Increasing Profits Through an Additional Residual Pool

Managed by earnings-at-risk

by Bill Bosco and James Hershberger

Leasing experts Bill Bosco and James Hershberger present a case for the use of a well-designed and actively managed additional residual pool plan to win additional business at higher spreads/yields and, as a result, cause higher earnings/profits to occur for the business.

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A common complaint among leasing sales staff and executives alike is "Our residuals are too low and we can't win business." When this happens, new business volume and net revenue/profit results are negatively impacted. Salesman's compensation is negatively impacted as few FMV residual based deals get done. It also is all too common that the residual risk management group in the leasing company (a necessarily separate and independent reporting entity under the risk management unit of the leasing company) tracks residual gains (on albeit few FMV deals won) and uses the results to tout their prowess and justify their bonuses.

Our opinion has always been that it is better to take higher residual risk (in a controlled way) to win more business and the revenue/profit associated with it, while accepting that residual gains may not be as robust. One also has to expect that there will be an occasional residual write down. A philosophy that a leasing business head associate espouses is "if you have no losses you are not taking enough risk".

The goals of all business units in the leasing company, including the independent risk management units, must be aligned to generate maximum revenue while reaching growth targets in assets and achieving targeted returns on equity capital. Lack of alignment means few residual losses and few residual gains, but, unfortunately, less total revenue and profit for the business as a whole.

We have developed a plan to generate higher and more consistent earnings via the prudent management of an "Additional Residual Pool."

Plan for an Additional Residual Pool

Essentials of the Plan include:

- A willingness to trade residual gains to win additional business at higher spreads/yields and as a result higher earnings/profits for the business.
- The pursuit of modest residual gains with the understanding that there will be occasional residual write-downs, but with the expectation that residual gains and increased revenue/profits will more than offset any residual write-downs.
- A desire to smooth out residual earnings as Additional Residual amounts are accreted into income over lease terms.
- Targeting transactions and creating structures where lessees are motivated to purchase equipment at the EBO (early buyout option) point or lease expiry.
- Pricing to achieve targets for minimum return on risk adjusted capital, assuming worst case (distress value) residual results. Also pricing to a premium return over "normal" pricing when assuming the "additional" residual.

Concept and Implementation

Broadly, the purpose of the Additional Residual Pool is to increase and smooth out earnings by allowing the assumption of Additional Residuals on specific transactions. The Pool would represent the total amount of assumed residual risk which can be assumed by businesses in excess of expected distress value (the value assumed from a sale within 90 days (wholesale) regardless of market conditions, as opposed to fair market value where there is a willing buyer and seller with less compulsion to sell (retail)), subject to specific controls and guidelines.

The plan would be implemented through the controlled management of financial risk, systematic risk and unsystematic risk, as summarized in this table.

Financial Risk The risk that earnings or the portfolio could be impaired beyond the tolerance for residual risk.	This risk is managed by the size of the Pool, annual adjustments to the Pool, earnings at risk limits and by the targeted minimum return for each transaction/customer rating, forcing consideration of risk versus return.
Systematic Risk The risk that all equipment values will be less than expected due to a general economic downturn, resulting in a greater likelihood that equipment will be returned at lease expiry.	While this risk cannot be mitigated by diversification, it can be controlled by other means such as limiting Additional Residuals per year of expiry of the associated leases. Although difficult and not covered by this article, selling participations is also a means of managing systematic risk.
Unsystematic Risk The risk that individual industries will suffer downturns or that specific categories of equipment may be in over-supply or become obsolete, resulting in lower-than-expected-values and a large volume of equipment returns.	This diversifiable risk is managed by avoiding concentrations by year of lease expiry in equipment class and industry. Although difficult and not covered by this article, selling participations is also a means of managing unsystematic risk.

Now that we have outlined the broad aspects of the Plan, here are some specifics

Managing Financial Risk

Pool Size: To control total exposure, limit the Additional Residual Pool to say 2 - 5% of the total managed lease portfolio.

