<p><b>Future value (FV)</b> of money is a simple concept that money received today is not equivalent to money received in the future. This is because money received today can be put into an investment vehicle and earn a return over the period of time it is invested. Hence, receiving $1 today is more valuable than receiving the same $1 amount in the future. Similarly, spending $1 today is like spending more than $1 in future time. This is a crucial concept to understand in order to build your net worth.</p>

<h1>How Is Future Value of Money Calculated?</h1>

<p>When we calculate future value we use the average return of the stock market as the assumed return on investment (ROI). The stock market return hovers at around 10%. We will use 8% in our calculations for a more conservative estimate. We also assume all returns will be reinvested so we use compound interest.</p>

<h1>Formula</h1>

<p>The formula to calculate the future value at the end of period N using compound interest is as follows, where FV is the future value, PV (present value) is the initial investment amount, R is the interest rate and T is the number of years the investment will be held:</p>

<h2>FV = PV \* [(1 + R)<sup>T</sup>]</h2>

<h1>Think of Money in Terms of Its Future Value</h1>

<p>Every time you spend money you should be looking at it as though you are spending its future value. Let’s say you are buying a new cell phone and its price tag is $1,200. Most people will evaluate this purchase based on if they are willing to give up $1,200 from their bank account today. What most people fail to consider is if they are willing to give up the future value of $1,200 in, let’s say, 20 years. We can calculate this using the formula above. </br><b>FV = 1200 [ (1+0.08)<sup>20</sup> ] = $5,593</b>. </br>You can either buy the new cell phone today and have a new phone for the next year or two, or you can save that money and have an extra $5,593 in your bank account 20 years from now. And this is only one purchase, what does the future value of all your combined spending look like?</p>

<h1>Examples</h1>

<p>Here are a few examples of future value calculations:</p>

<ul>

<li>The future value of <b>$10 in 10 years</b> = 10 [ (1+0.08)<sup>10</sup> ] = <b>$21.59</b></li>

<li>The future value of <b>$10 in 20 years</b> = 10 [ (1+0.08)<sup>20</sup> ] = <b>$46.61</b></li>

<li>The future value of <b>$100 in 10 years</b> = 100 [ (1+0.08)<sup>10</sup> ] = <b>$216</b></li>

<li>The future value of <b>$100 in 20 years</b> = 100 [ (1+0.08)<sup>20</sup> ] = <b>$466</b></li>

<li>The future value of <b>$1,000 in 10 years</b> = 1000 [ (1+0.08)<sup>10</sup> ] = <b>$2,159</b></li>

<li>The future value of <b>$1,000 in 20 years</b> = 1000 [ (1+0.08)<sup>20</sup> ] = <b>$4,661</b></li>

<li>The future value of <b>$10,000 in 10 years</b> = 1000 [ (1+0.08)<sup>10</sup> ] = <b>$21,589</b></li>

<li>The future value of <b>$10,000 in 20 years</b> = 1000 [ (1+0.08)<sup>20</sup> ] = <b>$46,610</b></li>

<li>The future value of <b>$10,000 in 30 years</b> = 1000 [ (1+0.08)<sup>30</sup> ] = <b>$100,627</b></li>

<li>The future value of <b>$10,000 in 40 years</b> = 1000 [ (1+0.08)<sup>40</sup> ] = <b>$217,245</b></li>

</ul>

<h2>The value of your money essentially doubles every 10 years</h2>

<p>Every time you spend money, you should be considering what you are giving up in terms of future value, not just present value.</p>