

# Wells Fargo (WFC) Dividend Analysis



Daniel Gutierrez Velez

Target Price 56.71 (-1.83%)  
Last Price 57.77

## Implied Dividend Analysis

The Wells Fargo & Company (WFC) dividend is estimated through a Box Spread methodology combined with the call-put parity equivalence. Then the estimated dividends are used to construct a bootstrapped curve for the following 12 months. The result shows an increase in the dividends paid by the bank in the following 12 months for a yield up to 14.3% in march of 2025. Table 1 contains the main figures obtained in this analysis along with the main inputs used for the box spread.

## Company Overview

Wells Fargo & Company (WFC) is a multinational financial services company with a long history dating back to 1852. It is one of the largest banks in the United States and offers a wide range of financial services. They main business activities are Consumer banking and lending, Commercial banking, and Wealth and Investment management. The bank focuses their operation on the US (91% of the loans)<sup>1</sup>. The remaining business is spread throughout 35 countries across the world. Among the C-Suite executives stand out Charles W. Sharf as CEO, Michael P. Santomassino as CFO and Derek. A Flowers as CRO.

## Financial Results

For the year 2023 Wells Fargo & Co reported net revenue for 52.3 USD bn, an increase of 16.5% vs 2022. The net income was 19.1 USD bn, showing an increase of 40%, and a net margin of 23.1%. As for the profitability for the stockholders, the EPS was 4.83 USD, while the ROE was 11%, showing a strong increase vs 2022. Overall, Wells Fargo's financial performance in 2023 showed strong growth in net income, total revenue, and earnings per share, alongside improvements in efficiency as indicated by the decrease in noninterest expenses. The provisions for credit losses increased markedly, which could suggest a more cautious approach to potential credit risks. Returns on equity and tangible common equity both saw increases, reflecting overall profitability and the effectiveness of capital utilization.

Table 1

Maturity	1M	3M	6M	12M
K1(-)	57.5	57.5	57.5	57.5
K2(+)	65	62.5	65	62.5
Implied dividend	1.04	1.21	3.57	8.26
Dividend yield	1.8%	2.1%	6.2%	14.3%

WFC vs Market YTD

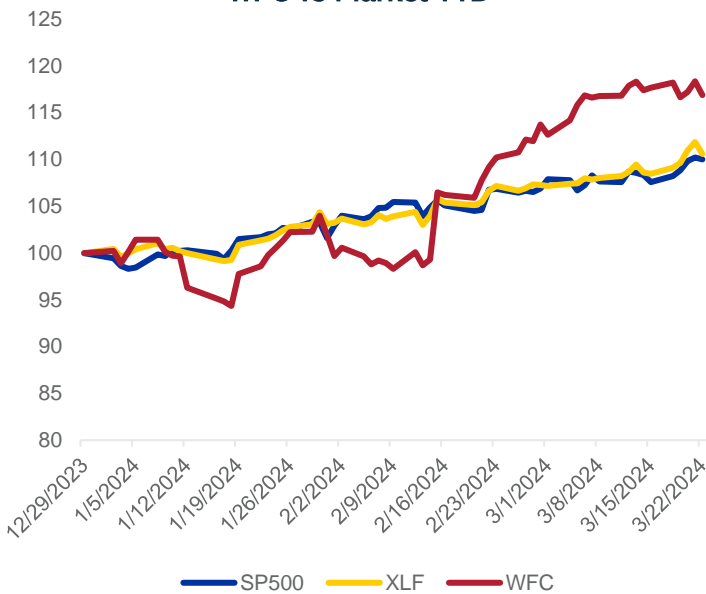


Table 2

USD mm	2022A	2023A	Var
Net Interest Income	44,950	52,375	16.5%
Noninterest income	29,418	30,222	2.7%
<b>Total revenue</b>	<b>74,368</b>	<b>82,597</b>	<b>11.1%</b>
Provisions	1,534	5,399	252.0%
Noninterest expense	57,205	55,562	-2.9%
Pre-tax income	15,629	21,636	38.4%
Taxes	2,251	2,607	15.8%
<b>Net Income</b>	<b>13,677</b>	<b>19,142</b>	<b>40.0%</b>
EPS	3.27	4.83	47.7%
ROE	7.8%	11.0%	3.2%*
ROTCE	9.30%	13.10%	3.8%*

