, Malaysia, Israel, Qatar, Democratic Republic of the Congo and Bahrain is required to stay at a location designated by the quarantine station for 14 days and to not use public transportation in Japan.

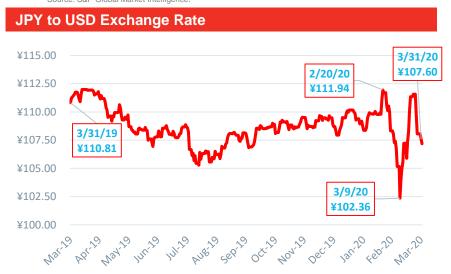
M&A Transactions

- 4,088 total transactions in 2019, up 6.6% from prior year
- 1,088 transactions were cross-boarder deals, up 5.0% from prior year
- Total deal value of approximately \$168.3 billion, down 38.5% compared to prior year

Japan IPO Activity

- 86 IPOs in 2019
- Software application industry had the highest number of IPOs with 34 companies





Source: S&P Global Market Intelligence.



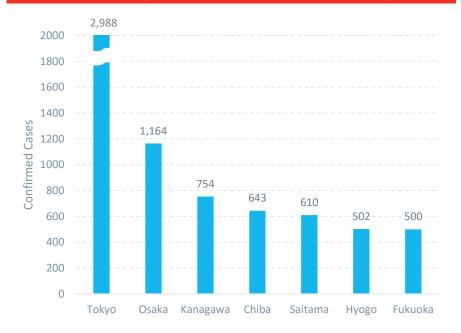
On April 7, 2020, Japan declared a state of emergency in its two biggest cities, Tokyo and Osaka, but the Japanese government stated that this was not a lockdown and that the country would still function. The Japanese government is requesting that residents stay at home and businesses remain closed, but does not have penalties in place to those individuals socializing outdoors and businesses remaining open as usual.

Most public and private schools within the Tokyo metropolitan area announced that they will be closed until May 6 to mitigate the spread of COVID-19, with the exception of some schools that are still open but with shortened hours and mandatory use of face masks.

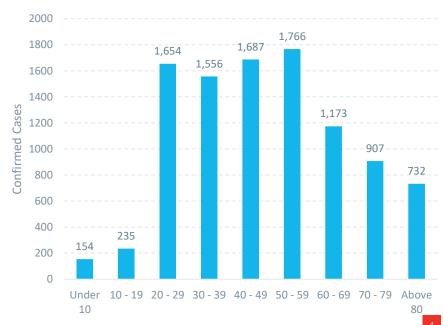
The government has urged companies to encourage their employees to work from home but has not made this mandatory for non-essential businesses.

As of April 18, 2020, there are 10,219 confirmed cases of COVID-19 with 1,159 recoveries and 161 deaths.

Confirmed Cases by Top 7 Prefecture (as of 4/18/2020)



Confirmed Cases by Age Group (as of 4/18/2020)



Impact of COVID-19

Market impact caused by COVID-19 as of March 31, 2020

	Current			Change	Change from 15 Days Ago			Change from 30 Days Ago		
	5-Year	10-Year	20-Year	5-Year	10-Year	20-Year	5-Year	10-Year	20-Year	
Japanese Gov't Bond	-0.12%	0.03%	0.31%	▼ 0.10%	▲ 0.03%	▲ 0.28%	▲ 0.14%	▲ 0.16%	▲ 0.16%	
Spread Over Treasury:										
A Rated Bonds	0.31%	0.35%	0.40%	▲ 0.11%	▼ 0.06%	▼ 0.32%	▼ 0.02%	▼ 0.03%	▲ 0.03%	

