

fmswhitepaper

# The Case for Market Value Time Deposits

By Neil Stanley  
President, Bank Performance Strategies

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### Overview

A conventional bank CD investment is comprised of a federally insured CD with a contractual fixed rate to maturity. Because there is a “substantial penalty for early withdrawal” any new decisions about managing this investment need to be deferred until maturity. Federally insured time deposit owners trade away liquidity for higher yields.

Do bankers have options available for their customers? This paper explores the opportunity to create a CD that can be “actively” managed by the depositor.

### Investor perspectives

Most investors today, including bankers, expect a current yield and the opportunity for appreciation in their investments. What banker would be willing to invest their own funds in a security that has a common current yield and no potential for gains? As bankers we like our unrealized (and realized) bond portfolio gains, don't we?

Yet, institutions conventionally offer to their customers FDIC-insured, fixed-rate term CDs with a simplistic interest penalty for early withdrawal. CD early withdrawal penalties are typically expressed in terms of the number of months of interest forfeited in the event of early withdrawal and make no provision for adjustments due to current yields. The penalties are intended to ensure that it is generally not in a holder's best interest to withdraw the money before maturity unless the holder has another investment with greatly higher returns or has a serious need for the money.

Buyers of conventional CDs generally consider these deposits to be “passive” investments where the substantial penalties for early withdrawal make it financially detrimental to actively manage these funds. Because of the CDs' “passive” nature, many investors do not consider CDs as “real” or “viable” investment opportunities.

## Financial institution perspectives

When talking with retail bankers today it is easy to get them to apologize for their CD offerings. The attitude of depositors and bankers who narrowly focus on the level of interest rates today compared to the past may be key to explaining the significant decline of time deposit funding the industry has experienced. Below are industry volume statistics since 2008.

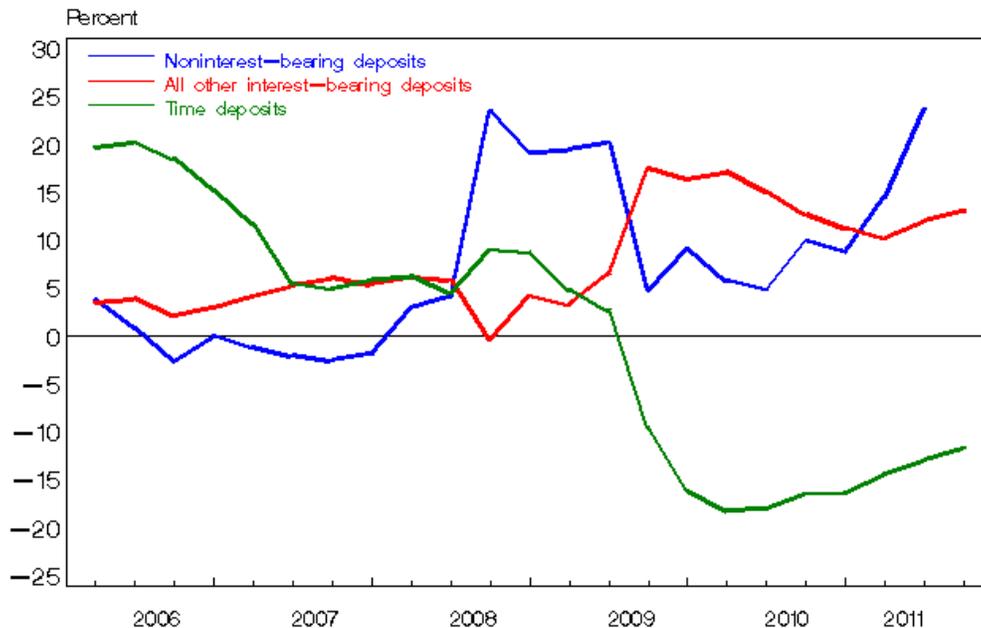
FDIC - Statistics on Depository Institutions Report	All Institutions - National	All Institutions - National	All Institutions - National	All Institutions - National
	12/31/2008	12/31/2009	12/31/2010	9/30/2011
	\$ in 000's	\$ in 000's	\$ in 000's	\$ in 000's
	Total (Sum) and Average (W)	Total (Sum) and Average (W)	Total (Sum) and Average (W)	Total (Sum) and Average (W)
Number of 1 institutions reporting	8305	8012	7658	7436
<b>Total Deposits</b>				
2 Total time deposits	2,823,780,238	2,364,766,203	1,978,335,575	1,848,201,101