1. <https://www08.wellsfargomedia.com/assets/pdf/about/investor-relations/annual-reports/2023-annual-report.pdf>  
\* Difference between 2023 and 2022

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WELLS  
FARGO

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## Market Analysis

The book value per share as of 2023 is \$46.21 which sets the stock's price-to-book (P/B) ratio to 1.25x. Currently, shares of **WFC** are trading at a trailing twelve months Price-to-Earnings (TTM PE) ratio of 11.96x. This compares to an industry average of 18.72x, as indicated by the Financial Select Sector SPDR Fund (XLF ETF), and a broader market average of 26.18x, represented by the S&P 500 ETF (SPY ETF). **WFC's** PE ratio suggests that the stock is trading at a discount with respect with the industry, noting that the target price is below the current price, and some analysis indicate a high market valuation at 26.18x.

## Analyst Recommendations

Analysts featured on Yahoo Finance have set an average target price for **WFC** stock at \$56.71, which represents a decrease of 1.83% to the current price. The current price is in line with the analyst's valuation indicating no value to be unlocked by the company itself in the short term. The consensus among these analysts is to maintain a 'hold' position on the stock.

## Box Spread

A Box-Spread analysis was implemented for assessing the implicit discount factor of the market for 4 maturities: 1, 3, 6 and 12 months, respectively. We see in the **table 3** that for the box spread the ATM strike K1 was chosen at 57.5 USD, while the higher strike K2 was chosen as 65 for two maturities and 62.5 for the other two. This discrepancy in K2 is to address the lack of liquidity in the put options at some strikes. The Box Spread lets us price the discount factor implicit in the market. The cost of the spread is presented in the following formula:

$$PV = \frac{K2 - K1}{D(0,T)}$$

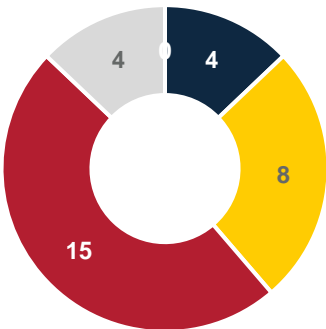
Where PV is the total cost of the spread, K1 is the ATM strike and K2 is a higher strike than K1 that is liquid enough for the strategy to be implemented. PV can be calculated by simply computing the cost of building the box spread. The box is built by selling a call at K1 while buying a call at K2. A further step is to sell a put at K2 and buy a put at K1. PV is therefore expressed as:

$$PV = CK1 - CK2 + PK2 - PK1$$

If we replace PV in the first formula and solve for the discount factor we get:

$$D(0,T) = \frac{K2 - K1}{CK1 - CK2 + PK2 - PK1}$$

## Analyst Recommendations



■ Strong Buy ■ Buy ■ Hold ■ Underperform ■ Sell

Table 3

Maturity	1M	3M	6M	12M
Expiry	4/19/24	6/21/24	9/20/24	3/21/25
Months	1	3	6	12
K1(-)	57.5	57.5	57.5	57.5
K2(+)	65	62.5	65	62.5

Call Last Price	1M	3M	6M	12M
K1(-)	1.66	2.6	3.7	5.6
K2(+)	7.38	5.8	9.05	8.8

Put Last Price	1M	3M	6M	12M
K1(-)	1.66	2.6	3.7	5.6
K2(+)	7.38	5.8	9.05	8.8

Dividends	1M	3M	6M	12M
Box Spread Discount	0.979	0.975	0.933	0.856
Implied interest rate	24.9%	10.0%	13.7%	15.4%

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## Box Spread cont.

For example, for the 1M option the  $D(0,T)$  is 0.97 if we compute the values on **Table 3.** of  $CK1$ ,  $CK2$ ,  $PK1$ ,  $PK2$ ,  $K1$  and  $K2$ .

Assuming compounding interest rate, we can say that  $D(0,T) = e^{-rT}$  which, solving for  $r$  would be:

$$r = \frac{\ln(D(0,T))}{-T} = \frac{\ln(0.979)}{-1/12} = 24.9\%$$

$T$  is  $1/12$  because we are looking for an option of 1 month maturity, and the interest rate we are looking for is in annual terms.