	As of 03/31/2020	Performance Since 3/1/2020	YTD Performance	1 Year Performance	3 Year Performance	5 Year Performance
	(Units in JPY)					
<u>Indices</u>						
TOPIX INDEX	1,403.04	▼ 7.1%	▼ 18.5%	▼ 11.8%	▼ 7.2%	▼ 9.19
Nikkei 225 Index	18,917.01	▼ 10.5%	▼ 20.0%	▼ 10.8%	▲ 0.0%	▼ 1.59
Top 10 Companies By Market Capitalization						
Toyota Motor Corporation	6,501.00	▼ 8.8%	▼ 15.7%	▲ 0.2%	▲ 7.6%	▼ 22.5°
NTT DOCOMO, INC.	3,377.00	▲ 15.4%	▲ 11.2%	▲ 37.8%	▲ 30.3%	▲ 61.9°
Nippon Telegraph and Telephone Corporation	2,575.50	▲ 1.8%	▼ 6.6%	▲ 9.5%	▲ 8.4%	▲ 39.3°
Keyence Corporation	34,830.00	▲ 1.2%	▼ 9.5%	▲ 1.0%	▲ 56.3%	▲ 112.4
SoftBank Group Corp.	3,788.00	▼ 24.4%	▼ 20.4%	▼ 29.5%	▼ 3.6%	▲ 8.5
NASDAQ Composite Index	6,421.00	▼ 2.9%	▼ 13.2%	▲ 38.2%	▲ 70.5%	▲ 101.3
KDDI Corporation	3,190.00	▲ 4.3%	▼ 1.9%	▲ 33.8%	▲ 9.2%	▲ 17.3
Chugai Pharmaceutical Co., Ltd.	12,500.00	▲ 6.7%	▲ 24.0%	▲ 64.3%	▲ 226.8%	▲ 230.3
SoftBank Corp.	1,374.50	▼ 2.7%	▼ 5.8%	▲ 10.2%	N/A	N/
Mitsubishi UFJ Financial Group, Inc.	403.00	▼ 24.2%	▼ 32.1%	▼ 26.7%	▼ 42.4%	▼ 45.8
Currencies (1)						
British Pound (GBP / JPY)	133.96	▼ 3.1%	▼ 7.1%	▼ 7.2%	▼ 4.1%	▼ 24.8°
Euro (EUR / JPY)	118.24	▼ 0.8%	▼ 2.6%	▼ 4.9%	▼ 0.8%	▼ 8.3
Swiss Franc (CHF / JPY)	111.67	▼ 0.2%	▼ 0.5%	▲ 0.3%	▲ 0.2%	▼ 9.7
United States Dollar (USD / JPY)	107.60	▼ 0.7%	▼ 1.0%	▼ 2.9%	▼ 3.5%	▼ 10.3
Canadian Dollar (CAD / JPY)	75.91	▼ 6.0%	▼ 9.3%	▼ 8.4%	▼ 9.3%	▼ 19.9
Australian Dollar (AUD / JPY)	66.01	▼ 6.2%	▼ 13.5%	▼ 16.1%	▼ 22.5%	▼ 27.9
New Zealand Dollar (NZD / JPY)	63.95	▼ 5.2%	▼ 12.5%	▼ 15.3%	▼ 18.0%	▼ 28.9
Chinese Renminbi (Yuan) (CNY / JPY)	15.19	▼ 2.0%	▼ 2.7%	▼ 8.0%	▼ 6.2%	▼ 21.5
Hong Kong Dollar (HKD / JPY)	13.88	▼ 0.1%	▼ 0.5%	▼ 1.7%	▼ 3.2%	▼ 10.3

Impact of COVID-19

"At the Monetary Policy Meeting held on March 16, 2020, Policy Board of the Bank of Japan established the <u>Principal Terms and Conditions of the Special Funds-Supplying Operations to Facilitate Corporate Financing regarding the Novel Coronavirus (COVID-19)</u> with a view to doing its utmost to ensure smooth corporate financing and maintaining stability in financial market." – **Bank of Japan**

"One case of coronavirus was detected in the Osaka office on April 4 and no employee will be allowed to enter this office until April 7. This employee is being carefully monitored at home and the sanitization of the building was completed on April 5. Asahi Group is continuing to encourage its employees to work remotely to stop the spread of this virus." — Asahi Group Holdings

"Due to the market situation and decline in demand overseas, we have decided to halt production for 7 production lines in 5 plants starting April 3." – Toyota Motor Corporation

"Additional reductions on the carrier's domestic network through April 28, 2020. Based on the updated plan, JAL will reduce approximately 85% of its international services through April 30, 2020." – Japan Airlines Co.

