THE OWL FUND

Initiation of Coverage
October 16, 2019

MGIC Investment Corp.

Exchange: NYSE | Ticker: MTG | Target Price: $16.00

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INVESTMENT THESIS

- MTG currently trades at 1.07x NTM P/B, which represents a 15% discount to its 3-year average NTM P/B of 1.23x. Throughout 2019, the housing market has come back to life following the Fed rate cuts. MTG's stock has faced pressure after a mixed 2Q'19 earnings report and the announcement that its CEO is retiring. Despite the headlines, we believe MTG's CEO'S retirement will little to no effect on the company. We believe investors are overlooking MTG's ability to benefit from macroeconomic tailwinds and its internal initiatives to improve earnings stability.
- As the Fed continues to cut interest rates, mortgage originations explode higher. MTG is positioned perfectly to benefit from this shift in the macroeconomic environment, given that homebuyers without the standard 20% down payment are required to purchase mortgage insurance. Meanwhile, the company continues to improve the credit quality of its IIF, an initiative we believe will help add earnings stability, especially if the market were to slip into a slowdown.
- As MTG continues to improve IIF credit quality and its pricing accuracy through new actuarial technology, we expect MTG to improve the reliability of its earnings; all of this will prompt multiple expansion over the next 12-18 months. We believe that rates will continue to move lower, a trend that MTG will benefit from and the market has not yet priced in. Given these catalysts, we expect the stock to have a 22% upside and a price target of $16.00/share.

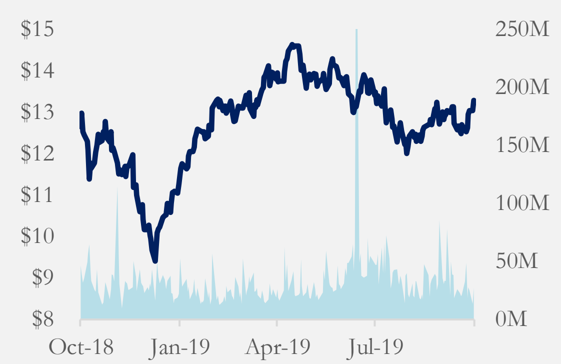
COMPANY OVERVIEW

MGIC Investment Corporation and Subsidiaries (NYSE: MTG) is a holding company that, through its wholly owned subsidiaries, provides private mortgage insurance (PMI) and other credit enhancement services. Organized in 1984, MTG is based out of Wisconsin and derives its revenue from within the U.S and outside territories. The primary purpose of MTG's business is to allow individuals and families who do not have the creditworthiness or sufficient down payment to attain a mortgage independently, from a GSE or other entity, to qualify for a mortgage by insuring a portion of the total loan value. In FY'18, MTG captured 17.4% of the PMI market (as measured by new insurance written). MTG reports its 3Q'19 earnings on Friday, October 24th.

Key Statistics (US$ in M, except per share data)

Price	$13.29	**52-Week Low**	$9.41
Exp. Return	~20%	**52-Week High**	$14.97
Shares O/S	354	**Div. Yield**	1.81%
Market Cap	$4,706	**Ent. Value**	$5,538

One-Year Price Graph



Earnings (Adj.) / Revenue Surprise History

Quarters	EPS	Revenue	Δ Price
2Q'19	9.1%	(0.9%)	1.4%
1Q'19	6.6%	2.0%	1.7%
4Q'18	8.3%	(0.1%)	2.6%
3Q'18	31.2%	5.7%	9.1%

Earnings Projections (Adj.)

	Q1	Q2	Q3	Q4	FY
2017A	$0.31	$0.31	$0.32	$0.29	$0.88
2018A	0.38	0.49	0.48	0.42	1.78
2019E	0.42	0.46	0.42	0.42	1.72
2020E	0.43	0.44	0.45	0.46	1.78

Source: Bloomberg, FactSet, Thomson Reuters

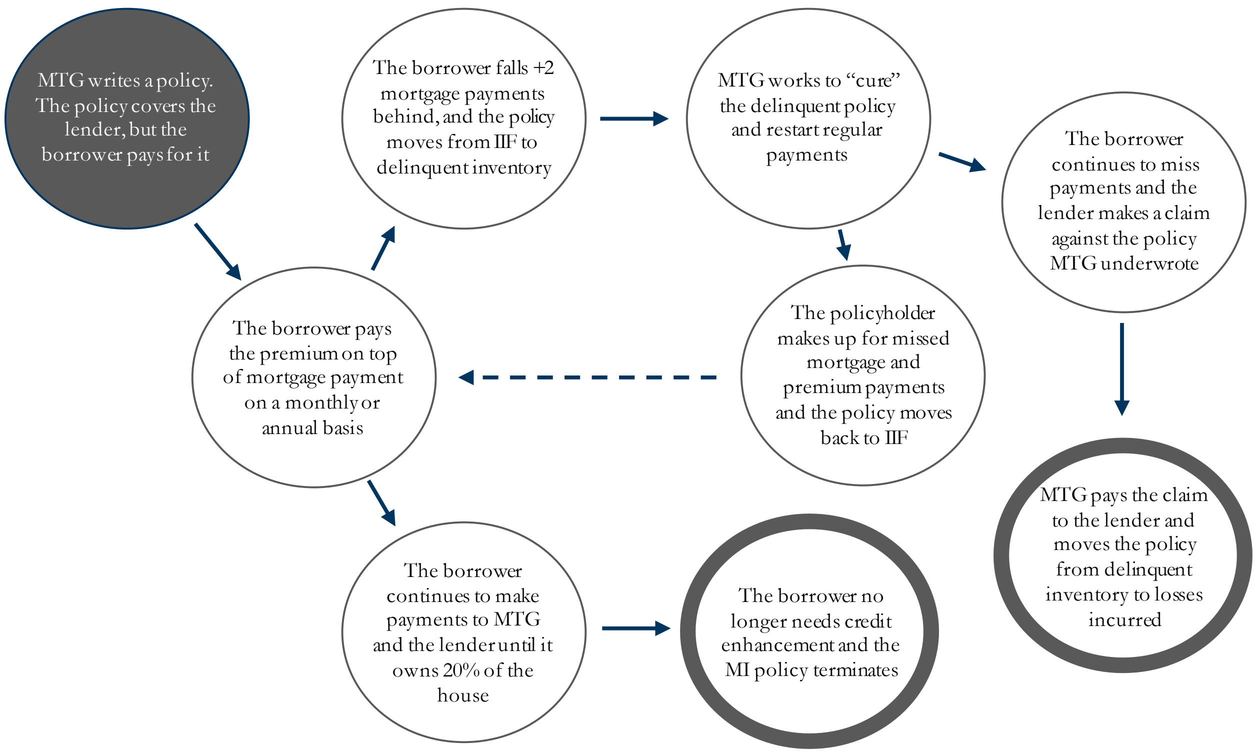
The William C. Dunkelberg Owl Fund does and seeks to do business with companies covered in its research reports. Thus, investors should be aware that the fund may have a conflict of interest that could affect the objectivity of this report. All prices are current as of the end of previous trading session from date on which report was issued.