Annual Pool Adjustment: To adjust for performance and to limit losses if experience is unsatisfactory, distress values of the leased assets in the Pool will be periodically updated and compared to assumed residuals. The unutilized portion of the Pool will be adjusted through a mark-to-market process, e.g., a decrease in Distress Value for a leased asset represents a utilization of the Pool).

Earnings at Risk Limit: To ensure that earnings in any one year are not materially impacted by the accretion of additional residuals into income, there will be no more than $__ million in Additional Residual accretions per year (this is a limit, say 10% as an example, that is compared to total net earnings in the leasing business). This is intended to maintain a high level of quality, stable earnings. Residual write-downs represent the elimination of future residual accretion and possibly the reversal of prior earnings depending on the amount of the write-down compared to unamortized residual earnings.

Normal Pricing: This plan assumes the leasing company determines its "normal" pricing yield by summing its cost of funds, its cost of doing business and a profit target derived to meet the leasing company's risk adjusted return on assets/equity target. A normal profit target might be 1.50% as an example

Minimum Pricing Limit: To enforce risk versus return, individual transactions will be priced so that realization of distress value ***only*** will cause the yield on the transaction to meet minimum return targets. A minimum profit target might be 0.75% as an example. This minimum pricing target is designed to ensure no loss of "principal" or capital if the worst case of realization of only the distress value from the sale of the asset occurs at lease expiry.

Premium Pricing Requirement: The return from realizing an Additional Residual assumed in the pricing must be at a Premium of at least 25 bps higher than normal pricing.

Transaction Structuring: Early Buyout Options (EBO) will be included in the terms of Additional Residual transactions to encourage customers to buy the equipment. The EBO price will be derived from the termination value schedule assuming the additional residual and premium pricing. If the customer exercises the EBO it means you have recovered your investment and all earnings recognized thus realizing the premium pricing while avoiding all residual risk at expiry. Capped purchase options set at or above the priced residual may also be included in the terms to encourage lessee purchase. When structuring purchase options care must be taken to comply with IRS true lease guidelines.

Managing Systematic Risk

Year of Expiry Limit: to avoid severe impacts from general economic downturns, Additional Residuals assumed will be tracked by year of expiry so that no single year will have more than $__ million in maturing Additional Residuals.

Managing Unsystematic Risk

Equipment Limits: To diversify equipment risk, no more than $__ million in Additional Residuals will be assumed for each equipment category targeted by the leasing company, including, as examples, (1) autos, (2) trucks, (3) computer equipment, (4) medical equipment, (5) construction equipment, etc. as well as other equipment added to the list that may not be targeted by the leasing company but where an opportunity arises. (Commercial aircraft and railcars/locomotives are excluded as those equipment types are typically managed by a separate group within a leasing company with specialized asset managers.)

Industry Limits: To avoid industry concentrations, no more than $__ million in Additional Residuals will be assumed for each of the specialized industries targeted by the leasing company or identified through review of the industry segments of customers in the existing portfolio.

The Review Process

The Pool will be periodically re-evaluated to insure that it is working properly. Annual targets for new business volumes and pricing premiums will be reset. Residual write-downs, if any, will be forecast and included in the budget plan.

- The annual review process for individual lessees will compare assumed residuals to distress values and will allow usage of the Pool to expand or contract, based on actual performance.
- Additional Residual Pool utilization and availability will be monitored versus the limits. Quarterly reports will be provided to all concerned parties.
- Normal pricing, minimum pricing, and premium pricing will be monitored to validate transaction profit target limits under the Plan.
- Management information reports will be compiled to track deals by asset type, industry of lessee and year of expiry.

Conclusion

A well-designed and actively managed Additional Residual Pool Plan can generate significant new business volume and smooth earnings at higher spreads in a controlled manner. The net result will be more new business which designed to create higher profits. Additional information on the Plan for Additional Residual Pool may be found in the memo and appendix below and at www.leasing-101.com.