"Cloud Campus platform will be provided at free of charge to those Universities and 2-year Colleges that are currently affected by the coronavirus to resume the courses online." – SoftBank Group Corporation "Business has been impacted by factors such as restrictions on movement of people across national borders, making it difficult for Sony to send engineers to manufacturing hubs such as China and countries in Southeast Asia for the purpose of helping with new product launches or giving instructions on manufacturing." — Sony Corporation

"Due to the outbreak of the new coronavirus infection, customers who have difficulty in paying the service fees, we will extend the due date if requested by the customer." – **NTT Corporation**

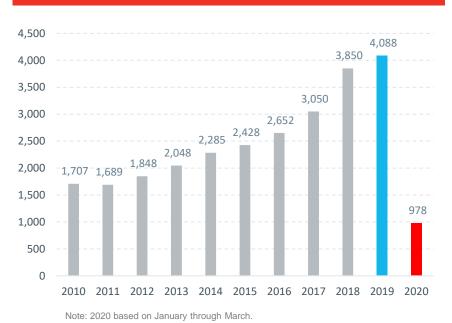
"In light of reduced passenger demand due to the spread of the Novel Coronavirus (COVID-19), we have decided additionally to reduce the number of flights for the domestic routes." — ANA Holdings Inc.

"The impact of COVID-19 differs in business sectors and regions, so our employees around the world are following the instructions of national, regional and local Governments to stay safe, while working to maintain infrastructure and supporting customers." – Hitachi, Ltd.

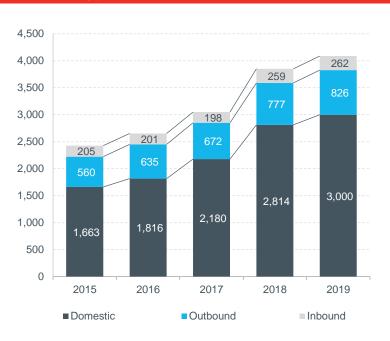
2019 M&A Transactions

There were 4,088 M&A transactions in 2019 (up 6.2%, year-over-year), making 2019 the eighth consecutive year of increase in annual number of transactions. Domestic transaction increased 6.6% compared to the prior year, with outbound and inbound transactions increasing 6.3% and 1.2%, respectively. The M&A transaction value in 2019 totaled to approximately \$168.3 billion, down 38.5% from prior year. The decrease in the total transaction value was primarily due to a lower number of mega deals like Takeda Pharmaceutical's acquisition of Shire plc for approximately \$62.0 billion.

Number of Transactions - 10-Year Trend



Transaction Type



Source: S&P Capital IQ and MARR.

2019 M&A Transactions

Domestic transactions did not make the top 10 transactions list in 2018 but Mitsubishi Chemical, Yahoo! Japan and Marubeni made a significant domestic acquisition in 2019 as shown in the below tables.

Announced Date	Target Name	Incorporation	Industry Sector	Target Business Description	Acquirer Name	Enterprise Value	LTM Revenue	LTM EBITDA	EV / Revenue	EV / EBITDA
7/18/2019	CUB Pty Ltd	Australia	Brewers	Produces and distributes beer in Australia and internationally	Asahi Group Holdings	\$11,275	NA	\$439	N/A	14.9x
11/18/2019	Mitsubishi Tanabe Pharma Corporation	Japan	Pharmaceuticals	Offers drugs for immuno-inflammation, diabetes, kidney and central nervous system diseases	Mitsubishi Chemical Holdings Corporation	\$9,637	\$3,589	\$358	2.58x	26.9x
12/18/2019	Hitachi Chemical Company, Ltd.	Japan	Specialty Chemicals	Manufactures and sells functional materials and advanced components and systems	Showa Denko K.K.	\$9,137	\$6,052	\$719	1.50x	12.7x
9/12/2019	ZOZO, Inc.	Japan	Internet and Direct Marketing Retail	Operates online shopping websites in Japan and internationally	Yahoo! Japan Corporation (nka: Z Holdings Corporation)	\$7,435	\$1,114	\$274	6.68x	27.1x

Top 10 M&A Transactions (Continued)