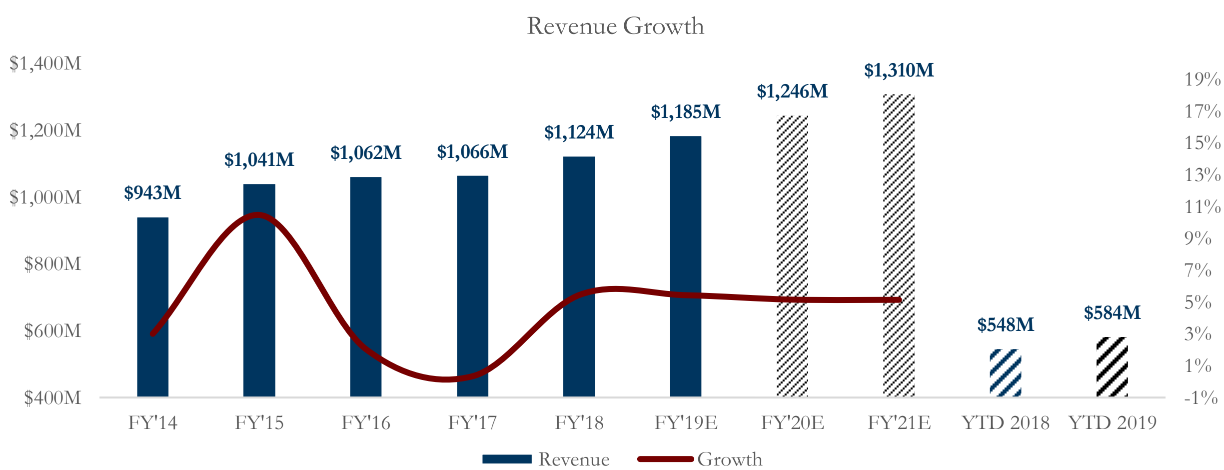
SEGMENT OVERVIEW

Insurance & Related Activities (100% of 2Q'19 Revenue):

MTG operates through one segment, Insurance & Related Activities. The company derives 99.5% of its revenue in the US and 0.5% from Puerto Rico. MTG is licensed in all 50 states and wrote new insurance in each of those jurisdictions in FY'18.

On the surface, MTG's business is simple: it earns revenue through insurance premiums and investment income. In FY'18, 87% of MTG's revenue came from premiums and 13% came from investment income. MTG's main objective is to grow its insurance in force (IIF), which is its balance of outstanding non-delinquent insurance contracts. Investment income comes from MTG's $5.5B investment portfolio. The portfolio is comprised of $5.1B in fixed income securities, with an average duration of four years and an average pre-tax yield of 3.16%.

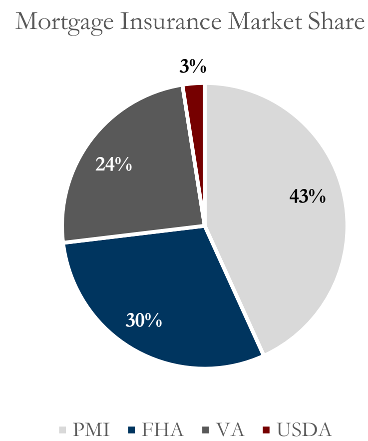




INDUSTRY OVERVIEW

Mortgage Insurance Overview:

Traditionally, a homebuyer is expected to pay a down payment worth 20% of the home's value when obtaining a mortgage. If the homebuyer does not have the 20% down payment, most lenders require a form of credit enhancement for the borrower to secure the loan. There are four main types of credit enhancement available to the borrower: PMI - Private Mortgage Insurance, FHA - Federal Housing Administration Loan, VA - Veteran Association Home Loan, and USDA - US Department of Agriculture Home Loan.



- **PMI:** PMI is intrinsically different than most traditional forms of insurance. If the borrower, in this case the homeowner, were to default on his mortgage, PMI would pay the lender (the bank) instead of the borrower (the homeowner). PMI was established in 1957 to provide a private market alternative to federal government insurance programs. PMI covers losses from homeowner defaults on residential mortgage loans, which reduces, and in some cases eliminates, the loss to the insured institution. Just as securitization makes the housing market function, PMI allows securitization by GSEs to function.

- **FHA:** An FHA loan is used by an FHA approved lender and is primarily designed for low-income borrowers. Borrowers can put as little as 3.5% down on the house to secure the mortgage. Unlike PMI (Which can be canceled after five years), most FHA loans are not eligible for removal until the policy hits eleven years. This generally causes FHA to cost substantially more over the life of the mortgage. Lending Tree estimates that on a $180,000 30-year mortgage, PMI would cost roughly $5,250 while FHA would cost $18,990.

- **USDA & VA:** Yes, the US Department of Agriculture provides home loans. However, it only loans to homeowners in rural areas with a FICO score above 640. VA home loans are for active and former members of the US Military. For VA, a minimum credit score of 620 is required to be considered for a loan. As of 2018, PMI remained the most popular form of mortgage insurance, representing 43% of the total market. Unlike PMI, UDSA, VA, and FHA all require some form of government aid.

It is important to understand that the entire reason the mortgage market works is due to securitization. Once a mortgage is originated by a lender, it is packaged with other mortgages into an MBS product and then sold to investors. The knowledge that they can sell the loans at a later time incentivizes lenders to underwrite more mortgages. Both Fannie Mae and Freddie Mac, also known as GSEs (Government Sponsored Entities), have been major purchasers of the mortgage loans that underlie the policies written by private mortgage insurers. The GSEs purchase residential mortgage loans as part of their governmental mandate to provide liquidity to the mortgage market. The GSEs package these mortgages into MBS products and sell them to investors. The GSEs cannot buy low-down-payment mortgage loans (those with less than a 20% down payment) without certain forms of credit enhancement. As stated earlier, PMI, FHA, VA, and USDA are the four most common forms of credit enhancement. Lenders generally have used PMI to satisfy this credit enhancement requirement. PMI facilitates the sale of low-down-payment mortgages in the mortgage market to the GSEs and plays an important role in the housing finance system by assisting consumers, especially first-time and lower net-worth homebuyers, to finance homes with low-down-payment mortgages.

'Cuz They're Freeeee, Free Fallin':

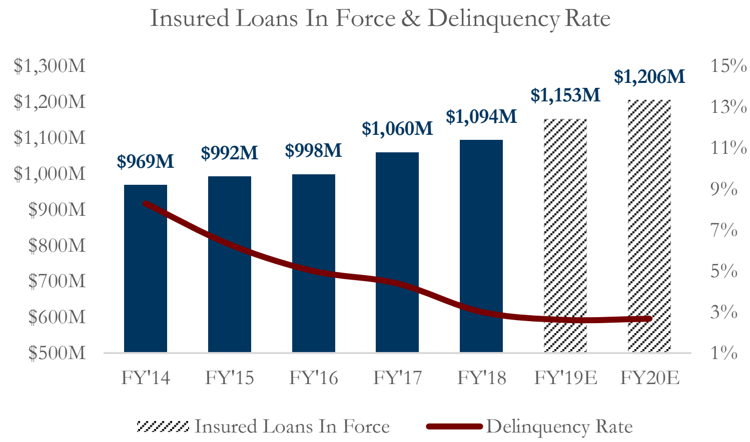
As Tom Petty probably once said: "US interest rates will likely fall to zero as the Fed tries to use increased liquidity and cheap money to stimulate economic activity and prolong the current expansion." Our team agrees, and we think it is relevant to discuss what falling rates would look like for the MI industry as a whole. During the rising rate environment of 2018, the mortgage origination market felt the effect of opposite conditions than those which exist today. As the Fed adopted a hawkish rate policy for the first time in a decade, 30-year fixed rate mortgages began to climb past 5%, refinancing activity and new home purchases both stalled, first-time homeowners were priced out of the market, and potential refinancing candidates felt locked into their current mortgage rates.

