



SOCIETY OF ACTUARIES

**SOA 09 Annual Meeting & Exhibit
October 25-28, 2009**

Session 41, Taxation Section Hot Breakfast

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Forward Contracts, Collars, and Section 1259:
An Analytical Perspective on the
Mutability of Financial Instruments

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Society of Actuaries
October 27, 2009

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I. BACKGROUND

- A. SECTION 1259: A legislative effort to get at arrangements that effectively "cash-out" unrealized appreciation while deferring tax until further down the road.
1. *Provocation*: An aging Estee Lauder, founder of the company of that name, and holding a large block of appreciated company stock, entered into a short-sale "against the box" with the intention of eventually closing the short sale with stock whose basis had been stepped up under § 1014. (Far from the only; just the poster child.)
 2. *Reaction*: Section 1259:
 - a. § 1259(a)(1) requires a taxpayer to "recognize gain" from the "constructive sale of an appreciated financial position" as if "such position were sold, . . . or otherwise terminated at its fair market value on the date of such constructive sale."
 - b. § 1259(c)(1) treats a "a constructive sale" of an appreciated financial position as having been made by taxpayer who:
 - "(A) enters into a short sale of the same or substantially identical property,
 - "(B) enters into an offsetting notional principal contract with respect to the same or substantially identical property,
 - "(C) enters into a futures or forward contract to deliver the same or substantially identical property,
 - "(D) in the case of an appreciated financial position that is a short sale or a contract described in subparagraph (B) or (C) with respect to any property, acquires the same or substantially identical property, or
 - "(E) to the extent prescribed by the Secretary in regulations, enters into 1 or more other transactions (or acquires 1 or more positions) that have substantially the same effect as a transaction described in any of the preceding subparagraphs."
 - c. § 1259(d)(1) says that "'forward contract' means a contract to deliver a substantially fixed amount of property (including cash) for a substantially fixed price."
 - d. The legislative history contemplates that Treasury would supply guidance on other transactions having the effect of eliminating "substantially all of the taxpayer's risk of loss and opportunity for income or gain with respect to" as appreciated financial position." S. rpt. No. 959, 105-1 Cong., at 125-26; and specifically contemplates the provision of guidance on "collars" (about which more below).

B. VARIABLE PREPAID FORWARD CONTRACTS (DEBT EXCHANGEABLE FOR COMMON STOCK)

1. *DECS* (a tradename); generically *VPFs*; according to *Kleinbard & Nijenhuis*¹:

"DECS [is] arguably the most prolific and adaptable of the contemporary financial products in the public capital markets

"DECS is one securities firm's tradename . . . for what amounts to a kinky forward contract. In brief -- and putting aside for one moment the nature of the instrument into which the DECS is embedded -- a DECS contract obligates a holder, in return for a cash payment today, to take delivery in (for example) three years' time of a variable number of shares of common stock of some identified issuer, as determined by a formula. During the term of the DECS, the holder also receives a current fixed coupon.

"The DECS payout formula gives the holder all of the downside, and much of the upside, of owning the underlying equity. For example, if the underlying stock is trading at \$50/share, a typical DECS might provide that at maturity of the contract the holder will receive one share of stock if the stock is trading at \$50 or lower at maturity; \$50 worth of stock if the stock is trading between \$50 and \$60; and 5/6 share of stock if the stock is trading at \$60 or higher.

"The DECS payout formula is like that of a forward contract to purchase the underlying stock, except that there is a band (\$50 to \$60 in the above case) in which the holder does not participate in the stock's appreciation, and a point (\$60) at which the participation resumes, but at a lower slope. These two points are the kinks in a DECS' payout pattern, when compared to a simple forward contract."

2. *In Other Words*

- a. Under the contract the holder (*H*) in the example above (a) must take one share at or under \$50, (b) may take 5/6ths of a share at or over \$60, and (c) may take \$50 worth of stock at prices \$50-\$60.
- b. The owner of the stock (*O*) in the example (a) may deliver one share at or under \$50, (b) is required to deliver 5/6ths of a share at or over \$60, and (c) could deliver \$50 worth at prices \$50-\$60.
- c. Initially embedded in a borrowing contract, under which *H* lent *O* some fraction of the prevailing market value of the stock, as security for repayment of which *O* pledged as collateral the maximum number of shares deliverable under the contract. *O* paid interest on the loan, and retained the right to vote and to dividends on the underlying stock.
- d. The payment and pledge eventually evolved into what was characterized not as a loan, but as a "prepaid" forward contract to sell the underlying stock at the prices and in the ("variable") amounts outlined in 1, 2.a-b above.

¹ Edward Kleinbard & Erika Nijenhuis, *Everything I Know About New Financial Products I Learned from DECS*, 517 *PLI/Tax* 1183 1189-90 (2001). (Originally published in the Fall of 1997, the article seems to have been republished by *PLI* every year thereafter for several years.)

II. RULINGS

A. REV. RUL. 2003-7

1. *Facts*: As above, with modifications as follows:
 - a. Involved stock with a prevailing market price of \$20, and a contract to sell (1) 100 shares at or below \$20, (b) 80 shares at or above \$25, and (c) \$20 worth of stock at prices between \$20-\$25.
 - b. Characterized as a contract, rather than a loan, and hence a "variable prepaid forward contract" (prepaid because cash delivered at execution).
 - c. Shares pledged to an independent trustee (*T*), with *O* retaining voting and dividend rights to the pledged stock, and the right to substitute collateral.
2. *Analysis*: Two strands.
 - a. *Was it a common law sale?* *Held* (after analyzing *O*'s retention of voting and dividend rights and the right to substitute shares): No. (*Not* the preoccupation of this presentation.)
 - b. *Was is a §1259 constructive sale?* *Held*: No. After quoting §1259(d)(1), the ruling went on to observe that

"a forward contract that provides for the delivery of an amount of stock that is subject to 'significant variation' under the terms of the contract is not within the statutory definition of a forward contract According to the Agreement, delivery of a number of shares, which may vary between 80 and 100 shares, depends on the fair market value of the stock on the Exchange Date. Because this variation in the number of shares that may be delivered under the Agreement is a significant variation, the Agreement is not a contract to deliver a substantially fixed amount of property for purposes of § 1259(d)(1)."

B. COORDINATED ISSUES PAPER LMSB-04-1207-077 (February 6, 2008)

1. Presaged by TAM 200604033 and AM 2007-04 (2/2/2007): The latter makes clear that the facts are essentially identical to those of Rev. Rul. 2003-7, except that the pledge agreement instructs *T* to enter into a share lending agreement with *H*, who after entering into that agreement sells the borrowed shares.
2. Same two strands to the analysis of Rev. Rul. 2003-7 (plus two others)²:
 - a. *Was it a common law sale?* *Held*: Yes (based on a collection of "factors," numbering 11 *in toto*, derived from a collection of Tax Court opinions, emphasizing the ability of *H* to dispose of the pledged shares).
 - b. *Was it a §1259 constructive sale?* *Held*: Yes ("distinguishing" Rev. Rul. 2003-7, again relying on *H*'s ability to control and dispose of the pledged shares).

² The two additional arguments considered (and rejected) were that the transaction was entitled to non-recognition (1) under §1058, and (2) under the open transaction doctrine.

