

Test Alert!
to Accompany the 2nd Edition LEM

3/17/08

series 9

The information included in this release, in addition to your other Kaplan Financial materials, is designed to assist you in preparing for concepts that your exam may include. We urge you to read it carefully and take time to review the sample questions and rationale.

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KAPLAN FINANCIAL

Changes Since the Previous Edition

The information below appears in the 3rd Edition of the Kaplan Financial Series 9 License Exam Manual but does not appear in previous editions.

FINRA: THE SECURITIES INDUSTRY'S NEWEST REGULATOR

On July 26, 2007, the SEC approved the consolidation of NASD and NYSE Regulation into a single self-regulatory organization (SRO) known as Financial Industry Regulatory Authority (FINRA). The purpose of this regulatory consolidation was to:

- eliminate duplicate regulation; and
- strengthen the competitiveness of US markets.

Securities Licensing Exams are now known as FINRA exams. Exam questions may include reference to the FINRA organization when speaking of the industry's self-regulator. However, you will continue to see exam questions refer to either NASD or NYSE, particularly when specific rules are referenced. It is expected this will continue until a common rulebook has been written and approved by the SEC.

Please note that your study materials have been updated to reflect FINRA as a securities industry SRO. Individual rules are still referred to as NASD or NYSE rules as appropriate.

STOCK SPLIT ADJUSTMENTS

Even Splits

The OCC has established rules for adjusting option contracts after either a 2-for-1 or a 4-for-1 underlying stock split. In either case, a whole number of new shares are issued for each share held by an investor. In these cases, the number of outstanding option contracts in a customer's account is proportionately increased, and the strike prices are proportionately decreased. Both the adjusted option contract's unit of trade (100 shares) and its multiplier (100) remain the same.

TAKE NOTE

After a 2-for-1 or a 4-for-1 stock split:

- A new class of options overlying the stock trading at the split price is not listed; the old contracts are adjusted.
- Option symbols remain the same.
- Expiration month codes remain the same.
- Strike price codes are adjusted to reflect the new adjusted strike prices.
- The unit of trade remains 100 underlying shares.
- Aggregate premiums paid or received for adjusted contracts remain 100 times the quoted premiums, which remain on a per share basis.
- The number of outstanding options in an account is adjusted.


EXAMPLE
2-for-1 Split

Prior to a 2-for-1 stock split, an investor holds an option, call or put, on 100 shares of MNO stock with an exercise price of \$50. After adjustment for the split, the investor will hold 2 MNO options, each on 100 shares but with an exercise price of \$25.

Long Position	# of Options	Strike	Multiplier	Aggregate Value
Before Split	1	× \$50	× 100	= \$5,000
After Split	2	× \$25	× 100	= \$5,000

The number of contracts held is doubled, and the strike prices are divided by 2. Therefore, the aggregate value remains the same.

For Covered Call Write:	# of Options	Unit of Trade	# Equivalent Shares	MNO Shares Held
Before Split	1	× 100 Shares	× 100	vs 100
After Split	2	× 100 Shares	× 200	vs 200

In this case, the ratio between the option's equivalent number of shares and MNO shares held and covered by the written call options remains 1 to 1.

The writer is automatically short 2 DEC 25 calls on the ex-date for the split and beyond. If the writer chose to close out the adjusted calls after the ex-date, it would be necessary to buy DEC 25 calls, not your pre-split DEC 50 calls.

Carelessness in closing out after a split could lead to a customer establishing a new position in the new adjusted DEC 50 calls rather than closing out.

Strike Price Adjustments

After a stock has split 2 for 1, strike prices for both calls and puts are divided by 2. The following illustration points out how this might affect each of MNO's pre-split strike prices

MAR 50	➔	MAR 25
MAR 55	➔	MAR 27 1/2
MAR 60	➔	MAR 30

After a stock has split 4 for 1

JUN 80	➔	JUN 20
JUN 85	➔	JUN 21 1/4
JUN 90	➔	JUN 22 1/2

Other Splits

If a stock is split in a ratio other than 2 for 1 or 4 for 1:

- a new class of options overlying the stock trading at the split price is listed one business day after the split's ex-date;
- the number of outstanding options in an investors account remains the same;
- strike prices and strike price codes (ticker symbols) remain the same;
- the units of trade for the new contracts are adjusted;

- option symbols are adjusted;
- the price formula used to calculate the value of the underlying changes; and
- 100 multiplier remains the same.

