K&L GATES

MUTUAL FUND
VALUATION PROCEDURES

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I. Overview – The Importance and the Complexity of Valuation Determinations

A. Rule 22c-1 (the "forward pricing rule") effectively requires that open-end investment companies accurately value their portfolio securities on a daily basis.

1. Fund shares may be sold or redeemed only at prices based on the next-computed "current net asset value."

B. Accuracy in the daily pricing of portfolio securities is essential.

1. If valuations are too high, redeeming shareholders will be overpaid, purchasing shareholders will be overcharged and, if redemptions exceed new purchases, the remaining shareholders will be diluted.

2. Conversely, if valuations are too low, purchasing shareholders will be undercharged, redeeming shareholders will be underpaid and, if purchases exceed redemptions, remaining shareholders will be diluted.

3. Accordingly, one should be wary of assuming that a lower valuation is necessarily always better or more conservative.

C. Valuation must be accomplished quickly, usually in the roughly 2 hour period between the NYSE close and the fund's various reporting deadlines.

D. Nevertheless, for a long time – probably for about half of the current life span of the 1940 Act – this did not appear to be a particularly difficult or challenging endeavor.

1. That is because investment companies originally invested almost exclusively in exchange listed securities, for which closing market prices were readily available directly off the exchange tickers.

E. This is no longer true for many funds.

1. Today's funds hold a multiplicity of investment products, a great many of which are neither exchange-listed nor actively traded.

2. As a result, valuation has become increasingly complex and challenging.

II. Regulatory Framework

A. Section 2(a)(41) and Rule 2a-4 treat valuation issues in terms of a simple (and, as we will see, somewhat misleading) dichotomy between Market Value and Fair Value

1. Securities for which "market quotations are readily available" are to be valued at "market value";

a) SEC accounting release ASR 118 – which was issued in 1970 but which, along with another ASR issued in 1969, continue to serve as primary sources of SEC guidance on the meaning and proper implementation of Section 2(a)(41) – effectively divided market valuations themselves into two sub-types:

(1) Valuations obtained through "last sale" information, such as those that can be obtained from a securities exchange, and

(2) Valuations obtained through market quotations from broker-dealers.

b) The SEC has also provided guidance as to how market valuations may be made, calling for:

(1) Prioritizing last quoted sales over bid and ask prices;

(2) Utilizing quotes from the primary exchange or market on which the security is traded; and

(3) Using the last bid or the average of bid and asked price, but avoiding the use of only the last asked price to determine the value of a long position.

2. All other securities are to be valued at "fair value as determined in good faith by the board of directors."

a) Section 2(a)(41) and Rule 2a-4 both state this fair value requirement, thus contemplating that fund boards will have special responsibilities with respect to fair value determinations.

b) In ASR 113 – the other accounting release referenced above – the SEC stated that boards must:

"continuously review the appropriateness of any method so determined."

c) In ASR 118, the SEC reiterated its "continuous review" standard and added that, to comply with Section 2(a)(41), "it is incumbent" upon boards "to satisfy themselves that all appropriate factors relevant to the value of securities for which market quotations are not readily available have been considered."

d) Note, however, that the SEC staff has said in a no-action letter that in emergency situations, "fund boards should evaluate as many relevant factors as they are able to under the circumstances" (see Investment Company Institute, pub. avail. Dec. 8, 1999).

3. The special responsibilities placed on fund boards for fair value determinations appear to arise out of a kind of objective vs. subjective distinction:

a) The implicit notion is that market valuations are essentially objective, while fair valuations require more judgment (*i.e.*, are more subjective) and thus require more direct board involvement.

b) The fair value/market value distinction, however, may be more conceptual than real, and it has been questioned. Thus, the ICI's 1997 white paper on fund valuation and liquidity issues observed that "it is not always clear which valuation methods would be considered 'fair value' methods, as opposed to 'market value' methods under the Act."

c) Dealer quotes, for example, may be quite subjective, with the judgment being made by the dealer, instead of at the fund level.

d) Matrix pricing, commonly used in the fixed income field, is often viewed as something of a hybrid between fair and market valuation, but in either event, it involves a fair amount of subjectivity.

4. Normally, however, there is a very real distinction in the identity of the parties making the judgments in what are commonly viewed as "market" valuations and those that are thought of as "fair" value techniques.

a) Judgments that are made by fund management, particularly by persons who may benefit personally if valuations increase, may require more scrutiny than judgments made by third party market participants who would not so benefit.

b) This distinction, too, can be false in some circumstances. For example, dealers who have sold thinly traded ABS tranches may have an incentive to give pleasing quotes to their investor-customers.

c) Nonetheless, differences in who is making the judgments inherent in day-to-day valuations may well justify the special Board scrutiny that is to be accorded to what are generally viewed as "fair," rather than "market" valuation methods.