At the start of 2019, however, the Fed changed its narrative and began to cut rates, which brought the Fed rate to its current range of 1.75%-2.00% and the 30-year fixed rate mortgage back down to 3.5%. This reversal-of-policy kick-started the new-home market, refinance market, and, most importantly, the mortgage insurance market. The effects of the new Fed policy can be seen in the performance of the S&P 500 Home Builder ETF (XHB), up 34% YTD, the 27.3% YoY increase in mortgage originations in 2Q'19, and the new residential sales increasing 4.5% YoY in 2Q'19.

Those improvements in the housing market are from a 50 bp cut (from a range of 2.25% - 2.50% to 1.75% - 2.00%), and the market expects the Fed to cut further. The market currently has priced in an 82% chance of another cut during October's meeting and a 44% chance of an additional cut by the end of January. The Fed continues to face rate pressure globally, where interest rates moved to zero and below, and our team anticipates that US rates will follow on a gradual crawl towards zero. For the MI industry, that means cheaper mortgages and more activity in the new-homes and refinancing market.

CATALYSTS & DRIVERS

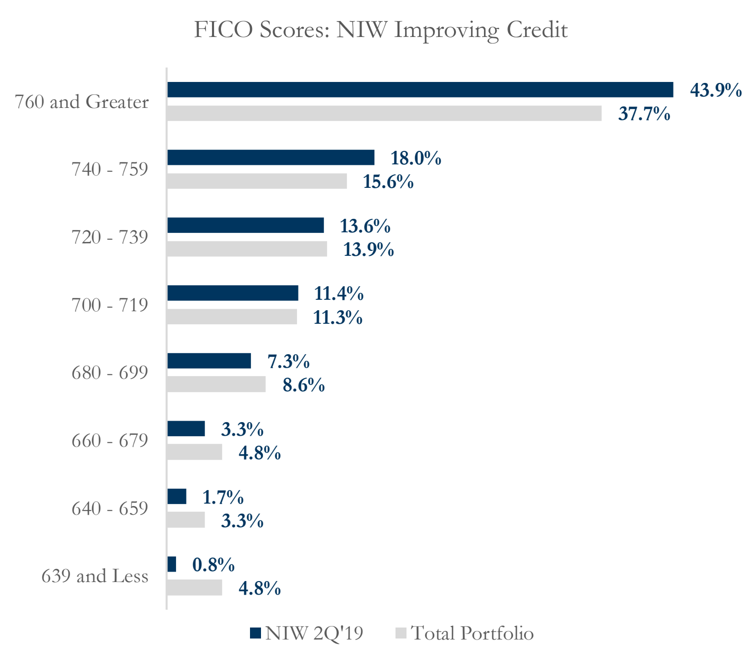
The Price is Right:



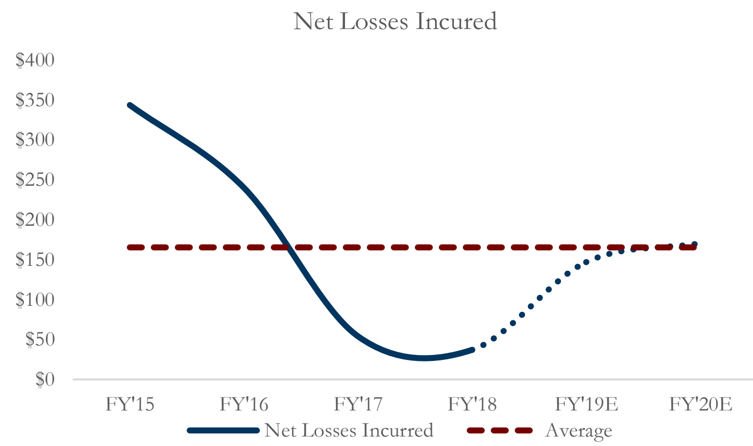
Rule #1: never lose money. Rule #2: never forget rule #1. Although this may be a Buffettism, MTG's management team has taken this mindset and put it to action. MTG is focusing its efforts on writing high quality, dependable premiums. It may seem like common sense for an insurance company to write policies for individuals with high credit quality, but this is not always the case. Many insurance companies may venture into contracts with more risk, hoping that the larger premium rate offsets any potential losses. Those companies, however, often have more cyclical earnings; In a low-default environment, revenue will skyrocket, but when defaults rise, those companies are stuck paying millions of dollars in claims.

- As MTG improves the credit quality of its policyholders, it ultimately will lead to steadier earnings, given it is more insulated from defaults when the market cycle takes a turn for the worst. Its dedication to earnings stability is evident as it increases the credit score of its policyholders and develops better technology to price the insurance that it writes.

- Over the past three years, the percent of new insurance written (NIW) that covers homeowners with credit scores above 700 increased, while the percent of NIW for homeowners with a score below 700 decreased by. Last quarter, of NIW in 2Q'19, 87% had FICO scores above 700; MTG's total IIF portfolio only has 78% of its policies with FICOs above 700. As MTG continues to grow the credit quality of NIW, it will begin to cycle out the lower credit policies with higher ones, ultimately creating a higher credit quality IIF.

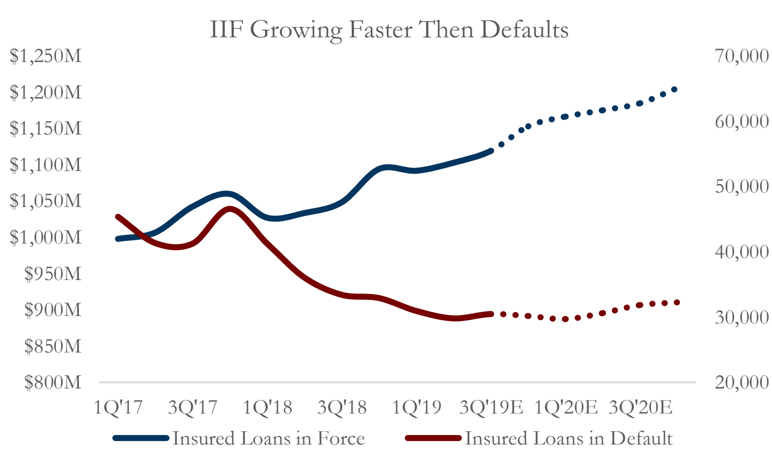


The credit score of the policyholders under NIW is so important because of the cyclical nature of the company's IIF. As the policies with lower-quality credit scores associated with them filter out of the IIF either through delinquency or natural termination, and the NIW with high-quality credit scores replaces them, the improvement on the total IIF's credit-quality is compounded. The credit score is a proxy for the reliability of the homeowners' mortgage payments and therefore is inversely related to MTG's future delinquent inventory. Besides the improvement to the selection of policyholders that MTG insures, the company also continues to improve its ability to price policies correctly. MTG has grown the use of its risk-based pricing program called MiQ. Historically, premiums were priced with a rate card that only considers the type of policy, location of the insured property, and other nonspecific factors. The MiQ system is a holistic approach to personalize premium rates for each policy through a combination of actuarial models and machine-learning software, a massive improvement over the rate card method. MiQ is truly an investment in the future for MTG. The rate card would often assign a higher premium to remedy its margin of error as it determined the risk associated with a broad category of policies. On the other hand, MiQ reduces that margin of error and oftentimes reduces the premium rate for its policies.



