

HOW TO CALCULATE INTRINSIC VALUE

The 10 Step Complete Guide With 5 Stock Examples

APPLE [LINK TO RESEARCH](#)

COMPARATIVE TABLE 'A1' **1**

Scenario	Cashflow per share	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value	Growth rate
Scenario 1 normal case	6.00	6.48	7.00	7.56	8.16	8.82	9.52	10.28	11.11	11.99	12.95	239.88	8% next 5 years
PV(10%)												92.48	8% to 10 years
INTRINSIC VALUE													10% discount rate
													20.0 terminal multiple

2 **3** **4** **5** **6** **7**

8 Scenario 2 best case in EUR

Scenario	Cashflow per share	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2030	Growth rate
Scenario 2 best case in EUR	6.00	6.72	7.53	8.43	9.44	10.57	11.42	12.33	13.32	14.39	15.54	431.58	12% next 5 years
PV(10%)												183.03	8% 5 to 10 years
Present value sum													10% Discount rate
													30.0 Terminal multiple

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Scenario 3 worst case in EUR

Scenario	Cashflow per share	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2030	Growth rate
Scenario 3 worst case in EUR	6.00	6.30	6.62	6.95	7.29	7.66	8.04	8.44	8.86	9.31	9.77	139.62	5% next 5 years
PV(10%)												53.83	5% 5 to 10 years
Present value sum													10% Discount rate
													15.0 Terminal multiple

MARGIN OF SAFETY

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	92.48	55.49
Scenario 2 (best case)	0.2	183.03	36.61
Scenario 3 (worst case)	0.2	53.83	10.77
Sum			102.86

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How To Calculate Intrinsic Value – The 10 Step Complete Guide With 5 Stock Examples

Value investing is simple; you just have to buy a stock when it is trading below its intrinsic value.

Hm, but what is intrinsic value? How to calculate intrinsic value? How to compare our intrinsic value with the stock price?

Well, here is all you need to know about intrinsic value explained in 10 detailed steps while using a 5 stock valuation examples (Alibaba, Apple, Berkshire, S&P 500 and Verizon).

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What Is Intrinsic Value

First, let's start by defining what intrinsic value is.

Warren Buffett defines intrinsic value as, and I quote:

“Intrinsic value is the number, that if you are all knowing about the future, and can predict all the cash that a business can give you between now and judgement day, discount it at a proper discount rate, that number is what the intrinsic value of a business is”.

Here is the video from a 2000 presentation made by [Warren Buffett Defining Intrinsic Value](#) with more details related to the above quote!

The key factors related to the process of calculating intrinsic value discussed by Warren Buffett in the video and core to understanding how to calculate intrinsic value, are the following:

- The only reason to make an investment is laying out money now to get **MORE** money later. **INVESTMENT RETURN**
- “This is what I think it is going to pay out in the future” – the job of an analyst, thus our job when calculating intrinsic value is to estimate what the business will pay us in the future. Questions related: **“HOW MUCH ARE YOU GOING TO GET, WHEN ARE YOU GOING TO GET IT and HOW SURE ARE YOU?”**
- “Whether we are buying the whole of a business or just a piece of it, I always think we are buying the whole of the business” – **OWNERSHIP MENTALITY**, the only real investing mentality.
- “If you can't answer the above questions, you can't buy the stock, you can only gamble in it” **INVEST IN BUSINESSES, DON'T SPECULATE ON STOCKS**

Now that we have had a great introduction on what intrinsic value is from Warren, let's further discuss the details and structure those in 10 easy steps so that you can calculate the intrinsic value of whatever investment opportunity that lies ahead of you.

My [free downloadable intrinsic value template](#) will come in handy. I have published the below table in a 2020 video that received more than 117 thousand views but I also received a lot of feedback, and thanks to your feedback I here make an even better presentation on how to calculate intrinsic value that explains all the important details and is comprehensive.

The figure below shows the 10 steps we are going to cover by explaining the key factors related to correctly assessing the value of each factor.