5. In July 2014, the SEC provided additional guidance in its release adopting changes to Rule 2a-7. Although that rule applies only to money market funds, the guidance was not limited to money funds (Inv. Co. Act Rel. No. 31166, July 23, 2014, at pages 281-88).

a) The release noted that many pricing services do not simply report market prices; rather, they often provide prices that are calculated through some proprietary mechanism, such as a matrix, and/or they purport to provide "evaluated" prices.

b) In the release, the Commission said that these prices are neither market prices nor fair values "as determined in good faith by the [fund's] board of directors."

c) The release noted that boards can delegate aspects of the fair valuation process, but it asserted that in keeping with the board's responsibility for fair valuation under the '40 Act, the board may want to consider "the inputs, methods, models, and assumptions used by the pricing service," and how these elements are affected as market conditions change.

d) The release noted that the board should consider the appropriateness of using evaluated prices as fair valuations of the fund's portfolio securities where the board "does not have a good faith basis for believing that the pricing service's pricing methodologies produce evaluated prices that reflect what the fund could reasonably expect to obtain for the securities in a current sale under current market conditions."

e) Many fund boards have reacted to this pronouncement by inquiring more deeply into the processes, procedures and safeguards employed by the fund's outside pricing services, or -- given the often complex mathematical modeling involved -- consulting with others about the validity of the pricing services' approaches.

B. When should securities be fair valued?

1. ASR 118 makes clear that securities should be fair valued when market prices, either from last trade information or market quotations, are not "readily available."

    a) This is distinct from the test for liquidity, which is that the security be "readily marketable."

    b) It is important to recognize that these two are not identical.

        (1) Securities may be readily marketable in that they can be sold at current value within 7 days, and therefore are liquid, but there may nevertheless be no readily available market price for them.

        (2) The converse may also be true, especially for securities that the SEC considers to be presumptively illiquid securities, such as non-government IOs, and for types of derivative contracts.

2. ASR 118 also reflects that fair valuations may be appropriate when the available market quotations are <u>not reliable</u>. This may (but will not necessarily) occur if:

    a) sales have been infrequent;

    b) there is a thin market for the security; or

    c) the <u>validity</u> of the market quotations appears questionable.

3. When might the validity of a market quotation be questionable? After all, as mentioned above, market quotations are at least impliedly assumed to be objective measures, as compared to the subjective – and therefore more questionable – "fair value" determination.

    a) In fact, there are many possible bases for questioning the validity of a market quotation. Three of the more important are:

        (1) Unreliability of the source of the quote. This can (but will not necessarily) occur, for example, when a quotation is obtained from the dealer who sold the security to the fund and constitutes the sole source of quotations.

(a) This is particularly likely if the quote is being provided as a service but is not a "hard" quote at which the dealer is actually prepared to purchase the security.

(2) Staleness of a market quote.

(a) This is closely related to thinly traded securities – quotes not obtained on the actual date of pricing, or quotes that have remained unchanged for long periods of time.

(3) Significant, post-quotation events.

(a) This can be viewed as a kind of staleness, and it is of particular importance for foreign securities.

(b) It has been the source of considerable attention in recent years.

C. The Effect of Significant Events

1. The question of how significant events should affect fund valuations dates back at least to a 1981 no action letter issued to Putnam (*Putnam Growth Fund and Putnam International Equities Fund, Inc.* (Feb. 23, 1981), in which the Staff acknowledged that it was "appropriate" for a fund investing in securities traded on the London exchange to take the following approach to valuation:

a) Normally, the fund would use the last sale price on the London Exchange, even though the closing time for that exchange was 10 a.m. EST, as compared with the fund's own 4 p.m. valuation time.

b) However, if the fund determined that a material event had occurred that caused the 10 a.m. closing price to no longer constitute "a reasonable estimate of the securities values" as of 4 p.m., the fund would determine that value using fair value techniques.

2. This established the principle that it is <u>appropriate</u> to use fair value methodologies to reflect material events that occur after the closing of the relevant foreign markets but before the fund's normal pricing time.

a) Note that this was very different than saying that it is <u>necessary</u> to fair value in these situations. Also, there was no clear guidance for indicating when such a material events determination must be made.

3. This highly discretionary approach came to the forefront after the 1997 Asian market turmoil. Serious questions were raised as to whether a fund could choose not to adjust market-close quotations when there had been significant post-closing events. Some investors were able to take advantage of what was in essence backward pricing, when they knew the general price levels at which the Asian markets had closed.

