

Introduction to Contract Adjustments of Single Stock Futures



Taiwan Futures Exchange

Outline

- Circumstances lead to contract adjustments of Single Stock Futures
- How contract adjustments are made
- Cases of contract adjustments

Circumstances lead to contract adjustments of Single Stock Futures

- According to Article 21 of Taiwan Futures Exchange Corporation Trading Rules for Single Stock Futures Contracts, if the underlying security of a single stock futures contract is a stock, and any of the following circumstances applies to the issuer, the TAIFEX shall adjust the terms and conditions of the contract and publicly announce the adjusted contract content prior to the effective date of the adjustment:
 1. Distribution of cash dividends.
 2. Conversion of capital reserves or earnings into capital.
 3. Cash capital increase. However, this shall not apply if the shareholders do not have preemptive rights to subscribe common shares.
 4. The company will be a non-surviving company after a corporate merger.
 5. Capital reduction. However, this shall not apply to cancellation of shares upon share repurchase or upon a shareholder's waiver of shares in accordance with regulations.
 6. Exchange of shares for those of a subsidiary of another company.
 7. Any other event causing a change to the name, type, or quantity of shares held by shareholders, or distribution of other benefits to shareholders.

How contract adjustments are made

1. Contract adjustments are made according to underlying security corporation actions and benefits distributed to shareholders.

Corporate Actions	Benefits Distributed to Shareholders	Contract Adjustments	Effective Date of Contract Adjustments
Cash Dividend	Cash	The addition to the buy-side equity amount and the deduction from the sell-side equity amount shall be adjusted	Ex-dividend date of the underlying securities
Stock Dividend	Stocks	The underlying assets shall be adjusted → add number of stocks received per 2,000 shares	Ex-dividend date of the underlying securities
Cash capital increase	Rights of cash capital increase	The underlying assets shall be adjusted → add equivalent value of cash capital increase	Ex-right date of the cash capital increase
Non-surviving company after merger or exchange of shares for a subsidiary of another company	Stocks of a company which is or will be an underlying security of our single stock futures	The underlying assets shall be adjusted → become the new shares received per 2,000 original shares	Record date of the merger or the share exchange for statutory consolidation or an exchange of shares; first date of delisting for others
	Others	Underlying security delisted	

How contract adjustments are made (Cont.)

Corporate Actions	Benefits Distributed to Shareholders	Contract Adjustments	Effective Date of Contract Adjustments
Capital reduction to cover losses	Reduction to shares of shareholder	The underlying assets shall be adjusted →reduction to shares per contract	Resume trading date
Capital reduction by returning share capital in cash	Shareholders receive cash and shares reduced	<ul style="list-style-type: none"> •The addition to the buy-side equity amount and the deduction from the sell-side equity amount shall be adjusted •The underlying assets shall be adjusted →reduction to shares per contract	Resume trading date
Surviving company after capital reduction in connection with demerger Capital reduction by returning share capital not in cash	Shareholders receive benefits other than cash	Adjust final trading date →contract expires earlier	

A collage of various international banknotes including US dollars, Euros, and Chinese Yuan, overlaid with a world map. The text "Cases of Contract Adjustments" is centered in white on a dark blue background.

Cases of Contract Adjustments

Cash Dividend

- Assuming Taiwan Semiconductor Manufacturing Co., Ltd. pays cash dividend on July 8; \$3 per share ◦
- The effective date of contract adjustment of CDF is July 8 (ex-dividend date). The daily settlement price of CDF July contract on the prior day is \$78.

Items	Post Contract Adjustments
Ticker symbol	CDF (remains the same)
Opening reference price	\$75 (=\$78-\$3)
Underlying asset	2,000 of ex-dividend Taiwan Semiconductor Manufacturing Co., Ltd. Shares
Contract value	CDF futures price x 2,000
Expiry contract value	Final settlement price x 2,000
Equity adjustment	Buy-side equity addition : +\$6,000 (\$3 x2,000 shares) Sell-side equity deduction : -\$6,000 (\$3 x2,000 shares)

- The equity of pre-adjusted CDF buy side and sell side are not affected by the reduction of opening reference price to \$75
 Buy side equity remains the same : [(\$75-\$78)x2,000 shares] + \$6,000=0
 Sell side equity remains the same : [(\$78-\$75)x2,000 shares] – \$6,000=0

Stock Dividend

- Assuming Chinatrust Financial Holding Co., Ltd. pays stock dividend on August 31st; 0.05 shares per share.
- The effective date of contract adjustment of CNF is August 31st (ex-dividend date). The daily settlement price of CDF Sept. contract on the prior day is \$21.