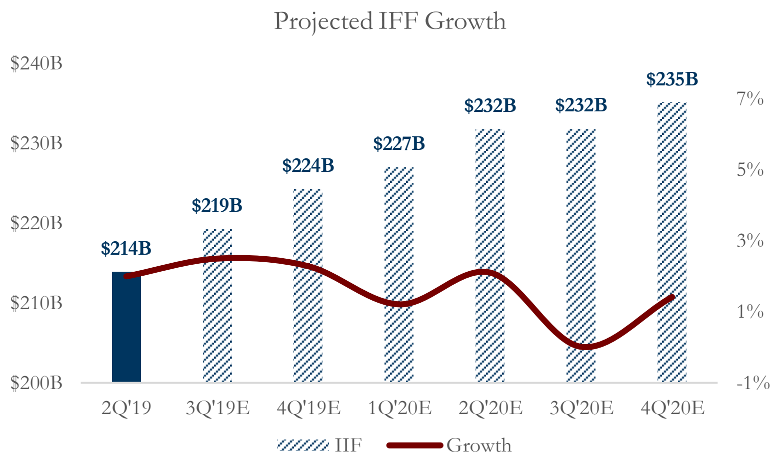
This trend in the short term can cause some topline pressure, exemplified in the 2Q'19 report where premium yield missed analysts' expectations. The Street's projections moving forward show the effectiveness of MTG's credit quality initiative. The Street projects that insured loans in force will grow by 86,500, or 1.5%, over the next six quarters. Over the same time period, insured loans in default will only rise 1,790, or 1.1%. This divergence will drive bottom-line growth and can be viewed as MTG effectively improves its operating leverage - its revenues will grow faster than the costs to earn them. We believe this will make up for the reduced premium yield from the MiQ system as fewer defaults will decrease losses and add to profits. Our team views the new pricing system as a short-term headwind which will ultimately lead to more competitive pricing and fewer claims. We believe this will lead to more earnings stability moving forward with fewer losses insulating the company in the case of an economic slowdown.

Feelin' Cute, Might Buy a House Later:



Warren Buffett famously once stated that interest rates are to valuations, what gravity is to earth. In the case of the mortgage market, interest rates are better akin to water's relationship with fire: the less there is, the brighter the fire will burn. Historically, the 30-year fixed rate mortgage trades at a 150-200 bps spread to the 10-year Treasury bond. As the Fed continues to lower interest rates, the rate at which consumers can obtain a mortgage will also fall. In October of 2018, mortgage rates on a 30-year fixed rate mortgage hit 5.0%, the highest levels since 2011. Higher mortgage rates prompted one of the slowest housing markets the economy had seen in years. At the end of 2018, there was an ample supply of non-purchased houses on the market, however high borrowing costs kept many would-be buyers on the sidelines. As the market moved into 2019, the Fed threw its interest rate policy in reverse and began to cut rates for the first time in a decade.

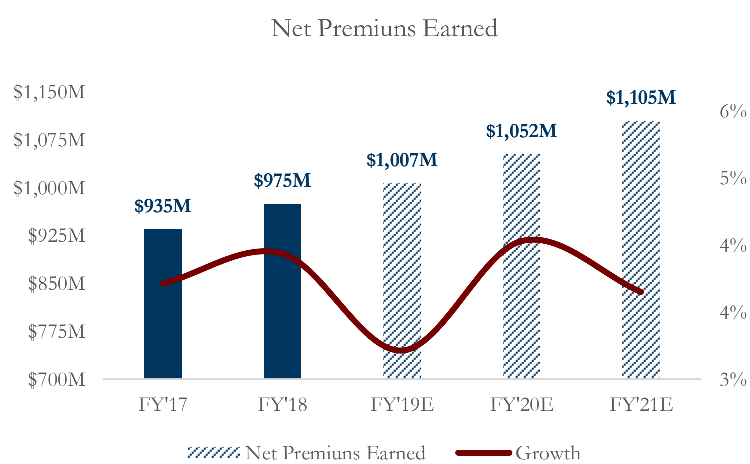
Since its October 2018 highs, mortgage rates fell in nearly a straight line from 5.0% to ~3.5%. This fueled an explosion in new mortgage originations. According to the Mortgage Bankers Association (MBA), mortgage originations grew 10.8% YoY in 2Q'19. The MBA projects that mortgage originations will skyrocket 32.4% YoY in 3Q'19 and 29.1% YoY in 4Q'19. These projections are from September 19th, 2019 and were made with the assumption of 3.8%-3.9% mortgage rates. Given that the current mortgage rate is ~40 bps lower and the market priced in an 82% chance that the Fed will cut again on October 30th, we feel that the actual mortgage originations over those periods may be materially higher than current projections. ***All of this to say: mortgage originations rise when interest rates fall, which means more NIW for MTG.***



- ***<u>As for MTG, we feel the current macroeconomic environment makes it a black swan of the financial sector - it will do better as interest rates fall.</u>*** Our thesis for continued Fed rate cuts is simply based on a number of macroeconomic trends. The market has seen a material slowdown over the past several months. PMI continues to weaken, ISM data has fallen, and globally, both Asian and European economies are in decline.

- The Fed cuts rates to try and sustain the economic growth that markets experienced over the past decade. We believe that the economic slowdown is by uncertainty about the future, not a lack of access to capital. We feel that lower interest rates may be the remedy for the symptoms but not the cure for the impending economic slowdown we see in the next 18 months to 2-years. We believe the Fed will likely cut interest rates to zero over the next several years, as it continues to try and stave off the dreaded slowdown.

Despite slow GDP, PMI, and ISM data, the economic data most relevant to housing remains steady. The US unemployment rate sits at historic lows. Wage growth is consistent, and the US consumer spending continues to be robust. The future rate environment will be a major tailwind for the mortgage origination market, and ultimately MTG. The Street expects NIW to grow an average 6.8% YoY for the next three years, a huge improvement over the 2.85% growth in FY'18. As MTG improves the credit quality of IIF and its underwriting standards, we feel that management continues to position the company for a stronger performance in an economic slowdown. We are convinced that the next 12-18 months are the perfect environment to own MTG. Between strong growth in mortgage originations, low unemployment, and a management team focused on protecting the downside, MTG is positioned to thrive throughout our investment horizon.