Announced Date	Target Name	Incorporation	Industry Sector	Target Business Description	Acquirer Name	Enterprise Value	LTM Revenue	LTM EBITDA	EV / Revenue	EV / EBITDA
11/6/2019	Aircastle Limited	United States	Trading Companies and Distributors	Leases, finances, sells and manages commercial flight equipment to airlines worldwide	Marubeni Corporation	\$7,381	\$965	\$511	7.65x	14.4x
5/29/2019	Sanyo Chemical Industries, Ltd.	Japan	Specialty Chemical	Manufactures and sells chemical products in Japan and internationally	Nippon Shokubai Co., Ltd.	\$6,825	\$1,477	\$220	6.68x	27.1x
5/8/2019	Xiidra of Shire US, Inc.	United States	Pharmaceuticals	Offers products for central nervous system disorders, gastro intestinal, oncology and anti- infective therapeutic areas	Novartis AG	\$5,300	\$388	N/A	13.70x	N/A
11/25/2019	Eneco Groep N.V.	Netherlands	Renewable Electricity	Operates as an energy gathering company	Mitsubishi Corporation; Chubu Electric Power Company Netherlands	\$4,513	N/A	N/A	N/A	N/A
4/16/2019	DuluxGroup Limited	Australia	Specialty Chemicals	Manufactures, markets, sells and distributes paints, coatings, adhesives and garden care products	Nippon Paint Holdings Co., Ltd.	\$3,083	\$1,300	\$187	2.37	16.5x
12/18/2019	UD Trucks Corporation	Japan	Construction Machinery and Heavy Trucks	Manufactures and markets diesel engines, trucks and special-purpose vehicles	Isuzu Motor Ltd.	\$2,336	\$3,217	\$136	0.73x	17.2x

Japan IPO Activity

In 2019, 86 companies held IPOs, a steady pace compared to prior years (90 companies in both 2018 and 2017). The application software industry had the most IPOs with 34 companies, followed by the services industry with 26. The metal and electronic appliances industries saw the lowest number of IPOs with one company each.

ompany Name									
ompany Name	Incorporation	Industry Sector	Business Description	Gross Proceeds (JPY¥ mn)	Indicated Price Range	Offer Price	Stock Price	Market Capitalization (JPY¥ mn)	Increase/ Decrease From IPO Price
I Inside Inc. SE:4488)	Japan	Human Application Software	Provides OCR services using artificial intelligence technology	¥1,800	¥3,000.00- 3,600.00	¥3,600.00	¥16,100.00	¥58,685	▲347.2%
side									
TOWER Inc. "SE:4485)	Japan	Construction and Engineering	Provides infrastructure sharing services	¥19,429	¥1,550.00- 1,600.00	¥1,600.00	¥3,320.00	¥67,907	▲107.5%
/ER									
ASE Co., Ltd. "SE:4481)	Japan	IT Consulting	Provides computer software development and related services	¥4,700	¥4,600.00- 4,700.00	¥4,700.00	¥7,500.00	¥22,202	▲ 59.6%
lakuake, Inc. SE:4479)	Japan	Research and Consulting	Provides support services for new business development	¥3,945	¥1,500.00- 1,550.00	¥1,550.00	¥3,120.00	¥35,892	▲101.3%
	FSE:4488) FOWER Inc. FSE:4485) FR ASE Co., Ltd. FSE:4481)	FSE:4488) FOWER Inc. Japan FSE:4485) FER ASE Co., Ltd. Japan FSE:4481) akuake, Inc. Japan FSE:4479)	Application Software FOWER Inc. SE:4485) Japan Construction and Engineering FOR ASE Co., Ltd. SE:4481) Japan IT Consulting Research and Consulting	Application Software using artificial intelligence technology Side TOWER Inc. Japan Construction and Engineering sharing services ASE Co., Ltd. Japan IT Consulting Provides computer software development and related services akuake, Inc. Japan Research and Consulting Provides support services for new business development and human resource	Application Software using artificial intelligence technology FOWER Inc. SE:4485) Japan Construction and Engineering For vides infrastructure sharing services For vides infrastructure sharing services For vides computer software development and related services For vides computer software development and related services For vides computer software development and related services For vides support services for new business development and human resource	Application Software using artificial intelligence technology Side TOWER Inc. Japan Construction and Engineering Provides infrastructure sharing services TER ASE Co., Ltd. Japan IT Consulting Provides computer software development and related services ASE Co., Ltd. SE:4481) ASE Co., Ltd. Japan Research and Consulting Provides support services for new business development and human resource	Application Software using artificial intelligence technology 3,600.00 Software using artificial intelligence technology 3,600.00 Software using artificial intelligence technology 3,600.00 FOWER Inc. Japan Construction and Engineering sharing services 1,600.00 Software sharing services 419,429 \$1,550.00 \$1,600.00 FOR Inc. Japan IT Consulting Provides computer software development and related services 4,700 \$4,600.00 \$4,700.00 Software sharing services 1,600.00 \$4,700.00 \$1,55	Application Software using artificial intelligence technology FOWER Inc. Japan Construction and sharing services using artificial 3,600.00 using using artificial intelligence technology \$\textstyle{4}\text{1,550.00} \text{ \$\frac{1}{2}\text{4,700.00} \text{ \$\frac{1}{2}\text{5,50.00} \text{ \$\frac{1}{2}5,50	Application Software Sec. Sec