**Note 1:** Deposit items may not total for TFR Reporters due to reporting differences with Call Reporters .

Source: [www.fdic.gov](http://www.fdic.gov)

The industry has watched total FDIC-insured time deposits decline from \$2.8 trillion at the end of 2008 to \$1.8 trillion in the third quarter of 2011. The rate of decline in time deposits in recent years is graphed below.

**Twelve—Month Growth Rates of Domestic Deposits  
2006 – 2011**



Source: [www.fdic.gov](http://www.fdic.gov)

Financial institutions have what is called by economists a “derived demand” for funding. To institutions, deposits are the raw materials in producing their finished product--loans. That means that bankers need deposits based on the demand for loans. The market for deposits is derived from the market for loans. Specifically, the market for time deposits is derived from the market for fixed-rate term loans. CDs provide the best raw material for fixed-rate term loans. How prevalent is the demand today from borrowers for fixed-rate obligations? What is the outlook over the next five years for borrowers seeking fixed-rate funding from banks? What are the banks’ strategies to attract the appropriate volume of efficiently priced fixed-rate term funding?

The table below shows recent CD offering rates compiled from surveys done by Rate Watch. In addition to showing the yield curve, it shows the range of CD rates offered across the country from low to high for the same product. What drives some financial institutions today to pay 1 basis point on a 60-month CD while others pay 3.09%? How will banks attract the volume of deposits they need for the appropriate maturity terms to fund their loans at prices that are at or below the market interest rates?

<b>Regional Averages Report – Time Deposits - 01/27/2012</b>					
<b>Region</b>	<b>Product</b>	<b>Surveys</b>	<b>Rate Average</b>	<b>High</b>	<b>Low</b>
National	3 Mo CD 10K	83023	0.14	1.10	0.01
National	6 Mo CD 10K	89222	0.23	1.76	0.00
National	12 Mo CD 10K	89447	0.35	2.01	0.01
National	18 Mo CD 10K	78674	0.41	1.71	0.01
National	24 Mo CD 10K	87353	0.56	2.00	0.01
National	30 Mo CD 10K	60072	0.54	2.27	0.05
National	36 Mo CD 10K	86362	0.77	2.32	0.01
National	48 Mo CD 10K	80819	0.95	2.68	0.01
National	60 Mo CD 10K	82613	1.24	3.09	0.01



[www.rate-watch.com](http://www.rate-watch.com)

Beyond attracting properly priced time deposits, the introduction of a valuable new product creates the potential to open the door to acquiring new profitable customers and increase the overall share of wallet. A unique product that attracts someone into a community institution that hasn’t been there before is valuable.

Perspectives of bankers must include the recent and on-going warnings from regulators about interest rate risk. A new interagency publication dated [January 12, 2012](#) clarifies warnings cited in the [January 2010](#) publication of the risks that can be predicted to arise from bankers taking on interest rate risk by borrowing “short” and investing “long” in a period of relatively low interest rates.

