



## ACCOUNTING FOR CREDIT UNION MERGERS

Credit unions historically accounted for mergers under the pooling of interest method. The accounting was relatively straightforward and was accomplished by combining the book values of the two entities. The rules changed on January 1, 2009 when FAS 141R (FAS ASC 805 *Business Combinations*) became effective and the accounting became much more complex. FAS ASC 805 requires credit unions to use purchase accounting and to record the transaction at fair value. This requires the determination of the fair value of the credit union to be merged in (“acquired credit union”) and of all of its assets and liabilities. The valuation must also include potential intangible assets such as the core deposit intangible. The fair value estimates must be made in accordance with the requirements of FAS 157 (FAS ASC 820 *Fair Value Measurements and Disclosures*). Please refer to Appendix A for a comparison of the “old” rules to the “new” rules.

***WW Risk Management notes that the purchase accounting rules can apply to a transaction that is not a full merger, including branch acquisitions, purchase and assumption agreements, etc.***

Since the new accounting became effective, Wilary Winn Risk Management has advised on numerous merger transactions. For example, we have advised on half of the credit merger transactions in 2011 wherein the acquired credit union had more than \$35 million of total assets. This white paper is designed to share what we have learned along the way and to address the most common questions we encounter. We hope you find it useful.

We begin with accounting requirements on Day One – the opening journal entry. Next we discuss the rules for Day Two – the ongoing accounting. Finally, we discuss assessing the goodwill for potential impairment.

### DAY ONE ACCOUNTING

The acquiring credit union must undertake several steps in order to have the information needed to record the transaction.

It must determine the:

- Overall value of the acquired credit union;
- Fair value of the acquired credit union's financial assets and liabilities;
- Fair value of the acquired credit unions non-financial assets and liabilities; and
- Fair value of any intangible assets – the most common being the core deposit intangible.

### **Overall Value of the Acquired Credit Union**

Valuation experts generally use income-based and market-based approaches to determine fair value. The values derived using the different methods must be reconciled to reach an overall fair value conclusion.

#### Income Approach

In order to determine the fair value an entity using an income approach, business appraisers generally first estimate the organization's probable future cash flows. They then discount the cash flows back to the valuation date at an appropriate discount rate. However, WW Risk Management believes that the use of future cash flows is not a reliable indicator of value for financial institutions because items like capital expenditures, working capital and debt are not clearly defined. As a result, we base our analysis on future earnings. WW Risk Management uses an approach that is based on a detailed review of the credit union's recent financial performance. We note that the future earnings to be used for this determination are the earnings that the acquired credit union could generate as a standalone entity and should be based on the assumptions used by market participants. ***This means that the fair value of the acquired credit union can be different than its value to the acquirer.*** For example, for purposes of the valuation, an acquiring credit union cannot necessarily assume that the acquired credit union costs will go down due to economies of scale, whereas the acquiring credit union could be assuming this will happen as it build its internal projections.

To determine value under an income approach we work with our clients to estimate future earnings by developing pro-forma balance sheets and income statements for at least five, and often 10 years, into the future. A key valuation assumption is the rate of future growth. To estimate future growth, WW Risk Management begins with the credit union's historic growth rate and then adjusts it based on any changes in the credit union's field of membership and any significant demographic changes in the area in which the credit union is located. Other key assumptions include:

- Net interest margin –which is dependent on the loan and share mix and future market interest rates
- Non-interest income

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- Non-interest expense – the highest cost here is personnel
- Loan loss provision

The key metrics we consider as we develop our pro-formas are:

#### *Capital Adequacy*

- Net worth

#### *Profitability*

- Return on assets
- Efficiency ratio
- Assets to employee ratio
- Earning assets to total assets

#### *Asset Quality*

- Non-current loans to total loans
- Loan loss reserve to total loans
- Provision for loan loss to total loans
- Loan loss reserve to non-performing loans
- Net charge-offs to total loans

#### *Liquidity*

- Loan to deposit ratio
- Loan to total assets ratio
- Investments to total assets ratio

WW Risk Management notes that a portion of the future earnings are often required to be held in the organization in order for the organization to maintain adequate capital as it grows. This portion would not be available to dividend out, and therefore, we exclude this portion from the present value calculation of future earnings.

Our final steps under the income estimation approach are to discount these earnings back to the valuation date and to estimate the value of the residual. WW Risk Management uses a Capital Asset Pricing Model (“CAPM”) approach in order to determine the discount rate to use in our income approaches. We generally rely on the *Ibbotson Cost of Capital Yearbook*. We note that the Ibbotson cost of capital is based on after-tax cash flows. WW Risk Management uses the after-tax cash flow discount rate because credit unions do not pay income taxes and have, as an industry, passed this benefit on to their members by offering lower rates on loans and higher

### **Accounting for Credit Union Mergers**

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rates on deposits than their commercial banking competitors. Thus, we believe the earnings themselves reflect the tax effect and that the use of an after-tax discount rate is appropriate.

### Market Approach

WW Risk Management bases our market approach on the market values of publicly traded community banks. To do this, we identify the price to earnings and price to book ratios for banks with similar asset size in the same geographic area. We then adjust for differences in return and growth.

Finally, we reconcile the valuation estimates derived under the two methods and determine the overall fair value of the acquired credit union. ***This overall fair value estimate is the amount of equity that can be recorded on Day One. See the \$3,540,000 in the example valuation summary attached as Appendix B.***

### **Fair Value of Financial Assets and Liabilities**

The financial assets and liabilities consist primarily of loans, investments and shares. Accrued interest receivable, accounts receivable, accrued interest payable and accounts payable are also considered to be financial assets or liabilities.

### Investments

Investments generally consist of certificates of deposits and “vanilla” bonds. To determine the value of a CD, WW Risk Management discounts the expected cash flows using an estimated market interest rate over its expected remaining life. We can generally identify a price for the bonds using Bloomberg or another pricing service. We occasionally encounter illiquid securities, which we value using discounted cash flows.

### Accounts Receivable and Payable

WW Risk Management generally values the short-term accruals, accounts receivable and accounts payable at book value, because we believe the present value effect is immaterial.

### Shares

The fair value of the share accounts is dependent on whether they are time or non-time deposits. The non-time share deposits are recorded at book value. The value of the non-time deposits is reflected in the “core deposit intangible”. The valuation of intangible assets is discussed beginning on page 7.

WW Risk Management estimates the value of time deposits in a manner similar to the one we use for certificate of deposit investments.

## **Accounting for Credit Union Mergers**

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## Loans

WW Risk Management believes determining the fair value of the loans is one of the most complex undertakings under the purchase accounting rules. The marketplace for seasoned loans is not active. As a result, valuation experts generally value the loans using a discounted cash flow analysis. Two approaches are permissible under GAAP<sup>1</sup>. One approach is to discount the contractual cash flows at an “all in” estimated market discount rate, which by its nature includes a credit spread. The other approach is to develop a “best estimate of expected cash flows” and discount the amounts back to the valuation date at an appropriate discount rate. We estimate the value of the loans based on their contractual interest rate and their probable lifetime credit losses, by performing a discounted cash flow analysis using a proprietary valuation model. The valuation is performed at the loan level for all loans secured by real estate and at the cohort level for all other loans, and is based on the objective attributes of the loans in the portfolio (i.e., the rate of interest on the loan, the original term of the loan, the current term of the loan, etc.) and current statistical performance variables used in the marketplace. Our analysis is based on the contractually specified amounts of principal and interest to be received, *modified by our estimates* of prepayment, default and loss severity to be experienced prospectively. Our prepayment, default and loss severity assumptions are applied at the loan level based on the characteristics of the loan (type of loan – new car, FICO – prime, non-prime, sub-prime, etc.).

We generally use the “all in” market interest rates to discount the expected cash flows for loans with FICO scores above 720, because our estimated credit loss estimates for these loans are generally quite modest. In other words, our best estimate cash flows are very similar to the contractual cash flows, implying that the amount of credit spread included in the discount rate is also quite modest. On the other hand, for loans with scores below 720, we use the buildup method to develop our discount rate. We begin with an appropriate risk free rate based on the term of the loan, (adjusted for amortization, voluntary and involuntary prepayments) and add a spread for uncertainty and liquidity. Because we are using expected cash flows net of credit losses, our discount rates for loans with FICOs under 720 do not include a credit spread. WW Risk Management believes including the credit spread in the discount rate for these loans with lower credit quality would be “double counting”.