3-for-2 Split

Before a 3-for-2 stock split, an investor holds an option, call or put, on 100 shares of AAJ stock with an exercise price of \$120. After adjustment for the split, the investor will hold one AAJ option with a new deliverable of 150 AAJ shares but with the same exercise price of \$120.

For an Option Holder:	# of Options	Strike	Multiplier	Aggregate Value
Before Split	1	× \$120	× 100	= \$12,000
After Split	1	× \$120	× 100	= \$12,000

In this case, an AAJ stock investor is issued 1.5 ($3 \div 2$) shares of stock for each 1 outstanding share of stock already held, so the contract's unit of trade is adjusted to 150 underlying shares. The number of contracts held, the strike price, and the aggregate value of the investor's option, \$12,000, remains the same. However, upon exercise of this post-split option, 150 shares of post-split AAJ stock will change hands at the \$120 strike price, effectively at \$80 per share ($\$12,000 \div 150 = \80).

For a Covered Call Writer:	# of Options	Unit of Trade	# Equivalent Shares	AAJ Shares Held
Before Split	1	× 100 Shares	= 100	vs. 100
After Split	1	× 150 Shares	= 150	vs. 150

In this case, the ratio between the option's equivalent number of shares and AAJ shares held and covered by the written call options remains 1 to 1.

Ordinarily, 1 business day after the ex-date for the 3 for 2 split, the option exchanges will list a new class of options reflecting the new price of the post-split stock.

1 for 10 Reverse Split

Before a 1-for-10 reverse stock split, a customer holds an option, call or put, on 100 shares of AAJ stock with an exercise price of \$100. After adjustment for the split, he will hold one AAJ option on 10 post-split shares, but with the same exercise price of \$100.

For an Option Holder:	# of Options	Strike	Multiplier	Aggregate Value
Before Split	1	× \$100	× 100	= \$10,000
After Split	1	× \$100	× 100	= \$10,000

In this case, an AAJ stock investor is issued 1 share of stock for each 10 outstanding shares of stock already held, so the contract's unit of trade is adjusted to 10 shares of the underlying stock. The number of contracts held, the strike price, and the aggregate value of the customer's option, \$10,000, remains exactly the same. However, upon exercise of this new post-split option, 10 shares of post-split AAJ stock will change hands at the \$100 strike price, effectively at \$1,000 per share ($\$10,000 \div 10 = \$1,000$).

For a Covered Call Writer:	# of Options		Unit of Trade	=	# Equivalent Shares	vs.	AAJ Shares Held
Before Split	1	×	100 Shares	=	100	vs.	100
After Split	1	×	10 Shares	=	10	vs.	10

The ratio between the option's equivalent number of shares and AAJ shares held and covered by the written call options remains 1 to 1.

YIELD-BASED OPTIONS

Yield-based options trade on the CBOE and are available on the most recently issued Treasury debt securities, namely:

- 13-week Treasury bills;
- 5- (FVX) and 10-year Treasury notes (TNX); and
- 30-year Treasury bonds (TYX).

Investors use yield-based options for the same purposes as standard price based debt options—to speculate on or hedge against interest rate risk. However, yield-based options have a few characteristics in common with index options, such as:

- a contract size multiplier of \$100; and
- settlement is the next business day in cash rather than in delivery of the underlying security.

The strike price of a yield-based option reflects the underlying security's annualized yield to maturity.

The OCC defines **exercise settlement value** as the current yield on the underlying security multiplied by 10. Yield-based options are exercised European style (only on the trading day before expiration).

EXAMPLE

A strike price of 65 = a yield of 6.5% × a multiplier of 10.

Prices of debt securities have an inverse relationship to interest rates, but their yields have a direct relationship. When interest rates rise, yields by definition rise, so an investor who thinks interest rates will increase might buy calls on the yields of debt securities.

