

**A Fairer Fair Value for Non-Depository Mortgage Bankers:
Absorption-Like Costing and the Locked Loan Pipeline**

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Is my Net Worth Wrong? The IRLC Controversy

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A place to begin

Generally Accepted Accounting Principles (GAAP) require all companies who produce GAAP financial statements to follow the same accounting rules. This is the foundation for comparability of financial results across companies. GAAP financials are produced for the benefit of the Users of the Financial Statements, who I will refer to in this foreword as Readers. Readers can include Freddie Mac, Fannie Mae, Ginnie Mae, secondary market investors, warehouse banks, and for public companies, the SEC and investing public. GAAP is a good thing because it provides for comparability across an industry, across the country, or even around the world. (See International Financial Reporting Standards Adoption).

Mortgage companies obtain warehouse lines of credit from regulated depository institutions insured by the FDIC. These FDIC-insured warehouse lenders are required to receive Financial Statements prepared in accordance with GAAP every month or every quarter from their independent mortgage company customers. However, there is significant controversy among CPAs regarding how GAAP is applied to interest rate lock commitments (IRLCs) that comprise a significant portion of equity reported on Financial Statements.

I have written this foreword to lay the foundation for understanding the White Paper prepared by Andy Greer, CPA that follows it. I have simplified GAAP to present this issue to the non-accountant mortgage banker. There are significantly more complex details associated with the Hedge Accounting and Basis Adjustment to the Loans Held for Sale and additional details addressed in the Accounting Standards Codifications (ASCs) surrounding the IRLC asset, Fair Value and Mark to Market, many of which are covered in Andy's technical White Paper that follows.

How it Was

When GAAP is applied to mortgage lending, there are a few interesting anomalies which occur. In the normal operation of a mortgage company, a loan is often closed just before month-end. This loan is expected to be sold within two weeks at the price locked with its investor. At month-end the mortgage company prepares their financial statements. Expenses are typically sub-divided and called Direct expense and Indirect expense. As an example, Indirect expenses includes rent for the home office and the president's salary, while Direct expenses include loan originator commission and processor bonuses. These definitions are important later: Home office rent is Indirect expense and Originator Commission is Direct expense.

GAAP has very specific rules about how to count profit driven from detailed revenue recognition guidelines. As crazy as it seems today, until recently the loan fees collected at closing could not be counted as revenue because GAAP deferred loan fees until a loan was sold. Also, the anticipated

loan sale gain could not be recognized until the loan was sold and the cash was received. This practice of revenue recognition when cash is received is called Conservatism. Conservatism is one of the guiding principles among CPAs.

Many mortgage companies rightly argued that deferring all revenue until the loan is sold distorted their financial presentation for the month because all expenses (both Direct and Indirect) were counted without the off-setting revenue. GAAP agreed to allow mortgage companies to defer the Direct loan expenses at the same time loan fees are deferred. This way, both loan fee revenue and direct loan expense was deferred. But what about the gain on sale? No; the gain was still not recognized until the loan is sold. The exclusion of the gain on sale created a misalignment of expense to revenue because all of the indirect expenses were counted. We knew intuitively we should count all Direct and Indirect expense along with all revenue; nevertheless, this practice was followed by CPAs for many years dating back to the 1980s.

The New World for Loans Held for Sale

Around 10 years ago, GAAP introduced new standards designed to address a strategy called Fair Value Accounting. Under Fair Value Accounting, a mortgage company is allowed to recognize the Gain on Sale (Mark to Market) on the Loans Held for Sale and count the loan fees associated with closed loans. At month-end, the financials are prepared including all the Direct and Indirect expenses and including the revenue from loan fees and pending Loans Held for Sale gain on sale, thus putting all revenue and expense into the month of closing. This is a simplified explanation, but it is widely accepted as the appropriate revenue recognition method for Loans Held for Sale.

Remember, at month-end when the financial statements are prepared, all Direct and Indirect expenses are counted for the closed loans. Users such as warehouse lenders, investors, and other counterparties who receive the GAAP financial statements understand and accept this presentation for the Loans Held for Sale using Fair Value accounting.

And Then, Enron

Any businessperson who lives in Texas remembers Enron, the failed energy company in Houston. Because of accounting scandals at Enron, WorldCom, and a few other factors, GAAP decided it was important to evaluate the financial impact from Off-Balance Sheet Financing Commitments that are subject to market risk. Enron had many special-purpose financing entities with Off-Balance Sheet Financing Commitments subject to market risk that significantly, if not solely, contributed to the crash of Enron and the failure of its CPA firm, Arthur Anderson. When I graduated from college in 1980, landing a job with Arthur Anderson was like being drafted by the Yankees. However, everything changed after Enron. With the Enron-induced demise of Anderson, GAAP said the value of these Off-Balance Sheet Financing Commitments must be considered when GAAP financials are prepared.

Counting the Profit in Loan Applications

Do mortgage companies have Off-Balance Sheet Financing Commitments? Yes. Every Interest Rate Lock Commitment (IRLC) we deliver to a mortgage borrower is an Off-Balance Sheet Financing Commitments Subject to Market Risk. The value of the IRLC must be considered when

preparing financial statements. But how is the value of the IRLC calculated? First, we are talking about applications in process or potential loans, not closed loans. I've had mortgage company owners ask me: "GAAP makes me to count revenue on applications?" Yes. GAAP requires us to count the future potential gain on sale in the locked Pipeline called Mark to Market. GAAP calls this Unrealized Revenue: counted, but not collected.

To further confuse the issue, because this Unrealized Revenue was generated from an Off-Balance Sheet activity, there was no asset to adjust. So, GAAP then required us to create a new asset to hold the Unrealized Gain. This asset was known as a Derivative Asset. The Derivative Asset exists to count the potential gain on sale from the applications in process. The important point here is the amount of the increase in the Derivative Asset generates the same increase in Net Worth. This value of the Derivative Asset adds to capital. A \$1,000,000 Derivative Asset means Net Worth increased by \$1,000,000. But, this value is what I term "funny money" because the overwhelming majority of it can never be realized in cash. As the former CFO of a mortgage company, I want to increase my Net Worth because it makes the Agencies happy, and because my Warehouse Lenders will lend more money. So, am I going to look for a CPA firm who will give me the biggest Derivative Asset?

Is your Net Worth Wrong? The IRLC Controversy.

A few paragraphs ago, I mentioned how we need to off-set revenue with all expenses both indirect and direct. This is where the deviation in perspective begins: The Battle of the CPAs. Under GAAP before we had Fair Value Option, we deferred Direct expense and recognized Indirect expense when intuitively we knew we should off-set all Direct and Indirect expenses from revenue on closed loans. Some CPAs think the IRLC revenue should be reduced by the amount of Direct Costs only, others think the IRLC revenue should be reduced by both Direct and all Indirect expenses; still others favor a combination of both Direct and Indirect. A few think there should be no reduction in the IRLC revenue. Who is correct?

Most of the sophisticated mortgage companies I support implement a combination approach which includes all Direct Expense and some Indirect expense like branch rent and an allocation of overhead associated with branch activity to reduce IRLC gain. It is astonishing to see, but some CPAs say the IRLC Unrealized Gain should be valued like a TBA-MBS short position with NO Costs to Complete considered. Is the IRLC immediately tradable on an open market like a TBA-MBS? NO. An IRLC must experience the transformation to a closed loan and therefore must be impacted by all Transformational Costs, aka "Costs to Complete."

The Referee – FASB

In all cases, these expenses applied to reduce the IRLC Unearned Revenue are called Cost to Complete or Transformational Costs. So, what is the right amount of Transformation Costs? To get this question answered, I along with a group of CPAs led by Andy Greer, CPA (Warehouse Lender) asked the folks who control GAAP to help. The Financial Accounting Standards Board ("FASB")'s Emerging Issues Task Force is currently reviewing this issue to find the right GAAP to support the degree to which Transformation Costs are applied to the IRLC Unrealized Gain. Andy Greer's paper follows this introduction.

The Bottom Line

When a mortgage company sets daily pricing, the intent is to make a profit. The profit is based on all revenue and all expense. A Texas lender may price a \$200,000 loan to generate 105% price and a 5% gain on sale which produces a 60 bps pre-tax profit. A Hawaii lender may price a \$600,000 loan to generate a 2% gain on sale that produces a 60 bps pre-tax profit. The difference in the loan size changes the gain on sale to arrive at the same pre-tax profit.