## Solution – market value time deposits

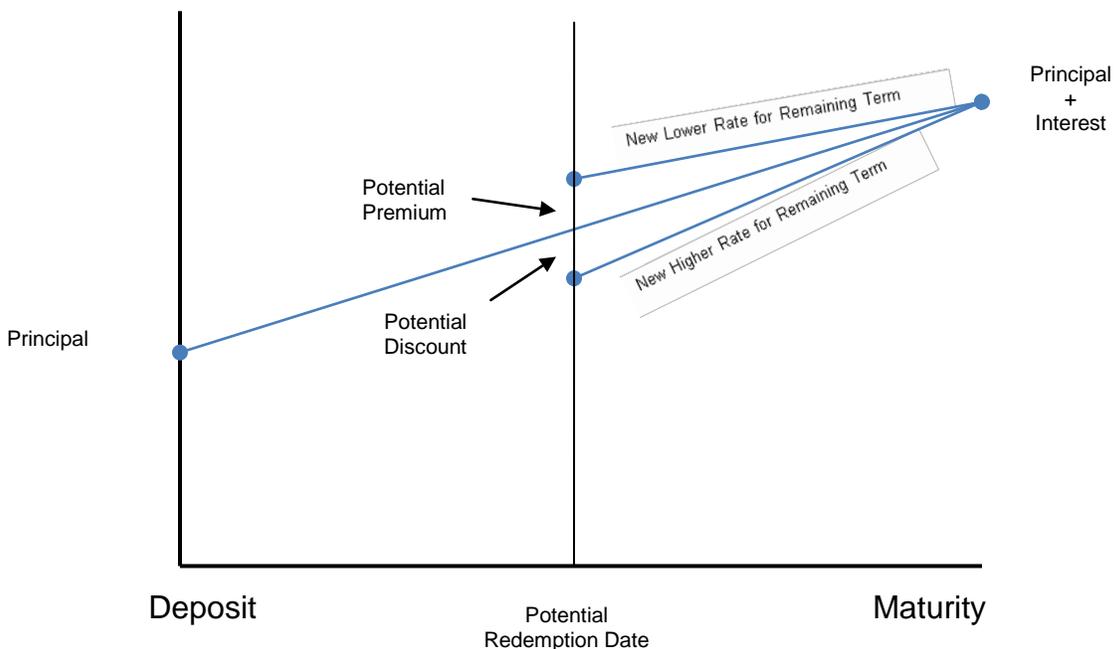
Institutions can offer a market value liquidity feature to attract a new investor customer segment that is interested in the potential to actively manage their funds. These new CDs supplement conventional CDs in the bank's product offering. A market value CD provides a unique and powerful option for investors to actively manage bank time deposits. By creating a liquidity option for depositors that functions like the secondary market for bonds with liquidation prices determined by future rates and the remaining term to maturity, the issuing bank creates a fair market value redemption opportunity for depositors.

This product provides true differentiation from the conventional offerings of other financial institution competitors; it can attract a new segment of more affluent deposit customers; it breaks the customers' fixation on current interest rate offerings; it will tend to extend the maturity of the deposit portfolios; and it enhances the position of the issuing bank as innovative in the minds of the depositors in the market.

From the depositor's point of view, the product is still a FDIC-insured fixed-rate term CD. Their use of the market value option is completely at their discretion. The bank retains no special options. However, the bank determines in its sole discretion the replacement cost discount rates that are used to determine fair market values of the individual CDs in the market value CD portfolio.

The market value process determines the current value of the funding source by present valuing the total value at maturity using the current replacement funding cost to the bank. The discounted value is compared to the current principal and interest value to determine the early redemption penalty (discount) or gain (premium).