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Memo to: Senior Management XYZ LeaseCo

From: The XYZ LeaseCo General Equipment Group

Re: Plan for the management of a $XX million “Additional Residual Pool” by XYZ LeaseCo

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PURPOSE

To recommend a $XX million Additional Residual Pool that will enable XYZ LeaseCo (XYZ) to book $XXX million in additional new business volume over the next 3 years at a 25-bp premium over normal spreads while working within parameters to limit and monitor additional residual risk. This applies to the general equipment leasing group – commercial air and rail are excluded assuming separate specialized business units target those assets.

The Pool is designed to work hand-in-hand with Residual Risk Management’s (RRM) methodology for estimating expected Distress Value* (the value assumed from a sale within 90 days (wholesale) regardless of market conditions, as opposed to expected Fair Market Value where there is a willing buyer and seller with less compulsion to sell (retail)), expected Fair Market Value and for recommending residuals, while allowing the XYZ LeaseCo business head to approve assumption of residuals in excess of expected Distress Value within pre-established guidelines.

* For simplicity, Distress Value is used throughout this report to mean RRM’s recommended residual.

PHILOSOPHY

The XYZ philosophy will include:

- A willingness to trade residual gains to win additional business at higher yields and as a result higher profits for the business. To accomplish this we must assume Additional Residuals over expected Distress Value, but in a controlled manner.
- The pursuit of modest residual gains with the understanding that there will be occasional residual write-downs, but with the expectation that residual gains and increased profits will more than offset any residual write-downs.
- A desire to smooth residual earnings as Additional Residual amounts are accreted into income over lease terms.
- Targeting transactions and creating structures where lessees are motivated to purchase equipment at EBO (early buyout option) or lease expiry.
- Pricing to achieve targets for minimum return on risk adjusted capital, assuming worst case (distress value) residual results. Also pricing to a premium return over “normal” pricing when assuming the “additional” residual.

CONCEPT AND IMPLEMENTATION

The concept of the Plan is to selectively assume “Additional Residuals” on specific transactions, allowing residuals in excess of expected Distress Value not to exceed a to be determined percentage of expected Fair Market Value (90% is suggested). This concept will be implemented through the prudent management of financial, systematic and unsystematic risk.

The XYZ business unit head must approve all Additional Residuals and will be responsible for managing this risk via an “Additional Residual Pool,” defined as the total amount of assumed residuals which can be taken by the XYZ business head in excess of expected Distress Value.

We recommend an Additional Residual Pool equal to___% of the XYZ-managed portfolio or about $XX million at present levels. The Additional Residual Pool will grow with the portfolio; however, usage will be adjusted up or down via an annual residual-review process.

<u>FINANCIAL, SYSTEMATIC AND UNSYSTEMATIC RISK IN RESIDUAL MANAGEMENT</u>

Assuming Additional Residuals results in XYZ taking financial risk as well as systematic and unsystematic risk in equipment.

Financial Risk: The risk that XYZ's earnings or portfolio could be impaired beyond XYZ's tolerance for residual risk. Financial risk is managed by the size of the Pool, annual adjustments to the Pool, earnings at risk limits and by XYZ's targeted yield for each transaction/customer rating, forcing consideration of risk versus return.

Systematic Risk: The risk that all equipment values will be less than expected due to a general economic downturn, resulting in a greater likelihood that equipment will be returned at lease expiry. While Systematic Risk cannot be mitigated by diversification, it can be controlled by other means such as limiting Additional Residuals per year of expiry.

Unsystematic Risk: The risk that individual industries will suffer downturns or that specific categories of equipment may be in over-supply or become obsolete, resulting in lower-than-expected-values and a large volume of equipment returns. This diversifiable risk is managed by avoiding concentrations by year of lease expiry in equipment class and industry.

<u>Managing Financial Risk</u>

Pool Size: To limit XYZ's total exposure, the Additional Residual Pool will be limited to ---% of the XYZ-managed portfolio, or $XX million at the current portfolio level. $X million (say one third of the total pool limit per year) will be available annually for 2013, 2014 and 2015 with any remainder available during 2016. The Pool will grow with the portfolio.