The book value of the loans is thus adjusted for an interest rate differential (discount rate valuation allowance) and the present value of expected credit losses (credit valuation allowance). **Because the estimated fair value of the loans includes the estimated credit losses, the allowance for loan losses is recorded at zero on day one.** See the adjustments to loans in the example loan summary attached as Appendix C – the interest rate discount – \$1,326,480 in total and the credit loss discounts – \$2,617,210 in total. See the Day Two accounting section of this white paper for more details.

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<sup>1</sup> FAS ASC 820-10-55-4

### Prepaid Expenses

The treatment of prepaid expenses is another item that is less straightforward than one would imagine. One has to consider whether the prepaid item would have benefit to market participants. For example, a multi-year prepaid contract that cannot be used after the merger would have no “fair value” and would be recorded at zero on the Day One journal entry.

### Accrued Liabilities

WW Risk Management recognizes that prior to the change in the accounting rules, many acquiring organizations had the acquired credit union accrue the costs of the merger on its book prior to the merger so the expenses would not flow through the income statement of the combined entity. This is another major change under the new rules. **In general, the costs of the merger and any restructuring costs should flow through the income statement of the acquiring credit union<sup>2</sup>.** The theory is that if the party that receives the primary benefit is the buyer or the combined entity, the cost should run through its income statement. In our experience, the types of costs that can be accrued as part of the merger are quite limited. An example would be a compensation arrangement that was in place before the merger was contemplated, and that just happens to be triggered as a result of the merger. The required payout can be accrued on the acquired credit union’s books as of the merger date. By way of contrast, a payout negotiated as part of the merger should run through the income statement of the acquiring credit union.

The acquiring credit union should also ensure that the acquired credit union has properly accrued its expenses. In other words, the organization should ensure that the acquired credit union does not have any unrecorded liabilities.

### **Fair Value of Non-Financial Assets and Liabilities**

The most significant non-financial assets are generally land and buildings. We generally require our clients to obtain commercial real estate appraisals if these assets are material.

Real estate leases are another item that must be evaluated in a merger. If the lease is less than market, then an asset should be recorded. On the other hand, if the lease is over the market rate, a liability should be recorded. We calculate these items by discounting the difference in cash flows back over the remainder of the lease term to the valuation date at the acquired credit union’s estimated cost of capital.

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<sup>2</sup> FAS ASC 805-10-25-23

## **Intangible Assets**

The value of intangible assets should be recorded as well in the Day One journal entry. **Recognition of an intangible asset requires that the asset be separable or have a contractual or legal benefit.**

The most common intangible assets in a credit union merger are:

- Mortgage servicing rights
- Core deposit intangible
- Member relationships
- Value of the acquired credit union's trade name

### *Mortgage Servicing Rights*

Mortgage servicing rights are the rights to service a loan that has been sold into the secondary market in exchange for a fee. The market for bulk sales of mortgage servicing rights is quite limited. As a result, the value of mortgage servicing rights is generally determined via a discounted cash flow analysis. The most sensitive input in the valuation is the assumption regarding the rate at which the loans will prepay.

### *Core Deposit Intangible*

The premise underlying the core deposit intangible asset is that a rational buyer would be willing to pay a premium to obtain a group of core deposit accounts that are less expensive than the buyer's marginal cost of funds. WW Risk Management believes the core deposit intangible benefit depends on the type of account. For example, share drafts accounts have very different economics and behavior than high rate money market shares. To calculate the estimated fair value of the core deposit intangible, we first segment the accounts by type. Next, we estimate the likely run-off, average life and terminal economic life. The rate paid on the deposit, the non-interest income generated, and the non-interest expense incurred also affect the value of the core deposit intangible. WW Risk Management's estimates for the value of the core deposit intangible are derived through a discounted cash flow analysis and an analysis of values identified in the marketplace.

### *Member Relationships*

WW Risk Management believes that the value of the member relationships is imbedded in the overall value of the entity and the core deposit intangible. We believe it would be quite difficult to separately determine the value of member relationships in terms of the ability to cross sell loans or shares at lower cost, or higher rates of penetration, and have generally not seen such items recorded.

## **Accounting for Credit Union Mergers**

### *Acquired Credit Union's Trade Name*

A trade name can have value based on how widely it is recognized. If the brand is well known and the acquiring credit union intends to keep using it, the trade name has value. Trade names can also have a defensive value. That is, it can have value even though the acquiring credit union plans to retire the name. For example, imagine the value to Pepsi of having the rights to the Coca-Cola brand name.

### *Goodwill or Bargain Purchase*

On Day One, the acquiring credit union records the overall fair value of the acquired credit union, the fair value of the assets acquired and liabilities assumed and the fair value of any intangible assets. **The amount required to balance the Day One journal entry is Goodwill or a Bargain Purchase. WW Risk Management believes a merger transaction will generally result in goodwill.** In fact, GAAP requires the acquiring credit union to “double check” its work before recording a bargain purchase<sup>3</sup>.

The resulting goodwill is not amortized as it was under the old rules. Instead, it is subject to impairment testing, the details of which are contained later in this white paper.

See Appendix B for an example comparing the fair value of the balance sheet to the book value at the merger date. Appendix D shows how to record the acquisition on Day One, including the accounts used to adjust book value to fair value.

See Appendix D for an example of the Day One journal entry to record the merger.

**WW Risk Management further notes that GAAP allows the acquiring credit union to true up the Day One journal entry up to 12 months after the merger date to reflect new information that would have affected the valuation amounts<sup>4</sup>.**

**We note that the “new” information is relative to the acquisition date only. The adjustment is designed to reflect information that existed as of the valuation date that was not known at the time. It is not intended to reflect changes in facts and circumstances as of the valuation date. Instead, it is designed to reflect a clarification of facts that existed as of the valuation date. For example, if a loan at the valuation date was a modified loan and was not disclosed as such, an adjustment would be appropriate. On other hand, if the acquired credit union obtained an appraisal for a branch location at the acquisition and due to**

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<sup>3</sup> FAS ASC 805-30-25-4

<sup>4</sup> FAS ASC 805-10-25-13

**changes in market conditions, the value of the branch was less 11 months later, an adjustment would not be appropriate.**

### **REGULATORY REPORTING – 5300 CALL REPORT**

For regulatory reporting purposes, the acquiring credit union does not include the equity acquired in the merger (the overall fair value of the acquired credit union – the \$3,540,000 in our example included as Appendix B). Instead, it reports the acquired credit union’s retained earnings as of the valuation date – the \$3,615,000 in our example attached as Appendix B. **Thus, for regulatory capital purposes, the acquiring credit union is able to count the acquired credit union’s book equity. This can be beneficial in today’s economic environment as the overall fair value of many acquired credit unions is less than book.** For GAAP purposes, the equity acquired in the merger is reported in the Equity Section on line 33. The amount on line 33 is not carried over to the PCA Net Worth Calculation Worksheet. Instead, the acquired credit union’s retained earnings are reported on line 7b of the Worksheet.<sup>5</sup> See Appendix D for more details.

We further note that in the case of involuntary, regulatory-assisted mutual to mutual credit union combinations, the amount of regulatory capital flowing to the acquiring credit union is zero. In other words, the acquired credit union’s retained earnings as of the valuation date do not count toward regulatory capital.

Finally, in our experience, the external auditors will specifically perform a review as of the acquisition date to ensure that the amount of regulatory capital reported is in accordance with GAAP. For example, they will ensure that all liabilities that should have been recorded have been recorded and the allowance for loan losses has been calculated properly in accordance with GAAP.

#### *Goodwill and Bargain Purchase Gains*

Any goodwill recognized in a business combination is recorded on line 31.b of the Statement of Financial Condition. Any gain recognized from a bargain purchase should be reported on line 16 of the Statement of Income/Expense.

WW Risk Management notes that any assistance provided by the NCUA is recorded as a reduction of goodwill. Assistance would result in a bargain purchase only if the amount of the assistance exceeded the goodwill and the gain would be only the excess amount. We further note that the amount of bargain purchase gain must be deducted from the combined entity’s retained earnings when calculating regulatory capital. We note that this reduction is subject to a floor of zero. In other words, if the bargain purchase is greater than acquired credit union’s net worth, the

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<sup>5</sup> 12 CFR Part 702.2 (f) (3)

acquiring credit union would reduce regulatory capital by the amount of acquired credit union's retained earnings only.