UNDERVALUATION

- MTG currently trades at 1.07x NTM P/B, which represents a 15% discount to its 3-year average NTM P/B of 1.23x. MTG's undervaluation story begins in March of 2018 when the Fed's then-hawkish policy drove mortgage rates to 5% and brought home sales growth to a grinding halt. A downgrade from BAML compounded the effect of the slowed real estate market, further compressed MTG's multiple to an 18-month low.

- Moving forward from the initial (33%) drop-off in NTM P/B due to slower housing data and a downgrade, MTG's story became much less exciting, as it sits just (1.6%) below its lowest point that Spring. Throughout the summer of 2018 and into the Winter, MTG's strong earnings despite an unfavorable environment were overshadowed by continued fears of the Fed policy's effect on the real estate market. Those fears continued to drive MTG's multiple lower until the beginning of 2019, and then, the Fed switched gears.

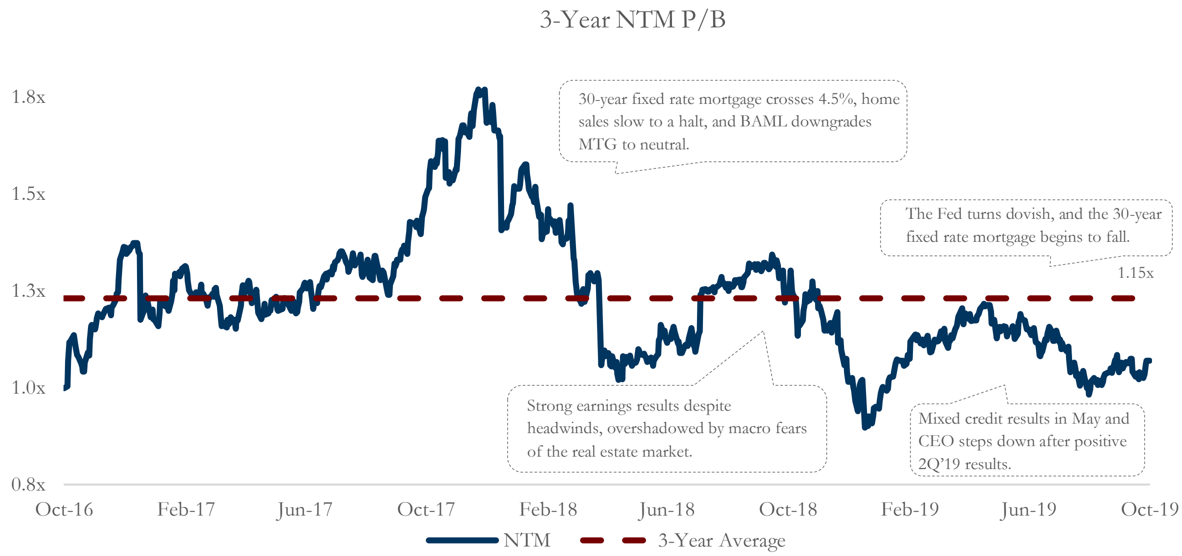
- When the Fed changed its hawkish rhetoric and began to cut rates, MTG's multiple briefly began to climb, which reflected investor's recognition that lower rates would spur refinancing activity and new-home purchases. That rally was short-lived, however, as May's reported credit data on its IIF was a mixed bag of results. May's credit data showed higher than expected delinquency notices (4,382 vs. 3,920 expected), however, delinquencies fell 20% YoY. May's mixed credit data made investors uncertain about 2Q'19 results and outweighed positive housing developments, which resulted in the most recent trend of multiple compression and our team's undervaluation thesis.

- The company reported 2Q'19 earnings on July 24th, where it posted a slight top-line miss and a bottom-line beat. The new MiQ pricing system was the main driver of the top-line miss, as it caused net premiums written to miss analysts' expectations by 5%. Despite the top-line miss, MTG traded up 140 bps on the day. In the days following, CEO Patrick Sinks announced his resignation and that former CFO, Timothy Mattke, would replace him as CEO. Although the resignation was planned, shares traded lower in the days after the announcement and erased the gains that followed 2Q'19 results.

- ***In our view, the news surrounding MTGs change in leadership will have little to no impact on the company.*** We feel that the market has taken a short-term view of MiQ's long-term benefits, based on analysts' focus on the trend during the conference call. Although in the short-term, it temperately added pressure to net premiums written, moving forward it will allow MTG to offer competitive rates and price customers accurately, ultimately lead to fewer losses.

- MTG's NTM P/B multiple expansion from January to May exemplifies that lower interest rates will act as a tailwind for the stock, given that declining rates have caused an explosion in new mortgage originations, a trend MTG stands to profit from***. Our group views the subsequent selloff by investors as short-sighted and believes that it unjustly halted the multiple expansion that MTG should have seen due to the shift in macroeconomic conditions.***

- ***We believe that between its focus on improving the credit of its IIF, the booming mortgage origination market, and the company's inverted relationship with interest rates, MTG is an ideal holding in our current macroeconomic environment.*** Based on MTG upside potential, we feel that the stock is undervalued at its current levels as the market has taken a short-term perspective on a positive long-term story backed by secular tailwinds. Our group is recommending a BUY on MTG with a target price of $16.00/share, representing a ~22% return from its current price.



PEER GROUP ANALYSIS

radian NationalMI Arch | Insurance ESSENT Genworth Financial

Essent Group Ltd. (NYSE: ESNT) is a Bermuda-domiciled holding company that engages in mortgage insurance, reinsurance and risk management products to mortgage lenders to support homeownership. The company went public in 2010 with a whopping $6M in sales in its first year. ESNT has grown revenues at an astounding 40% 5-year CAGR and trades at a 34% premium to MTG based off NTM P/B.

Radian Group Inc. (NYSE: RDN) is an insurance holding company that focuses on PMI, risk management products, and real estate services to financial institutions. The company is based in Philadelphia and was founded in 1991. RDN's revenues fell 23% last year. Despite the shaky financial performance, RDNs stock is up over 40% YTD and the Street still projects an average upside of 23% still to go.

NMI Holdings Inc. (NASDAQ: NMIH) is a mortgage insurance company headquartered in Emeryville, CA. The company was founded on May 19, 2011 and has 304 employees. YTD NMIH has shot up over 50%, and the Street believes there is more upside left. The average price target has a 27% upside. Over the past 10-years, the company has grown sales at a 107% CAGR. The market has award NMIH a premium multiple as it currently trades at 2.2x LTM P/B.

Genworth Financial, Inc. (NYSE: GNW) is a financial services company that engages in insurance, wealth management, investment, and financial solutions. GNW's biggest segment in US Life Insurance, which made up 75% of FY'18 revenue. The Street is very bearish on GNW and all four analysts who cover it recommend a hold an average upside of 3%.

Arch Capital Group Ltd. (NASDAQ: ACGL) provides property and casualty insurance and reinsurance lines. It operates through the following segments: Insurance, Reinsurance, Mortgage, Corporate (Non-Underwriting), and Other. The company was founded in 1995 and is headquartered in Hamilton, Bermuda. YTD, ACGL is up over 54% and trades at an 8% premium to its historical NTM P/B.