What if we calculate the Derivative Asset using only Direct expense using these examples? If Direct expense is 1% and both companies have a \$10,000,000 locked pipeline, then the Texas lender has a 4% mark to market gain or \$400,000 Derivative Asset, and Hawaii has a 1% mark to market gain or a \$100,000 Derivative Asset. How is a Reader of a Financial Statement to address this circumstance when both lenders generate the same 60 bps pre-tax profit but record significantly different Derivative Assets?

The Unrealized Issue

The Derivative Asset value presented on the CPA Audited Balance Sheet of a mortgage company is often unreliable because it materially overstates and distorts the financial position of the company. The Reader of the CPA Audited Financial Statements either ignore, or reduce, or omit the impact of the Derivative Asset because they have no idea the extent to which Costs to Complete were applied.

Some warehouse lenders and other counterparties completely exclude the Derivative Asset amount from Net Worth, while others arbitrarily reduce the amount of the Derivative Asset by 50% --- which if the lender is in Texas is not enough, and if the lender is in Hawaii is too much. Some warehouse lenders recalculate the Derivative Asset based on IRLC volume and pre-tax profit in basis points.

It is unlikely a CPA knowingly produces a report with a material misstatement, and all CPAs believe their interpretation of GAAP is correct. However, we have a problem when each CPA's financial statement has a different application methodology for the calculation of Transformation Costs.

The Agencies, the SEC, and Warehouse Lenders, all of whom rely on CPA-Audited Financial Statements, should not have to reduce or ignore the Derivative Asset because CPAs should do a better job at finding a consistent and reasonable interpretation of GAAP that embraces our shared Accounting Principle of Conservatism.

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Summary

A Fairer Fair Value for Non-Depository Mortgage Bankers: Absorption-Like Costing and the Locked Loan Pipeline

1. On May 19, 2017, seven CPAs submitted a comment letter to the Financial Accounting Standard Board's Emerging Issues Task Force regarding the application of fair value to interest rate lock commitments (IRLCs) related to the loan pipeline. This document explains why this letter was necessary from the perspective of one of this letter's signers and why an absorption-like method was proposed.
2. The point of revenue recognition for a pipeline loan is lock issuance. The matching principle requires expenses be matched to this early point of revenue recognition.
3. Expenses and revenues related to pipeline loans are used in the "estimate of future cash flows for the asset" under Fair Value's income approach.
4. The IRLC asset valued by the direct cost deduction method materially overstates the fair value of the unclosed loan pipeline and does not provide useful information to users of financial statements concerning the timing and extent of future cash flows from the asset because this method ignores material cash outflows.
5. Arguments that support the direct cost deduction method usually follow two narratives: First, that indirect costs are already incurred, so including them in the deduction from gross revenues double-deducts these costs; and second, that the principal market for unclosed loans is a business combination that could render some cash outflows unnecessary.
6. The anticipated net production profit of the pipeline is affected by pull-through rather than stage of completion. Cash flows from the pipeline observed in the next reporting period reflect the net production profit margin. The principal market for unclosed loans is the secondary market rather than a hypothetical business combination.
7. An absorption-like costing method that considers both direct and indirect loan production costs provides more useful information to users of financial statements containing the IRLC asset than the direct cost deduction method by reporting the asset at its net production profit margin.

Introduction

The direct cost deduction method materially overstates the value of a mortgage banker's unclosed loan pipeline by ignoring significant cash outflows related to the work in process loans to which it purports to assign a fair value. The cash outflows commonly used as fair value inputs in this method contradict actual costs incurred by mortgage bankers. In doing so, the method distorts the calculation of the "estimate of future cash flows for the asset" required in ASC 820-10-55-5. The Mortgage Bankers Association's First Quarter 2017 Performance Report indicated an average of 375.11 basis points¹ in "Direct Loan Production Expenses" for the 259 companies surveyed, yet the direct cost deduction method typically only includes around 125-150 basis points² for direct expenses. This disparity understates actual loan production expenses by two to three times, resulting in a pipeline loan asset that is dramatically overvalued.

In addition, the method's inputs are often inconsistently chosen, reducing comparability between entities and reporting periods. This difficulty is compounded by the volatility and materiality of the interest rate lock commitment (IRLC) asset relative to earnings and equity, respectively, for independent mortgage bankers, making the direct cost deduction method an important calculation for scrutiny by management, creditors, and other users of financial statements containing the IRLC asset. Management reports frequently exclude the IRLC asset's fluctuations from income statement analysis. Richey May's Select service excludes the asset's effect on net production income reports, citing that "gains and losses related to the unclosed IRLC" are excluded from the Net Production Income report because this report "contains information concerning the financial performance of an organization [. . .] for their "core" mortgage banking activity only."³ What characteristics of the IRLC asset, which represents work in process mortgage loans, make it a non-core component of a mortgage banker whose business purpose it is to originate mortgage loans?

Counterparties such as warehouse lenders and investors rely on the liquidity implications of balance sheet items, so the combination of the method's inconsistency, incomparability, and disparity between costs incurred by mortgage bankers as they originate and sell loans in the secondary market and the costs included in the method render it misleading.

The purpose of this paper is to examine the shortcomings of the direct cost deduction method and to suggest, using existing guidance, an absorption-style method that better captures the realities of the pipeline's work in process nature by matching observable expenses to the extremely early point of revenue recognition under fair value for the pipeline.

This paper does not advocate a cash-basis style of accounting for unclosed loans. Rather, it contrasts the Byzantine industry standard method of accounting for a volatile derivative asset with the

¹ Mortgage Bankers Association. "Quarterly Mortgage Bankers Performance Report: Q1 2017." Page 38.

² This level of direct cost deductions is corroborated by the author's experience and by an auditor's statement at a June 22, 2017 panel held on derivative accounting during a user conference for Accounting For Mortgage Bankers (AMB).

³ Richey May. "Richey May Select Sample Export." Excel Tab: NPI \$PL. Net Production Income (NPI) Notes. Available online: <http://www.richeymay.com/wp-content/uploads/2017/03/Richey-May-Select-Sample-Export.xlsx>

predictable value provided to the entity from a pipeline of work in process pipeline loans. This value resonates with the purpose of accrual accounting versus cash basis accounting and preserves the connection between current cash flows from the conversion to cash of finished mortgage loans and management's expectations of future cash flows from the closing and conversion to cash of the work in process loan pipeline. *Deschow et al.* summarizes the connection between earnings and cash flows as follows:

“Earnings reflect cash flow forecasts and have a higher correlation with value than does current cash flow. Earnings' inclusion of those forecasts causes earnings to be a better forecast of (and so a better proxy for) future cash flows than current cash flows.”⁴

Earnings including the IRLC asset today do not accurately forecast future cash flows from the loan pipeline because no mortgage banker can realize the super-margins that result from the direct cost deduction method.

In contrast, the absorption-style accounting method suggested in this paper for pipeline mortgage loans mirrors the language and mechanics of the manufacturing process of inventory. Mortgage lenders produce a financial instrument rather than a tangible good, but the use of labor and overhead inputs during the application, underwriting, closing, funding, post-closing, and sale of mortgage loans resembles the functions along an assembly line. The direct cost deduction method does not consistently reflect the assembly line nature of the mortgage banking process, and it is this disconnect that distorts the application of costs along this assembly line between the issuance of the lock to a borrower and the closing of the loan.

Authoritative guidance paints broadly the methods used to assign fair value to the lock commitments. The IRLC asset is governed by recognition in ASC 948, by valuation method in ASC 815, and by value in ASC 820. None of these codifications provides much specific guidance regarding the accounting for pipeline loans. In its absence, practice and various white papers have influenced the industry's current methodology. The resulting inconsistency of costs included and excluded under the direct cost deduction method makes the Emerging Issues Task Force's opinion needed.

The accounting practice of most lenders takes the pull-through adjusted, anticipated gross revenues of the unclosed loan pipeline in sum or in completion-stage buckets from a third party analytics provider at a measurement date and deducts “direct costs,” a figure that generally includes variable expenses such as loan officer commissions due at closing and some post-closing costs, from this gross anticipated figure to arrive at the fair value of the pipeline. Neither 815 nor 820 contain the term “direct costs” or describe such deductions, resulting in a spectrum of calculations among entities. The inconsistency created as a result is particularly problematic for users because of the size of the IRLC asset relative to equity for most independent mortgage bankers.