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COMPARATIVE TABLE

Scenario	Cashflow per share	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value	Growth rate	
Scenario 1 normal case	6.00	6.48	7.00	7.56	8.16	8.82	9.52	10.28	11.11	11.99	12.95	239.88	8%	
	PV(10%)											92.48	8%	
	INTRINSIC VALUE												92.48	10%

Scenario 2 best case in EUR

Scenario	Cashflow per share	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2030	Growth rate	
Scenario 2 best case in EUR	6.00	6.72	7.53	8.43	9.44	10.57	11.42	12.33	13.32	14.39	15.54	431.58	12%	
	PV(10%)											183.03	8%	
	Present value sum												183.03	10%

Scenario 3 worst case in EUR

Scenario	Cashflow per share	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2030	Growth rate	
Scenario 3 worst case in EUR	6.00	6.30	6.62	6.95	7.29	7.66	8.04	8.44	8.86	9.31	9.77	139.62	5%	
	PV(10%)											53.83	5%	
	Present value sum												53.83	10%

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	92.48	55.49
Scenario 2 (best case)	0.2	183.03	36.61
Scenario 3 (worst case)	0.2	53.83	10.77
Sum			102.86

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Sven Carlin Intrinsic Value Template – [Free Download](#)

Just a reminder before we start; investing, and thus calculating intrinsic values implies estimating what will happen in the future, which is, a priori, an impossible feat. Therefore, the aim of an intrinsic value calculation is not to precisely know what the stock price will be 10 years down the road, but to merely estimate the current value of an investment based on current information and likely long-term developments.

The main goal of such an approach to intrinsic value calculation is to compare current investment opportunities that should offer the lowest possible risk for the highest possible reward.

Consequently, when you know the intrinsic value to you, because that is the only thing that matters – **the value a business will deliver to you** (investing is personal, whoever tells you differently lies) – you can see which are the best vehicles that will bring you towards your financial goals.

How to calculate the intrinsic value of a stock in 10 steps

The 10 steps should cover the key factors when it comes to estimating the intrinsic value of a business.

1. What metric to use – dividend, earnings, free cash flows...
2. What is the difference between using per share metrics or the market capitalization for the whole company.
3. Present value calculation – What to account for.
4. What discount rate to use.
5. How to estimate the growth rate of the business.
6. How to estimate the terminal multiple.
7. What is the terminal value and why use it.
8. Why do we use scenarios.
9. The importance of the worst case/margin of safety scenario.
10. How to get to one number and then how to compare it to the stock price to see if the stock is under or over valued.

I will explain the above with 5 stock valuation examples with businesses that differ significantly one from the other:

- Alibaba is a business growing fast based on the 'scale economies shared' model
- Apple is cash machine, still growing, but focused on buybacks and maintaining its position in the market.
- Berkshire is Buffett's financial investing fortress, has no dividends but it is made to last forever.
- S&P 500 – index fund offers both dividend and net income as metrics.
- Verizon is a dividend stock with a lot of debt.

Let's start with the steps.

STEP 1 – What Input Metric To Use?

When it comes to selecting the first input, thus the business metric to use for the intrinsic value calculation, one should first think of what metric best describes the business and especially what metric best describes the value the business is creating for you, the owner.

For example:

- Alibaba is a growth stock focused on building an ecosystem where profits are currently secondary – thus one might think of cash flows, but also about business value in general, i.e. the future value of the ecosystem.
- Apple is a cash flow machine that will make approximately \$100 billion of net cash in 2021.
- Berkshire is Buffett's business focused on increasing value year over year through earnings and also hidden earnings.
- S&P 500 represents the best 500 US businesses and usually grows in line with economic growth over the long-term. Thus, investing returns are in line with net income development, keeping in mind long interest rate cycles and valuations.
- Verizon is easy, if the debt doesn't become a burden, then the dividend is key.

The core of selecting an input is that whatever input you use, the result should be the same. If you use dividends or earnings for Verizon, the intrinsic value should be equal because the terminal multiple will be different i.e. a 5% dividend or a price to earnings ratio of 10, but more about that in step 6 - the terminal multiple.

STEP 2 - Per share vs. total company metrics

To calculate intrinsic value one can use total earnings per share or net income. In case a 'per share' metric is used, then the received intrinsic value is compared to the share price. When net income or another total company metric is the input, the result is compared to the market capitalization.

But, when buying a stock Warren Buffett always prefers to think like he is buying the whole business which is very important from a business owner/investor perspective. Such a mindset prevents you from becoming a speculator in stocks and keeps your focus on the business and the rewards the business delivers, not where the stock might go – which is the key factor when it comes to intrinsic values. Therefore, I prefer using net income, total dividend payout or free cash flows and the compare intrinsic value results to the market capitalization.

However, this leads to issues and complicates things if the analyzed company does a lot of buybacks or raises new capital diluting current shareholders. If that is the case, then maybe it is best to use per share metrics. As always, the key is to first know the business well, only then you can start thinking about estimating its intrinsic value.