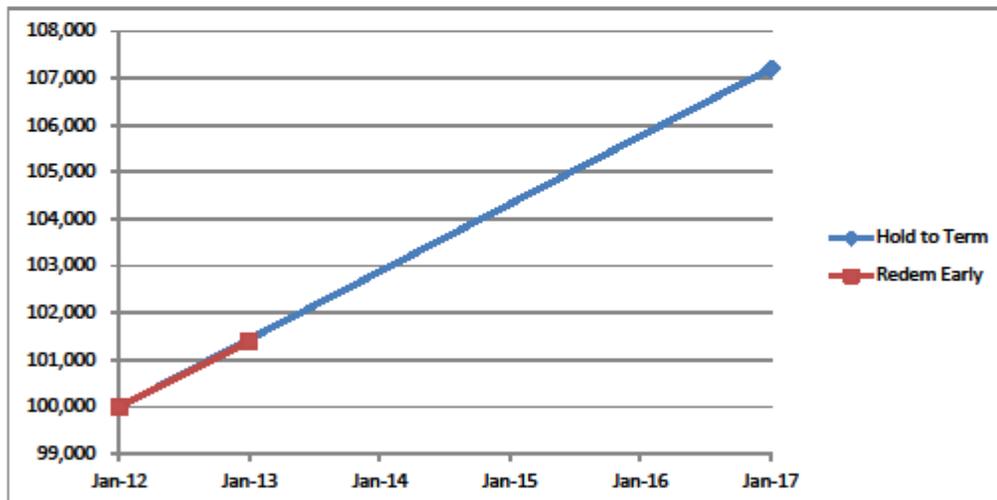
Dollars



## Sample results where replacement cost = CD APY

### Market Value Time Deposit Valuation Model

Date of Deposit	1/30/2012
Desired Maturity Date	1/30/2017
Term to Maturity in Months	60
Amount of Deposit	100,000
Customized CD APY	1.40
Estimated Value at Maturity	\$ 107,207
Potential Redemption Date	1/30/2013
Potential Replacement Interest Rate for Remaining Term	1.40%
Estimated Principal and Interest at Redemption	\$101,404
Estimated Gain / (Discount)	-
Estimated Potential Value at Potential Redemption Date	101,404
Potential Total Cash Flow Yield on Deposit	1.40%
Months Held Before Redemption	12



**The realization of any gain is dependent upon future interest rates and no guaranty is made or implied that gain / capital appreciation will occur.**

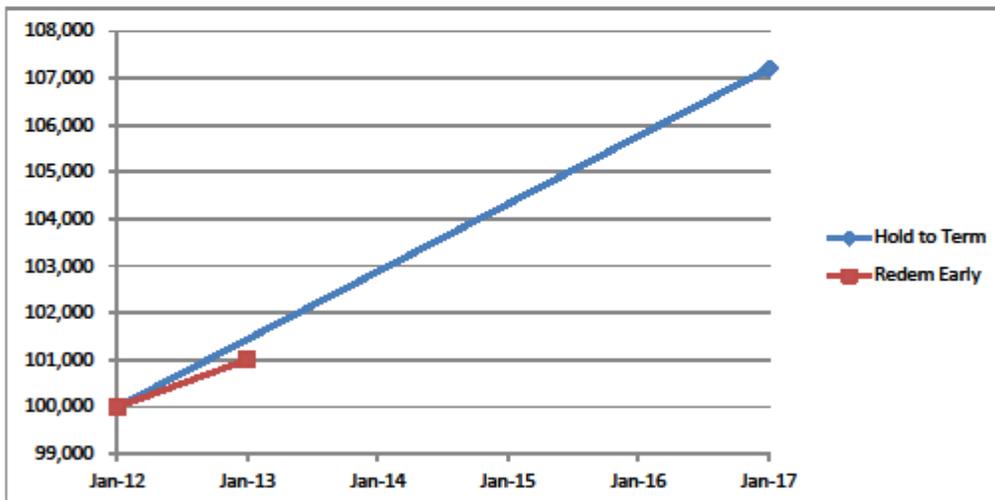
The calculated results are intended for illustrative purposes only and precision is not guaranteed.



## Sample results where replacement cost > CD APY

### Market Value Time Deposit Valuation Model

Date of Deposit	1/30/2012
Desired Maturity Date	1/30/2017
Term to Maturity in Months	60
Amount of Deposit	100,000
Customized CD APY	1.40
Estimated Value at Maturity	\$ 107,207
Potential Redemption Date	1/30/2013
Potential Replacement Interest Rate for Remaining Term	1.50%
Estimated Principal and Interest at Redemption	\$101,404
Estimated Gain / (Discount)	(399)
Estimated Potential Value at Potential Redemption Date	101,005
Potential Total Cash Flow Yield on Deposit	1.00%
Months Held Before Redemption	12



**The realization of any gain is dependent upon future interest rates and no guaranty is made or implied that gain / capital appreciation will occur.**