									As of 3/31/2020	
Pricing Date	Company Name	Incorporation	Industry Sector	Business Description	Gross Proceeds (JPY¥ mn)	Indicated Price Range	Offer Price	Stock Price	Market Capitalization (JPY¥ mn)	Increase/ Decrease From IPO Price
10/8/2019	Hennge K.K. (TSE:4475)	Japan	Internet Services and Infrastructure	Offers cloud-based identity and access management solutions	¥1,830	¥1,200.00- 1,400.00	¥1,400.00	¥2,613.00	¥40,852	▲86.6%
H	ENNGE									
9/18/2019	Amvis Holdings, Inc.	Japan	Healthcare Facilities	Provides medical and nursing care services	¥2,800	¥2,610.00- 2,800.00	¥2,800.00	¥3,745.00	¥84,330	▲33.8%
Amvis	(Jasdaq:7071)									
7/1/2019	Link-U Inc. (TSE:4446)	Japan	Interactive Media and Services	Provides server platforms for e-book and video distribution	¥1,447	¥2,580.00- 2,820.00	¥2,820.00	¥1,762.00	¥24,080	▼37.5%
🚺 Li	nk-U									
3/7/2019	kaonavi, inc. (TSE:4435)	Japan	Application Software	Provides cloud-based human resource management system	¥1,720	¥1,780.00- 1,980.00	¥1,980.00	¥3,050.00	¥33,382	▲ 54.0%
₫ t	オナビ									
2/26/2019	Serverworks Co., Ltd. (TSE:4434)	Japan	IT Consulting and Other Services	Offers cloud integration services specialized for Amazon Web Services	¥1,540	¥4,320.00- 4,780.00	¥4,780.00	¥13,060.00	¥44,145	▲173.2%
≯ Ser	verworks									
2/8/2019	Smaregi, Inc. (TSE:4431)	Japan	Application Software	Provides cloud type point of sale cash register system	¥2,096	¥1,200.00- 1,370.00	¥1,370.00	¥2,737.00	¥25,819	▲99.8%

register system



Global Fairness Opinions Practice

Ranked No. 1 for Announced U.S. and Global Fairness Opinions in 2019 and over the past five years¹

Announced U.S. Fairness Opinions Rankings

	Ranking	Number of Credited Deals
One Year: 2019	#1	44
Three Years: 2017 - 2019	#1	149
Five Years: 2015 - 2019	#1	238
Ten Years: 2010 - 2019	#1	400

Source: Thomson Reuters.

Announced Global Fairness Opinions Rankings

	Ranking	Number of Credited Deals
One Year: 2019	#1	55
Three Years: 2017 - 2019	#1	186
Five Years: 2015 - 2019	#1	325
Ten Years: 2010 - 2019	#1	519

Source: Thomson Reuters.

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Global expertise, with more than 70 offices around the world, including in Beijing, Shanghai, Hong Kong, Guangzhou, Shenzhen, Taipei, Tokyo, London and New York

Extensive experience advising public company boards of directors and special committees on going-private and related-party transactions

Strong **global M&A practice** with significant experience advising on cross-border transactions and negotiating M&A transactions with buyers on behalf of special committees

Independent and free of conflicts of interest

¹ Published in Thomson Reuters' "Full Year 2019 Mergers & Acquisitions Review."



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