#### *Delinquency Status of Purchased Loans and Other Financial Assets*

The delinquency status of purchased loans and other purchased financial assets must be determined in accordance with the contractual repayment terms for the purposes of reporting on delinquency schedule of the 5300. The delinquent loan should be reported at its recorded amount and not at its contractual balance due.<sup>6</sup>

#### *Nonaccrual Status of Purchased Impaired Loans*

Normal nonaccrual parameters apply to purchased impaired loans.

### **DAY TWO ACCOUNTING**

Many find the Day One Accounting to be relatively complex. Unfortunately, the ongoing accounting is also not straightforward – particularly for the acquired loans. Following is a quick summary for the items other than loans, followed by a detailed description of the required accounting for the acquired loans.

The premiums or discounts for the investments acquired are amortized or accreted into income over the estimated life of the investment as an adjustment to interest income. Premiums reduce interest income, whereas discounts have the opposite effect.

The premiums or discounts on the acquired time deposits are amortized or accreted into expense over the estimated life of the liability as an adjustment to interest expense. Premiums reduce interest expense, whereas discounts increase interest expense.

Mortgage servicing rights acquired in the merger are generally amortized on a level yield basis over the estimated life of the loans. The amortization is recorded as a reduction to servicing income. (We note that mortgage servicing rights can also be measured and reported on an ongoing basis at fair value, with the change in fair value running through the income statement. This fair value accounting is generally used by only the largest institutions, which have generally hedged the portfolio against interest rate risk.)

The core deposit intangible is amortized on a level yield over the estimated lives of the non-time deposits. The expense should be recorded as other non-interest expense.

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<sup>6</sup> Interagency Supervisory Guidance on Bargain Purchases and FDIC- and NCUA-Assisted Transactions – June 7, 2010

The fair value of the fixed assets acquired becomes the basis for depreciation. The fixed assets should be depreciated over their estimated remaining lives, which can be longer or shorter than the term used to calculate depreciation before the acquisition.

The most complex ongoing accounting relates to the acquired loans. The required accounting centers on two questions.

1. Do I account for the loans at based on their *contractual* cash flows, or
2. Do I account for loans based on their *expected* cash flows

#### *Contractual Cash Flows*

If the acquiring credit union expects to receive all of the contractually specified principal and interest payments from an acquired loan, then the loan should be accounted for in accordance with ASC 310-20. That is, the interest rate discount or premium (interest rate valuation allowance) should be amortized or accreted into income on a level yield over the expected life of the loan. Under this method, the acquiring credit union establishes a *post-acquisition* allowance for loan losses to record credit losses on acquired loans.

WW Risk Management believes that the acquiring credit union can account for the acquired loans with the highest credit quality (FICOs over 720, reasonable LTVs) using this methodology. We note that our estimated credit losses for these types of loans are generally quite nominal and that we use an adjusted market discount rate to estimate fair value. Thus, the valuation approach and the accounting are consistent. The acquiring credit union amortizes the interest rate valuation allowance and the relatively modest credit valuation allowance into income over the expected life of the loan.

#### *Expected Cash Flows*

On the other hand, loans acquired with “deteriorated credit quality” must be accounted for under ASC 310-30 (pre-codified Statement of Position 03-3 *Accounting for Certain Loans or Debt Securities Acquired in a Transfer*).

#### **Which loans fall within the scope of ASC 310-30?**

Acquired loans that meet the following two criteria must be accounted for pursuant to ASC 310-30:

1. There must be evidence of deterioration in credit quality *subsequent to origination*.
2. It must be probable that the acquirer will be unable to collect all contractually required payments from the borrower.

#### **Accounting for Credit Union Mergers**

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The determination of whether acquired loans are to be accounted for under ASC 310-30 must be made at acquisition on a loan-by-loan basis, and loans cannot transition between ASC 310-30 and ASC 310-20 subsequent to the acquisition date.

*Requirement 1 – Did the deterioration in credit quality occur subsequent to origination?*

At first glance, this determination may appear simple. One can review the loan's performance and underlying attributes to determine whether credit concerns exist. Factors to consider are the borrower's credit score, sources and uses of cash, payment history, and debt-to-income levels. However, to qualify for accounting under ASC 310-30, this deterioration in credit quality must have occurred subsequent to origination. Accordingly, a loan that was of lower credit quality from time of its origination may or may not fall into the ASC 310-30 bucket. If the loan has continued to perform based on its contractual terms, then chances are good that deterioration in credit quality did not occur subsequent to acquisition.

To eligible for ASC 310-30, the credit conditions would have had to have worsened – the credit score fell, the loan to value ratio increased, etc.

*Requirement 2 – Is it probable that the acquirer will be unable to collect all contractually required payments from the borrower?*

WW Risk Management believes that if the fair value of the loan includes a credit valuation allowance, it is clear that the acquirer will not receive of the contractually required payments from the borrower. We further believe that high FICO, low loan to value loans will generally not have a significant credit valuation allowance and would thus fail this requirement, whereas the remainder of the portfolio would likely meet this requirement.

***Thus, loans with credit valuation allowances clearly meet Requirement 2, but may not meet Requirement 1. Fortunately, GAAP permits the acquiring credit union to elect to account for the loans at the group level thus avoiding the tedious scope determination required under Requirement 1<sup>7</sup>***

WW Risk Management thus recommends that the acquiring credit union make two accounting elections for loans that have credit valuation allowances which are not immaterial.

1. Account for the acquired loans at the group level.
2. Elect to the treat the group level asset in accordance with ASC 310-30.

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<sup>7</sup> AICPA Depository Institutions Expert Panel Letter to SEC December 18, 2009

We believe this dramatically simplifies the ongoing accounting *provided you know the separate fair value adjustments for the interest rate differential and the expected credit losses.*

WW Risk Management believes that the acquiring credit union could also elect to include loans with the highest credit quality as it forms the loan groups. For example, an acquiring credit union could elect to account for all of the first lien residential mortgage loans acquired as a group based on expected cash flows vs. accounting for the loans with the highest credit quality using contractual cash flows. We note that the loans should be grouped based on similar characteristics – residential first lien, residential second lien, new direct auto, used indirect auto, etc.

WW Risk Management further notes that it could be “worth the effort” to determine whether to account for relatively large member business loans at the loan level and go through the process of determining whether the particular loan should be accounted for under ASC 310-20 or ASC 310-30.

We note that GAAP does not allow loans with revolving terms to be accounted for under ASC 310-30 because of the uncertainty of future advances and repayments<sup>8</sup>. In our experience, the acquiring credit union amortizes the discount rate valuation allowance *and* the credit valuation allowance straight-line over the remaining term of the loan as of the acquisition date of the loan. If it becomes apparent over time that the present value of the cash flows are less than the book value of the loan, then the acquiring credit union should increase its allowance for loan losses by the amount of the shortfall.

### **Recognizing income under ASC 310-30**

Under ASC 310-30, the expected cash flows that exceed the initial investment in the loan (its fair value on Day One) represent the “accretable yield,” which is recognized as interest income on a level-yield basis over the life of the loan. Appendix C compares the book values to the fair values by loan grouping and details the interest rate and credit reductions. Using the New Vehicle – Direct loans as an example, the interest rate difference is \$7,000 and the credit only difference is \$164,700. The book value is \$3,400,000, and based on the interest rate and credit reductions, the fair value is \$3,228,300. Under ASC 310-30, the acquiring credit union would accrete the \$3,228,300 fair value at a rate of 6.9%. Actual interest and principal received would be accounted for as a reduction of the fair value carrying amount of the loan.