By solving for the maturities of 3, 6 and 12 months we get the implied interest rates presented in the end of **table 3.**

## Call Put Parity

Having found the interest rate for each analyzed period, we now proceed to estimate the implied dividend in the options by leveraging the call-put parity.

The call-put parity for a dividend paying stock can be expressed by the following formula:

$$c + De^{-rT} + Ke^{-rT} = p + S$$

Where  $c$  is the call price at the strike  $K$ ,  $D$  is the dividend,  $r$  is the interest rate,  $K$  is the strike (57.5, which is ATM for our analysis),  $p$  is the put price at the strike  $K$ , and  $S$  is the underlying price of the asset (last price of WFC) for our formula. We solve for  $D$  and get the following expression:

$$D = \frac{p + S - c - (Ke^{-rT})}{e^{-rT}}$$

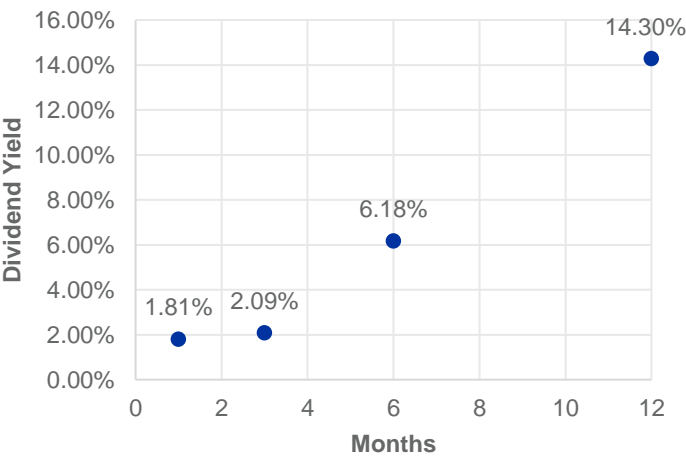
This formula assumes that the dividend and the expiry of the option are the same, so  $T$  is the same for both. We solve the equation for the 4 periodicities and get the results displayed on **table 4.** The plot of yield against time also shows how the dividends are expected to be paid.

We see that the expected dividend yield for the month 6 onwards is higher than the recent history, only comparable with the pre covid era, which might be due to the anticipation of the cut in rates by the FED in the next months which might benefit the business of **WFC.**

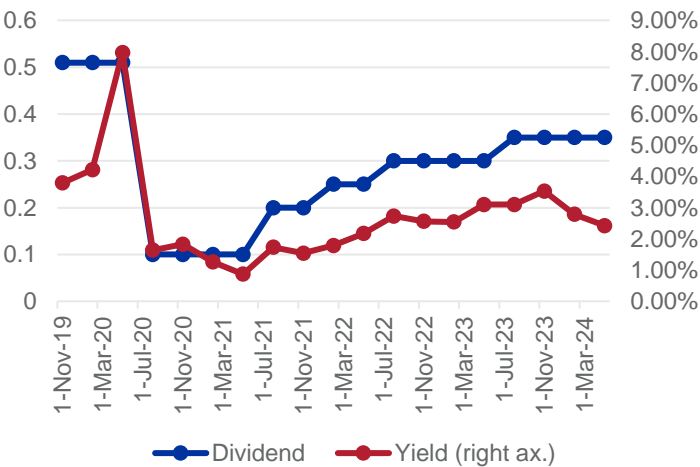
Table 4

Call Put Parity	1M	3M	6M	12M
Call ATM price $c$	2.11	3.15	4.5	7.07
Put ATM price $p$	1.66	2.60	3.70	5.60
Interest rate $r$	24.9%	10.0%	13.7%	15.4%
Underlying price $S$	57.77	57.77	57.77	57.77
Time to maturity $T$	0.08	0.26	0.51	1.01
Implied dividend $D$	1.04	1.21	3.57	8.26
Dividend yield $d$	1.8%	2.1%	6.2%	14.3%

Implied Dividend



Historic Dividend and Yield



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## Bootstrapping

After finding the implied dividends for 1, 3, 6 and 12 months the next step is to estimate the remaining months within the year to figure out what the dividend yield for each month of the next 12 months will be.