Companies not yet profitable

For companies that are not yet profitable, calculating intrinsic value gets a bit complicated. First, if the company never achieves profitability, then the intrinsic value can be zero or even below zero.

Second, to estimate intrinsic value, at some point the company should reach profitability but it is really hard to know when that will happen. Unprofitable companies need to constantly raise capital that dilutes current shareholders and the capital raised depends on the stock price at the moment of the capital raise, which is again impossible to predict ahead.

Warren Buffett has a simple solution for unprofitable companies; if the company isn't profitable or you can't estimate secure future cash flows to base an intrinsic value estimation on, he is simply not interested. I'll leave it to that here because being not interested makes investing easier, more boring, and likely more profitable for 99.9% of investors out there.

Let's go through the examples.

Intrinsic Value Input Examples for steps 1 and 2

This section will only discuss the selection of the input metric that will have its repercussions through all the 10 steps. We will build on this as we go on step by step. Let's start with step 1 stock by stock.

Alibaba steps 1 & 2 – ecosystem creation – no metric is perfect

If you follow Alibaba, you know it is a 'scale economies shared' business model where the customer comes first, followed by the employees and only in third place are shareholders. Thus, profitability measures are not the best way to represent Alibaba because those are not the focus. But, we have to use something and what the company shows or focuses on, is often good in lack of better metrics. With Alibaba, the focus is on free cash flows.

March Quarter and Fiscal Year 2021 Highlights



	The month ended March 31, 2021			Year ended March 31,		
Mobile MAUs	925 million ⁽¹⁾					
	Twelve months ended March 31, 2021			Year ended March 31,		
Annual Active Consumers	811 million ⁽²⁾					
	Three months ended March 31,			Year ended March 31,		
	2020	2021	YoY%	2020	2021	YoY%
	RMB MM	RMB MM		RMB MM	RMB MM	
Revenue	114,314	187,395	64%	509,711	717,289	41%
Income (Loss) from operations	7,131	(7,663) ⁽³⁾	N/A	91,430	89,678 ⁽³⁾	(2)%
Adjusted EBITDA	25,440	29,898	18%	157,659	196,842	25%
Adjusted EBITDA Margin	22%	16%		31%	27%	
Adjusted EBITA	19,827	22,612	14%	137,136	170,453	24%
Adjusted EBITA Margin	17%	12%		27%	24%	
Non-GAAP Net Income	22,287	26,216	18%	132,479	171,985	30%
Non-GAAP Net Income Margin	19%	14%		26%	24%	
Net Income (Loss)	348	(7,654)⁽³⁾	N/A	140,350	143,284⁽³⁾	2%
Free Cash Flow	(4,214)	(658)	84%	130,914	172,662	32%

Alibaba 2021 net income and free cash flow – Source: [Alibaba investor relations](#)

2021 free cash flows were 172 billion RMB which is equal to \$27 billion and that is what we have available. Given the business model, nobody knows what will Alibaba look like in 5 years from a profitability metric and how much money it will make, nor what it will do with the money, but we can use the current FCF and given the secondary focus on profitability, also get a margin of safety from using a secondary metric. If at some point Alibaba increases its profitability,

good, if not, then what we have now should do it from a profit margin perspective and be a good basis for valuing the stock.

As Alibaba does some buybacks that are usually in line with employee stock compensation, I will use the total free cash flows as the input metric given that dilution or buybacks should not be of a significant impact. Also, when it comes to ecosystem businesses, perhaps it is best to think about what could the whole business be worth in 10 years, as an ecosystem. In such cases I prefer non per share metrics.

[ALIBABA](#) [VIDEO ANALYSIS](#) [RESEARCH](#)

COMPARATIVE TABLE 1A1

		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value	Growth rate	
Scenario 1 normal case	Cash Flow in Billions	32.40	38.88	46.66	55.99	67.18	77.26	88.85	102.18	117.51	135.13	2350.13	20%	next 5 years
	PV(15%)	27.00										580.92	15%	5 to 10 years
	INTRINSIC VALUE	580.92											15%	Discount rate
													20.0	Terminal multiple

		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value	Growth rate	
Scenario 2 best case	Cash Flow in Billions	33.75	42.19	52.73	65.92	82.40	94.76	108.97	125.32	144.11	165.73	4323.41	25%	next 5 years
	PV(15%)	27.00										1068.68	15%	5 to 10 years
	Present value sum	1068.68											15%	Discount rate
													30.0	Terminal multiple