In our experience, our client’s core accounting systems cannot accommodate the precise accounting required under ASC 310-30. In response, we separately identify the present value of the difference between the expected cash flows at the coupon rate and the expected cash flows at the market rate of interest. This is the interest rate discount (discount rate valuation allowance) or

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<sup>8</sup> ASC 310-30-15-2 (f)

the \$7,000 in our new direct vehicle loan example. We advise our clients to amortize the discount rate valuation allowance into income using sum of the years' digits amortization (which closely resembles level yield amortization). Because the discount rate valuation allowance is based on the *difference* between the rate on the portfolio and the overall market interest rate, our clients can continue to record the contractual interest income as received and continue to rely on their core system to provide the loan by loan accounting. The result very closely approximates the precise accounting required under ASC 310-30. Appendix E compares accreting the discount rate valuation allowance using the sum-of-the years' digits method and recording the contractual cash flows as received – to the required accretion required ASC 310-30 for the new direct vehicle loans in our example. The schedule shows that the interest income recorded would be slightly higher than the interest income recorded under the exact ASC 310-30 accounting for the first 9 months and then is slightly less for the next 20 months. Our clients have found in practice that the simplicity of this amortization method outweighs the modest differences it produces compared with the cumbersome reporting required using a precise implementation of the standards.

WW Risk Management further notes that the difference between the cash flows expected at acquisition and the total contractual cash flows is the nonaccretable difference. The nonaccretable difference is the undiscounted principal and interest that will not be received due to prepayments and defaults. In our new direct loan example, the amount is \$233,824. We note that the total contractual cash flows must be disclosed only once and need not be tracked going forward.

Finally, we note that examples of templates used to amortize/accrete the fair value adjustments for all of the accounts, including the loan adjustments are attached as Appendix F.

### **Changes in estimates of cash flows under ASC 310-30**

The acquiring credit union must periodically compare the actual cash flows received to the expected cash flows on Day One and reassess the remaining cash flows expected to be collected. If the new total expected cash flows exceed the initial estimate, then the acquiring credit union should increase the rate of accretion. In essence, the fair value of the loan has increased, but the increase can only be recognized prospectively through an increased yield. If the expected cash flows have decreased, then the acquiring credit union should record an allowance for loan losses.

Because the allowance for loan losses is initially recorded at zero with expected credit losses reflected in the credit loss valuation allowance, the tracking and reporting of credit losses is more complex under the new rules. Some organizations have charged foreclosure losses directly against the credit loss valuation allowance. In our experience, the NCUA prefers to see losses run through the allowance for loan losses and related provision accounts. In this case, WW Risk

Management recommends that foreclosure losses be recorded through the three following journal entries. In our example, we assume a foreclosure loss of \$100.

Allowance for loan losses	100	
Loan receivable		100
Provision for loan losses	100	
Allowance for loan losses		100
Credit reserve valuation allowance	100	
Other non-interest income		100

The net effect of these entries with regard to profit and loss is zero. However, the actual foreclosure losses incurred are easier to track because they run through the standard accounts. We note that the final credit should run through other non-interest income, not interest income, because the entry is designed to offset the provision expense and is not meant to reflect an adjustment to the prospective yield.

We further recommend that the acquiring credit union allocate the carrying amount of the foreclosed loan based on the individual loan's relative initial fair value. This method mirrors traditional loan accounting and is consistent with the requirements of ASC 310-30. Under this method, a gain or loss would be recognized for the difference between the allocated carrying amount of the loan and the fair value of the collateral obtained in foreclosure. When allocating costs while removing loans from the pool, the accounting principle that should be adhered to is that the yield on the remaining pool should not be disturbed by the removal. That is, the yield on the remaining pool of loans should neither increase nor decrease as a direct result of removing a loan from the pool.

Finally, if the actual cash flows for the loan group differ significantly from the cash flows expected at inception, WW recommends that the steps in the Day One valuation be repeated at the new assessment date and that new rates of accretion be calculated or that the allowance for loan losses be increased or decreased depending on whether the new cash flows have increased or decreased.

### **Other Rules Related to the Grouped Loans**

WW Risk Management notes that the integrity of the pool should be maintained throughout its life. Thus, loans should not be added to the pool, nor should loans be removed absent events such as foreclosures, write-offs, or sales of the loan<sup>9</sup>.

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<sup>9</sup> FAS ASC 310-30-40-1

We also believe that the acquiring credit union should not apply troubled debt restructuring accounting and disclosure guidance to loans included in a pooled asset under ASC 310-30<sup>10</sup>.

## **GOODWILL IMPAIRMENT TESTING**

As we indicated earlier, the goodwill recorded in a merger transaction is subject to annual impairment testing. The process begins by determining the entity to be assessed. Perhaps counter-intuitively, the goodwill test is nearly always performed at the combined entity level instead of at the level of the acquired credit union. The test would be performed at the acquired credit union level only if it were deemed to be a separate operating segment or a component of a separate operating segment. An entity must have all of the following characteristics to be deemed a separate operating segment<sup>11</sup>:

- It engages in business activities from which it may earn revenue and incur expenses;
- Its *discrete financial information* is available; and
- Its operating results are *regularly reviewed* by the chief operating decision maker (“CODM”) to make decisions about *resources to be allocated* to the segment and assess its performance.

WW Risk Management believes it would be rare for an acquired credit union to be considered to be a separate operating segment. This implies that the branches of the acquired credit union would have separate pricing, separate asset liability management, etc. We further believe that over time members will migrate from the acquired credit union’s branches to the acquiring credit union’s branches and vice versa, further clouding the distinction.

The actual impairment testing involves two steps. Step One is to determine whether the fair value of the combined entity exceeds its book value using the income and market approaches described at the beginning of this white paper. If the fair value of the combined entity exceeds the book value, the goodwill is not impaired<sup>12</sup>. If the combined entity fails Step One, it does not mean the goodwill is impaired, it simply means that a Step Two assessment must be performed.

Step Two requires that the combined entity determine the fair value of its assets and liabilities in a manner similar to the approaches described in this white paper<sup>13</sup>. WW Risk Management recommends that the combined entity lay out these results in a theoretical Day One journal entry. The equity amount should be based on the results from Step One. If the amount required to balance the journal entry (the plug) is a debit (i.e. goodwill) and this amount exceeds the

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<sup>10</sup> FAS ASC 310-40-15-11

<sup>11</sup> FAS ASC 280-10-50-1

<sup>12</sup> FAS ASC 350-20-35-4

<sup>13</sup> FAS ASC 350-20-35-9

goodwill that has been recorded, the goodwill is not impaired. If the “plug” is less than the goodwill recorded, the goodwill is impaired by the differential.

We further note that the acquiring credit union does not change the book values of its assets and liabilities to reflect the fair values estimates used to test for impairment. The estimates are to be used solely to test for potential impairment of the goodwill.

WW Risk Management notes that FASB recently issued guidance that permits a qualitative test of goodwill impairment. The new guidance which becomes effective December 15, 2011 (with early adoption permitted) allows entities to assess qualitative factors to determine whether it is *more likely than not* (i.e., a likelihood of more than 50 percent) that the fair value of a reporting unit is less than its carrying amount, including goodwill. The two step process would be required only if it is “more likely than not” that the goodwill is impaired.<sup>14</sup>

In evaluating performing the qualitative test the guidance requires an entity to assess relevant events and circumstances. Examples of such events and circumstances include the following<sup>15</sup>:

- *Macroeconomic conditions* such as deterioration in general economic conditions, limitations on accessing capital, fluctuations in foreign exchange rates, or other developments in equity and credit markets.
- *Industry and market considerations* such as a deterioration in the environment in which an entity operates, an increased competitive environment, a decline (both absolute and relative to its peers) in market-dependent multiples or metrics, a change in the market for an entity's products or services, or a regulatory or political development.
- *Cost factors* such as increases in raw materials, labor, or other costs that have a negative effect on earnings.
- *Overall financial performance* such as negative or declining cash flows or a decline in actual or planned revenue or earnings.
- *Other relevant entity-specific events* such as changes in management, key personnel, strategy, or customers; contemplation of bankruptcy; or litigation.
- *Events affecting a reporting unit* such as a change in the carrying amount of its net assets, a more-likely-than-not expectation of selling or disposing all, or a portion of, a reporting

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<sup>14</sup> ASC 350-20-35-3A

<sup>15</sup> ASC 350-20-35-3C

unit, the testing for recoverability of a significant asset group within a reporting unit, or recognition of a goodwill impairment loss in the financial statements of a subsidiary that is a component of a reporting unit.

- If applicable, a sustained decrease (both absolute and relative to its peers) in share price.

The final guidance on qualitative testing of goodwill was issued in September 2011 and practices are continuing to evolve. We strongly encourage an acquired credit union to check with its primary regulator and external auditor before embarking on a qualitative test.