4. In 2001, the Staff resolved this issue by essentially mandating fair valuation when a "significant event" occurs. In a letter issued to the ICI, the Staff stated that

> "If a fund determines that a significant event has occurred since the closing of the foreign exchange or market, but before the fund's NAV calculation, then the closing price for that security would not be considered a "readily available [by which, of course, the Staff meant a "reliable"] market quotation and the fund <u>must</u> value the security pursuant to a fair value pricing methodology" (emphasis added).

   a) The staff also pointed out that its position "applies equally to domestic securities," if (whether by reason of an early market close, or otherwise) there is a time gap between the market close and the time the fund prices its portfolio.

5. However, a regulatory mandate to fair value when there is a "significant event" by no means ended the questions. Rather, the focus shifted to the more nettlesome aspects of the problem – aspects that were always there – including

   a) How should a fund determine whether an event is "significant" for this purpose? and

   b) What should be the basis for the fair valuation that would need to replace the closing prices?

6. On these questions, the Staff was less definitive.

   a) On the one hand, it articulated a new (or at least newly highlighted) duty: funds must "continuously monitor" for events that might necessitate fair value pricing – *i.e.*, "significant" events.

b) On the other hand, however, the Staff did not establish specific criteria for determining when a significant event had occurred. Rather, it advised that funds needed to establish such criteria, noting that it believed that the same factors that apply to fair valuation generally should apply to this determination.

D. Bases for Making Fair Value Determinations

1. So how *should* fair value determinations be made?

2. The SEC has described the standard for fair valuation as "the amount which the owner might reasonably expect to receive upon [a] current sale."

3. There is no single correct way to determine fair value.

4. The ASRs suggest several methodologies and factors that may be used, including:

a) multiples of earnings;

b) discount from market of similar, freely traded securities;

c) for debt instruments, yield to maturity;

d) fundamental analytical data; and

e) combinations of the foregoing.

III. ASC Topic 820 (Previously FAS 157)

A. It is enlightening to consider all of this SEC guidance in the context of Financial Accounting Standards Board's statement on Fair Value Measures, ASC 820.[1] Note, however, that FASB has said that ASC 820 is not intended to establish valuation standards or affect valuation practices outside of financial reporting.

B. Eliminating the Market Value/Fair Value Dichotomy

1. Notably, ASC 820 does not reflect the same dichotomy between "market" and "fair" valuations that exists under the 1940 Act and the various SEC pronouncements.

[1] ASC 820 initially was issued as FAS 157 in September, 2006 and became effective for financial statements issued for fiscal years beginning after November 15, 2007.

a) Instead, ASC 820 makes clear that market quotations – whether obtained from an exchange closing price or from dealer quotations – are merely “inputs” for determining the fair value of an asset.

b) In the long run, the absence of that dichotomy under GAAP may be significant in assessing the relative roles and responsibilities of fund boards with respect to the various means used in the value process.

2. ASC 820 establishes a somewhat different dichotomy, discussed below. This dichotomy is between “observable” and “unobservable” inputs, and the Statement presents a hierarchy of these inputs that is substantially similar to what is called for under existing SEC guidance.

C. Techniques, Approaches and Inputs

1. ASC 820 articulates three types of valuation approaches – market, income and cost – that may be chosen as appropriate for valuing particular assets.

a) The Statement then refers to various valuation “techniques” that are consistent with, and that serve to describe, these approaches.

2. The “market” approach is described as the use of “prices and other relevant information generated by market transactions involving identical or comparable (that is, similar) assets, liabilities, or a group of assets and liabilities.”

a) Matrix pricing is described as a valuation “technique” that is consistent with the market approach to fair valuing assets.

3. The “income” approach is described as “convert[ing] future amounts, such as from cash flows or income and expenses, to a single present (discounted) amount.”

a) Present value techniques and option pricing models, such as the Black-Scholes-Merton formula, are described as techniques that are used under this approach.

4. The “cost” approach is based on current replacement cost (“the amount that would currently be required to replace the service capacity of an asset”) and utilizes techniques that seem generally best suited for tangible assets, rather than the financial instruments with which funds are concerned.

5. While the market approach appears to be the most appropriate valuation "approach" for most of the financial assets held by funds – *i.e.*, stocks and bonds – the income approach might be thought to be appropriate to some derivative assets.

    a) However, the Section 2(a)(41) and Rule 2a-4 requirements that priority be given to market valuations may present obstacles for funds that might wish to apply the income approach to valuing such assets.

    b) ASC 820 recognizes that in some cases multiple valuation techniques may be appropriate for use in connection with a given valuation approach. However, while a change in technique may be appropriate as long as it yields a value that is "equally or more representative of the fair value," techniques are to be consistently applied.