EXAMPLE

An investor who believes interest rates are rising buys a yield-based call with a strike price of 65. Interest rates rise to 7.5%, and the investor receives, in cash, the difference between the strike price of 65 and the exercise settlement value of 75, times the multiplier of \$100.

An investor who is bearish on interest rates buys a yield-based put with a strike price of 75 for a premium of 3.5. Interest rates decline to 6.5%, and the investor receives, in cash, the difference between the strike price of 75 and the exercise settlement value of 65 ($6.5\% \times 10$).

To calculate the investor's profit, find the difference between the strike price and the exercise settlement value and subtract the premium paid. The strike price is 75, and the exercise settlement value is 65, for a difference of 10. Multiply by \$100 to find the amount received at settlement (\$1,000), and subtract the premium paid (\$350) to find the put buyer's profit—\$650.

QUICK QUIZ 1

1. An investor is notified of a 3-for-2 stock split on a stock underlying 10 call options he owns. Following the split, the investor will have
 - A. 6 calls
 - B. 10 calls
 - C. 15 calls
 - D. no calls; all positions are closed
2. An investor is concerned that the price of bonds will be declining over the coming months. He might consider which of the following strategies to hedge an existing portfolio of treasury bonds against the downturn?
 - A. Buy yield-based calls
 - B. Buy yield-based puts
 - C. Effect a cabinet trade
 - D. Purchase reset bonds

EXCHANGE-TRADED FUNDS

An exchange-traded fund (ETF) owns a basket of stocks that mirrors the composition of a market index. Investors purchase ETF shares just like shares of stock, on a stock exchange. ETFs trade throughout the day as ordinary shares, with investors using the same strategies as with other stock investments, including limit orders, buying on margin, and selling short.

An **index** is a statistical measure of the changes in a portfolio of stocks representing a portion of the overall market. The Dow Jones Industrial Average (the Dow or DJIA) is so widely quoted by the news media that many people think of this index as the stock market itself. The Dow simply tracks the price performance of 30 large industrial corporation stocks. Options are available on many other stock indexes, which reflect movement in the broad market. Typically broad-based index options (including VIX and ETF options) trade from 9:30 am ET to 4:15 pm ET and have no position or exercise limits. Narrow-based index options, such as oil or gold indexes, typically trade from 9:30 am ET to 4:00 pm ET.

Capped Index Options

No longer actively traded, this unique type of index option was automatically exercised when the cap price was reached. If the cap interval was set at 30 points above the strike price for calls and 30 points below the strike price for puts. The owner of the capped index option could make no more than the cap amount.

TAKE NOTE

In this regard, a long capped index option would be similar to a debit spread with limited risk and limited potential return.

BUYING INDEX COLLARS

WRJ Index at 80

Buy 100 WRJ 75 Puts at \$0.60

Sell 100 WRJ 85 Calls at \$0.80

Index WRJ is above 85 call strike price at expiration

If WRJ closes up 6.25% at a level of 85, the calls would expire at-the-money, with no value, and with no assignment expected. The investor's portfolio could be expected to see an increase in value of this 6.25%, but the potential upside profit on the portfolio is capped at this level.

Let us assume the WRJ index increases instead by 10% and closes at 88, above both the call strike and the put strike price. The short calls will be in-the-money and assignment is expected. When that happens the investor would be obligated to pay the cash settlement amount to the person exercising WRJ 85 calls. This amount would be: $(88 \text{ index level} - \$85 \text{ strike price}) \times 100 \text{ multiplier} = \300 for one contract. Assignment on all 100 WRJ calls would therefore be: $\$300 \text{ settlement amount} \times 100 \text{ contracts} = \$30,000$. The puts would of course expire out-of-the-money.

If the portfolio tracks the performance of index WRJ closely, there would be the 6.25% increase seen in index WRJ, or \$62,500. However, the investor was originally capped the portfolio's upside profit potential at 6.25%, or \$62,500, by writing the 100 WRJ 85 calls to offset the cost of the put option. With a \$62,500 increase in portfolio value after the market rise (less \$30,000), the investor has a limited upside gain of \$62,500. This profit on the portfolio, if index WRJ closed at any point above the call strike price at expiry, would be essentially capped at any point above \$85. But, the credit of \$2,000 when establishing the collar position is kept as well as leaving the investor with a total profit of \$64,500.