At this point, WW Risk Management believes a qualitative test can be used if:

- The acquiring credit union meets all of the qualitative factors and passed a previous Step 1 (or Step 1 and Step 2) quantitative test with a substantial cushion; or
- The acquiring credit union so clearly meets the qualitative factors that it is obvious it would pass Step 1.

We further believe that if a credit union does not clearly meet all of the qualitative factors and has not performed a quantitative test, or passed a previous quantitative impairment test with a limited cushion, that a qualitative test is not justifiable or recommended.

## **CONCLUSION**

While the initial and ongoing required accounting can be complex, WW Risk Management does not believe the rules should deter transactions that otherwise make sense. We have worked with our clients, their external auditors and the regulators to ensure our clients have the information and knowledge they need to successfully undertake these transactions. We hope you have found this white paper to be informative and useful.

Authored by:

Brenda Lidke, Senior Consultant  
Doug Winn, President

## **About the Authors**

### **Brenda Lidke**

Wilary Winn Risk Management Senior Consultant Brenda Lidke has thirteen years of experience in the financial services industry and has been with the firm for over five years. Ms. Lidke's areas of expertise include modeling of complex cash flows and financial analysis.

Ms. Lidke leads Wilary Winn Risk Management's business line specializing in the determination of fair value for credit unions, including mergers and footnotes. She also specializes in the valuation of troubled debt restructurings. Other engagements include valuing retained bonds and residual interests arising from asset-backed securitizations, and developing forecasting systems to allow clients to better manage their leveraged NMTC transactions.

Prior to joining Wilary Winn Risk Management, Ms. Lidke served as Director of Financial Analysis with the industry leader in manufactured housing loan servicing. Her role was to oversee the asset-backed securitization valuation group which valued servicing rights, retained interests and residuals on securitizations backed by home-improvement / home-equity loans, recreational vehicle loans, and mobile home loans. As part of the valuation, she forecasted cash flow on the bonds, including identifying and monitoring potential risks to the company's budget, and reverse engineered bond structures to ensure the cash flows conformed to the pooling and servicing agreements. Her group also prepared and maintained monthly cash and performance statistics on each bond structure.

### **Douglas Winn**

Wilary Winn Risk Management LLC President and co-founder Douglas Winn has more than twenty-five years of executive level financial experience and has served as a management consultant for the most recent ten years. Areas of expertise include financial strategy, capital markets, treasury management and accounting.

Mr. Winn co-founded Wilary Winn Risk Management in the summer of 2003. Since then, the firm has grown rapidly and currently has more than 350 clients in 42 states and the District of Columbia, ranging in size from \$50 million to \$137 billion in total assets Wilary Winn's clients include community banks, credit unions (including 34 of the top 100), and several high-performing, nonprofit financial intermediaries. We are proud to say that our clients include 25 publicly traded banks.

Mr. Winn regularly leads nationwide trainings on residential mortgage finance and accounting, including most recently for the Federal Home Loan Banks of Boston, Chicago, Des Moines and Topeka as well as for several of the national public accounting firms. Mr. Winn is also an expert regarding the requirements of fair value accounting and recently led seminars on the subject for the AICPA.

### **Accounting for Credit Union Mergers**

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Immediately prior to co-founding Wilary Winn Risk Management, he provided business and financial advice to a range of organizations across the country. Advice centered on key strategic issues relating to finance, management, accounting, mergers, strategic alliances and governance.

During his earlier career, Mr. Winn twice served as Chief Financial Officer of mortgage companies in which he was the key financial decision maker. In addition, Mr. Winn helped the companies grow through successful acquisitions and held the key managerial role in the sale of Knutson Mortgage Company to a Fortune 500 company.

### **About Wilary Winn Risk Management**

Founded in 2005, Wilary Winn Risk Management now has more than 350 financial institution clients in 42 states, including 34 of the top 100 credit unions. We are one of the country's leading providers of fair value estimates based for illiquid financial instruments. Our valuations are based on discounted cash flows and our services include the determination of:

- OTTI and fair value of non-Agency mortgage backed securities – CMOs
- Required impairment reserves for troubled debt restructurings – TDRs
- Fair values for footnote disclosures
- Fair value of loan servicing portfolios
- Fair values related to the required purchase accounting for mergers

Since January of 2009, we have assisted our credit union clients with more than 75 mergers and we currently have several others underway.

Each quarter, we value and calculate potential OTTI on more than 550 non-Agency mortgage backed securities. Our clients include the natural person credit unions with the top and third most holdings.

In addition, we value more than 125 mortgage servicing rights portfolios annually.

Located in St. Paul, MN, our firm is built on the following values: forging a true sense of partnership with our clients and employees; conducting our engagements with integrity and fair dealing; providing advice that is useful, timely and cost-effective; communicating in a transparent and straightforward way; and working tirelessly to ensure the quality of products.

We are nationally recognized experts regarding the accounting and regulatory rules related to fair value and have recently led seminars on the subject for many of the country's largest public accounting firms, the AICPA, and the FDIC.

### **Accounting for Credit Union Mergers**

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We use state of the art software to perform our work and our technology partners include Bloomberg, CoreLogic, Intex, SNL Financial, and ZM Financial Systems, Inc.

Appendix A



Issue	Previous Requirement	New Requirement
Definition of a business	Business had to have inputs, processes and outputs	Business does not have to outputs thus expanded scope
Combination of mutual entities including credit unions	Pooling of Interests	Purchase accounting
Allowance for loan and lease losses	Recorded at appropriate amount – book value if correct	Recorded at zero – fair value includes reduction related to credit losses
Assets acquired and liabilities assumed	Record at book value	Record at estimated fair value
Restructuring Costs – involuntary severance, contract termination, etc.	Generally recognized as a liability in connection with the merger	Generally an expense to the combined entity
Adjustments to fair value estimates within one year measurement period	Recognize prospectively	Make changes retroactive to the acquisition
Non-contractual asset or liability contingencies	Account for under FAS 5 – probable and measurable	Record if “more likely than not”
Assets that acquirer does not intend to use	Generally assigned limited or no value	Record at fair value – highest and best use
Bargain Purchase	Extraordinary when fair value of assets (after reduction of certain long term assets to zero) exceeded consideration given	Bargain purchase if fair assets assumed exceeds fair value of liabilities assumed and consideration given
Goodwill	Amortized	Subject to annual impairment testing



**XYZ Credit Union**  
**Assets & Liabilities as of June 30, 2011**

	Balance	Coupon	Market Pricing at 6/30/2011	Remaining Term in Months	Estimated Fair Value %	Estimated Fair Value \$	Difference
<b>ASSETS</b>							
Cash	2,500,000				100.0%	2,500,000	-
Available for Sale Securities	14,500,000				100.0%	14,500,000	-
Deposits in Commercial Banks, S&Ls, Savings Banks	4,250,000	1.2%	0.7%	8.0	100.5%	4,271,250	21,250
Loans to, Deposits in, and Invests in Natural Person CU	250,000	0.8%	0.3%	5.0	100.5%	251,250	1,250
Total Membership and Paid In Capital	80,000				100.0%	80,000	-
All Other Investments in Corporate Credit Unions	150,000				100.0%	150,000	-
Total Loans and Leases	36,910,500				89.3%	32,966,810	(3,943,690)
Total Loans and Leases - Loss Allowance	(700,000)				0.0%	-	700,000
Foreclosed and Repossessed Assets	235,000				100.0%	235,000	-
Land and Building	600,000				105.0%	630,000	30,000
Other Fixed Assets	90,000				100.0%	90,000	-
NCUA Share Insurance Capitalization Deposit	500,000				100.0%	500,000	-
Accrued Interest on Loans	165,000				100.0%	165,000	-
Accrued Interest on Investments	5,000				100.0%	5,000	-
All Other Assets	40,000				100.0%	40,000	-
<b>Total Assets</b>	<b>59,575,500</b>				<b>94.6%</b>	<b>56,384,310</b>	<b>(3,191,190)</b>
<b>LIABILITIES</b>							
Accounts Payable and Other Liabilities	490,000				100.0%	490,000	-
Share Drafts	6,300,000				100.0%	6,300,000	-
Regular Shares	21,000,000				100.0%	21,000,000	-
Money Market Shares	14,500,000				100.0%	14,500,000	-
IRA/KEOGH Accounts without Defined Maturities	350,000				100.0%	350,000	-
All Other Shares	20,000				100.0%	20,000	-
Share Certificates	11,000,000	2.9%	1.2%	20.0	103.0%	11,330,000	330,000
IRA/KEOGH Certificates	2,300,000	2.5%	1.2%	22.0	102.5%	2,357,500	57,500
<b>Total Liabilities</b>	<b>55,960,000</b>				<b>100.7%</b>	<b>56,347,500</b>	<b>387,500</b>
<b>EQUITY</b>	<b>3,615,500</b>					<b>36,810</b>	<b>(3,578,690)</b>