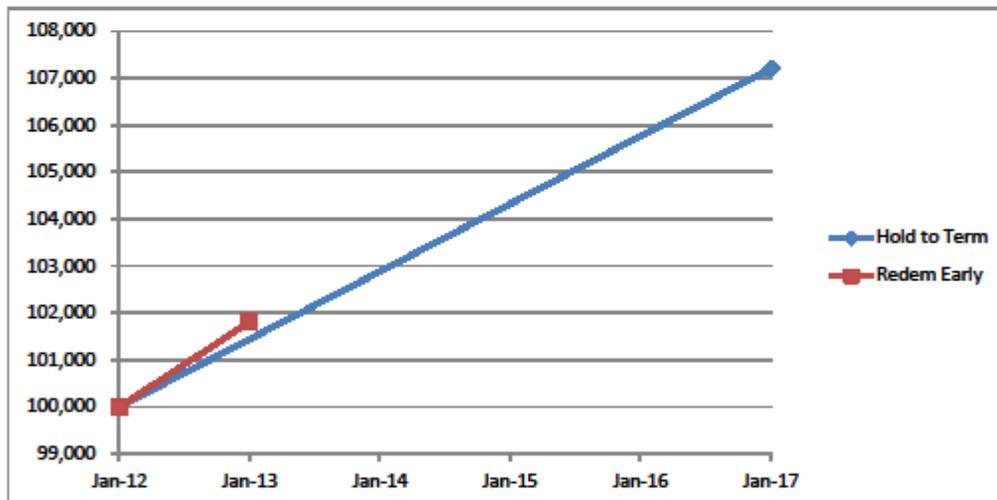
The calculated results are intended for illustrative purposes only and precision is not guaranteed.



## Sample results where replacement cost < CD APY

### Market Value Time Deposit Valuation Model

Date of Deposit	1/30/2012
Desired Maturity Date	1/30/2017
Term to Maturity in Months	60
Amount of Deposit	100,000
Customized CD APY	1.40
Estimated Value at Maturity	\$ 107,207
Potential Redemption Date	1/30/2013
Potential Replacement Interest Rate for Remaining Term	1.30%
Estimated Principal and Interest at Redemption	\$101,404
Estimated Gain / (Discount)	401
Estimated Potential Value at Potential Redemption Date	101,805
Potential Total Cash Flow Yield on Deposit	1.80%
Months Held Before Redemption	12



**The realization of any gain is dependent upon future interest rates and no guaranty is made or implied that gain / capital appreciation will occur.**

The calculated results are intended for illustrative purposes only and precision is not guaranteed.



## Impacts on issuing banks

At first glance, you might be tempted to say that paying a premium to a depositor for early redemption would be bad for the institution. However, when you consider that the institution had the ability to invest the deposited funds in securities and collect its own proportional gain on the sale of those securities, you recognize that a market value CD simply passes along a portion of the value that bankers realize from these types of fixed-rate transactions. Today, many bank investment portfolios have large unrealized gains. A market value CD allows bank depositors to share in part of that.

Another approach to understanding the impact on the institution is to consider the financial obligation a bank is bound to honor for a fixed-rate CD to maturity. If the CD is expensive relative to today's interest rate options, the depositor in a conventional CD has no incentive to withdraw early, leaving the bank to continue to pay the above-market interest rate. The design of a market value CD recognizes that giving the depositors a make-whole early withdrawal option adds perceived value to the customer and doesn't cost the bank any real financial value. If the depositor never exercises the option, it works just like any conventional CD. If the depositor does exercise the option and take a gain, the gain only shares part of the financial value; leaving the bank to benefit from escaping a relatively expensive fixed-rate obligation.

A market value CD does not rely upon any third-party hedging activities. Therefore, the institution has no complicated agreements and transaction costs with brokers as you will find in other "market sensitive" products. Unlike other market sensitive deposits this is not designed by Wall Street. You don't need to hedge this account with derivative products.

From the institution's point of view, a market value CD requires the commitment to pay a fixed cost of funds for a fixed term on these CDs, like any conventional CD. The opportunity for depositors to initiate an early withdrawal will not alter this result because the early withdrawal redemption amount will be determined based upon the replacement funding cost at the time of the withdrawal. The institution will pay a comparable total cost over the life of the deposit even if it is redeemed early. The timing of the expense will be adjusted by virtue of the customer's withdrawals, so the bank will have to manage the liquidity. However, the total expense will net out to be to the bank's advantage over time. The bank using a market value CD will get more accounts and more profitably-priced term funds with enhanced spreads.

A market value CD also provides the ultimate protection for institution funding in a rising rate environment. A few institutions in the country have "replacement cost" early withdrawal penalties on their CDs. Holders of their CDs will not be able to trade-up their investments as interest rates rise. A market value CD has this same benefit for issuing banks.

