



WILARY WINN LLC

ADVICE TO
STRENGTHEN
FINANCIAL
INSTITUTIONS

Mortgage Lending – Part 1

Selling or Holding Mortgage Loans
Federal Home Loan Bank – Des Moines

Douglas Winn, President
Frank Wilary, Principal
Wilary Winn LLC

July 26, 2022

MORTGAGE BANKING WEBINARS

- 1) Mortgage Lending Part I – Sell or Hold
- 2) Mortgage Lending Part II – Best Execution
- 3) Mortgage Banking Accounting



TOPICS FOR TODAY'S SESSIONS

- Mortgage Marketplace – Challenges and Opportunities
- Sell or Hold
- Servicing – Macro-hedge

TODAY'S PRESENTERS

Douglas Winn

Mr. Winn has nearly 40 years of executive level financial experience. He is a nationally recognized expert regarding accounting and regulatory reporting for financial institutions. Doug regularly advises major accounting firms on areas where finance and accounting intersect, including valuation. Many Wilary Winn white papers, which he has authored or co-authored, are considered standards for the industry. Mr. Winn is regularly invited to speak at conferences, and he has led seminars sponsored by the AICPA, the FDIC, the FFIEC, the FHLBanks, the NCUA, and many of the country's largest accounting firms.

Doug co-founded Wilary Winn and is responsible for the firm's strategic direction. From just an idea in 2003, Wilary Winn has grown into a national presence with financial institution clients located across the United States. Wilary Winn's clients include nearly 300 community banks, 80 of which are publicly traded, and nearly 300 credit unions, including 45 of the top 100.

In his earlier career, Doug held multiple senior executive finance roles in the mortgage banking industry. He began his career as a practicing CPA for Arthur Young & Company – now Ernst & Young.



WILARY WINN LLC

TODAY'S PRESENTERS

Frank Wilary

Mr. Wilary has nearly 30 years of diversified experience in the financial services industry and has served financial institution clients for the past 19 years. Areas of expertise include asset liability management (ALM), credit loss modeling, capital markets, structured finance, derivatives and information systems.

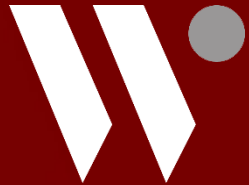
Frank co-founded Wilary Winn in 2003 and his primary responsibility is to lead the research, development and implementation of Wilary Winn's new business lines. He works to ensure that new products and services meet the firm's high standards before transferring primary responsibility to one of its business line leaders. Frank ensures that client deliverables are of the utmost quality, the valuation process is consistent, and that best practices are used across the firm's lines of business.

Mr. Wilary regularly speaks at financial institution conferences on asset liability management, credit loss modeling, and concentration risk management. Frank's presentations frequently focus on achieving best practices in ALM by assessing credit risk, interest rate risk and liquidity risk on an integrated basis.

Prior to co-founding Wilary Winn, Mr. Wilary held senior positions in treasury, capital markets, accounting, finance and systems within two organizations.



WILARY WINN LLC



MORTGAGE
MARKETPLACE

MORTGAGE MARKETPLACE

Residential Mortgage Loan Origination Volume - Dollars

Source: Inside Mortgage Finance

Year	Government	Conforming Conventional	Jumbo	Expanded Credit	Total	ARMs	Refinance	Purchase
2004	135	1,210	515	730	2,590	1,464	1,341	1,248
2005	90	1,090	570	1,005	2,755	1,490	1,390	1,365
2006	80	990	480	1,000	2,550	1,340	1,249	1,301
2007	116	1,151	348	466	2,081	724	1,081	1,000
2008	293	928	98	65	1,384	236	702	682
2009	451	1,201	97	10	1,759	114	1,218	541
2010	377	1,092	104	8	1,581	156	1,063	518
2011	294	963	170	18	1,445	197	945	500
2012	390	1,438	225	23	2,076	213	1,489	587
2013	366	1,174	272	18	1,830	196	1,096	734
2014	277	767	235	21	1,300	220	517	783
2015	416	967	328	24	1,735	199	811	924
2016	502	1,148	383	32	2,065	212	1,028	1,037
2017	444	1,008	320	38	1,810	216	678	1,132
2018	367	937	281	45	1,630	191	479	1,151
2019	516	1,365	392	52	2,325	250	1,069	1,256
2020	765	2,863	435	37	4,100	277	2,627	1,473
2021	736	3,011	644	48	4,440	267	2,596	1,844
2022 Q1	124	454	131	16	725	63	364	361