III. A DIFFERENT VIEW

A. VPFs (INCLUDING DECS) AS "VARIABLE" FORWARD CONTRACTS

Relying on the argumentation of *Kleinbard & Nijenhuis*, these arrangements (by whatever name) have consistently been characterized as "variable" forward contracts, forming the foundation for the claim that they are not covered by §1259; and putting the Service back in the business of quibbling about common law sale treatment relying on essentially indeterminate multi-factor tests. I want to suggest that there is a better understanding of what is going on, one that implies that the Service should rethink what it is doing. (More generally it underscores the usefulness of thinking about complex financial instruments in terms of their constituent pieces.) The basic argument turns on the financial mechanics of these contracts, and in brief it is this.

1. It is more useful to think of the payoff structure on a VPF as consisting of a combination of (a) a "collar" on the number of shares that must be tendered at the upper limit on the "kink", together with (b) a put option on the balance.
2. As to the former the collar is effectively a "costless" collar when entered into; when carefully analyzed it will be seen to differ from a simple forward contract *solely* by how "tight" the collar is. That is, the difference between a costless collar and a simple forward contract is a matter of *degree*. Accordingly, at least to the extent of those shares covered by both the put and the call, the difference between a VPF and a simple forward contract is likewise a matter of degree.
3. Since forward contracts are expressly covered by §1259, and since the legislative history contemplates that the Treasury also will address the problem of collars, some arbitrary line will eventually have to be drawn in terms of how close a collar can come to approximating a forward contract and remain beyond the reach of §1259. And that line, *wherever* it may be drawn, should govern the application of §1259 to arrangements like VPFs. In other words, the argument that §1259 cannot as a categorical matter apply to VPFs, however justified by the legislative history, simply makes no economic sense.

To develop that argument, we have to start with some properties of options and option prices and the financial mechanics of a "costless collar."

B. OPTION PRICES (AMZN, OCTOBER 23, 2009)

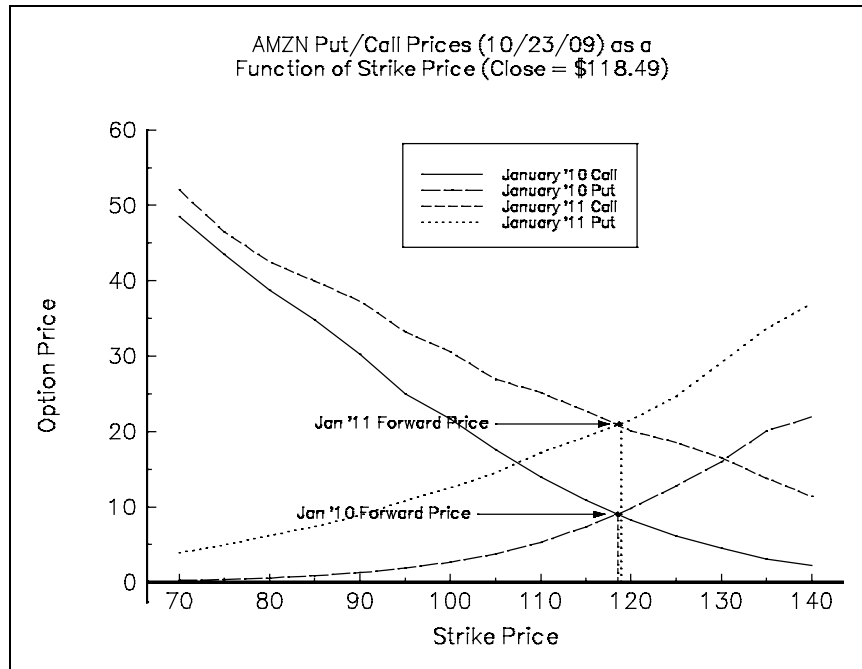


Figure I

1. Two pairs of (similar) plots: short-dated and long-dated puts and calls on non-dividend paying stock, with the option price plotted as a function of the strike price.
 - a. Calls are *decreasing* in the strike price.
 - b. Puts are *increasing* in the strike price.
 - c. Hence, at some point each pair of plots intersects: the short-dated at a strike price of a bit over \$118.49 and an option price of about \$9, the long-dated at a strike price of just over \$119 and an option price of about \$21.
 - d. Above the intersection in each plot both options are in the money; below it they are both out of the money; at the intersection they are (in a sense) at the money.
 - e. Although it's a little hard to discern in this plot, both intersections are (slightly) above the closing price on October 23 (\$118.49); the long-dated option prices are everywhere above the corresponding short-dated option prices, so the long-dated intersection is at a strike price above the short-dated intersection.
 - f. The difficulty in making out the price relationships involving options priced at the close on October 23 stems from a combination of (1) the dramatic price change in AMZN last Friday, and (2) a near-zero short-term discount rate, the result of which is that the spread between spot and future prices is generally narrowed. So a comparison from a different date will be useful.

2. FOR COMPARISON (AMZN, APRIL 4, 2008)

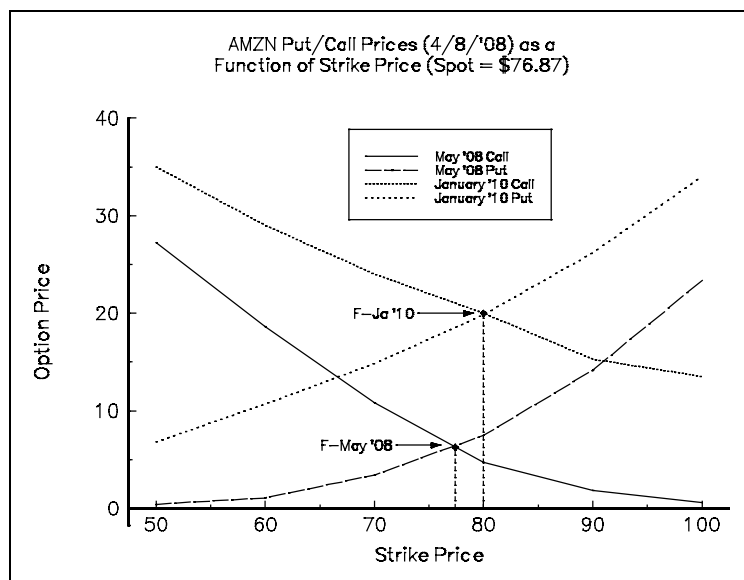


Figure 1a

- On April 4, 2008, the closing price was \$76.87, the short-dated options intersected at a strike price of about \$77.40 and an option price around \$5, while the long-dated intersected at a strike price of about \$80 and option price around \$20.
- Again, both intersections are at a strike above the closing price on April 4, 2008; and the long-dated intersection is at a strike above the short-dated intersection.
- What determines the intersection? That's not immediately obvious, but it turns out that "Put-Call Parity" furnishes the answer. PCP says that two portfolios, one consisting of a share of stock (S) plus a put option with maturity t and strike price k ($P(k, t)$), the other consisting of a call option with maturity t and strike price k ($C(k, t)$) plus the continuously discounted value of the strike price ($k \cdot \exp(-rt)$), have the same payoffs at maturity, and so must be equal in value. That is,

$$S + P(k, t) = C(k, t) + ke^{-rt}.$$

But at each intersection in the plot above, the put and call options (1) have the same strike price, (2) are of the same duration, and (3) are equal in price. In other words, $P(k, t) = C(k, t)$. Hence

$$\begin{aligned} S &= ke^{-rt} \\ \Leftrightarrow \\ k &= Se^{rt}. \end{aligned}$$

That is, the plots intersect at strike prices equal to the *forward prices* of Amazon stock corresponding to the maturity of each pair of options.