	Base Value	Weighting	Weighted Value
Overall Value of XYZ Credit Union - Income Projected	3,650,000	80%	2,920,000
Overall Value of XYZ Credit Union - Market Valuation	3,100,000	20%	620,000
<b>Overall Value of XYZ Credit Union - Total Wtd Avg</b>		<b>100%</b>	<b>3,540,000</b>
Value of Financial Assets and Liabilities			(918,190)
Value of Non-Financial Assets and Liabilities			955,000
Value of Core Deposits			275,000
<b>Goodwill (Bargain Purchase)</b>			<b>3,228,190</b>

XYZ Credit Union  
 Loan Valuation as of June 30, 2011

	Principal Balance	# of Loans	Avg FICO	Avg LTV*	WAC	Age	WAM	Avg Life	CPR %	CRR %	CDR %	Severity%	Future Loss %	Discount Rate	Fair Value %	Fair Value \$	Difference	Credit Only Difference <sup>1</sup>	Discount Rate Difference <sup>2</sup>	Contractual Cash Flows	Non-Accretable Cash Flows
Fixed Rate Mortgage	7,500,000	46	747	68%	5.9%	54	277	4.0	18.0%	13.9%	4.0%	22.2%	2.9%	6.4%	96.0%	7,200,000	(300,000)	(215,000)	(85,000)	11,866,223	2,699,491
Home Equity	2,500,000	76	726	71%	6.9%	37	161	3.7	9.3%	6.2%	3.2%	61.4%	3.8%	6.8%	96.5%	2,412,500	(87,500)	(94,000)	6,500	3,741,895	552,208
HELOC	5,600,000	133	743	68%	2.9%	26	209	5.4	15.5%	12.8%	2.7%	48.2%	4.5%	5.9%	83.5%	4,676,000	(924,000)	(235,000)	(689,000)	7,054,554	847,341
New Vehicle - Direct	3,400,000	370	679	n/a	6.7%	26	40	1.3	25.3%	18.1%	7.2%	58.8%	5.5%	6.9%	95.0%	3,228,300	(171,700)	(164,700)	(7,000)	3,720,251	233,824
Used Vehicle - Direct	4,500,000	532	664	n/a	7.6%	22	33	1.4	22.7%	17.9%	4.8%	53.4%	3.3%	7.6%	96.5%	4,342,500	(157,500)	(150,000)	(7,500)	5,142,877	294,237
Motorcycle	60,000	12	711	n/a	6.5%	18	41	1.3	18.9%	17.6%	1.3%	35.0%	0.6%	9.5%	96.0%	57,600	(2,400)	(300)	(2,100)	62,121	1,519
RV	75,000	6	635	n/a	9.9%	21	81	2.3	23.7%	16.6%	7.1%	61.1%	10.9%	12.9%	85.0%	63,750	(11,250)	(6,600)	(4,650)	98,585	20,340
Boat	250,000	6	745	n/a	6.1%	10	101	2.4	25.1%	21.0%	4.0%	61.1%	5.8%	8.5%	90.0%	225,000	(25,000)	(11,000)	(14,000)	263,269	39,551
Signature	12,500,000	2,752	655	n/a	12.8%	27	52	2.0	17.0%	8.2%	8.8%	100.0%	16.2%	15.8%	82.0%	10,250,000	(2,250,000)	(1,740,000)	(510,000)	16,293,567	2,895,180
Share Secured	170,000	33	714	n/a	2.5%	13	34	1.2	19.7%	19.7%	0.1%	0.0%	0.0%	4.0%	98.0%	166,600	(3,400)	(10)	(3,390)	173,365	1,001
Consolidation Loan	5,500	4	656	n/a	13.8%	44	16	0.5	16.3%	9.0%	7.3%	100.0%	3.4%	16.2%	92.0%	5,060	(440)	(200)	(240)	5,690	203
Student Loan	350,000	38	n/a	n/a	6.2%	3	73	1.3	14.0%	12.8%	1.2%	2.5%	0.0%	8.6%	97.0%	339,500	(10,500)	(400)	(10,100)	399,110	3,953
<b>Total</b>	<b>36,910,500</b>	<b>4,008</b>	<b>698</b>	<b>69%</b>	<b>8.1%</b>	<b>32</b>	<b>126</b>	<b>2.9</b>	<b>18.0%</b>	<b>12.3%</b>	<b>5.7%</b>	<b>68.1%</b>	<b>8.0%</b>	<b>9.8%</b>	<b>89.3%</b>	<b>32,966,810</b>	<b>(3,943,690)</b>	<b>(2,617,210)</b>	<b>(1,326,480)</b>	<b>48,821,507</b>	<b>7,588,848</b>
<b>Loan groupings used in journal entries</b>																					
Fixed Rate Mortgage	7,500,000	46													96.0%	7,200,000	(300,000)	(215,000)	(85,000)	11,866,223	2,699,491
Home Equity	2,500,000	76													96.5%	2,412,500	(87,500)	(94,000)	6,500	3,741,895	552,208
HELOC	5,600,000	133													83.5%	4,676,000	(924,000)	(235,000)	(689,000)	7,054,554	847,341
Auto Loans	7,960,000	914													95.8%	7,628,400	(331,600)	(315,000)	(16,600)	8,925,249	529,581
Consumer Loans	13,350,500	2,839													82.8%	11,049,910	(2,300,590)	(1,758,210)	(542,380)	17,233,586	2,960,227
<b>Total</b>	<b>36,910,500</b>	<b>4,008</b>													<b>89.3%</b>	<b>32,966,810</b>	<b>(3,943,690)</b>	<b>(2,617,210)</b>	<b>(1,326,480)</b>	<b>48,821,507</b>	<b>7,588,848</b>

<sup>1</sup> Credit Only Difference is referred to as the Credit Valuation Allowance

<sup>2</sup> Discount Rate Difference is referred to as the Discount Rate Valuation Allowance

For definitions of the column headers, please see Appendix G



**ABC Credit Union acquires  
XYZ Credit Union - 6/30/2011 Valuation  
Journal Entries at ABC CU to adjust XYZ CU's Book Value (GAAP)**

	Debit	Credit	Net Summary	5300 Reference	5300 Acct Code
<b>Investments</b>					
Deposits in Commercial Banks, S&Ls, Savings Banks	21,250	-			
Loans to, Deposits in, and Invests in Natural Person CU	1,250	-			
Total Membership and Paid In Capital			22,500		
<b>Loans</b>					
Credit Adjustment					
Fixed Rate Mortgage	-	215,000			
Home Equity	-	94,000			
HELOC	-	235,000			
Auto Loans	-	315,000			
Consumer Loans	-	1,758,210	(2,617,210)		
Discount Rate Adjustment					
Fixed Rate Mortgage	-	85,000			
Home Equity	6,500	-			
HELOC	-	689,000			
Auto Loans	-	16,600			
Consumer Loans	-	542,380	(1,326,480)		
Total Loans and Leases - Loss Allowance	700,000	-	700,000		
<b>Fixed Assets</b>					
Land and Building	30,000	-	30,000		
<b>Other Assets</b>					
Core Deposit Intangible	275,000	-	275,000	Page 2, Line 31 a.	009D1
<b>Liabilities</b>					
Accounts Payable and Other Liabilities			-		
<b>Shares</b>					
Share Certificates	-	330,000			
IRA/KEOGH Certificates	-	57,500	(387,500)		
<b>Equity</b>					
Equity (removal of existing equity accounts)	3,615,500	-			
Equity (record equity acquired in merger)	-	3,540,000	75,500	Page 4, Line 33	658A
Goodwill	3,228,190	-	3,228,190	Page 2, Line 31 b.	009D2
Bargain Purchase	-	-	-	Page 5, Line 16	431
	7,877,690	7,877,690	-		
ABC CU 6-30-11 Pre-Merger Equity prior to OCI			95,000,000		
Plus: OCI Adjustment			(1,900,000)		
Total GAAP Pre-Merger Equity			93,100,000		
Plus: Equity Acquired in Merger			3,540,000		
Plus: Bargain Purchase Gain			-		
ABC CU's Post-Merger GAAP Equity			96,640,000		
<b>PCA Net Worth Merger Entries (Regulatory Only, Non-GAAP)</b>					
Acquirer's Regulatory Net Worth After Merger			96,640,000		
Less: OCI Adjustment			(1,900,000)		
Less: Equity Acquired in Merger			3,540,000	Page 4, Line 33	658A
Plus: Adjustments to Retained Earnings through Business Combinations			3,615,500	Page 11, Line 7 b.	1004B
Equity for PCA Net Worth Calculation			98,615,500		