MORTGAGE MARKETPLACE

Residential Mortgage Loan Origination Volume - Percent

Source: Inside Mortgage Finance

Year	Government	Conforming Conventional	Jumbo	Expanded Credit	Total	ARMs	Refinance	Purchase
2004	5.2%	46.7%	19.9%	28.2%	100.0%	56.5%	51.8%	48.2%
2005	3.3%	39.6%	20.7%	36.5%	100.0%	54.1%	50.5%	49.5%
2006	3.1%	38.8%	18.8%	39.2%	100.0%	52.5%	49.0%	51.0%
2007	5.6%	55.3%	16.7%	22.4%	100.0%	34.8%	51.9%	48.1%
2008	21.2%	67.1%	7.1%	4.7%	100.0%	17.1%	50.7%	49.3%
2009	25.6%	68.3%	5.5%	0.6%	100.0%	6.5%	69.2%	30.8%
2010	23.8%	69.1%	6.6%	0.5%	100.0%	9.9%	67.2%	32.8%
2011	20.3%	66.6%	11.8%	1.2%	100.0%	13.6%	65.4%	34.6%
2012	18.8%	69.3%	10.8%	1.1%	100.0%	10.3%	71.7%	28.3%
2013	20.0%	64.2%	14.9%	1.0%	100.0%	10.7%	59.9%	40.1%
2014	21.3%	59.0%	18.1%	1.6%	100.0%	16.9%	39.8%	60.2%
2015	24.0%	55.7%	18.9%	1.4%	100.0%	11.5%	46.7%	53.3%
2016	24.3%	55.6%	18.5%	1.5%	100.0%	10.3%	49.8%	50.2%
2017	24.5%	55.7%	17.7%	2.1%	100.0%	11.9%	37.5%	62.5%
2018	22.5%	57.5%	17.2%	2.7%	100.0%	11.7%	29.4%	70.6%
2019	22.2%	58.7%	16.9%	2.2%	100.0%	10.8%	46.0%	54.0%
2020	18.7%	69.8%	10.6%	0.9%	100.0%	6.8%	64.1%	35.9%
2021	16.6%	67.8%	14.5%	1.1%	100.0%	6.0%	58.5%	41.5%
2022 Q1	17.1%	62.6%	18.1%	2.2%	100.0%	8.7%	50.2%	49.8%



MORTGAGE MARKETPLACE

Forecasted Residential Mortgage Loan Originations

Source: Mortgage Bankers Association June 10, 2022

RESIDENTIAL MORTGAGE LOAN VOLUME						
		2020	2021	2022	2023	2024
Total one-to-four						
Purchase		1,483	1,646	1,681	1,720	1,806
Refinance		2,625	2,345	730	546	695
Total		4,108	3,991	2,411	2,266	2,501
Refinance %		64%	59%	30%	24%	28%
Percent change		NA	-2.8%	-39.6%	-6.0%	10.4%



MORTGAGE MARKETPLACE

Mortgage Applications

MBA Survey July 1, 2022

- Refinance index down 78% from the same week in 2021
- Purchase index down 17% from the same week in 2021