Items	Post Contract Adjustments	New Contract Listed
Ticker symbol	CNF→ CN1	CNF
Opening reference price	\$20 (=[\$21/(1+0.05)])	The same as CN1
Underlying asset	2,100 of ex-dividend Chinatrust Financial Holding Co., Ltd. Shares	2,000 of ex-dividend Chinatrust Financial Holding Co., Ltd. Shares
Contract value	CN1 futures price x 2,100	CNF futures price x 2,000
Expiry contract value	Final settlement price x 2,100	Final settlement price x 2,000

- The equity of pre-adjusted CNF buy side and sell side are not affected by the reduction of opening reference price to \$20 nor the adjustment of number of shares to 2,100.
 Pre-adjusted contract value:\$21x2,000 shares=\$42,000
 Post-adjusted contract value:\$20x2,100 shares=\$42,000

Cash Capital Increase

- Assuming Chinatrust Financial Holding Co., Ltd. carries a cash capital increase, those who hold every 2,000 shares can purchase 100 shares at a price of \$16.3 per share and the deadline for payment is April 3rd, 2012. The effective date of contract adjustment of CNF is Feb 10th, 2012.

Items	Post Contract Adjustments	New Contract Listed
Ticker symbol	CNF→ CN1	CNF
Opening reference price	Not adjusted, the same as previous daily settlement price	The same as CN1
Price limits	The same as underlying stock. If the purchase price is lower than the previous closing price, the lower price limit will be expanded; otherwise, the upper price limit will be expanded.	The same as CN1
Underlying asset	2,000 shares of common stock + equivalent value of 2,000 shares of common shares with privilege to participate in cash capital increase	2,000 shares of common stock
Contract value	CN1 futures price x 2,000	CNF futures price x 2,000
Expiry contract value	<ul style="list-style-type: none"> •Contracts expiring in Feb and March of 2012 = Final settlement price x 2,000+100*Max [(Final settlement day underlying stock closing price-Cash capital increase purchase price),0] •Contracts expiring in June, Sept. and Dec. of 2012 =Final settlement price x 2,000+100* Max [(Deadline for payment underlying stock closing price-Cash capital increase purchase price),0] 	Final settlement price x 2,000

Cash Capital Increase(Cont.)

- In theory, the price of CN1 is greater than or equal to CNF and the price of CNF is close to the underlying stock.

	Price difference of CN1 and CNF
Final settlement day falls prior to payment deadline	Max [(Final settlement day underlying stock closing price-Cash capital increase purchase price),0]*purchasable shares per 2,000 shares/2,000 E.g. : $(20.3-16.3)*100/2,000=0.2$
Final settlement day falls after payment deadline	Max[(Deadline for payment underlying stock closing price-Cash capital increase purchase price),0]*purchasable shares per 2,000 shares/2,000 例 : $(18.3-16.3)*100/2,000=0.1$

- Prior to expiry, the P&L of CN1 is the price difference of buying and selling futures ;
 On expiry day , the P&L of CN1 is the difference of final settlement price and position building cost + the value of cash capital increase

Buy	Sell or Final Settlement	P&L
Buy one contract of Feb CNF contract at \$19 on Feb 9th	Sell on Feb 14 th at \$20.2	$(\$20.2-\$19)*2,000 =2,400$
	Hold to maturity on Feb 15 th . Final settlement price is \$20 . Underlying stock closing price on Feb 15th is \$20.3 .	$[(\$20-\$19)*2,000] + [(\$20.3-\$16.3)*100]=2,400$

Capital Reduction to Cover Losses

- Assuming Taishin Financial Holding Co., Ltd. Carries a capital reduction to cover losses, and the capital reduction share exchange rate is 0.9 (i.e. 2,000 shares are replaced with new 1,800 shares). From Jan 19th to Feb 2nd stops trading and Feb 3rd resumes trading.
- CMF also stops trading from Jan 19th to Feb 2nd, resumes trading on Feb 3rd. The effective date of contract adjustment is Feb 3rd. On Jan 18th, the settlement price of CMF Feb contract is \$12.6.

Items	Post Contract Adjustments	New Contract Listed
Ticker symbol	CMF→ CM1	CMF
Opening reference price	\$14 (=\$12.6/0.9)	The same as CM1
Underlying asset	1,800 shares of common stock	2,000 shares of common stock
Contract value	CM1 futures price x 1,800	CMF futures price x 2,000

- The equity of pre-adjusted CMF buy side and sell side are not affected by the increase of opening reference price to \$14 nor the adjustment of number of shares to 1,800.
 Pre-adjusted contract value:\$12.6x2,000 shares=\$25,200
 Post-adjusted contract value:\$14.0x1,800 shares=\$25,200

Capital Reduction in Connection with Return of Share Capital

- Assuming Chunghwa Telecom Co., Ltd. conducts a capital reduction in connection with return of share capital and the capital reduction share exchange rate is 0.8 (i.e. 2,000 shares are replaced with new 1,600 shares). \$2 is returned per shares. From Jan 7th to Jan 24th stops trading and Jan 25th resumes trading.
- DLF also stops trading from Jan 7th to Jan 24th and resumes trading on Jan 25th. The effective date of contract adjustment is Jan 25th. On Jan 6th, the settlement price of CMF Feb contract is \$74.