6. The heart of ASC 820 is a statement of a hierarchy of valuation "inputs" that are to be used in order to apply the chosen valuation approach and technique.

    a) "Inputs" are described as being "the assumptions that market participants would use in pricing", including assumptions about risk.

    b) Inputs are divided into two categories: observable and unobservable.

        (1) "Observable" inputs are inputs that are based on market data obtained from sources independent of the reporting entity.

        (2) "Unobservable" inputs are inputs that reflect the reporting entity's own assumptions as to how market participants would approach pricing.

            (a) These are to be based on "the best information available in the circumstances."

            (b) But the key distinction is that they are not from independent, third party sources.

    c) The Statement requires that valuation techniques "maximize the use of relevant observable inputs and minimize the use of unobservable inputs."

(1) In other words, ASC 820, like the 1940 Act and the SEC's guidance, prefers third party market data to internally generated calculations.

(2) But this is not quite the same as a distinction between "market" values and "fair" values.

D. The Fair Value Hierarchy

1. ASC 820 describes three "levels" of hierarchy of fair value measurement.

2. Level 1 – the highest level of inputs – comprises unadjusted quoted prices in active markets for identical assets.

a) This is to be given the highest priority.

b) However, ASC 820 allows for adjustment in certain circumstance, including where there have been "significant events."

(1) As under the SEC's 2001 letter, ASC 820 states that reporting entities should "establish and consistently apply a policy for identifying those events that might affect fair value measurements."

(2) When adjustments are made by reason of such events, however, the input ceases to be "Level 1."

c) ASC 820 also makes clear that a quoted price should <u>not</u> be adjusted "even if a market's normal daily trading volume is not sufficient to absorb the quantity held and placing orders to sell the position in a single transaction might affect the quoted price."

3. Level 2 inputs are inputs other than quoted prices included in Level 1 that are "observable" either directly or indirectly. These include (seemingly, but not clearly, in order of preferability):

a) Quoted prices for *similar* assets in active markets – *e.g.*, matrix pricing;

b) Quoted prices for either identical or similar assets in markets that are *not* active;

c) Inputs other than quoted prices that are observable – *e.g.*, interest rates and yield curves that are observable at commonly quoted intervals, implied volatilities, and credit risks; and

d) Inputs that are derived principally from or corroborated by observable market data by correlation or other means. These are called “market corroborated inputs.”

4. Level 3 inputs are those that are unobservable.

a) This is in effect an “all other” category that seems to equate to what most people would have considered “fair valuing” under the traditional SEC guidance.

E. Disclosure

1. The aspect of ASC 820 that may have the most significant effect on funds is its requirement regarding disclosure.

2. ASC 820 requires that entities disclose the following information for each annual and interim financial reporting period:

a) The fair values of their assets;

b) The “level” within the fair value hierarchy in which the assets fell – in other words:

(1) if the entity reported total assets fair valued at $100 million, what portion was valued using Level 1 inputs (*e.g.*, $75 million was valued using quoted prices in active markets), what portion using Level 2 inputs (*e.g.*, $20 million was valued using “other observable inputs”) and what portion using Level 3 inputs (*e.g.*, $5 million using unobservable inputs).

c) For the assets valued using Level 3 (unobservable) inputs, a reconciliation showing beginning and ending balances broken down to show gains and losses, purchases and sales and transfers in and out of the Level 3 input category.

3. ASC 820 also requires that entities report for the reporting period the valuation techniques used to measure fair value and a discussion of any changes in those techniques during the period.

IV. Delegation and Controls

A. Despite the ’40 Act’s emphasis on board responsibility, delegation of day-to-day responsibility for fair valuation determinations is both necessary and contemplated by SEC guidelines.

1. ASR 113 indicated that fund boards could discharge their responsibility for fair valuations by determining “the method” of valuing each restricted security, while allowing others to perform the “actual calculations” pursuant to the board's directions.

2. ASR 118 expanded on this, stating that boards may “appoint persons to assist them in the determination of value and to make the actual calculations…”

3. Thus, the assistance that boards can obtain encompasses more than the ministerial job of making calculations. It extends to making the determinations as to the appropriate fair value methodology.

B. Impracticality of Direct Board Determinations and “Continuous” Board Review of Day-to-Day Decisions

1. As a practical matter, it is not feasible for boards to have more than minimal involvement in the day to day valuation process.