The first plot on the right shows that the yield is around 2% for the first 3 months, then jumps to 6.18% in the 6<sup>th</sup> month, apparently giving a more than one payout from this month onwards. At month 12 the same thing happens. (The intercept is 0%)

The first step in the Bootstrapping methodology was to estimate the dividend yields using the forward curve methodology for the months 4 and 9 (The red points on the first plot). The formula used for this step was the following:

$$D_F = \frac{D_2 T_2 - D_1 T_1}{T_2 - T_1}$$

Here  $D_F$  is the forward dividend yield to be estimated,  $D_2$  is the dividend yield at the longer maturity,  $T_2$  is the longer maturity measured in years,  $D_1$  is the dividend yield at the shorter maturity, and  $T_1$  is the shorter maturity also measured in years.

This methodology leaves us with 7 data entries for the 12-month curve. For the 5 remaining points we fit a quadratic spline to estimate the dividend yield as a function of time in years. The coefficients of the regression are shown in the plot "Dividends + Forward Bootstrap".

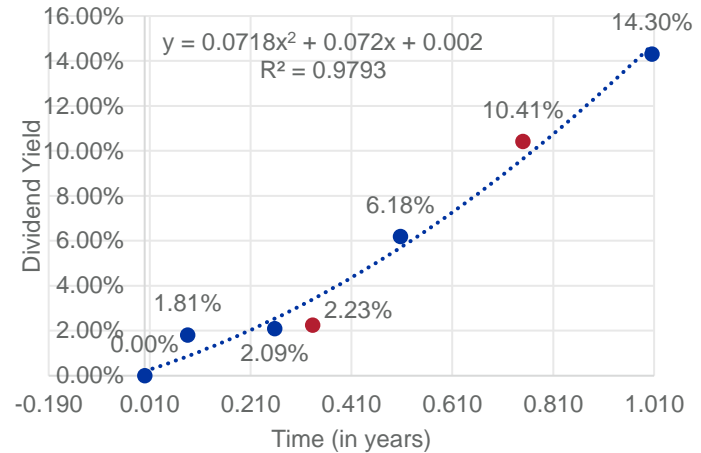
The results are shown in the last plot which displays a dividend yield that seems to increase at a constant rate each month, indicating a periodic monthly dividend payout, which does not agree with the history of the company of delivering quarterly dividends.

Both of this methodologies assume that the dividend payout are a function of time, the forward curve assuming a linear function and the spline a quadratic, which might not be necessarily the case since the dividend payout policy can be tied to the EPS for each quarterly financial results for the rest of the year.

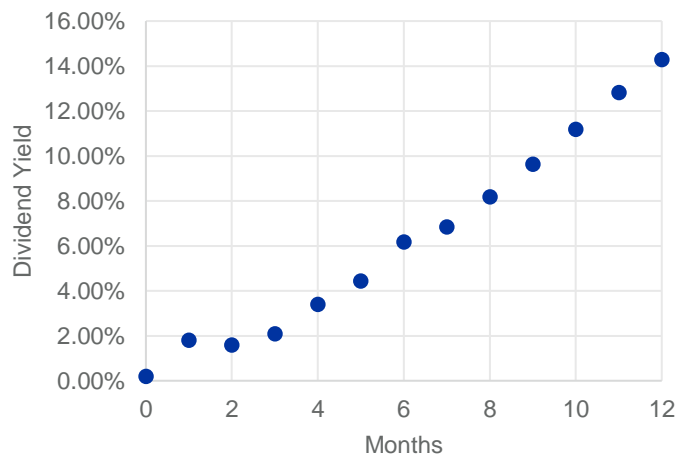
## Conclusion

This methodology gives an expected dividend policy which apparently increases the dividend very strongly in the next twelve months, indicating a probable expected boost in the EPS of the bank. This can be explained by external factors such as an imminent FED fund rates cut, along with healthy employment figures from the US and a resilient economy. These factors might boost profitability of the banking industry and enable **WFC** to pay higher dividends in the next 6 months onwards.

### Dividends + Forward Bootstrap



### Bootstrapped Dividend



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