For investors managing a portfolio of mixed stocks who have unrealized profits to protect, an index collar is a possible strategy. Purchasing index put options for downside protection can, to some measure, be financed by simultaneously selling the same number of calls with a higher strike price. The trade off is that the calls will cap any upside profits.

NYSE RULE 351 AND FORM RE-3

NYSE Rule 351 requires members to immediately notify the exchange if any of the above events occur. This is done on Form RE-3. Once admitted to membership, a firm must make sure that its Form BD remains current. Amendments to this form (e.g., change in address, phone number, ownership, officers) must be made within 30 days.

Also, each member must designate to FINRA an executive representative—a senior officer entitled to represent, vote, and act for the member in appropriate FINRA affairs. The executive representative must be a registered principal and maintain an email account for communication with FINRA (formerly NASD).

TAKE NOTE

Any member who is a party to an open transaction or who has on deposit cash or securities of another member must, upon written request, provide the other member with a statement of its financial condition as disclosed in its most recently prepared balance sheet.

WORLD CURRENCY OPTIONS (WCOS)

The Philadelphia Stock Exchange is the oldest exchange in the US and is the recognized market for options on numerous foreign currencies. In addition to providing speculative opportunities, these options are used to hedge risks encountered when transacting and settling foreign trade accounts. They are also used to hedge risks that corporations face when doing business abroad. In all cases, the risk is that the value relationship between the US dollar and one or more foreign currencies will move adversely between the time a transaction is negotiated and the time the transaction is settled. By hedging with WCOs, banks and businesses seek to insulate themselves from the risks inherent in fluctuating currency values.

Interbank Market and Foreign Exchange Rates

There is no physical market for foreign currency exchange transactions; it is an over-the-counter market dominated by international commercial banks and foreign central banks located primarily in New York, London, Tokyo, Frankfurt, and Zurich, as well as by professional currency traders. Independently, these banks post exchange rates between all major free-world currencies; each bank quotes rates based on its assessment of the market.

EXAMPLE

The exchange rate between British pounds and US dollars might be quoted at one rate in London but at a slightly higher or lower rate in New York. Such rate differences normally are brought into line quickly through foreign currency arbitrage transactions that either the bank dealers themselves or professional currency traders initiate.

Spot Market

The term *spot market* is a commodities term international banks adopted for use with foreign currency transactions. It refers to the price a commodity commands if it is bought or sold for one- or two-day delivery or ownership transfer. The spot market closing price for each foreign currency determines whether an option is in-the-money, at-the-money, or out-of-the-money.

Foreign currency spot market transactions call for physical delivery of the currency sold one or two business days after the transaction date. This two-day lag offers both parties time to make necessary overseas banking arrangements.

Delivery date on a foreign exchange transaction (the same as the settlement date on a securities transaction) is known as the value date. The value date on Canadian/US dollar exchanges is the next business day following the transaction date.

Forward Market

In contrast to immediate delivery and exchange of currency in the spot market at the spot exchange rate, currency transactions can also be negotiated for future delivery, normally in 1, 3, 6, 9, or 12 months. Exchange rates in the forward markets are scaled up (at a premium) or down (at a discount) from the spot market rate.

Contract Specifications for WCOs

Contract Sizes

World Currency Option Contract Sizes and Quotation Terms	
Currency	Contract Size
Australian dollar	10,000
Canadian dollar	10,000
Swiss franc	10,000
Euro	10,000
British pound	10,000
Japanese yen	1,000,000
Block any order for 1,000 contracts or more	

Premium Quotation

For all contracts, one point is equal to \$100. Thus a premium quote of 3.10 is \$310.

Expiration

WCOs officially expire at 11:59 pm ET on the Saturday following the third Friday of the expiration month.

Trading Hours

Trading WCOs takes place on the PHLX from 9:30 am to 4:00 pm ET.

Exercise Style

World currency options which were inaugurated in 2007 are European-style only. European style means that such options may be exercised only on the last trading day before the option's expiration date. European-style options were first introduced by the CBOE to induce overseas currency speculators and hedgers to use its market. The CBOE closed down its foreign currency business in 1987.