## Inherent challenges

The public perceptions of banking innovation and bankers in general are not what they once were. In the aftermath of the Great Recession the public is wary of new financial products. What's the catch? Where does this thing bite me? Customers are reluctant to accept opportunities on face value. Any complexity is considered detrimental. Bankers must be patient with depositors to allow them to grow in their confidence of new products like this. Communication and explanation of new products and services must be clear, concise and simple.

A product that intentionally ushers depositors to the idea of early withdrawal demands wise and prudent liquidity management skills and practices. Even if the institution experiences no drain of economic value from allowing and encouraging early withdrawals, the institution must properly address the balance sheet consequences of depositor withdrawals. In other words, liquidity issues are not merely profitability issues. The promoted liquidity features of market value CDs must be properly managed like all other liquid funding sources.

Our regulatory environment is generally not conducive to introducing new dynamics. This appears to be true regardless of the benefits of the associated opportunity. In an environment where "new" is superficially equated to "bad," it takes a great amount of resolve to deliver new options. The precedence set by banks that use replacement cost early withdrawal penalties has been very important in mitigating regulatory issues. In the U.S. time deposits are required by Regulation D to state at the time of account opening the penalty for early withdrawal. Federal Reserve Reg D states:

"The early withdrawal penalty must be at least seven days' simple interest on amounts withdrawn within the first six days after deposit (or within six days after the most recent partial withdrawal). If funds are withdrawn more than six days after the date of deposit or more than six days after the most recent partial withdrawal, no interest penalty is required under Regulation D."

Nothing in the regulation prohibits payment of more than the principal and interest for redemption beyond the first six days of the deposit.

The market value process requires the bank to proficiently determine the replacement interest rate for all market value CDs and intermittently calculate the market value of the deposit for customers. We are unaware of any core processor that has this capability built into their system. However, there are a few banks that calculate their early withdrawal penalties on the basis of replacement cost. Their core providers may have developed this functionality.

## Initial results

Treynor State Bank, Treynor Iowa began selling the CDtwo™ market value time deposit in 2011. Josh Gutttau, the bank's president and chief financial officer reports that he believes the program will attract new customers, create a more stable base of deposits, and help the bank better manage interest rate risk.

Here are excerpts from some of the advertisements the bank has used.



**OPEN [withdraw early] CD**  
**COLLECT A BONUS**  
When rates drop, our **CDtwo™** rises!

Some CDs have substantial penalties for early withdrawal. Others claim “no-penalties.” But, have you ever heard of a CD that pays you a bonus when you withdraw early?

When rates change, our **CDtwo™**, a next-generation CD, gives you options – including a bonus when you withdraw early and interest rates have declined.

With **CDtwo™** you get:

- Choices** - Hold the CD to maturity or redeem early and collect a possible bonus.
- Stability** – **CDtwo™** is FDIC-insured, which means your principal and interest is protected up to \$250,000.
- Flexibility** - The decision and timing of any early withdrawal is entirely yours.

**At TS Bank, we think differently. That's why we're the first bank to issue the 2nd generation of CD accounts. Read the testimonial below for a glimpse of what we have to offer!**

Thank you TS Bank!

I opened one of your new CDtwo™ accounts. My CDtwo™ was opened on April 28, 2011 with \$2,500 and redeemed on May 26th. On top of the interest I earned, there was a \$36 bonus for redeeming early. The \$36 bonus on my TS Bank CDtwo™ was more than I would have earned after years of interest at other banks.

I opened the CDtwo™ because I understood I could get my principal and interest out at any time and I'd have a penalty for early withdrawal only if interest rates went up. When interest rates went down that created my bonus.

Everyone should know about this!

**WE'VE DETERMINED  
FAIR IS FAIR**



**Ever wonder about banks that offer investments to depositors they wouldn't buy themselves? We did.**

We determined that **fair is fair**. Our bank makes investments that go up in value when interest rates decline, so... we are pretty sure you would like to do the same.