		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value	Growth rate	
Scenario 3 worst case	Cash Flow in Billions	31.05	35.71	41.06	47.22	54.31	58.65	63.34	68.41	73.88	79.79	1108.25	15%	next 5 years
	PV(15%)	27.00										273.94	8%	5 to 10 years
	Present value sum	273.94											15%	Discount rate
													15.0	Terminal multiple

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	580.92	348.55
Scenario 2 (best case)	0.2	1068.68	213.74
Scenario 3 (worst case)	0.2	273.94	54.79
Sum		617.07	

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Alibaba stock valuation step 1

Using total free cash flows also means that we must compare our intrinsic value to the market capitalization. I have a feeling Alibaba's Chinese business could be worth at least one trillion USD down the road and the global business another trillion. Thus, a total of \$2 trillion in value from a conservative perspective, therefore I prefer a total company metric compared to a per share metric. The case is different for Apple.

Apple steps 1 & 2 – Free Cash Flow per share due to buybacks

I am writing this the weekend before Apple releases its Q4 2021 fiscal earnings, so I can only assume the correct number. But, by looking at the cash flows for the first 9 months of fiscal 2021, I see that Apple rewarded shareholders by paying \$10 billion in dividends and making \$66 billion of common stock repurchases.

Cash generated by operating activities	83,838	60,098
Investing activities:		
Purchases of marketable securities	(94,052)	(96,606)
Proceeds from maturities of marketable securities	49,880	54,865
Proceeds from sales of marketable securities	36,745	39,760
Payments for acquisition of property, plant and equipment	(7,862)	(5,525)
Payments made in connection with business acquisitions, net	(13)	(1,473)
Other	(78)	(841)
Cash used in investing activities	(15,380)	(9,820)
Financing activities:		
Proceeds from issuance of common stock	561	430
Payments for taxes related to net share settlement of equity awards	(5,855)	(3,234)
Payments for dividends and dividend equivalents	(10,827)	(10,570)
Repurchases of common stock	(66,223)	(55,171)
Proceeds from issuance of term debt, net	13,923	10,635
Repayments of term debt	(7,500)	(12,629)
Proceeds from commercial paper, net	3,022	31
Proceeds from repurchase agreements	—	5,165
Other	(72)	(120)
Cash used in financing activities	(72,971)	(65,463)
Decrease in cash, cash equivalents and restricted cash	(4,513)	(15,185)
Cash, cash equivalents and restricted cash, ending balances	\$ 35,276	\$ 35,039

Apple's cash flows for the first 9 months of fiscal 2021 – Source: [Apple investor relations](#)

The distributed \$76 billion are in line with the cash generated by operating activities minus the taxes and other costs related to stock compensation. As Apple made more than \$20 billion in cash in the last quarter of 2020, I assume it will make at least \$25 billion in the last quarter of 2021 given the growth trend and therefore I can use of free cash flow as an input metric for Apple.

As Apple does a lot of buybacks, it is better to use the metric on a per share basis because buybacks will lower the number of shares outstanding and therefore increase the growth in per share metrics. The buyback induced growth in per share metrics would not be visible if we would use market capitalization as the focus of Apple's intrinsic value calculation.

Apple Inc.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)
(In millions, except number of shares which are reflected in thousands and per share amounts)

	Three Months Ended		Nine Months Ended	
	June 26, 2021	June 27, 2020	June 26, 2021	June 27, 2020
Earnings per share:				
Basic	\$ 1.31	\$ 0.65	\$ 4.42	\$ 2.56
Diluted	\$ 1.30	\$ 0.65	\$ 4.38	\$ 2.54
Shares used in computing earnings per share:				
Basic	16,629,371	17,250,291	16,772,656	17,450,284
Diluted	16,781,735	17,419,154	16,941,527	17,618,778

Apple’s number of shares outstanding – Source: [Apple investor relations](#)

If I divide the \$100 billion with the 16.6 billion shares outstanding, it get to free cash flows per share of \$6.02. Of that, 13% is used for the dividend and the rest for buybacks. I put the \$6.02 into the first cell of the intrinsic value table.

