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## Fannie Mae's Trapped Profits Come into View

In a recent article, Fannie Mae's Profit Trap Comes Into View, John Carney of the Wall Street Journal argues that even if the net worth sweep is reversed, Fannie Mae's cash flows will not become available to common shareholders for over fifty years-essentially wiping out the value of the common stock. The WSJ article attempts to answer the basic question: What would Fannie Mae's common shares be worth if the sweep were reversed? First, we will answer this question using the WSJ's assumptions and then, we will answer it using what we believe are more realistic assumptions. [Please refer to the important disclosure information at the end of this report.]

Based on the WSJ article, Fannie Mae's current capital reserve is $\$ 2.4$ billion, which net of $\$ 117$ billion of senior cumulative preferred stock and $\$ 35$ billion of junior non-cumulative preferred stock leaves common stock at negative $\$ 150$ billion. If the third amendment to the senior preferred stock agreement, known as the net worth sweep, were reversed, it is likely that the $\$ 79$ billion of payments made to date on the senior preferred above the required $10 \%$ interest rate would be returned to Fannie Mae and added to the common stock account. Now, Fannie Mae's total equity would equal $\$ 81$ billion and the common stock account would equal a negative $\$ 71$ billion.

As a private institution, Fannie Mae would now be subject to minimum capital requirements on the $\$ 2.9$ trillion of mortgages it guarantees. The WSJ assumes a $5 \%$ capital level, which requires Fannie Mae to hold $\$ 143$ billion of regulatory capital. Most likely, the senior preferred shares would not count towards this since they are cumulative. This means Fannie's regulatory capital would be negative $\$ 36$ billion (negative $\$ 71$ billion plus $\$ 35$ billion). Thus, Fannie Mae would have to increase total equity by $\$ 179$ billion ( $\$ 143$ billion minus negative $\$ 36$ billion) before it would be in compliance with regulatory capital requirements.

The WSJ points out that Fannie Mae is currently making around $\$ 14.8$ billion annually and that the Company is obliged to pay the Treasury a $10 \%$ dividend on the $\$ 117$ billion senior preferred principal. The Paper also highlights that Fannie is obliged to pay the Treasury a commitment fee and sets this rate at $0.75 \%$. After allowing earnings to grow at $2 \%$ for five years and subtracting off the payments on the senior preferred shares, Fannie Mae would have $\$ 3.7$ billion available to add to its regulatory equity capital each year. After 11 years, earnings available to junior preferred and common equity holders would have totaled $\$ 38$ billion. Now, common equity capital would equal negative $\$ 33$ billion and regulatory capital would equal positive $\$ 2$ billion. Therefore, Fannie would still need to earn $\$ 141$ billion to fulfill its $5 \%$ regulatory capital requirement. This would take 38 years at a rate of $\$ 3.7$ billion per year. Thus, Fannie's junior preferred and common shareholders would have to wait roughly 50 years before they receive any cash distributions. At an $8.2 \%$ discount rate, $\$ 3.7$ billion into perpetuity discounted back from 50 years is worth $\$ 877$ million. Thus, the WSJ values future cash flows available to Fannie's junior

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preferred and common shareholders at $\$ 877$ million or only $\$ 0.15$ per Fannie Mae common share outstanding.

We disagree with several key assumptions in the WSJ's analysis. First, we believe that earnings will continue to grow after five years. Slight changes in earnings growth assumptions make a big difference due to leverage and compounding. For instance, in the WSJ's model after year five, Fannie is making $\$ 16.3$ billion for all equity holders, but after senior preferred dividends and commitment fees of $\$ 12.6$ billion, junior preferred and common earnings are only making $\$ 3.7$ billion. We assume earnings growth of $3 \%$ for the first five years and $2 \%$ thereafter, which is still extremely conservative. In 1994 Fannie Mae had net income of $\$ 2.1$ billion versus $\$ 5$ billion in 2004 and $\$ 14.8$ billion today, growth rates of $9 \%$ and $10 \%$.

Second, we believe the commitment fee on the senior preferred stock would not be $0.75 \%$. It is currently set at $0 \%$ and this rate is also a reasonable assumption if the sweep were reversed as the senior preferred stock would not be comparable to a commercial paper backstop, but would rather be more similar to other standard preferred stock investments.