MORTGAGE MARKETPLACE

Housing Affordability

Source: National Association of Realtors

Housing Affordability Index							
Year	Median Sales Price	Mortgage Rate	Monthly P & I	Payment Income	Median Income	Qualifying Income	Fixed
2019	274,600	4.04%	1,054	15.7%	80,808	50,592	159.7
2020	300,200	3.17%	1,035	14.7%	84,818	49,680	169.9
2021	353,600	3.01%	1,194	16.3%	87,965	57,312	153.5
2022	397,600	5.05%	1,717	22.9%	89,985	82,416	109.2



MORTGAGE MARKETPLACE

Origination Margins

Source: Urban Institute

Originator Profitability and Unmeasured Costs

- May 2022 - \$2.75 per \$100 loan
- Down from peak of \$5.99 per \$100 loan in 2020



MORTGAGE MARKETPLACE

Largest Loan Originators

RESIDENTIAL MORTGAGE LOAN VOLUME									
Rank	Lender	2021	4Q21	3Q21	2Q21	1Q21	Share	Change 20 - 21	Type*
1	Rocket Mortgage (Quicken), MI	355.34	80.00	88.05	83.76	103.53	7.36%	11.0%	PNB
2	PennyMac Financial, CA	235.18	47.80	59.10	61.30	66.98	4.87%	19.6%	PNB
3	United Wholesale Mortgage, MI	226.50	55.19	63.00	59.21	49.09	4.69%	24.1%	NB
4	Wells Fargo & Company, IA	205.01	48.09	51.96	53.12	51.84	4.25%	-7.6%	
5	Chase, NJ	182.31	48.10	46.10	44.90	43.21	3.78%	36.7%	
6	NewRez/Caliber, PA	180.80	40.70	45.35	44.97	49.79	3.75%	193.5%	PNB
7	loanDepot.com, CA	137.02	29.04	32.00	34.50	41.48	2.84%	35.9%	NB
8	Freedom Mortgage Corp., NJ	114.57	16.89	23.13	30.14	44.42	2.37%	-6.2%	NB
9	Guaranteed Rate Inc., IL	114.54	24.34	28.63	29.31	32.27	2.37%	55.1%	NB
10	U.S. Bank Home Mortgage, MN	102.07	25.18	28.40	23.71	24.78	2.12%	14.7%	
11	Home Point Financial, MI	96.04	20.35	20.80	25.48	29.42	1.99%	54.9%	PNB
12	Mr. Cooper Group, TX	86.80	19.50	19.94	22.23	25.13	1.80%	37.3%	NB
13	Amerihome Mortgage, CA	80.50	18.31	19.15	21.92	21.12	1.67%	24.7%	NB
14	Bank of America Home Loans, NC	79.69	22.96	21.23	20.27	15.23	1.65%	15.4%	
15	Fairway Independent Mortgage Corp., WI	72.43	16.53	18.25	18.66	19.00	1.50%	10.1%	NB
16	Truist, NC	57.69	14.46	15.85	14.30	13.08	1.20%	5.0%	NB
17	Better.com, NY	50.86	10.26	13.98	13.33	13.29	1.05%	129.2%	NB
18	Flagstar Bank, MI	49.82	10.65	12.54	12.80	13.82	1.03%	3.1%	
19	Lakeview Loan Servicing, FL	48.85	10.50	12.00	14.23	12.13	1.01%	11.0%	NB
20	Citizens Bank, RI	42.64	9.86	10.29	11.38	11.11	0.88%	5.4%	
21	Guild Mortgage Co., CA	37.54	9.50	10.06	8.19	9.78	0.78%	6.5%	PNB
22	CrossCountry Mortgage, LA	36.40	8.10	9.00	9.60	9.70	0.75%	-14.7%	NB
23	Amerisave Mortgage Corp, GA	36.14	6.00	7.52	8.28	14.33	0.75%	49.3%	NB
24	Movement Mortgage, VA	33.15	8.19	8.25	8.20	8.51	0.69%	10.7%	NB
25	Cardinal Financial, NC	32.81	7.35	8.56	8.00	8.90	0.68%	22.2%	NB
26	Citi, MO	31.18	6.93	7.14	8.95	8.15	0.65%	-8.2%	
27	First Republic Bank, CA	29.45	6.99	6.98	8.62	6.86	0.61%	23.2%	
28	Broker Solutions/New American Funding, CA	29.33	6.41	7.03	7.21	8.68	0.61%	-1.2%	NB
29	Finance of America Mortgage, PA	29.17	6.75	7.25	6.80	8.36	0.60%	0.8%	PNB
33	Navy Federal Credit Union, VA	24.86	6.45	5.92	6.72	5.77	0.52%	6.3%	