APPLE [LINK TO RESEARCH](#)

COMPARATIVE TABLE A1

Scenario	Cashflow per share	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value	Growth rate	
Scenario 1 normal case	6.02	6.50	7.02	7.58	8.19	8.85	9.55	10.32	11.14	12.03	13.00	240.68	8%	next 5 years
	PV(10%)											92.79	8%	5 to 10 years
	INTRINSIC VALUE												10%	Discount rate
													20.0	Terminal multiple

Scenario	Cashflow per share	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2030	Terminal Value	Growth rate	
Scenario 2 best case in EUR	6.02	6.74	7.55	8.46	9.47	10.61	11.46	12.37	13.36	14.43	15.59	433.01	12%	next 5 years	
	PV(10%)											183.64	8%	5 to 10 years	
	Present value sum												10%	Discount rate	
													30.0	Terminal multiple	

Scenario	Cashflow per share	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2030	Terminal Value	Growth rate	
Scenario 3 worst case in EUR	6.02	6.32	6.64	6.97	7.32	7.68	8.07	8.47	8.89	9.34	9.81	140.08	5%	next 5 years	
	PV(10%)											54.01	5%	5 to 10 years	
	Present value sum												10%	Discount rate	
													15.0	Terminal multiple	

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	92.79	55.68
Scenario 2 (best case)	0.2	183.64	36.73
Scenario 3 (worst case)	0.2	54.01	10.80
Sum		103.21	

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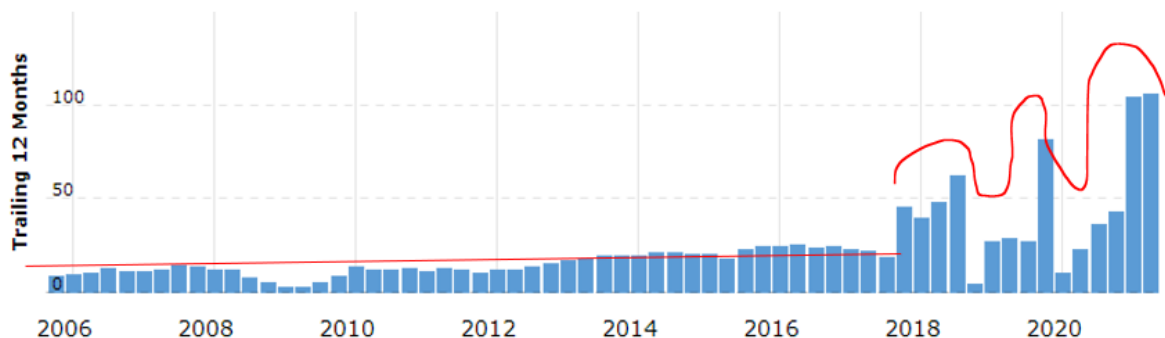
Apple stock valuation step 1

As I have put a per share metric into my intrinsic value template, I will compare the derived intrinsic value with the stock price.

Berkshire steps 1 & 2 – earnings

With Warren Buffett things are relatively easy, but still not that easy. Buffett is focused on the yearly increase in book value which is in his eyes is also the only measure showing the real, measurable change in intrinsic value over time. Therefore, if you use net income with Berkshire, you can't go wrong.

However, there are two catches. The first one is that due to accounting regulations, Berkshire has to report the change in value of its stock portfolio in its bottom line (net income) on a quarterly basis which creates huge volatility in reported net income.



BRK’s net income had been pretty stable before the accounting impact from 2018 – Source: [Macrotrends](#) (annotations by author)

Fortunately for us, Warren Buffett always adjusts reported earnings and tells us how much Berkshire actually made.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Results of Operations

Net earnings attributable to Berkshire Hathaway shareholders for each of the past three years are disaggregated in the table that follows. Amounts are after deducting income taxes and exclude earnings attributable to noncontrolling interests (in millions).

	2020	2019	2018
Insurance – underwriting	\$ 657	\$ 325	\$ 1,566
Insurance – investment income	5,039	5,530	4,554
Railroad	5,161	5,481	5,219
Utilities and energy	3,091	2,840	2,621
Manufacturing, service and retailing	8,300	9,372	9,364
Investment and derivative gains/losses	31,591	57,445	(17,737)
Other*	(11,318)	424	(1,566)
Net earnings attributable to Berkshire Hathaway shareholders	\$ 42,521	\$ 81,417	\$ 4,021

* Includes goodwill and indefinite-lived intangible asset impairment charges of \$11.0 billion in 2020, \$435 million in 2019 and \$3.0 billion in 2018, which includes our share of charges recorded by Kraft Heinz.