**CDtwo™**, the CD that appreciates in redemption value when interest rates decline.

Get yours today, at

**TS·Bank**  
TREYNOR STATE BANK

By using a differentiated product, Treynor State Bank can attract a clientele that might not be excited about a traditional CD. Treynor State Bank reports that these CDs have worked quite nicely for the bank and the depositors. One particular long-term CDtwo™ account was opened with \$25,000 at 2.40% APY. After six months, the depositor had an unrealized gain of \$876 plus their accrued interest. That is a total yield of 8.96% on a FDIC-insured bank CD in 2011. Another depositor opened a \$112,000 CD and after confirming how CDtwo™ worked after 20 days, that customer opened another long-term Treynor State Bank CDtwo™. Gutttau is quick to point out that these yields were dependent upon declining market rates. With steady yields, CDtwo™ allows the depositor to get a long-term yield with a shorter-term holding period.

Treynor State Bank's CDtwo™ was featured in stories by the [Des Moines Register](#) and [USA Today](#).

The institution also reports that many traditional CD depositors can be easily confused by the potential for an early withdrawal penalty that changes based on the bank's cost to replace the deposit. The institution takes a low-key approach to these depositors—"if they don't get it, we won't sell it." The institution has made no pricing variance between conventional CDs and their market value CD. If the depositor wants the market value option great. But, if they don't, it is just one less option the bank has to account for and the bank delivers a traditional deposit account to that customer who declines the market value feature.

## Summary

The banking industry is going through a transformation. The industry needs fixed-rate term funding to properly produce fixed-rate term lending. By establishing a market value time deposit program, institutions today can extend a value proposition that more fully passes the returns and risks of longer-term investments to bank depositors. This allows institutions to more effectively compete for investors who would typically buy bonds and bond fund investments.

Market value time deposits should not be expected to completely replace conventional CDs. But, they could become a substantial part of the industry's funding. Also, delivering real, fresh value to the market through market value time deposits could be a material part of restoring the respect and trust from the public that community bankers have enjoyed for so long.

## References

Interagency Advisory on Interest Rate Risk Management - Frequently Asked Questions January 12, 2012 [http://www.ffiec.gov/PDF/01-12RR\\_FAQs.pdf](http://www.ffiec.gov/PDF/01-12RR_FAQs.pdf)

Interagency Advisory on Interest Rate Risk Management - January 6, 2010 <http://www.ffiec.gov/pdf/pr010710.pdf>

Des Moines Register

<http://blogs.desmoinesregister.com/dmr/index.php/2011/12/08/western-iowa-bank-offers-new-cd-that-can-reward-early-withdrawal/>

USA Today <http://www.usatoday.com/money/perfi/story/2011-12-09/new-cds-at-iowa-bank/51766670/1>

CDtwo™ is a trademark of Stanley IP LLC

The CDtwo™ market value time deposit is the subject of patent pending technology, which was filed on 06/02/2011 and entitled “Methods and Systems for Providing an Insured Certificate of Deposit that can be Redeemed Prior to Maturity at a Fair Market Value” (Inventor: Neil A. Stanley, Omaha, Nebraska).

Rate Watch – [www.rate-watch.com](http://www.rate-watch.com)

Federal Reserve Reg D.

[http://www.federalreserve.gov/boarddocs/supmanual/cch/int\\_depos.pdf](http://www.federalreserve.gov/boarddocs/supmanual/cch/int_depos.pdf)

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## Neil Stanley

Neil Stanley has been a banker for over 25 years. Neil was the CEO of \$750 million Northwest Bank in Spencer Iowa which operated in Omaha, Des Moines, Fort Dodge and the Northwest Iowa regions. Prior to Northwest Bank, Neil was an executive for over 22 years with what became the largest privately held banking organization in the country – First National of Nebraska / Lauritzen Corporation. He served First National as Chief Investment and Liquidity Officer and Lauritzen Corporation as Vice President in general administration and supervision of community banks.

In 2009, Neil founded **Bank Performance Strategies**. The company helps client banks use proven and innovative methods to lower their cost of funds while retaining and attracting properly-priced, longer-term core retail deposits. Neil also serves WebEquity Solutions as Retained Counsel for Banking Strategies where he created the initial design for WebEquity ALLL.

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