2. In addition, fund board members do not necessarily have the expertise to value securities, especially when the exercise involves thinly traded bonds or complex derivatives.

3. Also, such direct involvement is not the normal manner in which boards function.

C. The appropriate role for the Board is to act as the highest level of oversight in a multi-tiered system of supervision and controls. This entails:

1. Board approval and periodic review and (if necessary) adjustment of valuation procedures.

a) These procedures should be written and should establish the basis on which valuation data will be generated, reviewed and adjusted.

b) Normally, these procedures will be developed by fund management but should be reviewed and approved by the board.

2. Establishment, as a part of the valuation procedures, of a system of supervision and controls.

3. Board receipt and review of periodic reports as to the functioning of the valuation process, including reports of any material pricing problems, errors and corrections.

4. Board review of periodic due diligence reports on the pricing vendors.

D. Effective controls are central to the discharge of the board's responsibilities.

1. Most enforcement cases involving valuation issues have been heavily influenced by an absence of effective controls over the pricing process.

2. Others have highlighted the importance of documenting that the board or its designees have considered the relevant factors and have consistently applied a reasonable fair valuation procedure.

E. The key elements of an effective control system include:

1. Identification of acceptable sources of regular pricing information, preferably from third parties, and verifying that those sources have internal controls for verifying the validity of the information they provide.

a) Whenever possible, the basis on which the third party derives its prices should be documented.

b) Some complexes insist that quoting dealers stand ready to buy the securities they price at the quoted price.

(1) However, most dealers resist this and at least the smaller complexes generally do not have the market power to insist.

c) When prices are generated internally, there should be special procedures ensuring supervisory review of the methodologies used.

(1) Portfolio managers are often an important part of the process of challenging third party prices or recommending methodologies for fair valuing complex securities, but their recommendations should be promptly reviewed and, where feasible pre-approved, by supervisory personnel.

2. Review and supervision by the primary pricing group – generally fund accounting or administrators or the fund's custodian. This may include:

a) Periodic cross-checking of pricing service information and dealer quotes against information from alternative sources.

(1) In particular, prices derived through matrix pricing and analytical techniques should be checked.

(2) Frequency of cross checks may vary depending on circumstances, but commonly ranges between bi-weekly and quarterly.

b) Use automated flagging systems to detect potential problems. Typical flags include:

(1) no price reports;

(2) tolerance tests – *i.e.*, determining whether a change in price is outside of a pre-determined range;

(3) unchanged or stale price reports;

(4) comparisons of actual trades to most recent valuations; and

(5) identification of corporate actions.

c) Price review by investment personnel.

(1) While portfolio managers generally should not be able to unilaterally override third party prices, they can be an invaluable sources for challenges which can be reviewed by supervisory personnel.

3. Oversight of the primary pricing group by a valuation committee or other supervisory personnel within fund management. Functions may include:

a) approval and regular review of pricing methodologies;

b) receipt of periodic reports from, and monitoring the implementation of controls by, primary pricing groups and of problems and “flags” noted;

c) periodic review of adequacy of valuation procedures; and

d) preparation of reports to the board.

4. Board review of periodic reports.

5. Independent auditors' annual review of accuracy of fund NAV and pricing.

V. Correction of Pricing Errors

A. Traditionally, the SEC's view was that pricing errors affecting fund NAV by 1¢ or more per share were material and required correction.

1. This means a real penny per share, not a number that rounds up to a penny per share.

B. Since 1995, however, the SEC staff has informally accepted the appropriateness of a more complex system under which

1. errors of less than 1¢ per share are immaterial and do not require corrective action

2. errors of 1¢ or more per share require financial adjustments in favor of the fund, but not payments to affected shareholders or reprocessing of shareholder accounts unless the errors amount to at least ½ of 1% of per share NAV.

a) The staff also has informally accepted a *de minimis* standard of $10.00 per shareholder account before compensation is made to shareholders.

C. Many fund boards have passed resolutions formalizing the approach to error correction.

D. A recently-settled administrative proceeding involving a long-running pricing error is noteworthy in two respects:

1. The settlement explicitly accepts $10 per shareholder as a *de minimis* amount below which compensation need not be paid to the affected shareholders. (The adviser, however, did not benefit from this; rather, the amounts owed to such shareholders were aggregated into a pool that the adviser had to distribute according to a different formula.)

2. The funds, like most funds today, were distributed through intermediaries that held omnibus accounts for the benefit of their customers. In determining the need to compensate shareholders, the adviser was required to look through the omnibus accounts and apply the *de minimis* parameters to the individual shareholder accounts.