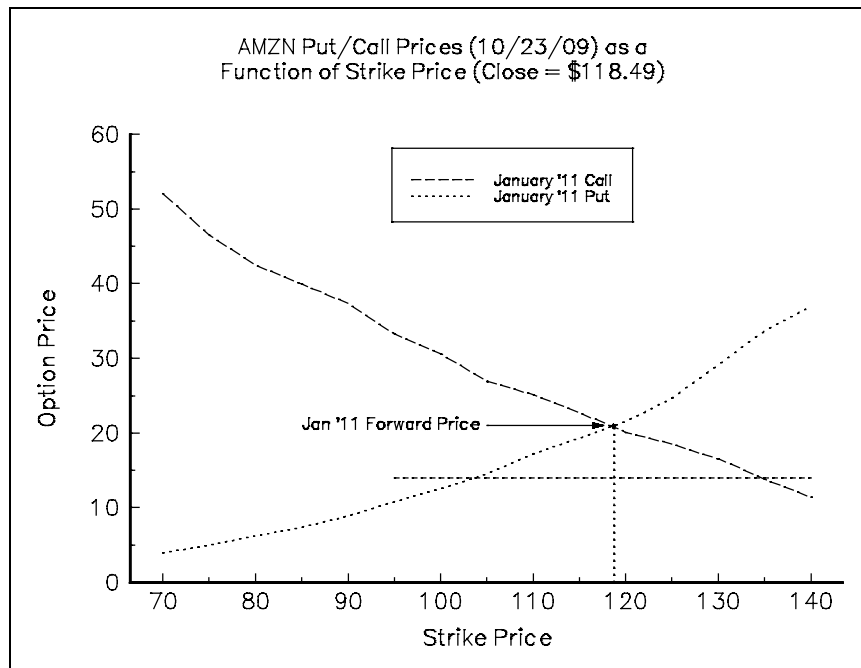


Figure II

3. The Long-dated options (again): Costless Collars.

- a. The arrangement created when one (a) purchases a put option on and (b) writes a call option against the same underlying asset is usually called a "collar." Both contracts are short positions and so the entire arrangement represents a short position in the underlying asset. Within limits dictated by the details of the options it protects the party creating the collar from loss. (The counterparty takes an offsetting long position.)
- b. At *every* point below the intersection in Figure II a horizontal line across the graph intersects the plots of the out of the money puts and the out of the money calls at points where their respective prices are *the same*.
- c. From b. it follows that by picking any such put-call pair, one can in principle (transactions costs aside) create a "costless" (short) collar, by writing the call and using the proceeds to finance the purchase of the put.
- d. For the illustrated pair the put has a strike price of \$105, the call has a strike of around \$135, and both option prices are (approximately) \$15. But it should be clear from the picture that one can draw a horizontal line at any point below the intersection, and hence that there are, in principle at least, an unlimited number of costless collars in Figure II.
- e. And since from Figure I the paired plots of option prices will look the same for essentially *any* chosen duration, it follows that one can in principle write costless collars of pretty much *any* width, and *any* duration.

C. COLLARS AND VPFs

1. In holding that §1259 did not apply to VPFs, Rev. Rul. 2003-7 relied exclusively on the fact that the contract covered a number of shares that "varied significantly" and hence was excluded by §1259(d)(1) from the definition of a "forward contract" subject to the constructive sale rule.
2. Now reconsider the VPF payout formula from the ruling, in light of the characteristics of collars just described.
 - a. Below \$20 *H* must take 100 shares and *O* may transfer them;
 - b. Between \$20-\$25 *H* gets and *O* gives up \$2000 worth of stock; and
 - c. At or above \$25 *H* gets and *O* must relinquish 4/5ths of 100 shares (worth at least \$25/share, or at least \$2,000 worth of stock).
3. In other words
 - a. As to 100 shares *O* has *purchased a put* with a strike price of \$20.
 - b. In a moment.
 - c. As to 80 shares *O* has *written a call* with a strike price of \$25.
4. As to 3.b, there is no substance to the contract. It requires (or permits) *O* to transfer, and requires (or permits) *H* to accept, \$2,000 worth of stock having a market value of \$2,000. That is, below \$20 or above \$25 *H* is taking or acquiring an asset whose value differs from the price at which *H* must (or may) acquire it. In between those prices *H* is getting stock worth exactly what he must pay for it. As such, for purposes of characterizing the balance of the transaction, it may be *ignored*.
5. Now, decompose the balance of the VPF into (a) 80 shares, and (b) 20 shares. As to the latter *O* has simply acquired a put. As to the former, however, *O* has effectively entered into a collar, covering not a variable but a *fixed* number of shares.

D. Collars and Forward Contracts (Kinked and Otherwise)

1. Standard payoff diagram on a (short) forward contract (that is, to deliver).

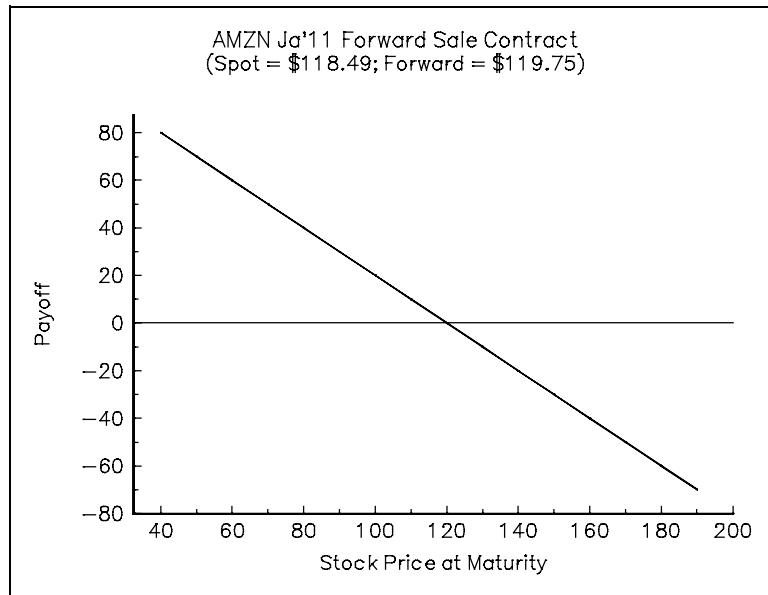


Figure III

2. (Almost) standard option payoff diagrams for a put and a call.
 - a. The ($k_P = \$105$) put diagram is long and standard; the corner is where $k_P = S_T$.
 - b. The call diagram is for a *short* ($k_C = \$135$) call position (writing), and it is flipped over the horizontal axis; the corner is again where $k_C = S_T$.
 - c. That is, both positions are *short*.