The result is a pipeline loan asset whose value is reported net (pull-through adjusted gross revenue *net* of “direct costs”) on the balance sheet at a valuation that approximates the contribution margin (pull-through adjusted gross revenue minus variable costs) of the pipeline. The result of a direct cost

⁴ Deschow, Kothari, and Watts. “The relation between earnings and cash flows.” *The Journal of Accounting And Economics* 25. 1998.

deduction exceeds the observable net production profit margin of the pipeline loans because such a deduction does not consider indirect costs that are a reality for mortgage bankers. These costs include utilities, leases, insurance, salaries of support personnel, and the myriad of overhead costs that are incurred by operating mortgage bankers to convert a borrower's intent to refinance or purchase a home to cash. Without inventing guidance, what existing methods could make the inclusion of these costs palatable for non-bank mortgage entities, and in so doing, makes this asset more useful to users?

An Inventory Perspective

One of the initial difficulties with the IRLC asset is its treatment in authoritative guidance as a derivative asset that must be assigned a fair value versus its behavior as a work in process pipeline loan that will eventually be finished and inventoried in loans held for resale. ASC 330 defines inventory as:

“the aggregate of those items of tangible personal property that have any of the following characteristics: a. Held for sale in the ordinary course of business b. In process of production for such sale, c. To be currently consumed in the production of goods or services to be available for sale.”⁵

Though the first two of these characteristics reflect those of a loan pipeline, a proto-mortgage loan at some stage of completion in an underwriting pipeline is not tangible personal property. The product that results at the end of the loan manufacturing process is a financial instrument. Also, the loan process from lock to close is an experiential process, where a loan officer guides a borrower through loan type discussions, rate qualifications, and document submissions for approval and closing. Few individuals involved in direct labor inputs in a manufacturing setting have this experiential relationship with the end users of their products; consumers choose their loan officers based on relationships, while consumers of tangible goods do not choose the individuals involved in direct labor to make a product.

This experiential component has significant consequences for comparisons between an inventory approach to mortgage banking and a traditional inventory method. Importantly, a pipeline mortgage loan cannot be sold as work in process to another lender because of a combination of its experiential quality and regulatory problems transferring a pipeline loan whose disclosures have a specific lender's name on them. Borrowers choose their mortgage lenders, and a change of that lender during the pipeline process carries significant regulatory and practical concerns that render such transfers impossible for a going-concern mortgage banker.

Despite these dissimilarities, the mortgage industry often compares itself to a manufacturing process and sometimes, uses accounting terminology associated with manufacturing in the process. A cursory Internet search displayed the following references to this analogy:

⁵ Financial Accounting Standards Board (FASB) Generally Accepted Accounting Principles (GAAP) ASC 330-10-20.

1. From Freddie Mac: “Improve Your Loan Manufacturing Process Through Fraud Prevention and Quality Control”⁶
2. From Accenture: “The fulfillment process—from completion of a loan application through processing, underwriting, closing, and investor delivery—is often referred to as a “factory model.”⁷
3. From the 2016 MBA’s Accounting and Financial Management Conference: Spiegel Accountancy discussed an “absorption costing method” in its panel discussion concerning IRLC valuation. Spiegel’s Henry Chavez, CPA, also described the mortgage industry as a manufacturing operation --- an operation that manufactures paper rather than a tangible good.

The complexity becomes the combination of ASC 815’s requirement to assign a fair value to the lock commitments and 820’s silence on the details. 815-10-15-71 has the effect of front-loading profits associated with the unclosed pipeline into the current period, but points to 820 to determine what those profits will be. The contention of this paper is that an approach considering all production costs incurred by a non-depository mortgage banker, rather than only those deemed direct, will produce more useful information for management and other users of financial statements because it incorporates observable costs that are incurred by a going concern banker in their real loan manufacturing process.

The inclusion of these costs in a fair value calculation for the pipeline asset is similar to what CPAs already accept in absorption costing and better matches management estimates of the cash flows described in ASC 820-10-55-5 for this asset in its principal market. Finally, the inclusion of these costs better matches expenses to revenues.

Absorption Costing

Full absorption costing (this paper will use the term absorption costing for brevity) is required for external reporting. Absorption costing includes the cost of inputs related to direct materials, direct labor, variable manufacturing overhead, and fixed manufacturing overhead. Manufacturing overhead is also referred to in guidance as “indirect cost.” The alternative to absorption costing, variable costing, eliminates fixed manufacturing overhead as a product cost and instead expenses this cost as a period cost. Variable costing is typically preferred by employees because it is a fairer assessment of input usage that eliminates fixed components over which employees exercise little control.

The overhead component of absorption costing requires judgment that cannot be exhaustively described in guidance. The FASB concurs with these practical assignment difficulties, noting that “[a]lthough principles for the determination of inventory costs may be easily stated, their application, particularly to such inventory items as work in process and finished goods, is difficult because of the variety of considerations in the allocation of costs and charges.”⁸ Wiley’s interpretive inventory guidance gives several examples of costs that must be “appropriately allocated portion of

⁶ Freddie Mac. “Resources for Responsible Lending.” www.freddiemac.com/singlefamily/responsiblelending.html

⁷ “Lean, Mean Mortgage Machine.” Henry Santos. *The M Report*. May 23, 2015.

⁸ Financial Accounting Standards Board (FASB) Generally Accepted Accounting Principles (GAAP) ASC 330-10-30-2.

indirect production costs referred to as indirect overhead” for work in process and finished goods inventory:

1. Depreciation and cost depletion
2. Repairs
3. Maintenance
4. Factory Rent and utilities
5. Indirect Labor
6. Normal rework, labor, scrap, and spoilage
7. Production supervisory wages
8. Indirect materials and supplies
9. Quality control and inspection
10. Small tools not capitalized”⁹

While many of these indirect costs are not applicable to a mortgage banker, parallels to a loan manufacturing process are present. Building leases for retail branches, underwriting, and processing centers are required to manufacture loans, as are the payment of utilities for their operations. Thus, while no one imagines a retail mortgage branch with a smokestack rising out of its roof, the concept of “factory rent and utilities” above is not so far removed from the mortgage loan manufacturing process as it may seem. Neither are the elements of indirect labor incurred for administrative staff needed to support the accounts payable function, negotiate leases, and manage compliance, nor the “quality control and inspection” that has become a central function for entities to stay in the business of manufacturing loans saleable in the highly-regulated lending environment.

What is clear is that the inventory valuation method must consider indirect costs. ASC 330 affirms that:

“The exclusion of all overheads from inventory costs does not constitute an accepted accounting procedure. The exercise of judgment in an individual situation involves a consideration of the adequacy of the procedures of the cost accounting system in use, the soundness of the principles thereof, and their consistent application.”¹⁰

Two Errors Of the Direct Cost Deduction Method

Fair value is not absorption costing, and a mortgage loan banker’s pipeline is not a manufacturing assembly line despite the industry analogies described in the previous section. So, why should the concepts of ASC 820 and ASC 330 be used in the way suggested by the title of this paper? This paper contends that the current application of fair value to many mortgage bankers’ pipelines does not represent fair value because a flawed cost accounting concept lies at its heart (a cost accounting error), and a flawed primary market selection belies the intent and practice of management and users of financial statements (an ASC 820 error). These are both bold statements, and a

⁹ Wiley GAAP 2010: *Interpretation and Application of Generally Accepted Accounting Principles*. Epstein et al. Page 349.

¹⁰ Financial Accounting Standards Board (FASB) Generally Accepted Accounting Principles (GAAP). ASC 330-10-30-8.

consideration of both ASCs is necessary to restore the usefulness this paper claims has been lost in our industry's current accounting methods.