Settlement

The settlement of world currency options is the business day following execution of the trade.

Position Limits

Position and exercise limits for WCOs are 200,000 contracts on the same side of the market.

Hedging with WCOs

As a general rule, importers buy calls on foreign currency and exporters buy puts to hedge foreign exchange risk.

TAKE NOTE

A business importing watches from Switzerland would buy Swiss franc calls to hedge. Conversely, a British company exporting sweaters to Canada would buy Canadian dollar puts as a hedge.

A tip:—think EPIC (exporters buy puts importers buy calls).

TAKE NOTE

There are no domestic options on the US dollar available to American investors. Therefore, a Japanese company exporting stereos to the US cannot buy US dollar puts as a hedge. As an alternative, the Japanese company should buy yen calls.

Premiums on WCOs

Except for the yen, premiums on WCOs are quoted in US cents.

EXAMPLE

Consider 1 British pound August 160 call trading at a premium of 1.2. Contract size is 10,000 British pounds. To determine the dollar amount of the premium, multiply the stated premium, 1.2 cents, by contract size ($1.2 \text{ cents} \times 10,000 = \120 , or 12,000 US cents, which is \$120).

**QUICK QUIZ 2**

1. Which of the following currency options is not domestically traded in the United States?
 - A. British pound
 - B. Japanese yen
 - C. Canadian dollar
 - D. US dollar

2. An investor who believes the US dollar will soon strengthen in relation to the Canadian dollar might profit from which of the following strategies?
 - I. Buying puts on the Canadian dollar
 - II. Writing puts on the Canadian dollar
 - III. Writing a straddle on the Canadian dollar
 - IV. Establishing a call credit spread on the Canadian dollar
 - A. I and III
 - B. I and IV
 - C. II and IV
 - D. I, II, III and IV

3. An investor purchases 2 Dec 56 Swiss franc calls at 2.5. One Swiss franc contract includes 10,000 units. How much does he pay for the position?
 - A. \$250
 - B. \$500
 - C. \$5,000
 - D. \$31,250

4. A US company with an office in Switzerland acquired an inventory of goods for which they must pay the supplier in 30 days in Swiss francs. The company should hedge by selling
 - A. US dollar calls
 - B. US dollar puts
 - C. Swiss franc calls
 - D. Swiss franc puts

5. A US company expects to receive 20,000 British pounds upon delivery of goods to a British distributor. How can the company best hedge against the risk of a strengthened US dollar?
 - A. Buy 2 puts on the pound
 - B. Buy 2 calls on the pound
 - C. Sell 2 puts on the pound
 - D. Sell 2 calls on the pound

Replacement and New Items for the Glossary

Black-Scholes Options have existed in concept since Roman times. It wasn't until publication of the Black-Scholes (1973) option pricing formula that a theoretically consistent framework for pricing options became available. Black-Scholes model ushered in the modern era of financial derivatives.

Carrying Cost The interest expense on a debit balance

Cash-Based Referring to an option (or future) that is settled in cash when exercised or assigned; no stock (or commodity), is received or delivered

Condor Spread An advanced neutral option trading strategy allowing an investor to profit from stocks that are stagnant or trading within a tight price range; somewhat like a butterfly spread but involves 4 strike prices instead of 3 strike prices (See butterfly spread)

FINRA—Financial Industry Regulatory Authority The result of a merger between NASD and the NYSE, Member Regulation in 2007

Gamma The estimated rate of change for delta when the price of a share of stock moves \$1; Gamma may indicate how stable the delta is (See Delta)

Letter of Guarantee A letter from a bank to a BD stating that a customer who has written a call option owns the underlying stock, and the bank will guarantee delivery if the call is assigned; the call is then considered covered. Such a letter is not universally accepted.