Company	Ticker	Market Statistics: Market Cap	Market Statistics: Enterprise Value	Growth Analysis: Sales LTM	Growth Analysis: Sales 2019E	Growth Analysis: EPS LTM	Growth Analysis: EPS 2019E	Margin Analysis: Operating Margin LTM	Margin Analysis: Operating Margin 2019E	Margin Analysis: Profit Margin LTM	Margin Analysis: Profit Margin 2019E	Valuation Analysis: Price / Book Value LTM	Valuation Analysis: Price / Book Value 2019E	Valuation Analysis: Enterprise Value / Sales LTM	Valuation Analysis: Enterprise Value / Sales 2019E	Valuation Analysis: Price / Earnings LTM	Valuation Analysis: Price / Earnings NTM
MGIC Investment Corp.	**MTG**	**$4,615**	**$5,228**	**6.3%**	**5.3%**	**9.8%**	**(1.7)%**	**76.0%**	**63.4%**	**56.8%**	**54.2%**	**1.11x**	**1.07x**	**4.5x**	**4.4x**	**7.5x**	**7.5x**
Essent Group	ESNT	4,765	4,976	21.9%	18.9%	4.0%	10.1%	77.8%	74.8%	64.3%	63.5%	1.68x	1.61x	6.3x	5.8x	9.5x	8.4x
Radian Group Inc.	RDN	23,635	23,334	10.8%	11.1%	13.6%	1.2%	60.1%	55.8%	2.9%	6.5%	1.26x	1.18x	4.0x	3.9x	8.2x	7.6x
NMI Holdings	NMIH	1,830	1,949	39.2%	34.1%	72.6%	50.0%	58.8%	49.8%	42.5%	45.1%	2.25x	2.04x	6.3x	5.3x	14.8x	9.7x
Genworth Financial Inc.	GNW	2,195	6,447	7.0%	1.9%	(13.2)%	21.2%	11.2%	10.7%	1.9%	7.3%	0.16x	0.16x	0.8x	0.7x	14.3x	3.8x
Arch Capital Group	ACGL	16,811	19,817	7.8%	5.4%	96.6%	16.1%	22.6%	17.7%	20.5%	19.0%	1.64x	1.60x	3.2x	3.3x	13.9x	14.4x
High		**23,635**	**23,334**	**39.2%**	**34.1%**	**96.6%**	**50.0%**	**77.8%**	**74.8%**	**64.3%**	**63.5%**	**2.25x**	**2.04x**	**6.3x**	**5.8x**	**14.8x**	**14.4x**
Mean		**8,975**	**10,292**	**15.5%**	**12.8%**	**30.6%**	**16.2%**	**51.1%**	**45.4%**	**31.5%**	**32.6%**	**1.35x**	**1.28x**	**4.2x**	**3.9x**	**11.4x**	**8.6x**
Median		**4,690**	**5,838**	**9.3%**	**8.3%**	**11.7%**	**13.1%**	**59.5%**	**52.8%**	**31.5%**	**32.1%**	**1.45x**	**1.39x**	**4.3x**	**4.2x**	**11.7x**	**8.0x**
Low		**1,830**	**1,949**	**6.3%**	**1.9%**	**(13.2)%**	**(1.7)%**	**11.2%**	**10.7%**	**1.9%**	**6.5%**	**0.16x**	**0.16x**	**0.8x**	**0.7x**	**7.5x**	**3.8x**

Company	Ticker	General Statistics: Tax Rate	General Statistics: Beta	General Statistics: Dividend Yield	Returns Analysis: ROIC	Returns Analysis: ROE	Returns Analysis: ROA	2018A Leverage Analysis: Total Debt / Cap	2018A Leverage Analysis: Total Debt / Equity	2018A Leverage Analysis: CFO / TD	2018A Coverage Analysis: Int. Exp. / Net Sales	2018A Coverage Analysis: (EBITDA -Cpx)/Int.	2018A Coverage Analysis: EBIT / Int. Exp.	Liquidity Profile: Quick Ratio	Liquidity Profile: Current Ratio	Credit Profile: Moody's	Credit Profile: S&P
MGIC Investment Corp.	**MTG**	**20.6%**	**0.96**	**1.8%**	**9.2%**	**17.9%**	**11.3%**	**0.2x**	**20.6x**	**0.7x**	**4.6x**	**0.0x**	**0.0x**	**0.00**	**0.00**	**Ba2**	**BB+**
Essent Group	ESNT	16.2%	0.97	1.2%	16.9%	21.2%	15.9%	0.1x	8.7x	3.3x	1.3x	0.0x	0.0x	0.00	0.00		
Radian Group Inc.	RDN	43.6%	0.96	0.4%	15.7%	20.9%	11.4%	0.3x	0.4x	0.7x	3.8x	0.0x	0.0x	0.00	0.00	Ba2	BB+
NMI Holdings	NMIH	23.3%	1.07	0.0%	1.8%	1.2%	1.5%	2.0x	27.9x	1.1x	3.4x	0.0x	0.0x	0.00	0.00	Ba3	BB
Genworth Financial Inc.	GNW	32.9%	1.15	0.0%	8.9%	16.9%	6.9%	0.5x	0.9x	0.4x	3.4x	0.0x	0.0x	0.00	0.00	WR	B
Arch Capital Group	ACGL	8.4%	0.79	0.0%	8.2%	12.7%	3.8%	0.1x	20.1x	0.8x	1.7x	0.0x	0.0x	0.00	0.00	Baa1	A-
High		**43.6%**	**1.15**	**1.8%**	**16.9%**	**21.2%**	**15.9%**	**2.0x**	**27.9x**	**3.3x**	**4.6x**	**0.0x**	**0.0x**	**0.00**	**0.00**		
Mean		**24.2%**	**0.98**	**0.6%**	**10.1%**	**15.1%**	**8.5%**	**0.5x**	**13.1x**	**1.2x**	**3.0x**	**0.0x**	**0.0x**	**0.00**	**0.00**		
Median		**21.9%**	**0.97**	**0.2%**	**9.0%**	**17.4%**	**9.1%**	**0.2x**	**14.4x**	**0.7x**	**3.4x**	**0.0x**	**0.0x**	**0.00**	**0.00**		
Low		**8.4%**	**0.79**	**0.0%**	**1.8%**	**1.2%**	**1.5%**	**0.1x**	**0.4x**	**0.4x**	**1.3x**	**0.0x**	**0.0x**	**0.00**	**0.00**		

MOATS AND RISKS

We've Heard This Before:

The single biggest risk to our investment thesis for MTG is the chance that the consumer gets crushed and defaults skyrocket. To speak more generally, any unexpected, serious spike in default rates for MTG's policies would significantly hurt the business. As loans default, MTG stops premium collections (topline contraction) and starts to pay fees to the claim payout on those defaults (bottom line contraction). In essence, the business gets squeezed from both sides. MTG has worked to mitigate this risk as it increases the credit quality of policyholders. By insuring homeowners with higher credit, and almost exclusively only one house, MTG reduces the risk of default on its policies.