The First Error

An effect of the cost accounting error can be observed in the incomparability of financial statements reported by mortgage bankers based on simple geography. For example, observe the effect of the direct cost deduction on two hypothetical mortgage bankers located in Hawaii and in Texas from FASB letter co-signer Andy Schell, CPA CMB.¹¹ Both realize the same level of net production profit margin (35 bps), though their loan sizes vary dramatically due to geography:

	Large Loan Mortgage Banker, Hawaii	Small Loan Mortgage Banker, Texas
Average Loan Size	450,000	180,000
Gain on Sale	2.85%	5.55%
Gross Revenue, (\$)	12,825	9,990
1) Direct Cost per loan, (%)	1.40%	1.90%
Direct Cost per loan, (\$)	6,300	3,420
Gross Margin, (\$)	6,525	6,570
Gross Margin, (%)	1.45%	3.65%
2) Indirect Costs per loan	4,950	5,940
Indirect Costs per loan	1.10%	3.30%
Relative Indirect cost	25%	75%
Profit before Tax, (\$)	1,575	630
Profit before Tax, (%)	0.35%	0.35%
Cash Collected, (\$)	1,575	630
Notional Amount after pull-through (\$)	<u>50,000,000</u>	<u>50,000,000</u>
IRLC Revenue (\$)	1,425,000	2,775,000
IRLC "Cost to Complete" (\$)	(700,000)	(950,000)
Derivative Asset (IRLC), (\$)	<u>725,000</u>	<u>1,825,000</u>

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As a function of loan size, the Texas-based mortgage banker’s cost structure contains more “indirect costs” per loan. This difference results in a higher interest rate lock commitment asset (\$1,825,000) than the Hawaii banker (\$725,000) because these indirect costs are excluded from the standard IRLC calculation. Compare the following allocation of these indirect costs between the two lenders using the same data:

Monthly Closings	\$25,000,000	\$25,000,000
Number of Loans	56	139
Number of Underwriters/Loan	0.93	3.47
Other Indirect Staff/Loan	2.78	6.94
Costs per Month	\$21,219	\$62,211
Relative Indirect Cost	25%	75%

Despite the different cost structures, each entity ultimately realizes the same average net production profit margin of 35 basis points. The *net* presentation of the IRLC asset (net of direct costs) is supposed to represent the *net* fair value of the pipeline. Why is the IRLC asset valued differently as a function of geography? How can users of financial statements compare these two disparate results?

In spite of this initial practical difficulty, the direct cost deduction’s exclusion of these indirect costs represents an industry standard approach to the unclosed loan pipeline. This deduction is the source of a cost accounting failure. To describe this failure in more detail, we can examine popular white papers containing this misunderstanding. White papers from Wilary Winn (“Accounting for Mortgage Banking Activities,” 2012 and “Accounting and Regulatory Guidance,” 2016) and Richey May (“Accounting for Derivatives,” 2015) are frequently cited interpretive guidance for the industry standard approach using the direct cost deduction and appear as the first and third results, respectively, in an Internet search for “Interest Rate Lock Commitment Accounting.”

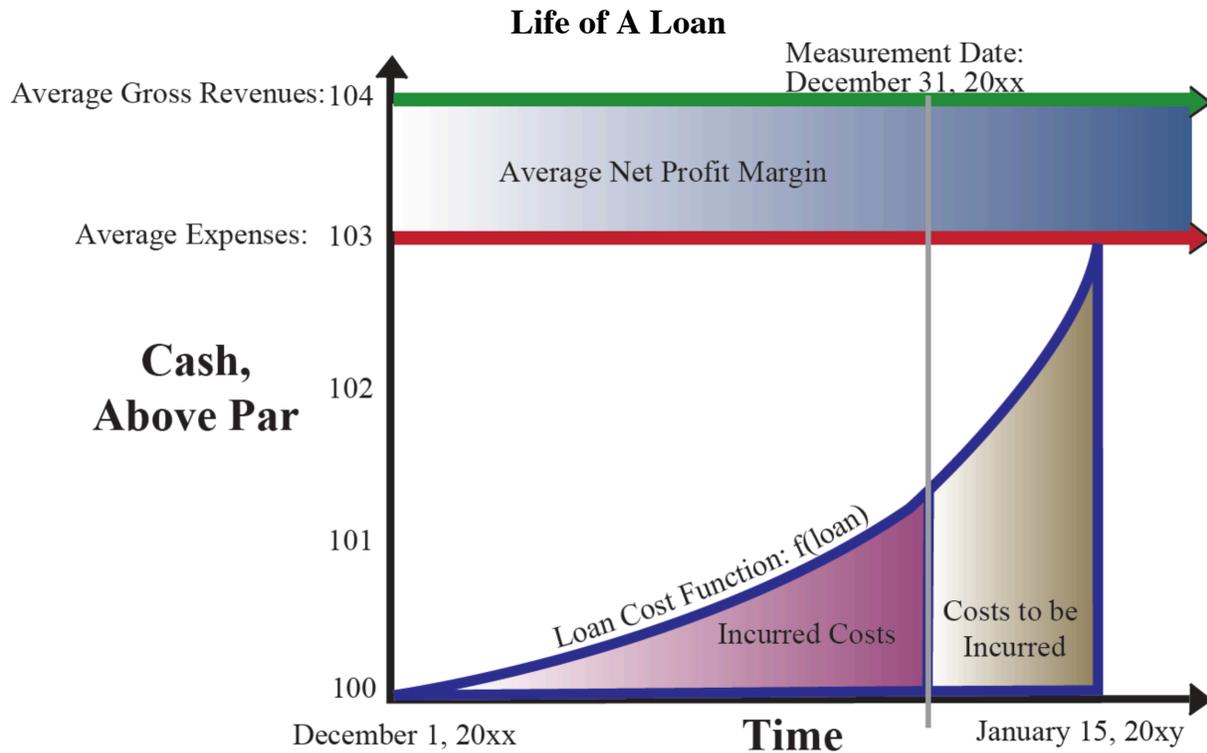
Both interpretive sources discuss the valuation of IRLCs using estimated direct costs needed to close a pipeline loan, but Wilary Winn’s white paper is the most detailed as it tracks the life of an example pipeline loan from lock to closing from a balance sheet and journal entry perspective. In this white paper, the reader is presented with a seemingly reasonable lifecycle for a pipeline loan through a table describing the IRLC asset under various market conditions and stages.

Although a graph is not included in the white paper, the life of the pipeline loan described on page three of this document resembles the following chart. Using round figures that are **not** contained in Wilary Winn’s white paper,¹² the IRLC asset below experiences changes in its value as costs are

¹² Wilary Winn’s “Accounting for Mortgage Banking Activities” contains an example IRLC whose value changes in response to “market interest rate” changes and “estimated pull through percentage changes over time.” The actual data presented on page three of this document is summarized here:

	Inception	Rates up 50bp	Loan at Processing	Rates Down 100 bp	Loan Approved	Loan at Close
Loan Amount	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
IRLC Value	\$450	\$(225)	\$-	\$2,400	\$3,600	\$4,500
Pull Through, %	30%	45%	60%	60%	80%	100%

incurred and pull through increases. In this chart, the hypothetical mortgage banker’s average loan production expenses are 300 basis points, its average gross revenues are 400 basis points, and the 100 basis points that are left over constitute the average net profit margin.¹³ The loan moving from December 1’s lock to its January 15 sale into the secondary market incurs a total of 300 basis points in costs.



This presentation seems reasonable; as a loan moves through the underwriting process, costs are incurred. During December, the life of the loan is cut off artificially by a measurement date (December 31 in this example) before the loan is sold into the secondary market on January 15. Thus, some costs have been incurred (the area underneath the cost curve $f(\text{loan})$ of the pipeline loan to the left of the December 31 measurement cutoff), while other costs remain to be incurred after the measurement date (the area to the right of the December 31 measurement date). The importance of these “remaining origination costs to be incurred based on management’s estimate of market costs” is emphasized by Wilary Winn’s paper as one of the four components of a fair value computation for this asset.¹⁴