Data from Inside Mortgage Finance

Type*
 PNB = Publicly Traded Non-Bank
 NB = Non-Bank
 Blank = Bank or Credit Union



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MORTGAGE MARKETPLACE

Rocket Mortgage Stock Price





SELL OR HOLD

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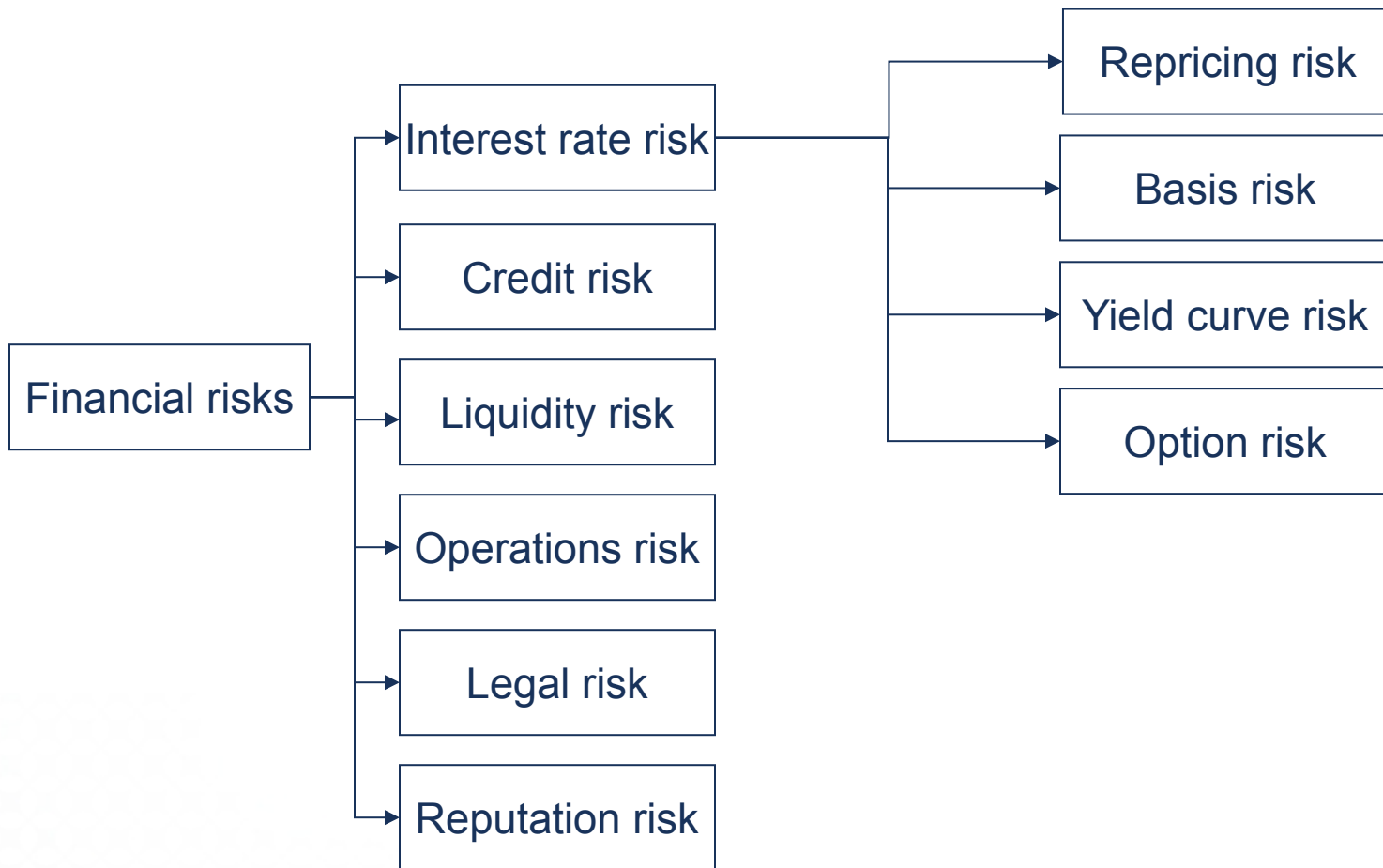
Benefits of Holding