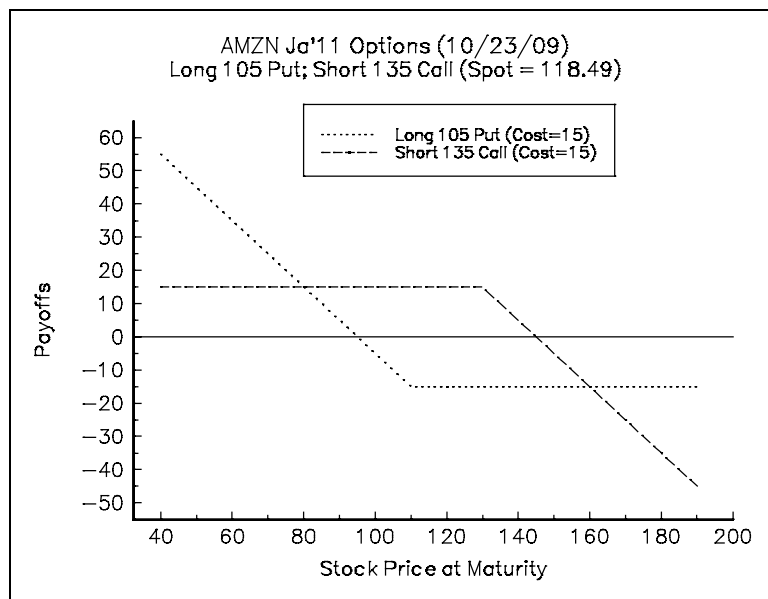


Figure IVa

3. Payoffs from buying the put *and* selling the call in Figure IVa.

- a. The *sum* of the payoffs from the options in Figure IVa has the same general slope as a forward contract, but it is kinked in the range between 105-135, that is, in the range between the strike prices on the options. It *looks* just like a "kinked forward contract."

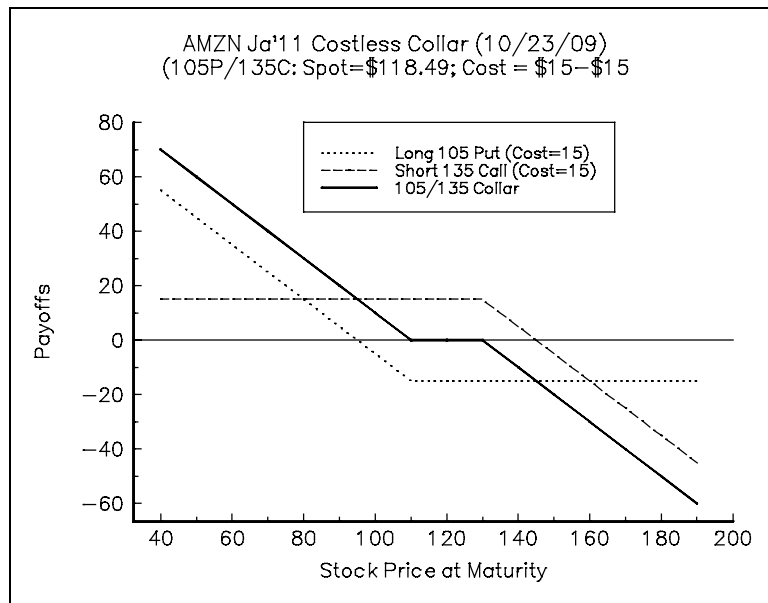


Figure IVb

- b. Comparing Figure IVb with the plots of the option prices (the two figures are *not* scaled identically) suggests that as the horizontal line in Figure II rises, and the strike prices on the options approach one another, the corners to the plots in Figure IVb -- where the strike prices on the respective options equal the stock price -- will likewise move closer to one another.

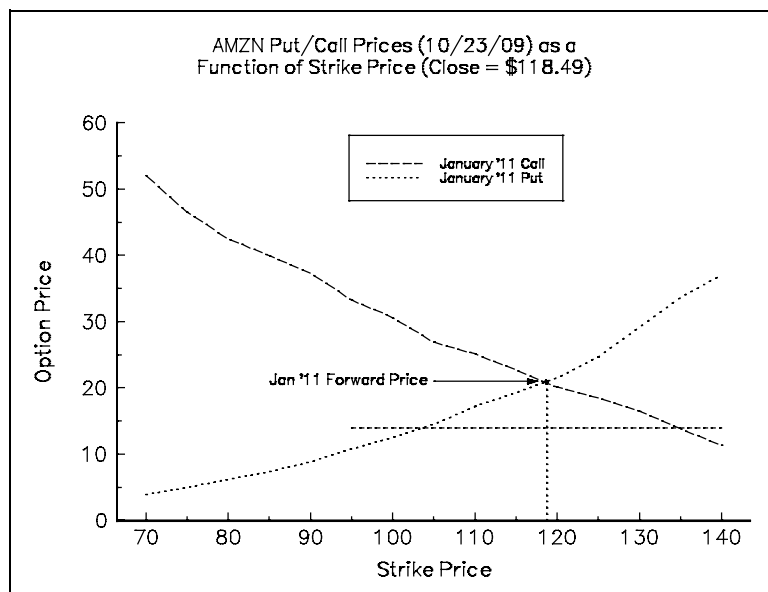


Figure II

3. Payoffs from buying the put *and* selling the call in Figure IVa (con't).
- c. What happens at the intersection, when the strike prices are equal (that is, when $k_P = k_C = S_T$?)

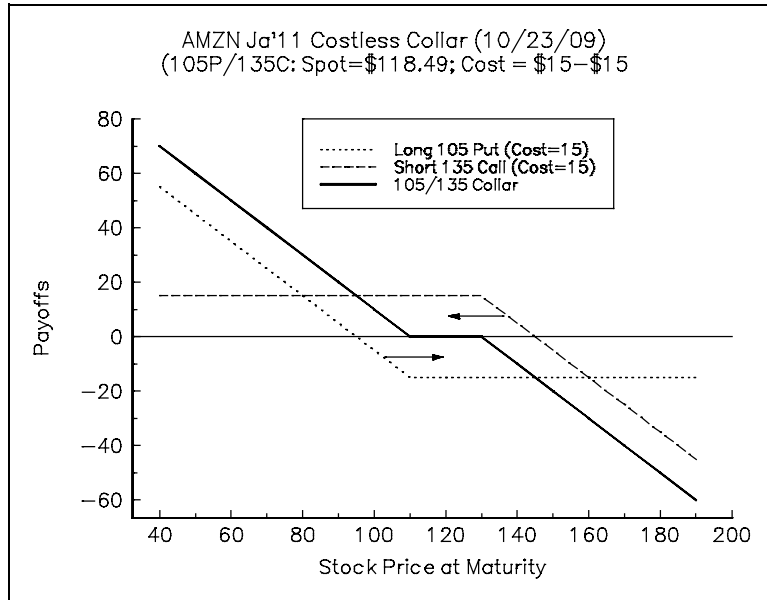


Figure IVc

- d. In that case the sum of the payoff diagrams from the collar looks like this:

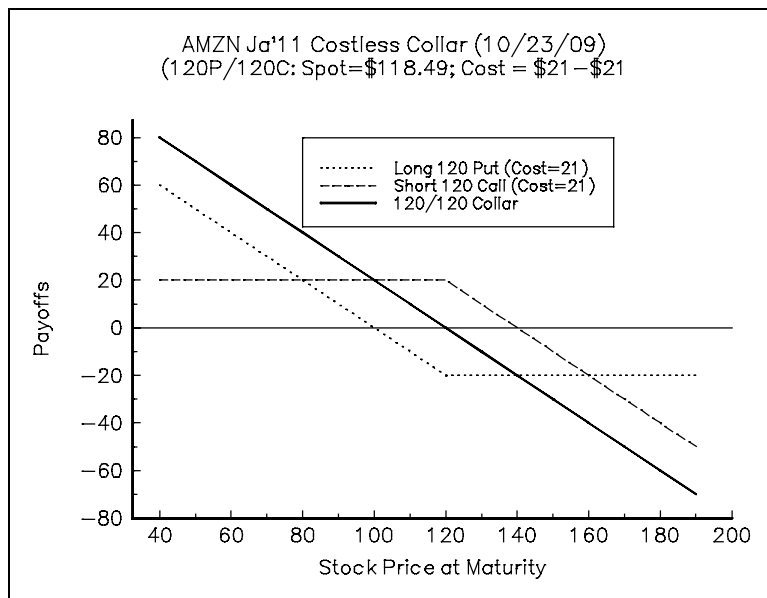


Figure V

- e. In other words, a (costless) collar with equal strike prices ($k_P = k_C$) occurs when the strike prices equal S_T at maturity, which is to say when they were equal to the forward price prior to maturity. That is, this particular costless collar *is* a forward contract.