ABC Credit Union  
Fair Value Amortization Schedule

Fair Value Amortization Schedule		85,000	(6,500)	689,000	16,600	542,380	1,326,480	(21,250)	(1,250)	1,303,980	275,000	(330,000)	(57,500)	(112,500)	1,416,480	
Int Rate Adj:																
SYD Amort (mos)		93	114	120	37	53		8	5		82	20	22			
		Avg Life (mos)														
Month	Date	Year	Fixed Rate Mortgage	Home Equity	HELOC	Auto Loans	Consumer Loans	Total Loans	Deposits in Commercial Banks, S&Ls, Savings Banks	Loans to, Deposits in, and Invests in Natural Person CU	Income	Core Deposit Intangible	Share Certificates	IRA/KEOGH Certificates	Expense	Net
0	6/30/2011	2011														
1	Jul-11	2011	1,809	(113)	11,388	874	20,088	34,046	(4,722)	(417)	28,907	6,627	(31,429)	(5,000)	(29,802)	59,709
2	Aug-11	2011	1,789	(112)	11,294	850	19,709	33,530	(4,432)	(333)	29,664	6,546	(29,857)	(4,773)	(28,984)	57,149
3	Sep-11	2011	1,770	(111)	11,199	826	19,330	33,014	(3,542)	(250)	29,222	6,465	(28,286)	(4,545)	(26,366)	55,588
4	Oct-11	2011	1,750	(110)	11,104	803	18,951	32,498	(2,951)	(167)	29,380	6,384	(26,714)	(4,318)	(24,648)	54,028
5	Nov-11	2011	1,731	(109)	11,009	779	18,572	31,982	(2,361)	(83)	29,537	6,303	(25,143)	(4,091)	(22,931)	52,468
6	Dec-11	2011	1,711	(108)	10,914	756	18,193	31,466	(1,771)	-	29,695	6,222	(23,571)	(3,864)	(21,213)	50,908
7	Jan-12	2012	1,692	(107)	10,819	732	17,814	30,950	(1,181)	-	29,769	6,142	(22,000)	(3,636)	(19,495)	49,264
8	Feb-12	2012	1,672	(106)	10,724	708	17,435	30,434	(590)	-	29,843	6,061	(20,429)	(3,409)	(17,777)	47,620
9	Mar-12	2012	1,653	(105)	10,629	685	17,056	29,918	-	-	29,918	5,980	(18,857)	(3,182)	(16,059)	45,977
10	Apr-12	2012	1,633	(104)	10,534	661	16,677	29,402	-	-	29,402	5,899	(17,286)	(2,955)	(14,341)	43,743
11	May-12	2012	1,614	(103)	10,439	638	16,298	28,886	-	-	28,886	5,818	(15,714)	(2,727)	(12,623)	41,509
12	Jun-12	2012	1,595	(102)	10,344	614	15,919	28,370	-	-	28,370	5,738	(14,143)	(2,500)	(10,905)	39,275
13	Jul-12	2012	1,575	(101)	10,250	590	15,540	27,854	-	-	27,854	5,657	(12,571)	(2,273)	(9,187)	37,041
14	Aug-12	2012	1,556	(100)	10,155	567	15,161	27,338	-	-	27,338	5,576	(11,000)	(2,045)	(7,469)	34,807
15	Sep-12	2012	1,536	(99)	10,060	543	14,782	26,822	-	-	26,822	5,495	(9,429)	(1,818)	(5,752)	32,573
16	Oct-12	2012	1,517	(98)	9,965	519	14,403	26,306	-	-	26,306	5,414	(7,857)	(1,591)	(4,034)	30,340
17	Nov-12	2012	1,497	(97)	9,870	496	14,024	25,790	-	-	25,790	5,334	(6,286)	(1,364)	(2,316)	28,106
18	Dec-12	2012	1,478	(96)	9,775	472	13,645	25,274	-	-	25,274	5,253	(4,714)	(1,136)	(598)	25,872
19	Jan-13	2013	1,458	(95)	9,680	449	13,266	24,758	-	-	24,758	5,172	(3,143)	(909)	1,120	23,638
20	Feb-13	2013	1,439	(94)	9,585	425	12,887	24,242	-	-	24,242	5,091	(1,571)	(682)	2,838	21,404
21	Mar-13	2013	1,420	(93)	9,490	401	12,508	23,726	-	-	23,726	5,010	-	(455)	4,556	19,170
22	Apr-13	2013	1,400	(92)	9,395	378	12,129	23,210	-	-	23,210	4,929	-	(227)	4,702	18,508
23	May-13	2013	1,381	(91)	9,301	354	11,750	22,694	-	-	22,694	4,849	-	-	4,849	17,845
24	Jun-13	2013	1,361	(90)	9,206	331	11,371	22,178	-	-	22,178	4,768	-	-	4,768	17,182
25	Jul-13	2013	1,342	(89)	9,111	307	10,992	21,662	-	-	21,662	4,687	-	-	4,687	16,519
26	Aug-13	2013	1,322	(88)	9,016	283	10,613	21,146	-	-	21,146	4,606	-	-	4,606	15,856
27	Sep-13	2013	1,303	(87)	8,921	260	10,234	20,630	-	-	20,630	4,525	-	-	4,525	15,193
28	Oct-13	2013	1,283	(86)	8,826	236	9,855	20,114	-	-	20,114	4,444	-	-	4,444	14,530
29	Nov-13	2013	1,264	(85)	8,731	213	9,476	19,598	-	-	19,598	4,364	-	-	4,364	13,867
30	Dec-13	2013	1,245	(84)	8,636	189	9,097	19,082	-	-	19,082	4,283	-	-	4,283	13,204
31	Jan-14	2014	1,226	(83)	8,541	165	8,717	18,566	-	-	18,566	4,202	-	-	4,202	12,541
32	Feb-14	2014	1,206	(82)	8,446	142	8,338	18,050	-	-	18,050	4,121	-	-	4,121	11,878
33	Mar-14	2014	1,186	(81)	8,352	118	7,959	17,534	-	-	17,534	4,041	-	-	4,041	11,215
34	Apr-14	2014	1,167	(80)	8,257	94	7,580	17,018	-	-	17,018	3,960	-	-	3,960	10,552
35	May-14	2014	1,147	(79)	8,162	71	7,201	16,502	-	-	16,502	3,879	-	-	3,879	9,889
36	Jun-14	2014	1,128	(78)	8,067	47	6,822	15,986	-	-	15,986	3,798	-	-	3,798	9,226
37	Jul-14	2014	1,108	(77)	7,972	24	6,443	15,470	-	-	15,470	3,717	-	-	3,717	8,563
38	Aug-14	2014	1,089	(76)	7,877	-	6,064	14,954	-	-	14,954	3,636	-	-	3,636	7,900
39	Sep-14	2014	1,070	(75)	7,782	-	5,685	14,438	-	-	14,462	3,556	-	-	3,556	7,237
40	Oct-14	2014	1,050	(74)	7,687	-	5,306	13,922	-	-	13,969	3,475	-	-	3,475	6,574
41	Nov-14	2014	1,031	(73)	7,592	-	4,927	13,406	-	-	13,477	3,394	-	-	3,394	5,911
42	Dec-14	2014	1,011	(72)	7,497	-	4,548	12,890	-	-	12,984	3,313	-	-	3,313	5,248
43	Jan-15	2015	992	(71)	7,402	-	4,169	12,424	-	-	12,492	3,232	-	-	3,232	4,585
44	Feb-15	2015	972	(70)	7,308	-	3,790	12,000	-	-	12,000	3,152	-	-	3,152	3,922
45	Mar-15	2015	953	(69)	7,213	-	3,411	11,576	-	-	11,507	3,071	-	-	3,071	3,259
46	Apr-15	2015	933	(68)	7,118	-	3,032	11,151	-	-	11,015	2,990	-	-	2,990	2,596
47	May-15	2015	914	(67)	7,023	-	2,653	10,726	-	-	10,523	2,909	-	-	2,909	1,933
48	Jun-15	2015	895	(66)	6,928	-	2,274	10,300	-	-	10,030	2,828	-	-	2,828	1,270
49	Jul-15	2015	875	(65)	6,833	-	1,895	9,874	-	-	9,538	2,748	-	-	2,748	607
50	Aug-15	2015	856	(64)	6,738	-	1,516	9,448	-	-	9,045	2,667	-	-	2,667	-
51	Sep-15	2015	836	(63)	6,643	-	1,137	9,022	-	-	8,553	2,586	-	-	2,586	-
52	Oct-15	2015	817	(62)	6,548	-	758	8,596	-	-	8,056	2,505	-	-	2,505	-
53	Nov-15	2015	797	(61)	6,453	-	379	8,170	-	-	7,568	2,424	-	-	2,424	-
54	Dec-15	2015	778	(60)	6,358	-	-	7,744	-	-	7,076	2,344	-	-	2,344	-
55	Jan-16	2016	758	(59)	6,264	-	-	7,318	-	-	6,663	2,263	-	-	2,263	-
56	Feb-16	2016	739	(58)	6,169	-	-	6,892	-	-	6,849	2,182	-	-	2,182	-
57	Mar-16	2016	720	(57)	6,074	-	-	6,466	-	-	6,736	2,101	-	-	2,101	-
58	Apr-16	2016	700	(56)	5,979	-	-	6,022	-	-	6,622	2,020	-	-	2,020	-
59	May-16	2016	681	(55)	5,884	-	-	5,596	-	-	6,509	1,939	-	-	1,939	-
60	Jun-16	2016	661	(54)	5,789	-	-	5,170	-	-	6,396	1,859	-	-	1,859	-
61	Jul-16	2016	642	(53)	5,694	-	-	4,744	-	-	6,282	1,778	-	-	1,778	-
62	Aug-16	2016	622	(52)	5,599	-	-	4,318	-	-	6,169	1,697	-	-	1,697	-
63	Sep-16	2016	603	(51)	5,504	-	-	3,892	-	-	6,056	1,616	-	-	1,616	-
64	Oct-16	2016	583	(50)	5,410	-	-	3,466	-	-	5,942	1,535	-	-	1,535	-
65	Nov-16	2016	564	(49)	5,315	-	-	3,040	-	-	5,829	1,455	-	-	1,455	-
66	Dec-16	2016	544	(48)	5,220	-	-	2,614	-	-	5,716	1,374	-	-	1,374	-
67	Jan-17	2017	525	(47)	5,125	-	-	2,188	-	-	5,602	1,293	-	-	1,293	-
68	Feb-17	2017	506	(46)	5,030	-	-	1,762	-	-	5,489	1,212	-	-	1,212	-
69	Mar-17	2017	486	(45)	4,935	-	-	1,336	-	-	5,376	1,131	-	-	1,131	-
70	Apr-17	2017	467	(44)	4,840	-	-	910	-	-	5,262	1,051	-	-	1,051	-
71	May-17	2017	447	(43)	4,745	-	-	484	-	-	5,149	970	-	-	970	-
72	Jun-17	2017	428	(42)	4,650	-	-	50	-	-	5,035	889	-	-	889	-
73	Jul-17	2017	408	(41)	4,555	-	-	-	-	-	4,922	808	-	-	808	-
74	Aug-17	2017	389	(40)	4,460	-	-	-	-	-	4,809	727	-	-	727	-
75	Sep-17	2017	369	(39)	4,366	-	-	-	-	-	4,695	646	-	-	646	-
76	Oct-17	2017	350	(38)	4,271	-	-	-	-	-	4,582	566	-	-	566	-
77	Nov-17	2017	331	(37)	4,176	-	-	-	-	-	4,469	485	-	-	485	-
78	Dec-17	2017	311	(36)	4,081	-	-	-	-	-	4,355	404	-	-	404	-
79	Jan-18	2018	292	(35)	3,986	-	-	-	-	-	4,242	323	-	-	323	-
80	Feb-18	2018	272	(34)	3,891	-	-	-	-	-	4,129	242	-	-	242	-