- Higher yield than MBS
- Maintain close relationship with customer
- Balance sheet diversification
- Credit risk can be managed



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Risks of Holding



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Interest Rate Risk

- Potential for a gap or mismatch between assets and liabilities because of the longer term and market volatility
- Difficult to estimate prepayment speeds and understand the optional component in residential mortgages

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Option Risk

- High coupon residential mortgage loans have more call risk
- Low coupon mortgage loans have more extension risk

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Managing IRR

- Understand the behavior of your non-maturity deposits
- Consider the use of fixed rate advances
- Consider the use of off-balance sheet derivatives – hedge accounting is now vastly easier with the “last-of-layer” fair value method



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ALM NII Example

Scenario 1 - \$10M of 30-year fixed rate mortgages with a 5.50% coupon funded by **high-yield non-maturity deposits with a 1.50% interest rate**

Year 1 NII	-300	-200	-100	Base	+100	+200	+300
Interest Income	453,814	479,835	521,573	542,187	546,315	548,557	550,228
Interest Expense	97,673	109,110	138,998	173,605	208,310	243,015	277,719
Net Interest Income	356,141	370,726	382,575	368,583	338,004	305,542	272,509
Net Yield	3.56%	3.71%	3.83%	3.69%	3.38%	3.06%	2.73%

Scenario 2 - \$10M of 30-year fixed rate mortgages with a 5.50% coupon funded by **tapered FHLB advances (equal 3-, 5-, 7-, and 9-year fixed rate advances) with a wtd. avg. 3.53% interest rate**

Year 1 NII	-300	-200	-100	Base	+100	+200	+300
Interest Income	453,814	479,835	521,573	542,187	546,315	548,557	550,228
Interest Expense	353,000	353,000	353,000	353,000	353,000	353,000	353,000
Net Interest Income	100,814	126,835	168,573	189,187	193,315	195,557	197,228
Net Yield	1.01%	1.27%	1.69%	1.89%	1.93%	1.96%	1.97%



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ALM NEV Example

Scenario 1 - \$10M of 30-year fixed rate mortgages with a 5.50% coupon funded by **high-yield non-maturity deposits with a 1.50% interest rate**

NEV % Change	-300	-200	-100	Base	+100	+200	+300
Mortgages	5.50%	4.61%	3.34%	0.00%	-6.51%	-13.59%	-20.22%
NMDA	4.80%	3.47%	1.66%	0.00%	-1.55%	-2.99%	-4.34%

Scenario 2 - \$10M of 30-year fixed rate mortgages with a 5.50% coupon funded by **tapered FHLB advances (equal 3-, 5-, 7-, and 9-year fixed rate advances) with a wtd. avg. 3.53% interest rate**

NEV % Change	-300	-200	-100	Base	+100	+200	+300
Mortgages	5.50%	4.61%	3.34%	0.00%	-6.51%	-13.59%	-20.22%
Advances	18.00%	12.00%	6.00%	0.00%	-6.00%	-12.00%	-18.00%



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FDIC Perspective on Residential Mortgage Loan IRR

- “From an investor’s perspective, there is a “flaw” in the basic mortgage that is used here in the United States: It has an option in it”.
- “When you invest in a mortgage, there are three things that can happen-and two of them are bad. One event is that rates go up and the value of the loan goes down. A second event is that rates go down and the customer pays off the loan. A third event is that rates stay exactly the same and you earn exactly what you thought you were going to earn.”
- “...asset liability management is an art, not a science. I think you have to look at your models as a series of tools that help you build a circle around what your real exposures are and what your opportunities are.”