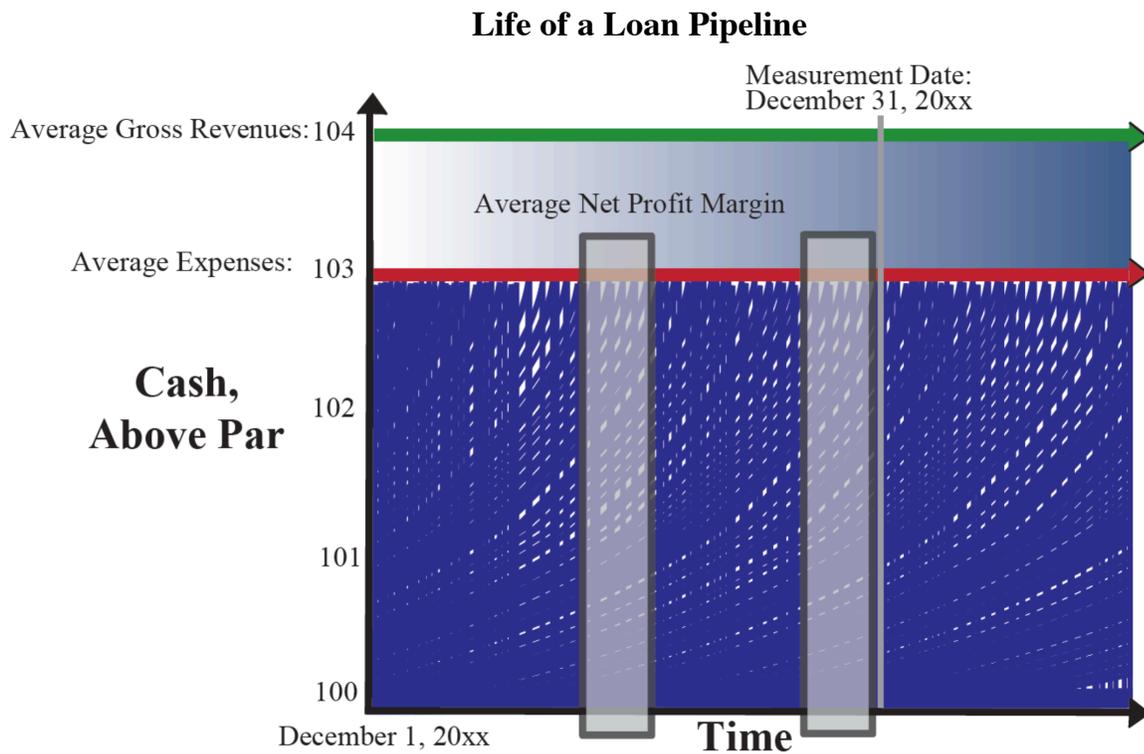
Pull-Through Adjusted Loan Amount	\$30,000	\$45,000	\$60,000	\$60,000	\$80,000	\$100,000
Pull Through Adjusted IRLC Value, bps	1.50%	-0.50%	0.00%	4.00%	4.50%	4.50%

¹³ “Loan Production Revenue” was 411.06 bps, while “Total Loan Production Expense” was 336.84 bps for the year to date 2016 period for Independent Mortgage Bankers in the MBA’s Q3 2016 Quarterly Mortgage Bankers Performance Report.

¹⁴ “Accounting for Mortgage Banking Activities: Interest Rate Lock Commitments, Forward Sales Commitments, and Closed Loans Held for Sale.” Wilary Winn. 2012. Page 3.

Additionally, the shape of the loan cost curve defined by these managerial cost estimates has a significant impact on the incurred and yet-to-be-incurred costs for the loan by changing the integral of the $f(\text{loan})$ function. Loan officer commission costs paid at closing remain by definition for unclosed loans, as do some other variable costs needed to close and sell the loan. Thus, the gross value of the loan pipeline, adjusted for pull through and reduced by direct costs, can result in a net IRLC value of the 365 or 145 basis points reported above in the Texas- and Hawaii-lender example.

However, this presentation does not reflect the reality of the cost structure of an operating mortgage banker. This presentation lures the reader to accept the “cost to complete” approach through its simplicity. The actual life of a *loan pipeline* that consists of many, many loan cost curves looks like this:



At any time-slice (semi-transparent boxes), costs to be incurred or already incurred for the pipeline resemble a solid. The “expenses to be incurred approach” in the chart on Page 11 does not make sense for a going-concern banker with tens or hundreds or thousands of other loans whose cost curves surround the single curve noted above. The simplicity of the one loan-solution is what allows a lock at inception with 30% pull through to be valued, net, at 150 basis points¹⁵ in the Wilary Winn example, but this simplicity is potentially misleading because it does not include all loan production costs needed to convert this loan to cash by an operating mortgage banker.

A second Wilary Winn white paper does attempt to address incurred costs. This white paper targets depository institutions rather than independent mortgage bankers. Consider the following passage:

¹⁵ “Accounting for Mortgage Banking Activities: Interest Rate Lock Commitments, Forward Sales Commitments, and Closed Loans Held for Sale.” Wilary Winn. 2012. Page 3. Calculation: $(\$450 / (\$100,000 * 30\% \text{ Pull Through}))$

“However, the value of the IRLC in our example is increasing as origination costs are incurred because we are considering only costs to be incurred in the future. Therefore, we recommend that PFIs¹⁶ expense origination costs for IRLCs as incurred. **Otherwise, the PFI would be double counting the effect of having incurred the origination cost** [Emphasis added by this paper]- once as a deferral and a second time in the increased value of the IRLC.”¹⁷

This passage underlines its author’s premise that incurred costs matter in a net presentation of the pipeline asset because deducting more than “direct costs” or “cost to complete” has the effect of double-deducting these costs, once as expenses as they are incurred and again in the deduction off of the gross asset to create the net asset.

Though this warning against double-incurring costs is well intended, it is wrong. In a net presentation of an asset that cannot and will not be sold incomplete, an asset’s anticipated net profit margin does not change as it moves through production.¹⁸ Put another way, as production advances the product’s remaining expenses decrease, but this is not the same as its net profit margin increasing.

Consider the 150 basis point valuation applied to the \$100,000 unclosed loan with 30% pull through included as an example in Wilary Winn’s first white paper. The Mortgage Bankers Association’s (MBA) quarterly performance data revealed net production income of 74.22 basis points for independent mortgage bankers in its third quarter performance report. Although this 74.22 basis point figure was not included in Wilary Winn’s analysis or describes the same time period, it is instructive when placed beside the 150 basis point value assigned net to the unclosed loan asset in Wilary Winn’s example. The MBA’s recent press release concerning its Profitability Report indicated a 53 basis point average since the survey was created in 2008.¹⁹

If incurred costs matter in a net presentation, why might the net value of the average unclosed loan drop from 150 basis points at lock to 74 basis points when it is sold? The average unclosed loan net value for a pipeline, rather than just this 30% pull through weighted loan, observed by this paper’s author was 260 basis points at December 31, 2016, so the drop to 74 basis points is even more severe.

The reality is that a loan’s anticipated net profit in a net presentation of the pipeline asset is affected by pull-through, not by its stage of completion or incurred costs. The “remaining origination costs to be incurred based on management’s estimate of market costs” cited as one of the four inputs in the first Wilary Winn white paper are not relevant in a net asset presentation when revenue is

¹⁶ A “Participating Financial Institution.”

¹⁷ “Accounting and Regulatory Guidance for the Mortgage Partnership Finance Program” Wilary Winn. May 2016, Version 9. Page 15.

¹⁸ Though the anticipated net profit margin of a *product* does not change with production stage, the anticipated net profit margin of a *loan* would change as pull-through increases. This effect is not the same as the loan’s anticipated net profit changing advances through production stages *without* pull-through increasing.

¹⁹ “Independent Mortgage Bank Volumes Decrease, Production Profits Drop in 4th Quarter 2016.” Mortgage Bankers Association. March 21, 2017.

recognized at lock.²⁰ The anticipated net margin of any item in production is not affected by its stage of completion. There are fewer costs left to incur in producing an item as it moves along an assembly line, but this is not the same as the item experiencing a corresponding increase in its net margin because the item will not (and in the case of pipeline loans, cannot) be sold as work in process.²¹

The Office of the Comptroller of the Currency affirms the effect of stage of pipeline loan completion *on pull-through*, rather than the stage of completion itself as an independent consideration of IRLC valuation:

“Some factors that may be considered in arriving at appropriate pull-through rates include (but are not limited to) the origination channel [which may be either internal (retail) or external (wholesale or correspondent, to the extent the institution rather than the correspondent closes the loan [See Footnote 17]]], current mortgage interest rates in the market versus the interest rate incorporated in the derivative loan commitment, the purpose of the mortgage (purchase versus refinancing), the stage of completion of the underlying application and underwriting process [. . .]”²²

The causal relationship between pull-through and IRLC value, rather than stage of completion and IRLC value, is an important reason for the failure of the direct cost deduction. Imagine a borrower refinancing her home, with closing scheduled for June 28, 2016. On June 23, the loan is nearly 100% complete, and pull-through approaches 100%. However, on June 24, 2016 the results of Brexit are announced, sending interest rates plummeting. Though this loan’s percentage of completion is nearly 100%, its pull-through has dropped precipitously. The rational borrower will not close the transaction and will instead seek the lower rates now provided without consideration of how close the loan was to completion.

The final evidence of the inadequacy of the direct cost deduction caused by the cost accounting error described above lies with the MBA’s performance data. The MBA’s Quarterly Mortgage Performance Report for the third quarter of 2016 showed average loan production revenue of 411.06 basis points. “Loan Production Expenses” of 336.84 basis points were also reported, resulting in net production income of 74.22 basis points. Even “Direct Loan Production Expenses” were 318.59 basis points, indicating that the 150 basis point average direct cost deduction observed by the signers of the comment letter to the FASB is far from industry realities.