Annual Pool Adjustment: To adjust for performance and to limit losses if experience is unsatisfactory, Distress Values for each lease in the pool will be updated and compared to assumed residuals each year. The un-utilized portion of the Additional Residual Pool will be adjusted through a mark-to-market process (e.g.., a decrease in Distress Value represents a utilization of the Pool).

Earnings at Risk Limit: To insure that XYZ's earnings in any one year are not materially impacted by the accretion of additional residuals into income, there will be no more than $X million in Additional Residual accretions per year (10% of XYZ's current Net Revenue (net spread or revenues over interest expense), including fees and extended/month-to-month renewal rents). This is intended to maintain a high level of quality, stable earnings. Residual "write-downs" represent a reversal of prior earnings and elimination of future residual accretion.

Normal Pricing: Normal Pricing is based on recovering our cost of funds, our cost of doing business, cost of credit and a profit target of 1.50% (as an example) designed to provide the shareholders their targeted return on capital.

Minimum Pricing Limit: To enforce risk versus return, individual transactions will be priced so that realization of Distress Value only will meet XYZ's Minimum Pricing Limit based on risk adjusted return on regulatory capital considering the lessee credit and the transaction terms (Minimum Pricing Limit assumes XYZ has a policy of targeting returns based on the risk profile of the lessee and the transaction terms to insure adequate pricing of use of capital assuming bank regulatory capital rules (e.g. Basel III)) (as an example say the minimum pricing Limit profit target is 0.75%). Losses from Additional Residual are really reversals of "opportunity earnings" because they do not impair Minimum Pricing Limit earnings. A loss of Additional Residual is not a loss of "principal" as long as Minimum Pricing Limit is met by realization of Distress Value. In highly competitive situations this limit will be difficult to meet. In such cases exception pricing approvals may be necessary.

Premium
Yield
Requirement: The yield from realizing an Additional Residual must be at a Premium Yield of at least 25 bps higher than our Normal Pricing. Some of the benefit of the additional residual will be factored into the lease rate to win transactions. See Appendix for an example.

Managing Systematic Risk

Year of
Expiry Limit: Additional Residuals assumed will be tracked by year of expiry so that no single year will have more than $X million in maturing Additional Residuals. This limit is designed to avoid severe impacts from general economic downturns in years when equipment may have to be re-marketed.

Managing Unsystematic Risk

Equipment
Limits: To diversify equipment risk, no more than $X million in Additional Residuals will be assumed for each equipment category, including (1) autos, (2) barges, (3) cable television equipment, (4) construction equipment, (5) containers, (6) corporate aircraft, (7) forklifts, (8) industrial production equipment, (9) material handling equipment, (10) medical equipment, (11) mining equipment, (12) office equipment, including furniture, (13) rail support equipment, (14) technology equipment, (15) telecommunications equipment, and (16) trucks (commercial aircraft and railcars/locomotives are excluded assuming they are managed in another XYZ business unit).

Industry
Limits: To avoid industry concentrations, no more than $X million in Additional Residuals will be assumed for each of the specialized industries identified by XYZ (bank owned leasing companies work hand-in-hand with the Relationship groups in the bank that often target specific industries). These limits are designed to avoid severe impacts from industry downturns.

EXCEPTION POLICY

Exceptions will require additional approvals consistent with XYZ risk management and pricing policies.

REVIEW PROCESS

- The annual review process for individual lessees will compare assumed residuals to Distress Values and will allow usage of the Pool to expand or contract, based on actual performance. This mechanism capitalizes on success and limits failure.

- The XYZ credit head will monitor Additional Residual Pool utilization and availability versus the Limits. Quarterly reports will be provided to all concerned parties.

- The results of the Additional Residual Pool Plan will be presented by the XYZ business unit head and business unit credit heads and the RRM head to the XYZ senior management (XYZ business and credit heads) during the annual budget process. Adjustments to the Pool and to the Limits will be made. The Pool will be re-evaluated to insure that it is working properly. Annual targets for new business volumes and pricing premiums will be reset. Residual write-downs, if any, will be forecast and included in the budget plan.