SELL OR HOLD

Advantages of Selling

- Reduce IRR
- Reduce credit risk
- Reduce liquidity risk
- Generate potential gains
- Can sell loans to the FHLB Des Moines with up to 24 months of seasoning

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Disadvantages of Selling

- Reinvestment risk
- Generate potential losses if loan are not priced and/or hedged properly
- Potential loss of customer relationships if loan is sold servicing released

LOAN SERVICING

Advantages of Retaining

- Macro-hedge – value goes up as interest rates rise and origination volumes drop
- Maintain close contact with customer

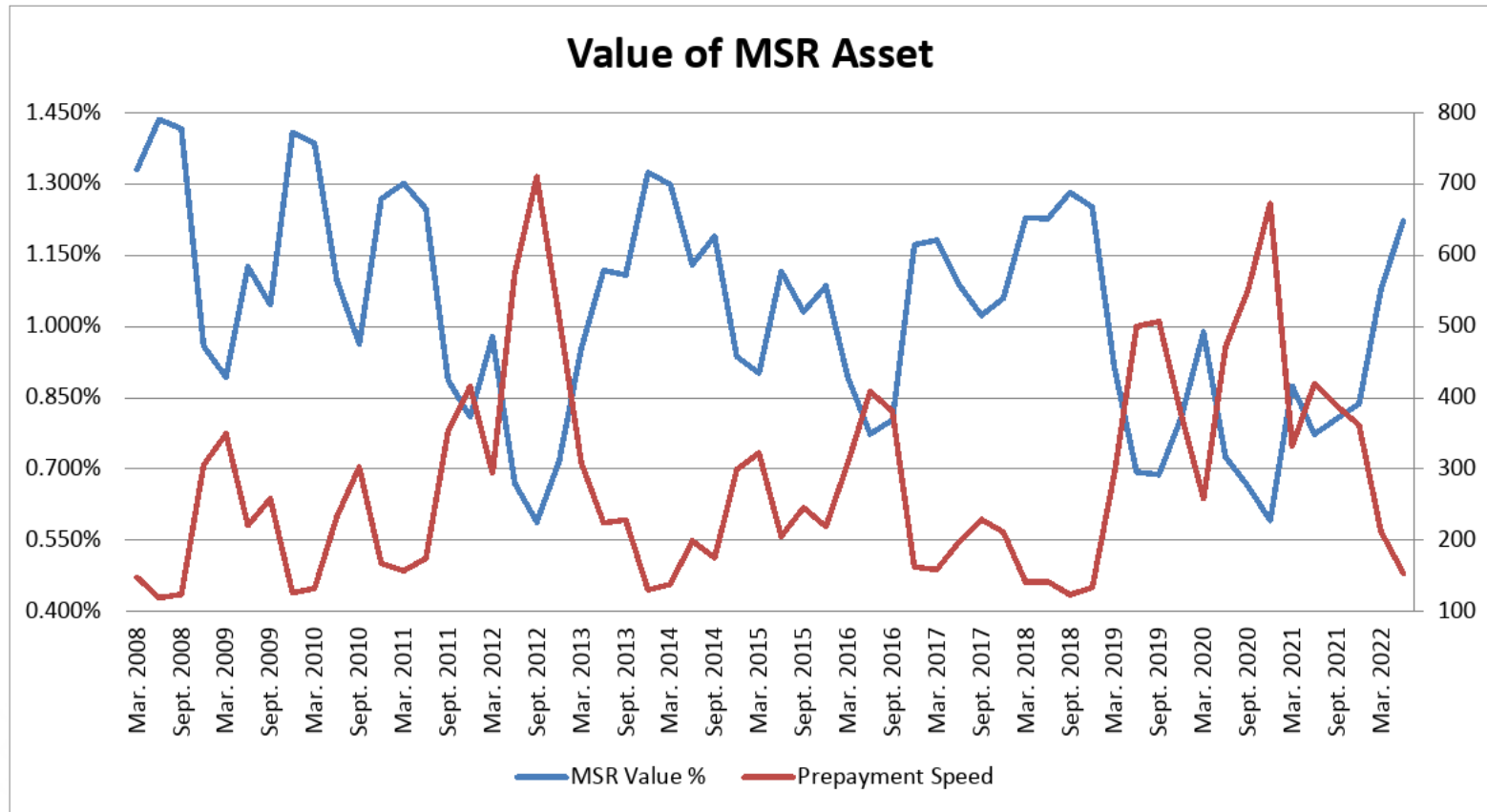
LOAN SERVICING

Disadvantages of Retaining

- Subject to prepayment risk
- Value can be volatile
- Tier 1 Capital limitation
- Risk-weighted at 250

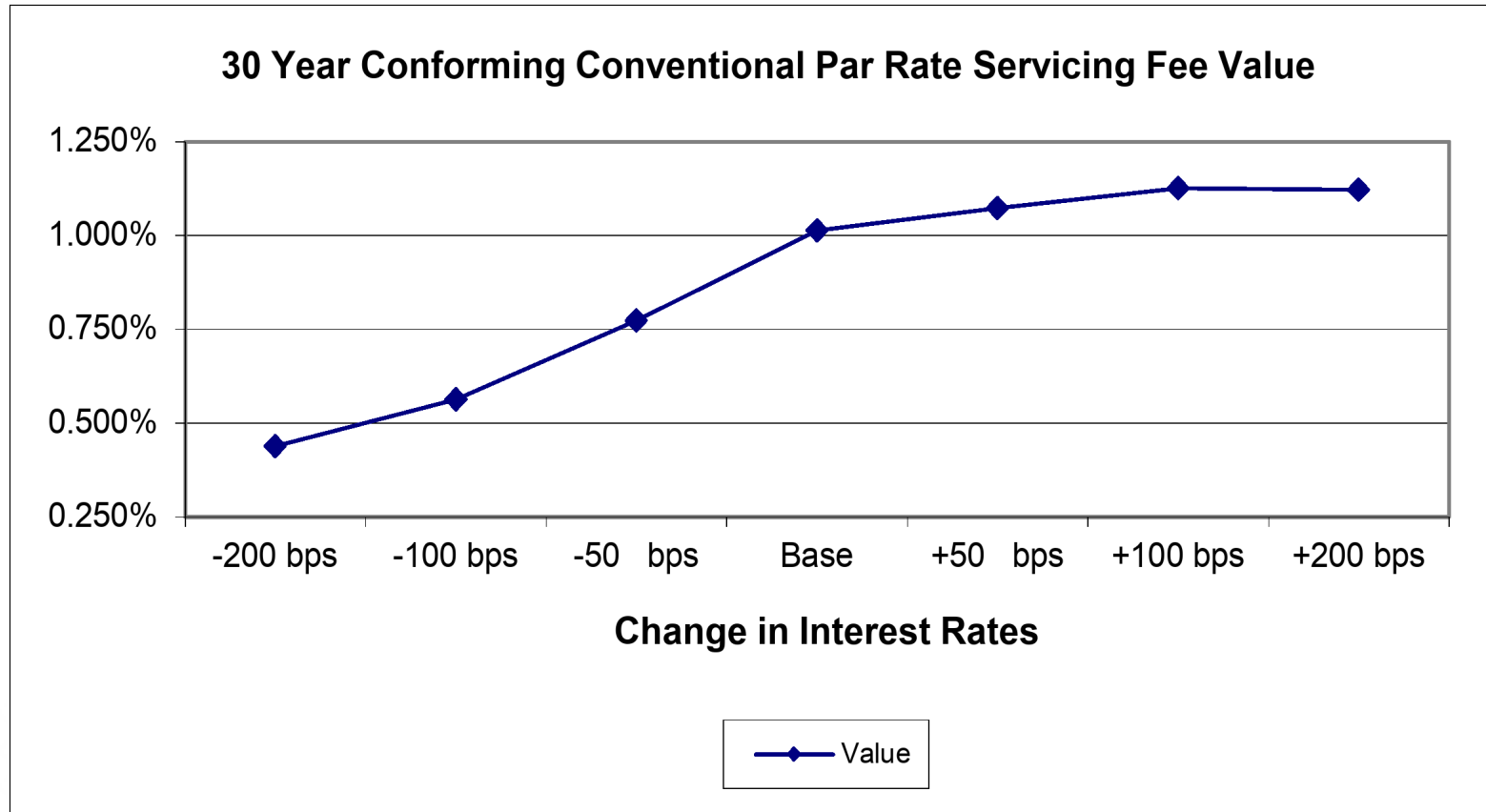
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Value of Servicing