Taking the net production income of the example mortgage bankers in Hawaii or Texas above, how is their IRLC asset’s net value twice and four times, respectively, their 35 basis point net profit margin? For this example, as well as Wilary Winn’s example, the current direct cost deductions are insufficient to arrive at the anticipated net value of the pipeline to an operating mortgage banker. The mortgage banker incurs non-direct costs in converting the pipeline to cash, but these costs are

²⁰ “Accounting for Mortgage Banking Activities: Interest Rate Lock Commitments, Forward Sales Commitments, and Closed Loans Held for Sale.” Wilary Winn. 2012. Page 3.

²¹ IRLCs could be sold as a component of a business combination. See the next section for a discussion of a business combination as the asset’s principal market.

²² “Interagency Advisory On Accounting And Reporting For Commitments To Originate And Sell Mortgage Loans.” Office of the Comptroller of the Currency. May 8, 2005. Page 8.

ignored. Revenue is recognized at lock date, but few of the expenses associated with that revenue are matched accordingly.

Even if the distinction between the first and second chart above and the irrelevancy of incurred costs in a net asset presentation are unconvincing criticisms of the incurred cost approach that lies at the heart of the direct cost deduction, the net cash flows associated with the pipeline asset serve as proof that the cost accounting assumption in chart one on Page 11 is flawed for this asset. If most (or all, save for commissions and the other components of the direct cost deduction) costs are really already incurred for the pipeline asset, the mortgage banker should experience net operating cash flows approximating the interest rate lock commitment asset in the next measurement period.

Does this occur? Look at a mortgage banker's operating cash flows²³ for the next 60-day period, then compare these cash flows to the IRLC asset at the prior measurement date. Since the pipeline loans are generally converted to cash in around 45-60 days, these cash flows should resemble the IRLC asset if all costs were really already incurred. But, no mortgage banker can realize the super-margins imputed in the IRLC asset because the pull-through adjusted gross revenues are reduced by costs that include fixed (or indirect) costs in addition to direct costs.

Secondly, do these cash flows matter? A 2003 presentation by the Mortgage Bankers Association to the Financial Accounting Standards Board affirms the importance of cash flows as the valuation technique used for IRLCs. The contents of the presentation demonstrate how far our approach has drifted over time for this asset:

“Specifically, the following cash flows would be taken into account when estimating the future cash flows expected to be received/paid:

- Expected gain/loss on sale of the loan, which would include:
 - a direct valuation of the entire interest rate on the underlying loan
 - the total coupon can be valued as the sale of the entire note rate on the loan or as the sale of the majority of the interest strip, with a retained servicing right
 - any origination fees to be collected
 - any discount/premiums on the underlying loan
 - any costs expected to be incurred in originating and selling the loan
- These cash flows would then be directly adjusted for the expected close ratio and then risk-adjusted to compensate for estimation errors predominantly around closing ratios and loan quality/characteristics that could affect value”²⁴

These specific fair value inputs, particularly the “costs expected to be incurred in originating and selling the loan”, track those described generally in the “estimate of future cash flows for the asset” in ASC 820-10-55-5's income approach. That the MBA's Quarterly Mortgage Performance Report routinely shows loan production expenses of independent mortgage bankers to be in excess of 300 basis points demonstrates the disparity of the current direct cost deduction method with reality and the requirements of the income approach.

²³ Some entities classify repayments of warehouse lines payable in financing activities on the statement of cash flows.

²⁴ “Accounting For Loan Commitments.” MBA Presentation to the Financial Accounting Standards Board. December 3, 2003. Page 15. Formatting preserved in quotation.

The financial statements of independent mortgage bankers bear this disparity out period over period. If traditional period/indirect/fixed costs really were already incurred through the previous measurement date as stated in the interpretative guidance above, the entity would realize cash flows approximating the asset as the pipeline loans close and are converted to cash in the secondary market. But these cash flows are lost to costs unconsidered in the direct cost deduction, and the resulting chasm between the interest rate lock commitment net asset and future net cash flows from that pipeline are evidence of this first failure of the direct cost deduction method. The final damning evidence in the MBA's presentation is the necessity of the comparison of the result of the IRLC valuation technique and the resulting cash flows:

“Ultimately, variances between assumptions utilized in the valuation techniques and the realized cash flows can be observed within a short time period (45-60 days) as the loans move through the origination and sale processes. This ongoing comparison ensures that the valuation techniques are consistent with the realized cash flows.”²⁵

Does a mortgage banker realize cash flows from the pipeline of 250 or 300 basis points, or around the 24 (Q4 2016) or 74 (Q3 2016) basis points shown as the net production profit margin in the MBA's Quarterly Mortgage Performance Report? “Incurred costs” in the IRLC asset's net presentation only matter if we ignore the going concern assumption. Shutting down new applications stops the stream of new cost curves associated with new pipeline loans. But, this stoppage is a business-ending proposition. The availability of a lock today depends on the availability of a lock tomorrow; a loan officer will not behave in the way a going concern mortgage banker's cost structure suggests if no more loan applications can be taken after a date. A hydrologist interested in the volume of water carried by a river analyzes the area, depth, and velocity of the section of interest as it flows by.²⁶ The hydrologist does not artificially stop the river upstream with a dam for such a study. Such a change to the flow changes what is studied from an active river to a dammed river. Similarly, accounting for pipeline loan flow for an operating mortgage banker is different than accounting for a mortgage banker who is no longer taking loan applications. The extremely early point of revenue recognition associated with the pipeline loan compels a matching of estimated costs, whether direct or indirect, fixed or variable, in accounting for the flow of pipeline loans.

A Second Criticism

If the cost accounting error described above is acknowledged, many CPAs still defend the current “direct cost deduction” treatment by citing a principal market other than the secondary market for the pipeline asset that *could* change the cost structure of a mortgage banker because it stops the river-like flow of pipeline loans. ASC 820 requires accountants to identify the principal market for the asset or liability under fair market value consideration. CPAs sometimes cite the market value that the pipeline asset would fetch in a business combination as the exit price for the asset, noting that the acquirer of a pipeline would not consider fixed costs such as leases, utilities, and other general selling and administrative costs in the acquisition. This is an interesting conjecture; this

²⁵ Ibid. Page 16.

²⁶ Phone conversation with National Oceanic and Atmospheric Administration (NOAA), Memphis TN Office. May 31, 2017.

market *might* change the anticipated net profit margins of the mortgage banker's unclosed loans in a way that stage of completion would not in a net presentation of the IRLC asset.

However, the glossary to ASC 820 defines the principal market as “the market with the greatest volume and level of activity for the asset or liability.” The secondary market for the loans that the pipeline loans will become is the market with the highest level of activity for a going concern banker. This paper contends that the price that a mortgage banker would receive for its unclosed loan pipeline in a business combination is irrelevant to the pipeline's fair value because of GAAP's going concern assumption, because such a combination's hypothetical exit price involves assumptions that maximize unobservable inputs in contradiction to 820-10-05-1C, because the principal market must be accessible and contain the greatest volume and level of activity for that asset under 820-10-35-6A and 820-10-20 (“Principal Market” definition), and because the secondary market represents the “market in which the reporting entity normally would enter into a transaction to sell the asset” under 820-10-35-5A.

In real acquisitions, the acquirer generally stipulates that the acquiree close out the existing loan pipeline represented by the IRLC asset. The resulting margins of this process would be similar to the net production profit margin realized by the entity pre-acquisition. However, margin consistency is not the reason why the acquired entity closes its own pipeline loans --- disclosure re-issuance, privacy concerns related to those disclosures, the potential unwillingness of a borrower to work with a new lender and/or loan officer, the inability to calculate “shared” loan officer compensation, and the incremental interest rate risk added by the delays associated with these foregoing uncertainties makes selling an unclosed loan pipeline while it is unclosed a practical nightmare.

In a derivatives discussion paper that included an analysis of various viewpoints on IRLCs, the Financial Accounting Standards Board considered how a business combination would affect the value of IRLCs and the inclusion of MSRs (or not) in that valuation:

The [. . .] method is consistent with the inclusion of the fair value of a lender's pipeline in the fair value of assets purchased in a purchase business combination accounted for under APB Opinion No. 16. In such a transaction, the pipeline valuation includes the value of the MSR, any other interest rate components and an estimated cost to complete that will result if, and when, the pipeline loans become funded loans. View 1A [A viewpoint that MSRs should be included in an IRLC valuation] proponents believe that this treatment is consistent with positions taken by the SEC staff with registrants regarding the allocation of purchase price to loans acquired in a business combination for which management had the intent to sell.²⁷

This “intent to sell” appears critical. It does not appear to extend to mortgage bankers with no intent to sell themselves in a business combination. The applicability of a business combination as the principal market appears limited in an 820 application.