Items	Post Contract Adjustments	New Contract Listed
Ticker symbol	DLF→ DL1	DLF
Opening reference price	\$90 [= $(\$74-\$2)/0.8$]	The same as DL1
Underlying asset	1,600 shares of common stock	2,000 shares of common stock
Contract value	DL1 futures price x 1,600	DLF futures price x 2,000
Equity adjustment	Buy-side equity addition : +\$4,000 (\$2 x2,000 shares) Sell-side equity deduction : -\$4,000 (\$2 x2,000 shares)	

- The equity of pre-adjusted DLF buy side and sell side are not affected by the adjustment of opening reference price to \$90 and the adjustment of number of shares to 1,600.
 Buy side equity remains the same : $(\$90 \times 1,600 \text{ shares}) - (\$74 \times 2,000 \text{ shares}) + \$4,000 = 0$
 Sell side equity remains the same : $(\$74 \times 2,000 \text{ shares}) - (\$90 \times 1,600 \text{ shares}) - \$4,000 = 0$

Capital Reduction in Connection with Demerger

- Assuming Asustek Computer Inc. carries out a capital reduction in connection with demerger. Every share of Asustek stock is replaced with 0.15 shares of new Asustek stock and 0.4 shares of Pegatron Corp. Asustek stock stops trading from May 18th to June 23rd and resumes trading on June 24th.
- The original Asustek share holders will receive shares of both new Asustek and Pegatron. As a result, one single stock futures, DJF, will have two underlying stocks, which makes it difficult to value. Therefore, early expiry will be adopted. All DJF contracts with different expiry will be adjusted to have early expiry on May 17th.
- Also, along with the stopped and resumed trading of original and new Asustek stock, DJF stops trading from May 18th to June 23rd, and lists new standard contract (i.e. with 2,000 shares of new Asustek shares as underlying asset) and resumes trading on June 24th.

Shares Converted to Become a Sub of an Existing Company

- Assuming Polaris Securities converts shares to become a sub of Yuanta Financial Holdings, every one share of Polaris Securities is replaced with 0.55 shares of Yuanta Financial Holdings and \$11.55 cash. The stock of Polaris Securities stops trading from Sept 21st, and delists on Oct 3rd.
- The effective date of DMF contract adjustment is Sept 21st. On Sept 20th, the settlement price of DMF Oct contract is \$19.8.

Items	Post Contract Adjustments
Ticker symbol	DMF → DO1
Opening reference price	\$15 [= $(\$19.80 - \$11.55) / 0.55$]
Underlying asset	1,100 shares of common stocks
Contract value	DO1 futures price x 1,100
Equity adjustment	Buy-side equity addition : +\$23,100 (\$11.55 x 2,000 shares) Sell-side equity deduction : -\$23,100 (\$11.55 x 2,000 shares)

- The equity of pre-adjusted DMF buy side and sell side are not affected by conversion to DO1.
 Buy side equity remains the same : $(\$15 \times 1,100 \text{ shares}) - (\$19.8 \times 2,000 \text{ shares}) + \$23,100 = 0$
 Sell side equity remains the same : $(\$19.8 \times 2,000 \text{ shares}) - (\$15 \times 1,100 \text{ shares}) - \$23,100 = 0$

Shares Converted to Become a Sub of a Newly Established Company

- Assuming Taiwan Cooperative Bank converts share to become a sub of Taiwan Cooperative Financial Holding Co., Ltd. Every one share of Taiwan Cooperative Bank is replaced with one share of Taiwan Cooperative Financial Holding Co., Ltd.. The stock of Taiwan Cooperative Bank stops trading from Nov 21th to Nov 30th. On share conversion day (Dec 1st), the stock of Taiwan Cooperative Bank is delisted, while the stock of Taiwan Cooperative Financial Holding Co., Ltd. is listed on the same day.
- The listing day of Taiwan Cooperative Financial Holding Co., Ltd. single stock futures is Dec 1st and ticker symbol is LOF.
- The effective date of Taiwan Cooperative Bank single stock futures contract (DRF) adjustment is Dec 1st, the settlement price of DRF Dec contract is \$18.2.

Items	Post Contract Adjustments
Ticker symbol	DRF→ LO1
Opening reference price	\$18.2 (=\$18.2/1)
Underlying asset	2,000 shares of common stock
Contract value	LO1 futures price x 2,000



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