Manning Rule Rule that bans member trading ahead of customer orders; syn. customer limit order protection

NASD Member Conduct Rules Regulations designed to ensure that NASD member firms and their representatives follow fair and ethical trade practices when dealing with the public

NASD 5% policy A guideline for reasonable markups, markdowns, and commissions for secondary over-the-counter transactions; according to the policy, all commissions on broker transactions and all markups or markdowns on principal transactions should be fair and reasonable

NASD Rule 2711 Deals with research analyst conflict of interest rules

NASD Rule 2790 Deals with IPOs of common stock; the rule defines restricted persons as member firms, employees of member firms and their immediate families, finders and fiduciaries, portfolio managers, and 10% or more owners of member firms

NASDAQ The largest electronic screen-based equity securities market in the United States

NYSE Euronext The holding company created by the combination of NYSE Group, Inc., and Euronext N.V., launched on April 4, 2007

Reserve Order A single-sided limit order that has both a display portion and a non-displayed or reserve portion, both of which are available for execution against incoming marketable orders.

Rule 101 Restricts the activities of distribution participants during new offerings of securities under Regulation M

Rule 102 Identifies restrictions on issuers and selling security holders, and is intended to prevent market manipulation by these persons before a distribution under Regulation M

Rule 103 Allows market makers (who are also syndicate members) to engage in passive market making during a restricted period

Rule 104 Regulates the prices at which stabilizing bids may be made under Regulation M

Rule 105 Prohibits manipulative short sales in anticipation of an offering under Regulation M

Rule 144a Allows nonregistered foreign and domestic securities to be sold to certain qualified institutional investors in the US, without holding period requirements

Rule 17a-3 SEC rule governing the maintaining of records by a broker/dealer and the posting of such records

Rule 17a-4 SEC rule governing the retention and storage by a broker/dealer of records and reports

Rule 17a-5 SEC rule governing the filing by a broker/dealer of certain FOCUS reports

Rule 17a-11 SEC rule governing violations of the net capital rule and setting out early warning rules

Rule 17f-2 SEC rule requiring the fingerprinting of all associated persons and others who handle cash or securities, and the keeping of such fingerprint records

Securities Information Center (SIC) The organization designated by the SEC to act as a central data bank for reports of lost and stolen securities

SIC See Securities Information Center

Vega The amount that the price of an option changes compared to a 1% change in implied volatility; vega changes when there are large price movements in the underlying security. Vega decreases as the option approaches maturity. Vega can change even if there is no change in the price of the underlying security if there is a change in anticipated volatility.

VIX Options Volatility Market Index options are broad-based, European-style contracts provided by the CBOE—the value of a contract is derived from the S&P 500 Index option (SPX); also known as the fear gauge, VIX options are designed to reflect investors' view of expected stock market volatility over the next 30 days.

Weeklys One-week options as opposed to traditional options that have a life of months or in the case of LEAPS for years

Answers and Rationales

Quick Quiz 1

1. **B.** There is no change in the number of option contracts. The number of shares rises to 150 per contract.
2. **A.** As bonds fall in value interest rates will rise. A customer long yield-based calls could profit from the decline in bond prices.

Quick Quiz 2

1. **D.** Domestic option contracts may be traded on foreign currencies but not on the US dollar.
2. **B.** The investor is bearish on the Canadian dollar; bears buy puts, write calls, and call spreads. Short straddles pay off when the market does not move either way.
3. **B.** Swiss francs options are quoted in cents per unit. One call at 2.5 cents multiplied by 10,000 units ($.025 \times 10,000$) equals \$250. Because the investor has purchased 2 contracts, the total premium is \$500.
4. **D.** The company wants to protect itself against a rise in the value of the Swiss franc relative to the US dollar. If the company sells puts on the franc and the currency appreciates, the puts will expire and the profit (the premiums received) will help to offset the additional cost of acquiring Swiss francs. Options on the US dollar are not traded on any domestic securities market. Importers buy calls on the foreign currency. As buying calls is not a choice; writing puts is the best choice.
5. **A.** The long puts ensure that the pounds, when received, can be exercised for a number of US dollars at the strike price. At 31,250 units per contract, 2 puts will cover the 60,000 pounds. Exporters buy puts on the foreign currency.

Updates Made to the 2nd Edition LEM Since Publication

Below is information regarding changes in rules and regulations that have been approved since the Kaplan Financial Series 4, 2nd edition was published. These changes will be incorporated in the next edition of the License Exam Manual.

There are no new changes at this time.

To submit comments or suggestions, please send an email to errata@kaplan.com.

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