LOAN SERVICING

Value of Servicing



RESOURCES

Website

The screenshot shows the 'Resources' page of the Wilary Winn LLC website. At the top, there is a navigation bar with the company logo on the left and links for 'SERVICES', 'OUR COMPANY', 'RESOURCES', 'NEWS & EVENTS', and 'CONTACT US' on the right. A 'CAREERS' link and a search box are also present. Below the navigation, the page title 'Resources' is displayed. A paragraph of introductory text states: 'Financial accounting and regulatory reporting continue to grow increasingly complex. Find jargon-free answers to your questions here.' Below this text is a search bar with a dropdown menu currently set to 'Residential MSRs' and a search input field with the placeholder text 'Search Document Titles by Keyword'. The main content area features a grid of nine featured resource cards. Each card has a 'FEATURED' tag in the top right corner, a title, a brief description, and a 'Read More »' link at the bottom. The resources listed are: 1. FFIEC Training [PowerPoint]; 2. Mortgage Servicing Rights Seminar [RSM McGladrey PowerPoint]; 3. Accounting & Regulatory Guidance for the MPF® Program [Resource]; 4. Accounting & Regulatory Reporting for Mortgage Servicing Rights [White Paper]; 5. Accounting & Regulatory Reporting for Mortgage Banking Derivatives [White Paper]; 6. COVID-19 Medical Advances and Economic Recovery Timeline; 7. Mortgage Servicing Marketplace in the Face of COVID-19; 8. Community Bank Leverage Ratio and the MPF Program: Coronavirus Update; 9. The FHLBank MPF® Program and Credit Enhancement. The bottom row shows the start of three more resource cards: 'Community Bank Leverage Ratio and the', 'Community Bank Leverage Ratio', and 'Accounting for Sales of Seasoned Loans [White Paper]'.

CONTACT US

Services and Main Contacts

Asset Liability Management, Capital Stress Testing, Concentration Risk Analyses, ALM Validations and CECL:

Joe Trabant	jtrabant@wilwinn.com
Mike Tessier	mtessier@wilwinn.com
Matt Erickson	merickson@wilwinn.com

Servicing Rights and Mortgage Banking Derivatives:

Anneliese Ramin	aramin@wilwinn.com
Eric Nokken	enokken@wilwinn.com

Mergers & Acquisitions and Goodwill Impairment Testing:

Cole Schulte	cschulte@wilwinn.com
Matt Erickson	merickson@wilwinn.com

Non-agency MBS, ASC 310-30, TDRs and Trust Preferred Securities:

Cole Schulte	cschulte@wilwinn.com
Anneliese Ramin	aramin@wilwinn.com
Frank Wilary	fwilary@wilwinn.com



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Value of Servicing

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Thank You

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