If earnings growth is $3 \%$ for the first five years and $2 \%$ thereafter and the commitment fee is $0 \%$, Fannie Mae will be able to distribute cash to junior preferred and common shareholders in 33 years, assuming that regulatory capital grows at the same rate as earnings. Currently, the weighted-average interest rate on the junior preferred stock is about $6.5 \%$. If we assume the variable interest junior preferred shares are paying $10 \%$ on their principal, the weighted-average interest rate would be about $8.6 \%$. After subtracting senior preferred and junior preferred dividends, common earnings are approximately $\$ 10$ billion in 33 years. Using the same $8.2 \%$ discount rate as the WSJ, we arrive at a value of $\$ 16.2$ billion or $\$ 2.81$ per diluted common share.

Perhaps, the most important assumption is the minimum regulatory capital level. The WSJ argues that $5 \%$ is a conservative estimate. We, conversely, would argue this is an aggressive estimate. $5 \%$ may seem conservative when comparing it to other financial institutions. However, a privatized Fannie Mae would be unlike other financial institutions. Remember, this would be an insurer, not a bank and it would have limited borrowings, other than for warehousing mortgages. Thus, it would not have interest rate risk or liquidity risk normally associated with banks and insurers. Also, Fannie insures the top $75 \%-80 \%$ of mortgage principal on a loan. Thus, home values have to decline by over $20 \%-25 \%$ with zero recoveries before Fannie experiences a loss. Thus, a $2.5 \%$ minimum capital requirement should be adequately capitalized. ${ }^{1}$

If minimum capital requirements were $2.5 \%$, Fannie would need $\$ 72$ billion in junior preferred and common equity. Thus, Fannie Mae would be $\$ 108$ billion ( $\$ 72$ billion minus negative $\$ 36$ billion) short of meeting its regulatory capital requirements. It would take Fannie 20 years to

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build this under earnings growth of $3 \%$ for the first five years and $2 \%$ thereafter and a $0 \%$ commitment fee. In this scenario, the cash flows available to common shareholders are approximately $\$ 7$ billion in 21 years and using an $8.2 \%$ discount are worth $\$ 33.1$ billion or $\$ 5.75$ per diluted share.

The models presented so far have all assumed that Fannie Mae is unable to redeem or refinance the senior preferred shares. This seems unrealistic. If the net worth sweep were reversed and Fannie was being run as a private institution, it would be in the Government's best interest to allow the Company to become well-capitalized as soon as possible. The quickest route for this to occur is through redemptions or refinancing of the senior preferred shares. The senior preferred stock certificates require a mandatory pro-rata redemption if new capital stock is issued. ${ }^{2}$ So, there appears to be a mechanism to allow for refinancing of the senior preferred shares. Moreover, if the Government's goal is to have a well-capitalized housing system, it seems likely that it would make mutually beneficial changes to the preferred stock purchase agreement once the sweep is reversed.

If the senior preferred stock agreement is amended such that Fannie is allowed to repay the principal once it has adequate regulatory capital, the cash flows available to common shareholders are about $\$ 22$ billion in 29 years and are worth $\$ 40.9$ billion or $\$ 7.11$ using an $8.2 \%$ discount rate, earnings growth rates of $3 \%$ for the first five years and $2 \%$ thereafter, a $0 \%$ rate for the commitment fee and $2.5 \%$ as the minimum regulatory capital requirement.

It is also likely that Fannie's regulatory capital will be increased through further allowance for loan loss reversals and gains in the fixed income arbitrage portfolio. Also, increasing guarantee fees is yet another method to reduce the time needed to reach minimum regulatory capital requirements. While we admit the Fannie Mae situation is subject to higher levels of uncertainty than many investment situations, it is very unlikely that Fannie Mae common shares would be worthless if the third amendment were reversed. Under what we believe are reasonable assumptions for commitment fee charges, regulatory capital levels, preferred redemption scenarios and under very conservative growth rates, FNMA shares we estimate are worth \$7.11 at an absolute minimum and at current prices offer possible gains of more than $250 \%$ or more.

A copy of our reproduction of the WSJ's valuation and the Fairlight valuation models used here are available upon request.

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[^0]:    ${ }^{1}$ For a more in depth minimum capital level discussion see Pershing Square Capital Management, L.P.'s 2014 Ira Sohn Conference presentation.

[^1]:    ${ }^{2}$ http://www.fhfa.gov/Conservatorship/Documents/Senior-Preferred-Stock-Agree/2008-97_SPSPA_FannieMae_Certificate_N508.pdf