E. IMPLICATIONS

1. An at-the-money (costless) collar is identical to a simple forward contract (which by construction also has no value when it is entered into).
2. Since forward contracts are specifically covered by §1259, it follows that the Treasury really *must* put out regulations on collars; otherwise §1259 is effectively rendered meaningless. Somewhere an arbitrary qualitative line will have to be drawn.
3. Since, moreover, the payout on a standard VPF (*irrespective* of whether it entails share lending) effectively collars *all* the shares on which the call is written, to that extent, §1259(d)(1) notwithstanding, it, too, should be covered by §1259 to the same extent as any other collar.
4. In other words, unless § 1259 is to be eviscerated, the Service should publish guidance to the effect that VPFs will give rise to constructive realization of that part of the shares covered by a VPF that are subject to both the embedded pu and the embedded call.

AMZN Put/Call Prices (10/23/09) as a Function of Strike Price (Close = \$118.49)

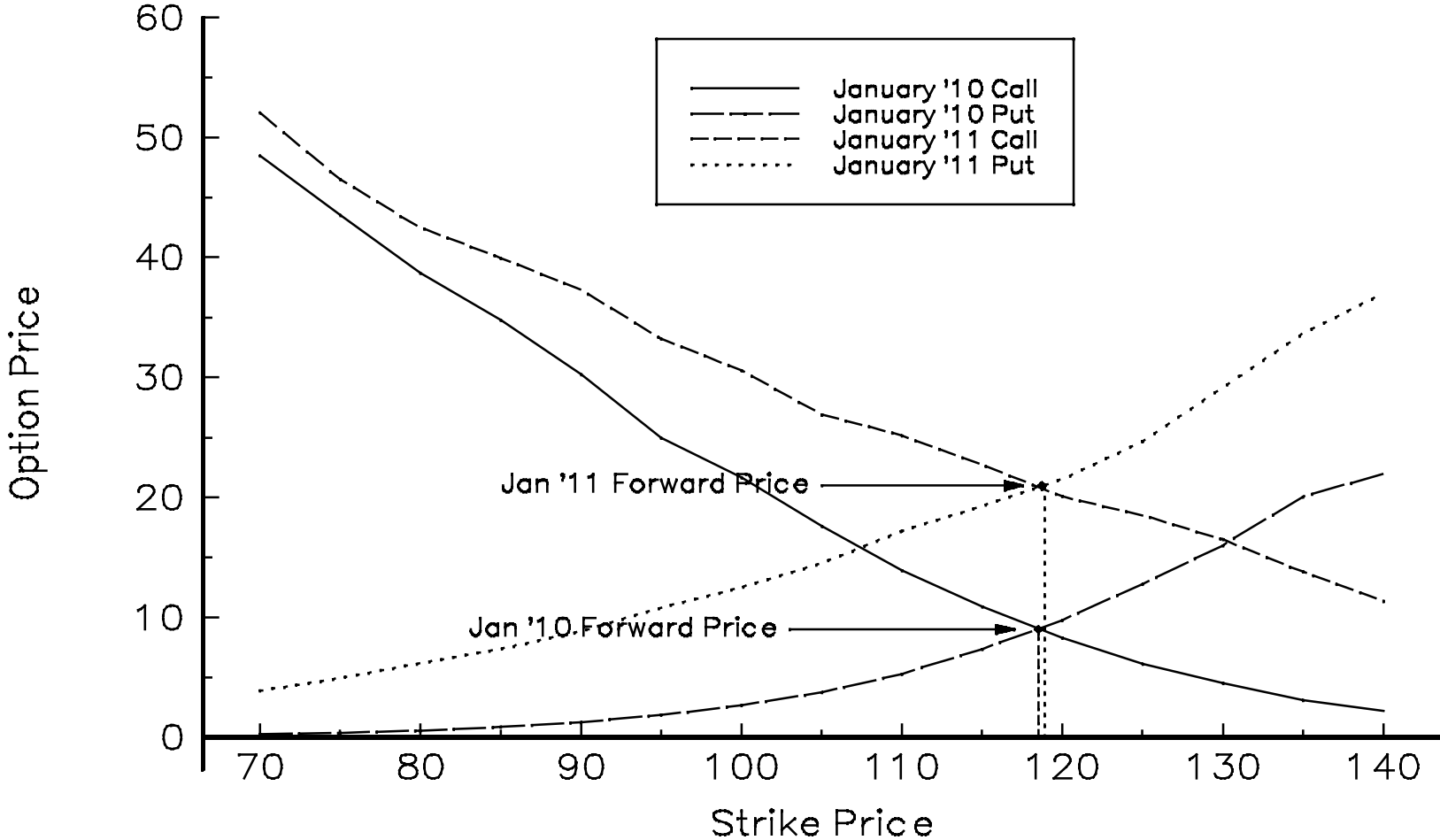


Figure I

AMZN Put/Call Prices (4/8/'08) as a
Function of Strike Price (Spot = \$76.87)