The Government Chills Out:

Another risk to our investment thesis, and the entire PMI business model, is that GSE's regulation becomes more relaxed and no longer needs the MI to make investments safer. Since GSEs are the primary purchasers of mortgages, and it is the government oversight that requires the mortgages that they purchase to have at least 20% equity in the home to be covered, if any of that were to change then the PMI market would all but evaporate. Some private mortgage underwriters may still require similar standards from a risk-management stance, but there would be significantly less room in the marketplace to operate.

Death and Taxes… and PMI:

As it turns out, there are actually three things in life that most people cannot avoid. In order to make GSEs exposed to less risk that may turn sour and cost US taxpayers millions, they have certain requirements for a mortgage to be eligible to be bought/written by them, including a loan-to-value (LTV) ratio less than or equal to 80%. When potential homebuyers are looking for a house to buy, they are faced with a choice: save the money to put a 20% down payment for a mortgage or attain credit enhancement that covers the difference between what they have and the 20% down payment that they need. The industry that MTG operates within (PMI) provides ~43% of the credit enhancement that is required, by law, for GSEs to originate and securitize a loan. According to USMI, it can take an average household more than two decades to save for a 20% down payment, assuming 2017 housing prices and the US average savings rate. The difficulty that the average American has saving 20% the cost of a house, combined with the federal regulation that requires GSEs to only touch mortgages with at most an 80% LTV ratio, combines to create the perfect moat protecting the PMI business model.

Bull Case & Bear Case Scenarios:

- Our bull case for MTG is based on the assumption that the catalysts laid out pay off over the course of the next two years, a falling 30-year fixed rate mortgage drives growth in new home sales and refinancing activity, and continued strength in the consumer keeps default rates low. MTG will remain selective for its NIW based on the credit score of the policyholder and MiQ will price premiums appropriately for NIW, both of which will result in IIF growth that outpaces delinquent inventory growth. Furthermore, the Fed policy will act as a secular tailwind driving mortgage rates lower.
- Our bear case for MTG assumes the worst-case scenario for all aspects of the business. Either the Fed's policy turns hawkish once more or the consumer strength evaporates, both of which would cause a slowdown in new mortgage originations and worsened sentiment surrounding the PMI industry. Additionally, if mortgage defaults hit 2008 levels, it would cause an explosion in claims and cripple MTG's bottom line. A 2008 level housing crisis has happened only once in history and we do not foresee that level of housing catastrophe on the horizon.

VALUATION ANALYSIS

Valuation Multiple Sensitivity Analysis (Returns of 20%-30% in Green):

Implied Share Price

		LTM P/B Multiple				
		1.2x	1.3x	1.4x	1.5x	1.6x
Book Value per Share	$10.25	$12.10	$13.13	$14.15	$15.18	$16.20
	$10.82	$12.77	$ 13.86	$ 14.94	$ 16.02	$17.10
	$11.39	$13.44	$ 14.58	$ 15.72	$ 16.86	$18.00
	$11.96	$14.12	$ 15.31	$ 16.51	$ 17.71	$18.90
	$12.53	$14.79	$16.04	$17.30	$18.55	$19.80

Implied % Return

		LTM P/B Multiple				
		1.2x	1.3x	1.4x	1.5x	1.6x
Book Value per Share	$10.25	(9.0%)	(1.2%)	6.5%	14.2%	21.9%
	$10.82	(3.9%)	4.3%	12.4%	20.5%	28.7%
	$11.39	1.2%	9.7%	18.3%	26.9%	35.5%
	$11.96	6.2%	15.2%	24.2%	33.2%	42.2%
	$12.53	11.3%	20.7%	30.1%	39.6%	49.0%

Implied Share Price

		NTM P/B Multiple				
		1.0x	1.1x	1.2x	1.3x	1.4x
Book Value per Share	$12.07	$11.47	$12.68	$13.88	$15.09	$16.30
	$12.74	$12.11	$ 13.38	$ 14.65	$ 15.93	$17.20
	$13.41	$12.74	$ 14.08	$ 15.43	$ 16.77	$18.11
	$14.08	$13.38	$ 14.79	$ 16.20	$ 17.61	$19.01
	$14.75	$14.02	$15.49	$16.97	$18.44	$19.92

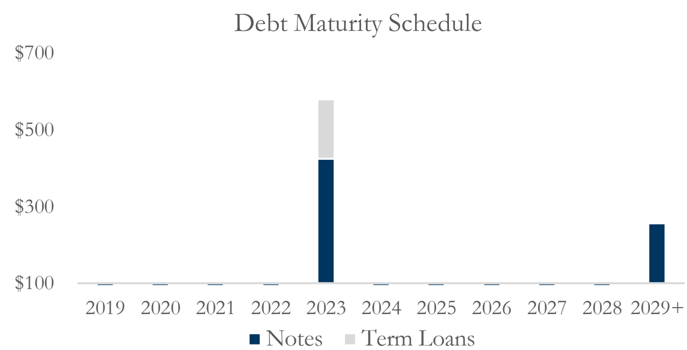
Implied % Return

		NTM P/B Multiple				
		1.0x	1.1x	1.2x	1.3x	1.4x
Book Value per Share	$12.07	(13.7%)	(4.6%)	4.5%	13.5%	22.6%
	$12.74	(8.9%)	0.7%	10.3%	19.9%	29.4%
	$13.41	(4.1%)	6.0%	16.1%	26.2%	36.3%
	$14.08	0.7%	11.3%	21.9%	32.5%	43.1%
	$14.75	5.5%	16.6%	27.7%	38.8%	49.9%

FINANCIAL ANALYSIS

Debt:

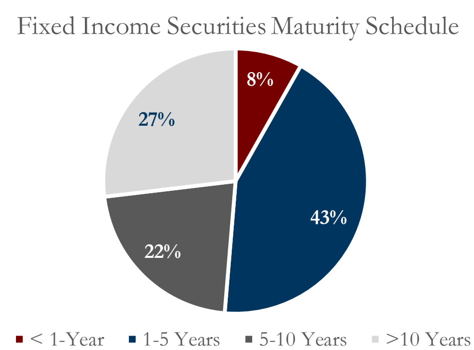
- As of 2Q'19, MTG has $832M in long-term debt, up marginally from $831M in 2Q'18.
- The company has $425M of 5.75% senior unsecured notes and $155M in term loans coming due in August 2023. MTG also has coming due in 2023.
- MTG has an interest coverage ratio of 16.9x and debt to NTM EBITDA of 0.99x.



Moody's: Ba2 Stable **Fitch:** BB+ Stable **Edger Jones:** BBB+

Investment Portfolio:

- As of 2Q'19, MTG's investment portfolio has a fair value of $5.5B, with an amortized value (Excluding unrealized gains) of $5.3B.
- Of the $5.5B investment portfolio, $5.1B is invested in fixed income securities. Those securities include ABS, RMBS, CMBS, and CLO instruments, as well as corporate, government, and municipal debt instruments. MTG has $3.9M in equity securities.

