

Dividend Yields -Whether to Gross them Up?

I am often asked whether it is best to compare companies' dividend yields to each other and to the market average dividend yields on a grossed up level. The simple answer is yes, that is the only valid comparison. For me that answer is intuitive because I have taught investing and used the concepts for many years (I once taught it to some Commonwealth bank programmers, who had got it all wrong in the late 1980s). However, explaining that intuitive answer to my students takes some time as will be seen below.

Firstly, I assume readers have read my article on Dividend Imputation (Franking Credits) which was in Newsletter 131 and is now on the Educational Articles page on the Free Resources menu of the website. This explains how franking credits are the same value to almost all taxpayers and even those who do not pay tax. If you have not read it, please stop and read it now before going on.

The central idea behind dividend imputation is that investors are only taxed once (at their marginal tax rate, if any) on profits that are distributed as dividends. This means that both the dividend amount and the franking credit amount (the tax already paid by the company on the profits that generated the dividend) are included in our tax return as pre-tax income (if we pay no tax, then franking credits are refunded to the "taxpayer" by the ATO). Since the most common way to express investment returns is pre-tax, and franking credits are part of our pre-tax returns, this is appropriate for comparison to other asset classes e.g. bonds.

It is also very convenient, because all dividends, whether franked or not, are brought to pre-tax income level where a direct comparison can be made. In investment jargon, dividends are "grossed up" by adding to the dividend amount the tax paid by the company on the profits from which the dividend was paid – i.e. the franking credit or imputed credit (both names mean the same thing).

This overcomes a common error in thinking that many investors make when they think that all fully franked dividends are better than partly franked and unfranked dividends, whereas you cannot make that statement without comparing them on a grossed up basis.

To explain why the only valid comparison is to gross up the dividends, I have created this little spreadsheet:

	A	B	C	D	E
1		Unfranked	Partially Franked	Fully Franked	
2	Using dividends in dollars				
3	Amount of dividend \$	100.00	82.35	70.00	
4	Franking %	0%	50%	100%	
5					
6	Tax already paid by company	0.00	\$17.65	\$30.00	
7	Which = franking credit				
8					
9	Grossed up dividend				
10	i.e. Pre-tax income (div + FC)	100.00	100.00	100.00	
11					
12	Tax on SMSF in pension mode	0.00	0.00	0.00	
13	Franking credits refunded	0.00	17.65	30.00	
14	After tax income	100.00	100.00	100.00	
15					
16	Tax on SMSF in accum. mode	15.00	15.00	15.00	
17	plus Imputed credit used	0.00	15.00	15.00	
18	plus Franking credit refunded	0.00	2.65	15.00	
19	After tax income	85.00	85.00	85.00	
20					
21	Tax on investor at max rate *	45.00	45.00	45.00	
22	plus Imputed credit	0.00	17.65	30.00	
23	After tax income	55.00	55.00	55.00	
24	* marginal rate of 45% (ignores medicare levy etc).				
25	Use of marginal rate assumes non investment income over the tax free threshold.				
26					
27	Using Dividend Yields (more accessible than calculating the dollar amounts in practice)				
28	Calculate implied yields above				
29	Amount invested \$	2,000	2,000	2,000	
30	Dividend amount \$	100.00	82.35	70.00	
31	Dividend Yield %	5.00	4.12	3.50	
32	Franked	0	0.5	1	
33					
34	Grossed up dividend yield	5.00	5.00	5.00	
35					
36	As above, if after tax yields are calculated, they will all be identical.				

On lines 3 and 4, I have created three scenarios – an unfranked dividend of \$100, a 50% franked dividend of \$82.35 and a fully franked dividend of \$70. Taking this statement on its own, it is very difficult to know which dividend is the best. In order to make a valid comparison, we have to gross them all up by calculating the tax the company has paid on those dividends, which is in fact the franking or imputed credit (if any) attaching to the dividends and adding it to the dividend.

I calculated the franking credits (if any) attaching to the three dividends on line 6.

Then on line 10, I added the franking credit (if any) to the dividend to get the investor's pre-tax income i.e. I have grossed up the dividend. At this point you will see that I chose three dividends and corresponding franking levels that, while difficult to compare on lines 3 and 4, turn out to be the same pre-tax income.

Now, I have taken three tax rates and calculated the after tax income – Zero tax on lines 12-14, 15% tax on lines 16 to 19 and 45% tax on lines 21 to 23. As can be seen, each of the three dividends are the same as each other after tax - as they were before tax. This is to demonstrate that to make a comparison of dividends to see which is best, it is not necessary to calculate them after tax – grossing them up to pre-tax level is all that is needed to make a valid comparison and to know which is best.

The above calculations were made using the dividend amounts, because it brings out the principle behind franking. However, that is a complicated way to do it when what we usually have is the dividend yield and the franking level. I have demonstrated that situation on lines 29 to 34. Taking a notional \$2,000 investment, I worked back from the dividend amounts used on line 3 to derive the dividend yields on line 31. Then on line 34 I have grossed them up. Again, they are all the same at that level.

I have also noted on line 36 that it is never necessary to go to an after tax comparison, because as demonstrated earlier, the answer will be the same in terms of which (if any) is the best dividend yield.

So, it is best to gross up all dividends or dividend yields for comparison.

This also applies to the market average dividend yield. I am a Stock Doctor user and they provide a grossed up market average dividend yield. Where Stock Doctor is not available, it is easy to gross up the market average yield. The market average is a composite of franked, variously partly franked and unfranked dividends. As best I have been able to establish, with help from an ASX expert, it seems the market average works out at being approximately 80% franked. So, the calculation to gross up a market average dividend yield of 4.59% is $4.59 + (4.59 \div 70 \times 30 \times 0.8) = 6.16\%$

By grossing up all dividend yields in our analysis, we are bringing them all to a pre-tax return level and are making decisions comparing like with like.

To read more of my work

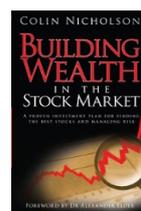
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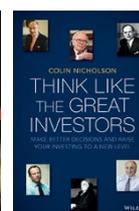
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I am one of the very few investors who publishes their investment results each year, which I have done since 2000 – see the Investment Returns page on the About Colin menu on the website