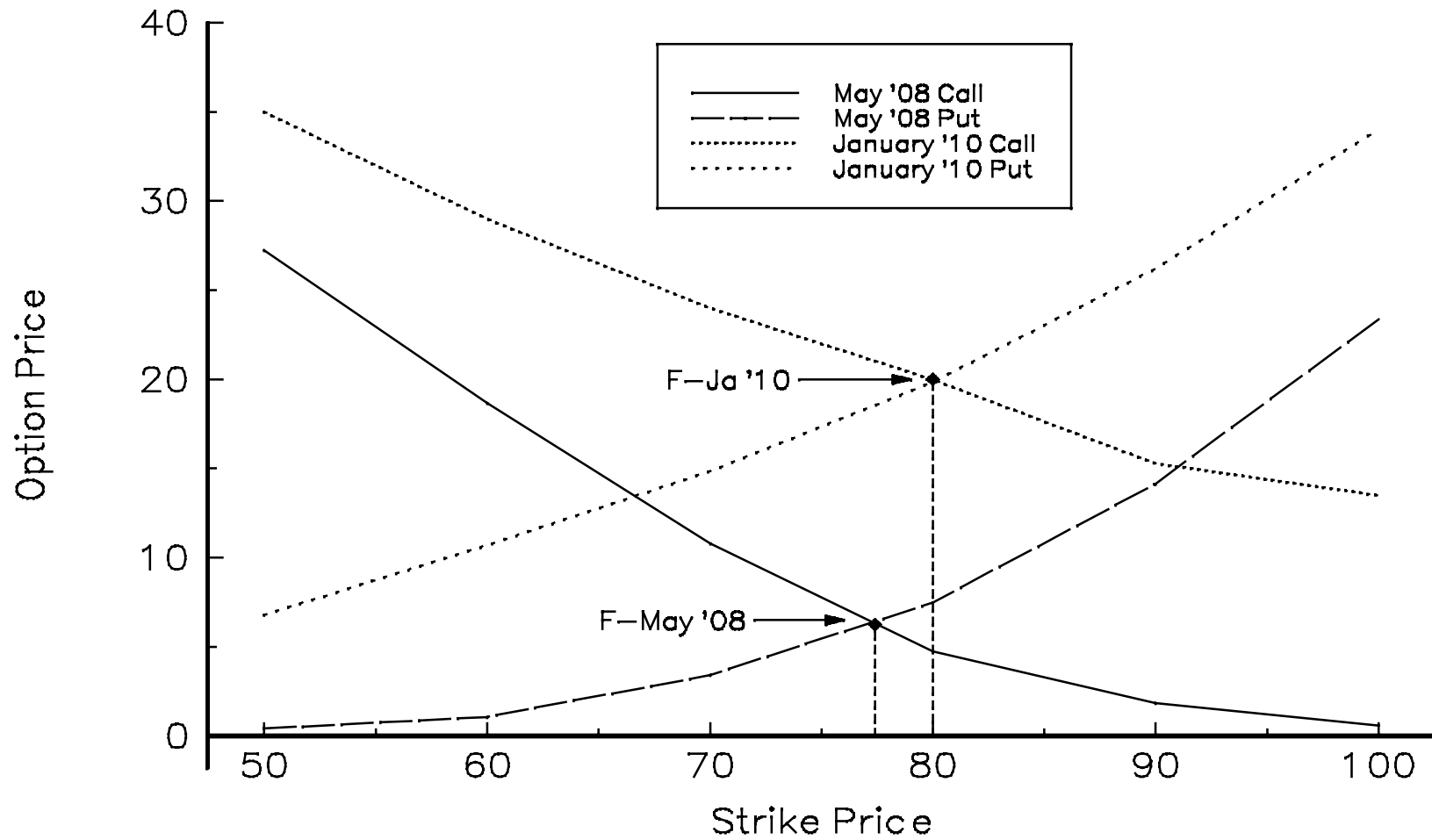


Figure 1a

AMZN Put/Call Prices (10/23/09) as a
Function of Strike Price (Close = \$118.49)

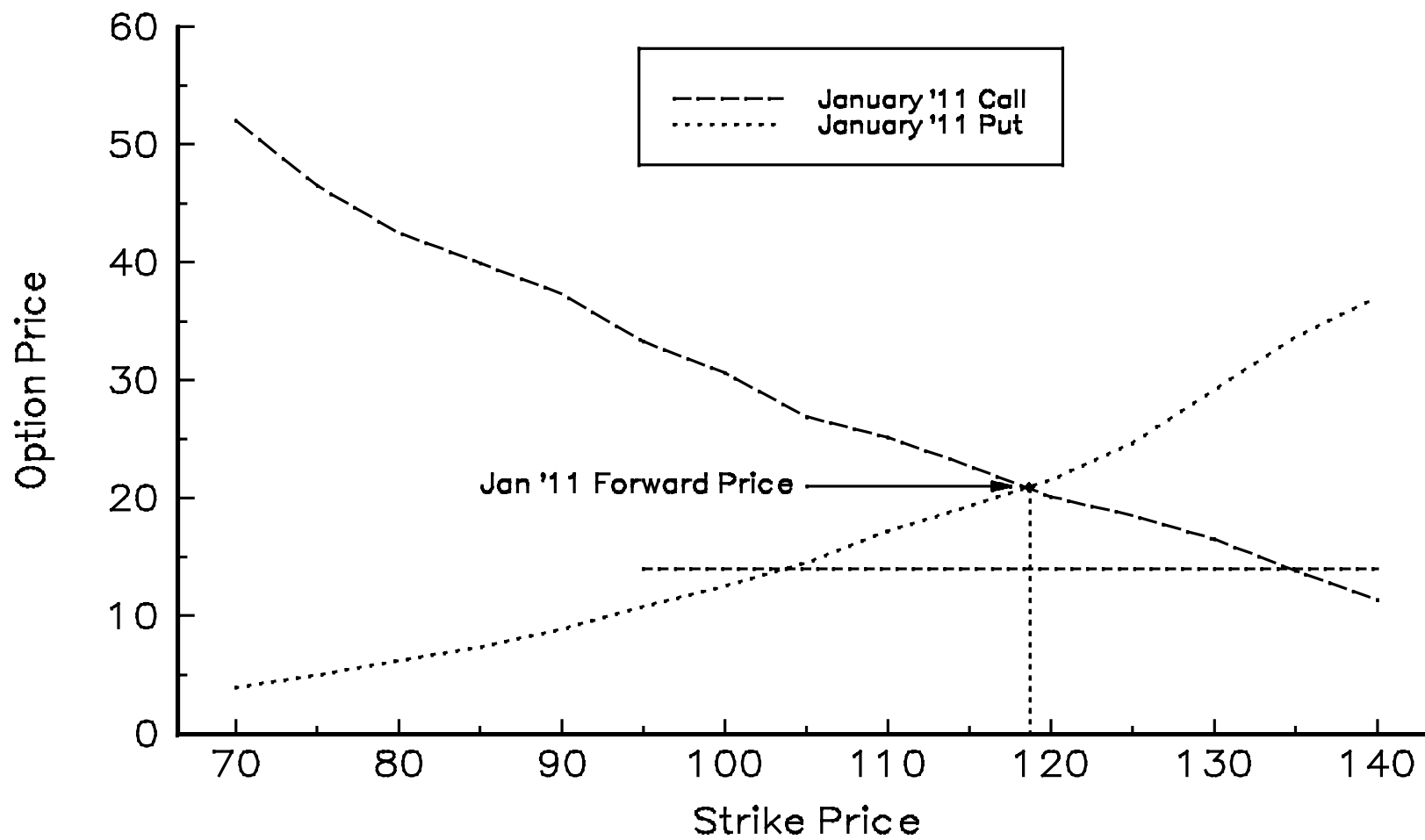


Figure II

AMZN Ja'11 Forward Sale Contract
(Spot = \$118.49; Forward = \$119.75)



Figure III

AMZN Ja'11 Options (10/23/09)
Long 105 Put; Short 135 Call (Spot = 118.49)