- The XYZ pricing/financial control unit will provide calculations of normal spread, RAROC spread, and Premium Spread to validate Transaction Spread Limits under the Plan.

- Management information reports (to be developed) to track deals by asset type, industry of lessee and year of expiry.

Conclusion and Recommendation

The Additional Residual Pool Plan, if implemented properly, will enable XYZ to generate significant new business volume at higher spreads in a controlled manner.

We strongly recommend approval.

Place your signature here

Appendix 1: Examples of Transaction Spread Limits

Appendix 1

Examples of Transaction Spread Limits

“Higher Volumes at Premium Pricing”

Concept:

- Assume an Additional Residual over Distress
- Price at a premium
- Loss of Additional Residual cannot be below minimum pricing limit

Example 1:	PC Lease for Big4 Acctg Co (good credit rating)
Term:	3 years
Minimum Pricing Limit yield	6.15% considering risk based capital analysis of lessee rating and transaction terms (includes 75 bps profit target)

Current Methodology:	
Residual:	2.0% (Distress Value)
“Normal” pricing pre tax yield	6.9% (includes 150bps profit target)
Monthly rent factor:	3.02% in advance
Implicit Cost to Lessee:	5.73%

New Methodology:	
Residual:	3.75% (Additional Residual of 1.0%)
“Premium” pricing yield	7.15% (incl. 25 bps premium)
Annual Rental Factor:	2.98
Implicit Cost to Lessee:	4.96% or a 0.77% savings in implicit cost

Impact to XYZ:	If the 3.75% residual achieved: Premium Spread received If only 2% Distress residual achieved: yield drops to 6.15% Result: No loss of “residual principal” and the spread meets the Minimum Pricing Limit for the transaction terms and lessee credit rating. The reward is 0.25% higher yield and the risk is 0.75% in downside below normal pricing yield BUT it meets the minimum limit. Thus the risk to reward ratio is 3:1.

Example 2:	ABC Paper Co (RR3-) Corporate aircraft lease which was lost by $200m PV per debriefing by customer
Term:	8 years with 5 year EBO
EMG Values:	Cost $16.9mm, FMV $13.2mm, Distress $11.2mm, RRM Residual $9.2mm
Current Methodology:	
Residual:	$9.2 (54%) ($2mm below Distress)
Spread:	1.0% (low due to investment grade lessee)
PV of rents:	$7.9mm
New Methodology:	
Residual:	$10.0mm(59%)(Additional Residual of 5.0%)
Spread:	1.25% (includes 0.25% premium)
PV of rents:	$7.7mm ($200m savings to lessee)
Impact to XYZ:	Deal would have been won at this level of residual. Booked yield is 25bps higher than bid yield. If the deal went to full term and Distress value is achieved the spread would be 2.18%. If only the RRM Residual is achieved the spread would be 61bps or 26bps better then Minimum Pricing of 35bps (in this case the quality of the credit being investment grade, allowed for a 35bps profit target. The reward/risk ratio is 25bps reward vs. 39bps risk, both keyed off the original 1.0% spread.
Example 3:	InvGrade Co (RR4-)
Term:	5 years
RRM Values	Cost $28.1mm, FMV $6.3mm (22%), Distress $4.1mm (15%)
Current Methodology:	
Residual:	$4.1mm (15%) (Distress Value)
Spread:	1.5%
Customer view:	1.78 rent factor, 87.45% PV, 2.59% implicit
New Methodology:	
Residual:	$5mm (18%) (Additional Residual of 3.0%) (80% of FMV)
Spread:	1.75% (incl. 25 bps premium)
Customer view:	1.73 rent factor, 85.17% PV, 1.54% implicit
Impact to XYZ:	If RRM Distress value is achieved, spread would be 86bps or 14bps better than minimum pricing limit of 75bps.