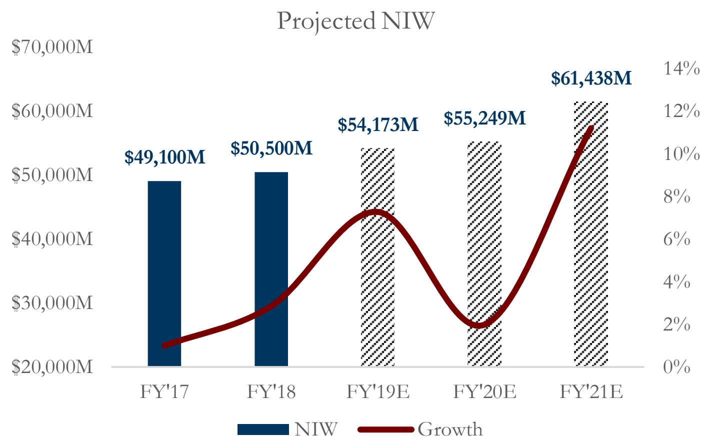


- The consolidated investment portfolio had a mix of 80% taxable and 20% tax-exempt securities. The fixed income portfolio has an average duration of four years and a pre-tax yield of 3.16%, up from 2.9% in 2Q'19.

Loss Reserves:

- Loss reserves are established to recognize the estimated liability for losses related to defaults on insured mortgage loans. The lower the loss reserves, the less that MTG projects to lose in the future. Net Loss reserves in 2Q'19 were $640M, down from $937M in 2Q'18.
- Loss reserves are built on the company's estimations of losses based on the mortgage market, the macroeconomic environment, and the tenor of its loan portfolio.
- In 2Q'19, MTG experienced favorable loss reserve development on previously received delinquencies. It was in large part due to the resolution of approximately 51% of the prior year delinquent inventory, with lower claim rates due to improved cure rates.
- Total losses paid in 2Q'19 were $98M, down from $171M in 2Q'18. In the first week of October, MTG announced that defaulted inventory shrank 1% due to higher cure rates.

NIW:

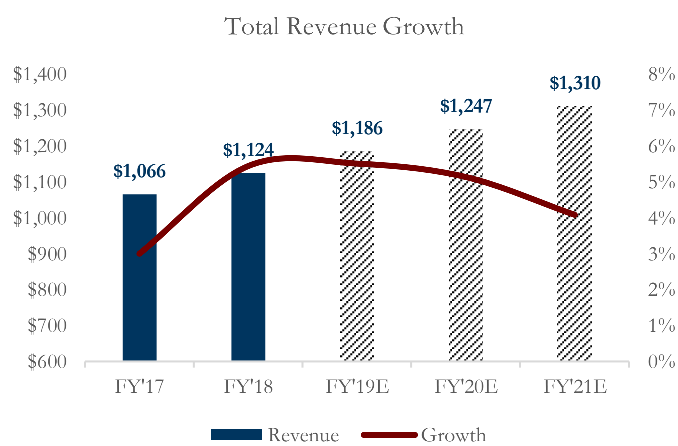


- NIW grew by 12.8% YoY to $14.9B in 2Q'19. The Street expects MTG to grow NIW 7.3% in FY'19, 2.0% in FY'20, and 11.2% in FY'21.
- Refinancing as a percentage of NIW jumped to 10% in 2Q'19, compared to 5% in 2Q'18. This was driven by the lower interest rate environment.
- In addition to writing more insurance, MTG improved the credit characteristics of its new policies. As a percentage of NIW, policies in which the borrower had a FICO score of greater than 700 improved 10 BPS YoY.
- Insured loans in default as a percentage of total insured loans in force is projected to fall from 22 BPS from 3Q'19 to 2Q'20, to roughly 2.6%. This marks a substantial improvement from 3Q'18 when insured loans as a percentage of total insured loans in force 3.2%.

Analyst Recommendations:

- Of the twelve analysts covering the stock, nine are buys, two are holds, and one is a sell. The average price target is $16.73, representing a 28% upside. The most bearish analyst on the Street has a sell rating and a price target of $13.50, representing a 3% upside.
- Six of the twelve analysts have the same price target of $18.00, which represents a 38% upside from MTG's current price.

Revenue / EPS:



- In FY'18, MTG recorded $1.12B in revenue representing 5.6% YoY growth. Over the LTM, MTG has grown revenue 6.3% YoY to $1.16B.
- Net income fell in 2Q'19, from $186.6M in 2Q'18 to $167.8M. The decline was driven by an increase in the level of positive primary loss reserve developments (Essentially adjusted loss reserves for higher losses). This resulted in EPS of $0.46 per share compared to $0.49 per share in 2Q'18.
- The Street projects MTG will grow total revenue (premiums received and investment income) by 5.5% in FY'19, 5.1% in FY'21, and 4.0% in FY'21. This will be driven by consistent growth in NIW which is projected to grow, on average, at 4% over the next three years.

APPENDIX

Glossary:

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureau.

Debt-to-income ("DTI") ratio: The ratio, expressed as a percentage, of a borrower's total debt payments to gross income.

LTV ratio: Loan to Value ratio, expressed as a percentage, represents the dollar amount of the first mortgage loan to the value of the property at the time the loan became insured and does not reflect subsequent housing price appreciation or depreciation. Subordinate mortgages may also be present.

Loss ratio: The sum of incurred losses and loss over NPE (Net premiums earned).

NPE: The amount of premiums earned, net of premiums assumed and ceded under reinsurance agreements.

NIW: New Insurance Written, is the aggregate original principal amount of the mortgages that are insured during a period.

NPW: The number of premiums written, net of premiums assumed and ceded under reinsurance agreements

Ceded: Reinsurance ceded allows the primary insurer (the ceding company) to reduce its risk exposure to an insurance policy it has underwritten by passing that risk to another company (the accepting company). The accepting company receives a premium for taking on the risk.

Cures: These are policies that were previously delinquent that began to make payments again. Essentially, delinquent loans that are "back from the dead."

IIF: Insurance in force, which for loans insured by MTG, is equal to the unpaid principal balance. Basically, the total value of all non-delinquent outstanding insurance policies.

RIF: Risk in force, which for an individual loan insured by MTG, is equal to the unpaid loan principal balance, as reported to MTG, multiplied by the insurance coverage percentage. RIF is sometimes referred to as “exposure.”

Borrower/Homeowner/Policyholder: All these terms are used to describe the homeowner taking out the mortgage and paying MI premiums.

DISCLAIMER

This report is prepared strictly for educational purposes and should not be used as an actual investment guide. The forward-looking statements contained herein are simply the author's opinions. The writer does not own any MGIC Investment Corp. (MTG) stock.

TUIA STATEMENT

Established in honor of Professor William C. Dunkelberg, former Dean o f the Fox School of Business, for his tireless dedication to educating students in "real-world" principles of economics and business, the William C. Dunkelberg (WCD) Owl Fund will ensure that future generations of students have exposure to a challenging, practical learning experience. Managed by Fox School of Business graduate and undergraduate students with oversight from its Board of Directors, the WCD Owl Fund's goals are threefold:

- Provide students with hands-on investment management experience
- Enable students to work in a team-based setting in consultation with investment professionals.
- Connect student participants with nationally recognized money managers and financial institutions

Earnings from the fund will be reinvested net of fund expenses, which are primarily trading and auditing costs and partial scholarships for student participants.