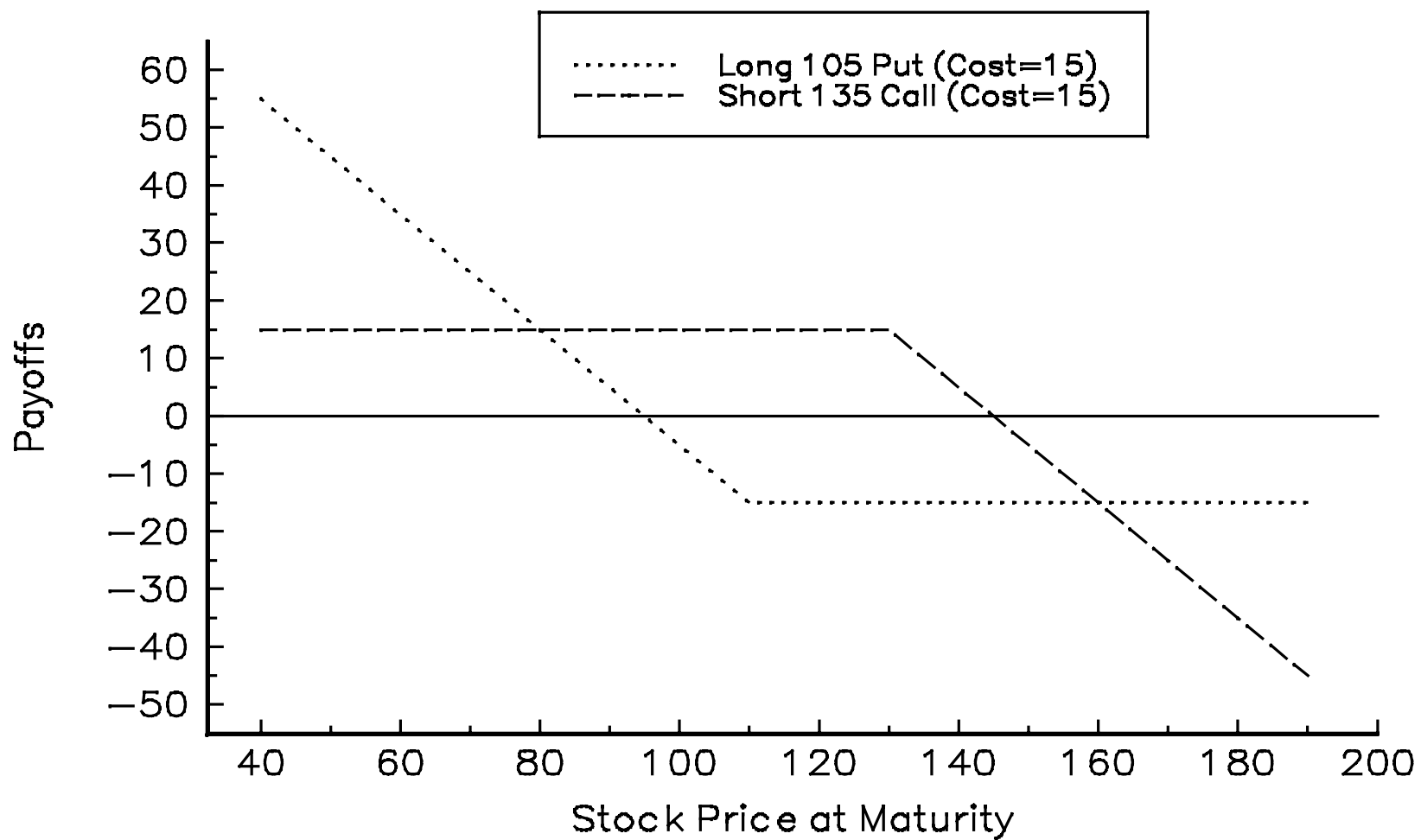


Figure IVa

AMZN Ja'11 Costless Collar (10/23/09)
(105P/135C: Spot=\$118.49; Cost = \$15-\$15)

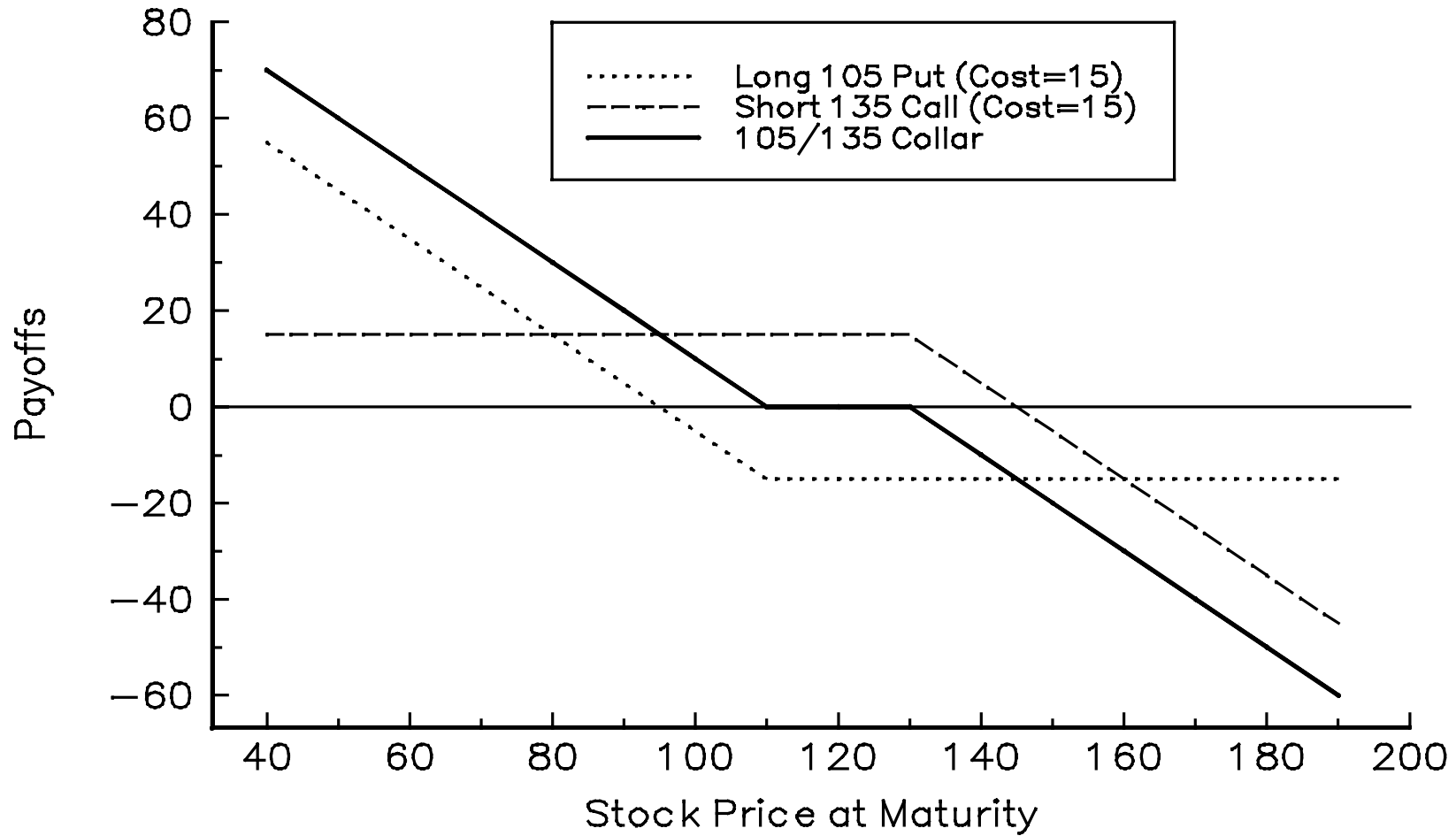


Figure IVb

AMZN Ja'11 Costless Collar (10/23/09)
(105P/135C: Spot=\$118.49; Cost = \$15-\$15)