Finally, if a business combination were the principal market under 820, why is the IRLC asset singled out for this market selection? Should fixed assets be valued at liquidation cost? Should

²⁷ Derivatives Implementation Group, Agenda Item 15-1. Financial Accounting Standards Board. March 15, 2001. Page 6.

anticipated goodwill be recorded for the pending acquisition? The rabbit hole is deep indeed, but it is the only rabbit hole that permits the cost structures described in the chart on Page 11 to be changed.

The Absorption-Like Costing Method

With these two criticisms aside, what costs should be considered in a fair value calculation using an absorption-like costing approach? If the reader accepts that the chart on Page 11 represents an approximation of the flow of costs in the life a loan pipeline, then a consideration of costs for a net fair value approach that approximates the real value the pipeline represents will result in more useful reporting for users. That is to say, the closer the mortgage loan pipeline is reported to the net production profit margin, the more useful financial statements containing this asset will be in predicting future cash flows associated with the asset. How can absorption approach assist in this goal?

Absorption accounting includes direct material, direct labor, and the fixed and variable portion of manufacturing overhead. It does not generally include period costs, such as general and administrative expenses. In transitional guidance set to be implemented beginning in December 2017, ASC 330 notes:

“[. . .] under most circumstances, general and administrative expenses shall be included as period charges, except for the portion of such expenses that may be clearly related to production and thus constitute a part of inventory costs (product charges). Selling expenses constitute no part of inventory costs. [. . .] The exercise of judgment in an individual situation involves a consideration of the adequacy of the procedures of the cost accounting system in use, the soundness of the principles thereof, and their consistent application. General and administrative expenses ordinarily shall be charged to expense as incurred.”²⁸

Interpretive guidance also includes the interesting hedged language involving the inclusion of general and administrative costs in inventory:

“Selling costs do not constitute production costs. General and administrative expenses are typically not allocated to production. However, there may be circumstances in which certain general and administrative expenses are related to the production process and are therefore allocable to the WIP and finished goods inventories.”²⁹

But what are these circumstances? The inclusion of variable and fixed indirect costs related to loan production gets us closer than the direct cost deduction to the asset’s approximate value to an independent mortgage banker. However, period costs such as general and administrative expenses are “typically not allocated to production” and are instead expensed as incurred under an absorption method. So, what is the relationship between a net margin approach for fair valuing a financial

²⁸ Financial Accounting Standards Board (FASB) Generally Accepted Accounting Principles (GAAP) Transition Date: (P) December 16, 2017; (N) December 16, 2018.

²⁹ Wiley *GAAP 2010: Interpretation and Application of Generally Accepted Accounting Principles*. Epstein et al. Page 349.

instrument and guidance around absorption costing of inventory when a traditional absorption method excludes many of the very costs argued here for inclusion?

The answer lies in the point of revenue recognition for locks versus inventory. The point of revenue recognition for an IRLC is the issuance of the rate lock to the borrower, while the point of revenue recognition for inventory that is not fair valued is a firm commitment to sell that inventory. The IRLC asset functions like work in process moving down a manufacturing line within a mortgage company, and in a net approach, its value to the mortgage banker once sold will resemble the net production profit margin at that level of originations. Work in process loans cannot and will not be sold by the mortgage lender. Their early point of revenue recognition versus traditional inventory requires a consideration of all costs to satisfy the matching principle.

Second, the nature of a mortgage bank is to originate and sell mortgage loans. A mortgage banker's production expenses are "clearly related to production" as ASC 330 notes they must be in order to be included in inventory. Servicing income and expenses for retained MSR's can be segregated from those related to production to determine the net production profit margin. The MBA's own terminology of "Loan Production Expense" and "Direct Loan Production Expenses" in its Quarterly Profitability Reports echoes our industry's understanding of the nature of production costs incurred by operating mortgage bankers. Management eliminates expenses unrelated to this process. In contrast, compare the cost structure of a depository to that of an independent mortgage banker. While a depository has many non-mortgage related costs that would not be included in the calculation of the entity's net production profit margin for mortgage loans, an independent mortgage banker's expenses are all related to mortgage loans.

While the same statement could be said of many (or all) manufacturers using absorption costing that do not include traditional period or general and administrative costs in inventory, the important distinction with mortgage bankers is that the pipeline's point of revenue recognition under fair value is at lock issuance (comparatively very early) that creates the work in process mortgage loan, while a manufacturer's point of revenue recognition is a firm commitment to sell finished inventory (comparatively very late).³⁰

Finally, non-depository bankers frequently have a material portion of their equity comprised by interest rate lock commitments,³¹ so overstatement risk involving this asset is high. Users, such as creditors and investors, rely on consistent, comparable financial statements to make decisions. A manufacturing entity's finished good inventory reflects accounting assumptions that are more consistent than those currently used for the IRLC asset.

In summary, the reasons this paper contends that an absorption costing method applied to this asset should include traditional period costs are:

1. Revenue recognition is triggered at the issuance of the rate lock; the matching principle requires corresponding expenses to be matched to this early revenue recognition event.
2. The closer that the pipeline asset is reported to that pipeline's net production profit margin, the better it correlates to future cash flows. The net production profit margin

³⁰ Spiegel Accountancy's Henry Chavez, CPA, pointed out this distinction.

³¹ Particularly those mortgage bankers with no or insignificant retained MSR's.

includes selling and administrative expenses, and absorption costing-related ASCs include exceptions that allow them to be included in certain circumstances.

3. Conservatism in the face of ASC 815's front-loading of expected future value of a pipeline asset into the current measurement period should lead preparers to conclude that the selling and administrative functions of a mortgage banker are "clearly related to production." The MBA's terminology and data reflected in its industry performance reports reflects "Loan Production Expenses" and "Direct Production Costs" far above those reflected in the direct cost deduction's inputs.
4. Overstatement risk is particularly high because the IRLC asset constitutes a material portion of an independent mortgage banker's equity.

Thus, this paper contends that costs considered in valuing the unclosed loan pipeline ought to reflect those outlined in the MBA Profitability Report. These include:

1. Expenses related to personnel (except management and directors)
2. Occupancy, related to branch leases and pro-rata loan underwriting, processing, funding, and secondary functions at the corporate headquarters, insurance, utilities, and related equipment
3. Technology, outsourcing, and professional fees.
4. Other loan production operating expenses.

The inclusion of these costs, both fixed and variable, direct and indirect, related to loan production resembles a full absorption costing approach and has the effect of valuing the unclosed loans at approximately the pull-through adjusted net production profit margin of the entity under consideration.

Based on 330's guidance, the salaries of owners, directors, and non-production related management should not be included in an absorption-like method. In the MBA's third quarter Profitability Report, these salaries amounted to only 19.30 basis points out of the total 336.84 basis points of expenses.

Application

Imagine an independent mortgage banker at two different measurement dates and two different pipelines at those dates using the MBA's Q3 Profitability Report. At the first measurement date, the banker has a pull through adjusted \$100,000,000 pipeline. By the next reporting period, the pipeline has shrunk to \$75,000,000:

	Measurement Date One	Bps	Measurement Date Two	Bps
Pull-Through Adjusted Pipeline	\$100,000,000		\$75,000,000	
Anticipated Gross Revenue	\$4,110,600	411.06	\$3,082,950	411.06
<i>Less Variable Costs:</i>				
Sales Personnel	\$(1,074,600)	(107.46)	\$(805,950)	(107.46)
Production Support Employees	<u>\$(216,500)</u>	<u>(21.65)</u>	<u>\$(162,375)</u>	<u>(21.65)</u>
Contribution Margin	\$2,819,500	281.95	\$2,114,625	281.95
<i>Less Fixed Costs:</i>				
Management and Directors	\$(193,000)	(19.30)	\$(193,000)	(25.73)
Fulfillment Personnel	\$(508,300)	(50.83)	\$(508,300)	(67.77)
Benefits	\$(240,300)	(24.03)	\$(240,300)	(32.04)
Occupancy and Equipment	\$(176,500)	(17.65)	\$(176,500)	(23.53)
Technology-Related Expenses	\$(67,800)	(6.78)	\$(67,800)	(9.04)
Outsourcing and Professional fees	\$(108,900)	(10.89)	\$(108,900)	(14.52)
Other Operating Expenses	\$(600,200)	(60.02)	\$(600,200)	(80.03)
Corporate Allocation	<u>\$(182,500)</u>	<u>(18.25)</u>	<u>\$(182,500)</u>	<u>(24.33)</u>
Total Fixed Costs	\$(2,077,500)	(207.75)	\$(2,077,500)	(277.00)
Net Income	\$742,000	74.20	\$37,125	4.95

The pipeline declines from \$100,000,000 to \$75,000,000 between these dates. If the entity considers their estimated costs in basis points and segregates them according to their behavior at the two volume levels, it can arrive at predictive qualities using a contribution format income statement that respects the early point of revenue recognition of the pipeline loans in a way that respects the matching principle, too.