Wilary Winn Risk Management LLC

Fair Value Loan Valuation Definitions

Principal Balance:	Outstanding principal balance on the loan as of the valuation date.
# of Loans:	Count of loans
Avg FICO:	Weighted Average current FICO credit score. Weighted by balance and only loans with a valid credit score are included in the weighting.
Avg LTV*:	Weighted Average Loan to Value (LTV). Outstanding loan balance divided by the current appraised home value. Average is weighted by balance and only loans with a valid LTV are included in the weighting. The LTV shown here on the loans in second position is a Combined LTV which is the sum of the 1 <sup>st</sup> mortgage plus the 2 <sup>nd</sup> mortgage balance divided by the current appraised value.
WAC:	Weighted Average Coupon. This is the contractual rate of interest on the loan.
Age:	Number of months elapsed since the loan was originated.
WAM:	Weighted Average Maturity. Number of months remaining until the loan is due on the contractual loan payment schedule.
Avg Life:	The average number of years that the Principal Balance will remain outstanding. This calculated amount indicates how many years it will take to repay half of the outstanding Principal Balance. This calculation is dependent on the loan's scheduled amortization and our CPR% assumption.
CPR %:	Conditional Prepayment Rate. Annual % of expected voluntary and involuntary payoffs (defaults). $CRR\% + CDR\% = CPR\%$ . CPR% compares to the PSA (Public Securities Association) standard prepayment speed and PSA of 100% equates to a 6% CPR% in month 30 and beyond. CPR% is also similar to an annualized SMM (Single Monthly Mortality) rate. A CPR% of 10% roughly indicates that 10% of the starting Principal Balance will be paid off by the end of a one year time period.
CRR %:	Conditional Repayment Rate. Annual amount of expected voluntary payoffs as a percentage of the principal amount outstanding at the beginning of the year.

## Appendix G

CDR %:	Conditional Default Rate. Annual amount of expected defaults as a percentage of the principal amount outstanding at the beginning of the year.
Severity %:	Loss Severity expected on a loan that does go into default. This is equal to the liquidated Principal Balance minus any recovered amount divided by the Principal Balance. Severity % is the inverse of a recovery rate.
Future Loss %:	Future expected net cumulative losses expressed as a % of current Principal Balance.
Discount Rate:	Rate used to present value the expected gross cashflows back to the valuation date. The rate on used on the top two FICO score buckets (>719) are the observable current market rates. For FICO scores that are below 720, we have used a build-up methodology. Please see the report for more details on this methodology.
Fair Value %:	Fair Value dollar amount expressed as a percent of the current Principal Balance.
Fair Value \$:	Present value of the expected future cashflows. Expected future gross cashflows are dependent on the contractual terms of the loan (interest rate, term), our repayment assumptions (CRR %), our default assumption (CDR %), and our loss Severity % assumptions. For accounting purposes, the gross cash flows are considered to be a single best estimate assumption. The gross cashflows are discounted using the Discount Rate.
Difference:	Fair Value \$ minus Principal Balance. This difference is broken out further into a Credit Only Difference and a Discount Rate Difference.
Credit Only Difference:	The Fair Value Difference that arises only from our credit assumptions (CDR % and Severity %). This number is the total expected lifetime net losses discounted by the WAC on the loans. To estimate an annualized loss amount, take this Credit Only Difference amount divided by the Avg Life.
Discount Rate Difference:	The Fair Value Difference that arises only from our Discount Rate assumption. A positive Discount Rate Difference means that the interest rate (WAC) on the loans is higher than the current market interest rate environment. If WAC and Discount Rate were exactly the same, the Discount Rate Difference would be zero.
Contractual Cashflows:	The scheduled cashflows expected if the loan did not prepay or default.
Non-Accretable Cashflows:	The variance between the Contractual Cashflows and the total cashflows expected to collected. Total cashflows expected to be collected do take into account prepay, default, and loss assumptions.