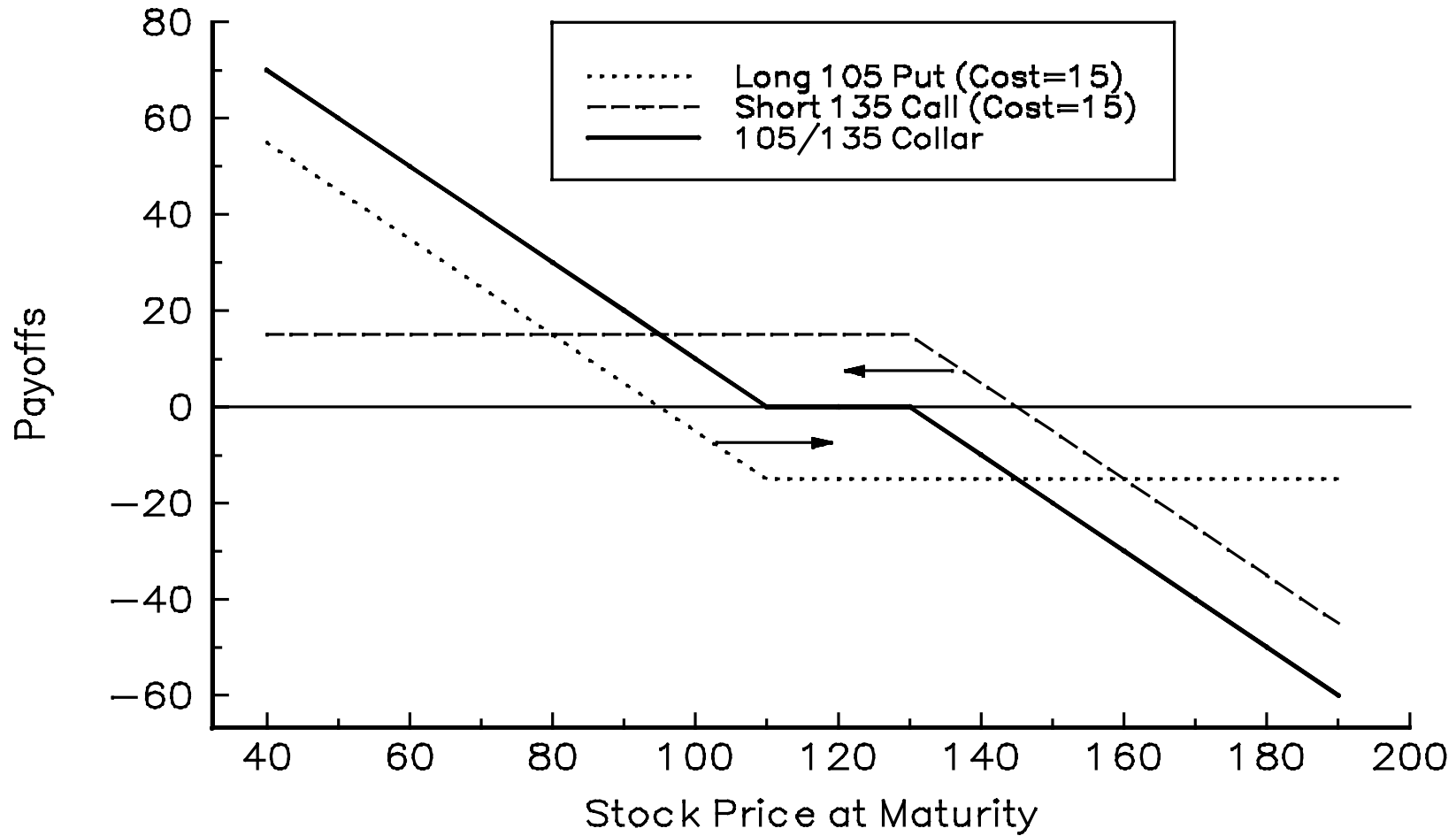


Figure IVc

AMZN Ja'11 Costless Collar (10/23/09)
(120P/120C: Spot=\$118.49; Cost = \$21 - \$21)

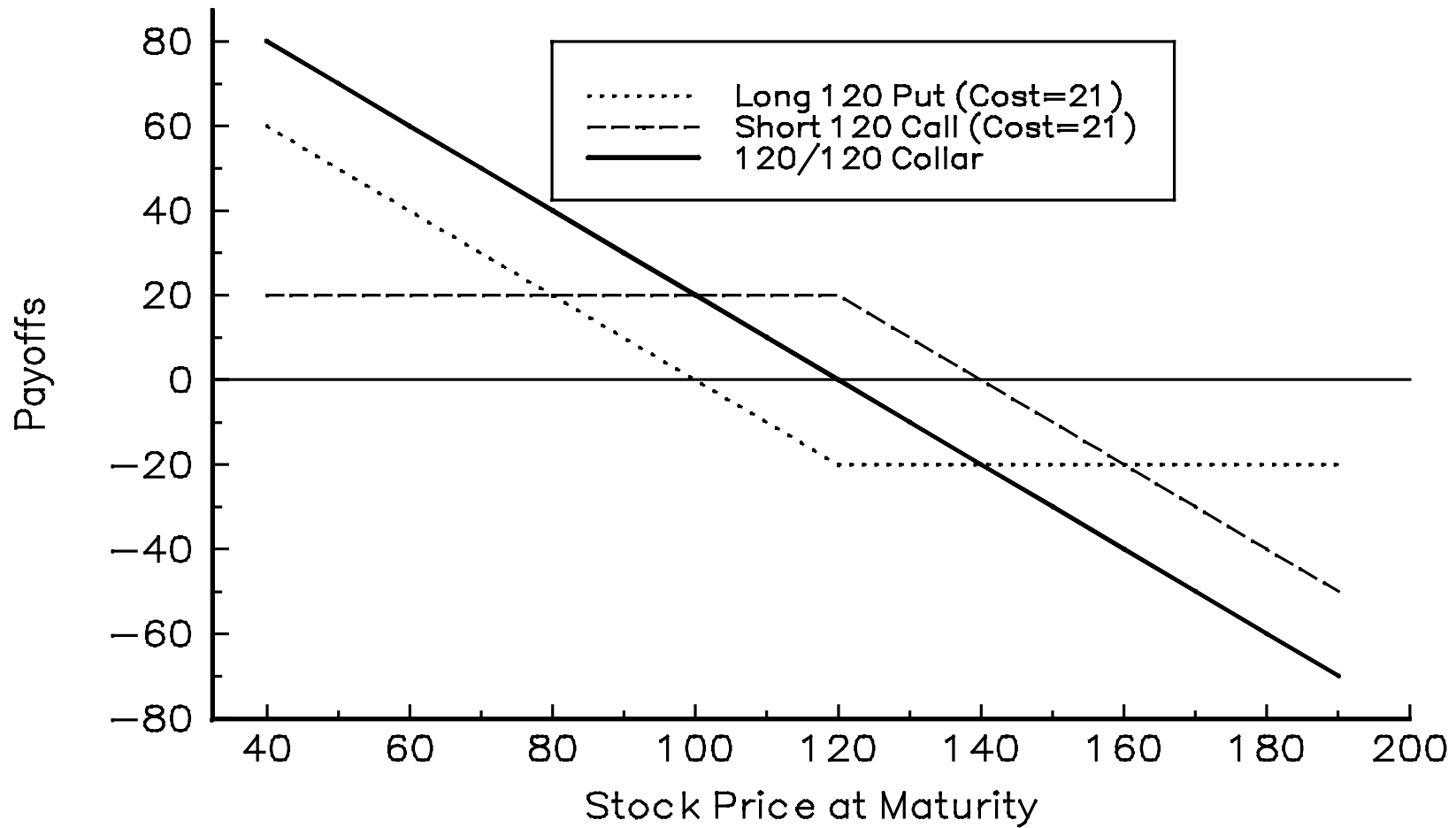


Figure V