The chart above reveals the realities of anticipated revenues covering anticipated fixed (or indirect) costs. For example, the \$100,000,000 pipeline based on the broad brushstrokes of the MBA's data will net the company around 74 basis points. A break-even analysis would include the fixed costs above. Thus, if the pipeline drops to \$75,000,000, the company will realize net production income of only around 4.95 basis points because its general and administration costs, fixed with respect to production, do not change with changes in origination volume. They will be incurred, but the direct cost deduction method ignores them while management includes them in a break-even analysis.

Excepting the management and directors line item, the fair value of the pipeline would be \$935,000 (\$100,000,000 Notional Amount * (.007420 + .00193) at Measurement Date One, and \$181,875 (\$75,000,000 Notional Amount * (.000495 + .00193) at Measurement Date Two. Both calculations front-load the estimated value the pipeline will provide to the entity in cash during the next reporting period into the current measurement date, removing the discretionary component of management and director expenses. Today, an entity using the direct cost deduction would likely

record the asset at \$2,819,500 and \$2,114,625 at each measurement date. These figures represent an estimate of the contribution margin of the pipeline, and thus overstate the asset.

Because a going concern mortgage banker incurs both fixed and variable costs in converting a loan pipeline to cash and because the anticipated net profit margin on a pipeline does not change as expenses related to that pipeline are incurred, this paper argues that the absorption-like analysis above better predicts future cash flows from the unclosed loan pipeline and therefore provides better reporting for management in assessing future performance. In a net presentation of the IRLC asset, the net production profit margin adjusted for pull through for the current unclosed loan pipeline is a more useful presentation than the variable-only method.

Challenges with Absorption-like Costing Applied to A Loan Pipeline

The first challenge with an absorption-like costing method is the assumptions used to develop a cost-volume-profit analysis for the entity. Despite these challenges, this paper argues that such an analysis will always provide more useful information to users of financial statements than the direct cost deduction method because the absorption method includes as inputs more costs that are incurred by operating mortgage bankers.

Can costs be described simply as variable or fixed? No; the “fixed” costs above are mixed in nature. For example, consider that the same entity, seeing the pipeline decline, enacts cost-cuttings such that its “fixed” costs are reduced by 10%. For presentation simplicity, the analysis below has not removed the management and director expense line item, and the individual line items under each cost classification have been hidden for brevity:

	Measurement Date One	bps	Measurement Date Two	bps
Pull-Through Adjusted Pipeline	\$100,000,000		\$75,000,000	
Anticipated Gross Revenue	\$4,110,600	411.06	\$3,082,950	411.06
<i>Less Variable Costs:</i>				
Total Variable Costs	<u>\$(1,291,100)</u>	<u>(129.11)</u>	<u>\$(968,325)</u>	<u>(129.11)</u>
Contribution Margin	\$2,819,500	281.95	\$2,114,625	281.95
<i>Less Fixed Costs:</i>				
Total Fixed Costs	<u>\$(2,077,500)</u>	<u>(207.75)</u>	<u>\$(1,869,750)</u>	<u>(249.30)</u>
Net Income	\$742,000	74.20	\$244,875	32.65

Effect on Income Statement (Fair Value Gain or Loss)

Direct Cost Method:	\$(704,875)
Absorption Method:	\$(497,125)

In this more realistic model, the entity has adjusted its cost structure to accommodate lower production levels. The static “fixed costs” in the previous section are reduced by 10%, and accordingly, so is the income statement volatility under the absorption-like method in the fair value loss line item.

A second challenge involves companies operating below break-even. These entities are interesting under the method described in this paper because their production profit margin at their pipeline's level of production could create a negative IRLC value. This result seems counterintuitive; the pipeline possess a positive marginal value to the entity, and losses would be even more significant (and the idea ridiculous) if the entity decided to, based on a marginal analysis, simply stop closing loans.

However, consider the effect of the current direct cost deduction on the same pipeline. By assigning super-net margins to the pipeline asset, the direct cost deduction method dramatically overstates the future cash flows associated with the pipeline at a measurement date. This volatility is accentuated during volatile interest environments to the detriment of the mortgage banker who cannot have the fair value adjustments always occur in their favor. An agenda item undertaken by the FASB concerning derivatives noted a viewpoint in their discussion that "in recording the fair value of the loan commitment, the offsetting credit or debit is in income or loss for the lender."³² The implication under this viewpoint is that the loss would offset a *liability*. Additionally, the Office of the Comptroller of the Currency's guidance on IRLC valuation includes an extended example of an IRLC liability.³³

If the mortgage banker above was able to reduce "fixed" costs by 20% (rather than the 10% above) due to a halving in production, the following characteristics could be observed:

	Measurement Date		Measurement	
	One	bps	Date Two	bps
Pull-Through Adjusted Pipeline	\$100,000,000		\$50,000,000	
Anticipated Gross Revenue	\$4,110,600	411.06	\$2,055,300	411.06
<i>Less Variable Costs:</i>				
Total Variable Costs	<u>\$(1,291,100)</u>	<u>(129.11)</u>	<u>\$(645,550)</u>	<u>(129.11)</u>
Contribution Margin	\$2,819,500	281.95	\$1,409,750	281.95
<i>Less Fixed Costs:</i>				
Total Fixed Costs	<u>\$(2,077,500)</u>	<u>(207.75)</u>	<u>\$(1,662,000)</u>	<u>(332.40)</u>
Net Income	\$742,000	74.20	\$(252,250)	(50.45)
Effect on Income Statement (Fair Value Gain or Loss)				
	Direct Cost Method:		\$(1,409,750)	
	Absorption Method:		\$(994,250)	

The absorption-like method has the effect of reducing the volatility of the pipeline fluctuation over the direct cost deduction method by accounting for the reduction of below-the-line overhead costs

³² Derivatives Implementation Group, Agenda Item 15-1. Financial Accounting Standards Board. March 15, 2001. Page 8.

³³ "Interagency Advisory On Accounting And Reporting For Commitments To Originate And Sell Mortgage Loans." Office of the Comptroller of the Currency. May 8, 2005. Page 14.

by a rational mortgage banker facing a scenario, for example, like the post-2016 election interest rate environment.

The result appears to be a contra-asset. However, in practice, the contribution margin of a pipeline would have to be negative for such a contra-asset to exist for the pipeline. This scenario is exceptional and unsustainable. More sensibly, the IRLC asset above has a floor of \$0.

Conclusion

The industry standard direct cost deduction method materially overstates the fair value of the unclosed loan pipeline because it ignores the majority of observable expenses needed to be matched to its early point of revenue recognition. As a result, the asset's accounting does not provide useful information to users of financial statements concerning the timing and extent of future cash flows from the unclosed loan pipeline. This shortcoming is particularly problematic because of its purported net presentation (net of direct costs) and interpretive guidance suggesting that period costs are already incurred. Each of these commonly held ideas suggests that the entity will realize the IRLC asset in cash as the loans are sold into the secondary market in the next 45-60 days. These ideas create tension and confusion with users such as creditors and other counterparties who never observe the realization of the IRLC asset's super-margins in cash, yet are asked to include it towards liquidity-related covenants.

Arguments that support the direct cost deduction method follow two narratives, claiming either that non-direct costs are already incurred elsewhere in the income statement, or that the principal market for the unclosed loans is a business combination. This paper argues that the anticipated net profit from the pipeline does not change with stages of completion, that the cash flows observed in the next reporting period reflect the net production profit margin, and that the principal market for unclosed loans is the secondary market rather than a hypothetical business combination. Finally, this paper argues that an absorption-like costing method that considers both direct and indirect costs provides more useful information to users.