BRK annual report – gains and losses not to be counted – Source: [Berkshire Hathaway](#)

The second catch are the hidden earnings. Berkshire owns more than \$300 billion of stocks and as it owns just parts of those businesses, Berkshire reports only the dividends received in its financial statements. But, those business also have retained earnings which would be reflected into BRK’s financial statements if BRK would own 100% of them. Here is a good explanation of [Berkshire’s non reported earnings](#) for those who wish to know more. In short, I am adding \$8

billion of yearly earnings to the above earnings declared by Berkshire, that will likely be around \$28 billion for 2021, thus BRK is earning approximately \$36 billion per year.

As Buffett has started doing some significant buybacks, perhaps is best to value BRK from a per share basis. Berkshire has 623 thousand A shares outstanding and 1.33 billion of B shares. As 1,500 B shares represent 1 A share, we have a total of 1.531 million shares outstanding.

Indicate the number of shares outstanding of each of the Registrant’s classes of common stock:

February 16, 2021—Class A common stock, \$5 par value
 February 16, 2021—Class B common stock, \$0.0033 par value

640,586 shares
 1,336,348,609 shares

Berkshire shares outstanding – Source: [Bekrshire](#)

\$36 billion divided by 1.5 billion gives \$23,514 for a BRK.A share or \$15.67 for a BRK.B share. Let’s take the earnings per share for the BRK.B share.

BRK [LINK TO RESEARCH](#)

COMPARATIVE TABLE #14

Scenario 1	EPS BRK.B	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	Growth rate	
normal case	15.67	16.61	17.61	18.66	19.78	20.97	22.23	23.56	24.98	26.47	28.06	2030 529.48	6%	next 5 years
	PV(10%)											204.14	6%	5 to 10 years
	INTRINSIC VALUE		204.14										10%	Discount rate
													20.0	Terminal multiple

Scenario 2	EPS BRK.B	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	Growth rate	
best case in EUR	15.67	16.92	18.28	19.74	21.32	23.02	24.87	26.86	29.00	31.32	33.83	2030 783.11	8%	next 5 years
	PV(10%)											301.92	8%	5 to 10 years
	Present value sum		301.92										10%	Discount rate
													25.0	Terminal multiple

Scenario 3	EPS BRK.B	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	Growth rate	
worst case in EUR	15.67	16.45	17.28	18.14	19.05	20.00	21.00	22.05	23.15	24.31	25.52	2030 364.64	5%	next 5 years
	PV(10%)											140.58	5%	5 to 10 years
	Present value sum		140.58										10%	Discount rate
													15.0	Terminal multiple

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	204.14	122.48
Scenario 2 (best case)	0.2	301.92	60.38
Scenario 3 (worst case)	0.2	140.58	28.12
		Sum	210.98

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Berkshire step 1 &2 – EPS

S&P 500 steps 1 & 2

If you Google ‘S&P 500 EPS’ or ‘S&P 500 Dividend in points’ you get a number of [160.29 for EPS](#) and a [dividend](#) of 59.4 points for the trailing twelve months. As it is equal what we use for the S&P 500 (discussed later), I will use dividends.

S&P 500 <https://svencarlin.com/index-fund-investing-explained/>
 EARNINGS 140 - half paid out as dividends

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	Growth rate		
Scenario 1 normal case	DIVIDENDS	59.40	62.37	65.49	68.76	72.20	75.81	79.60	83.58	87.76	92.15	96.76	4607.44	5%	next 5 years
in points	PV(5%)	59.40	59.40	59.40	59.40	59.40	59.40	59.40	59.40	59.40	59.40	2828.57	5%	5 to 10 years	
	INTRINSIC VALUE		3422.57											5%	Discount rate
															50.0

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	Growth rate		
Scenario 2 best case	DIVIDENDS	59.40	62.37	65.49	68.76	72.20	75.81	79.60	83.58	87.76	92.15	96.76	3685.96	5%	next 5 years
in points	PV(5%)	59.40	59.40	59.40	59.40	59.40	59.40	59.40	59.40	59.40	59.40	2262.86	5%	5 to 10 years	
	Present value sum		2856.86											5%	Discount rate
															40.0

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	Growth rate		
Scenario 3 worst case	DIVIDENDS	59.40	61.78	64.25	66.82	69.49	72.27	75.16	78.17	81.29	84.54	87.93	1690.89	4%	next 5 years
in points	PV(5%)	58.83	58.27	57.72	57.17	56.62	56.09	55.55	55.02	54.50	53.98	1038.06	4%	5 to 10 years	
	Present value sum		1601.82											5%	Discount rate
															20.0

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	3422.57	2053.54
Scenario 2 (best case)	0.2	2856.86	571.37
Scenario 3 (worst case)	0.2	1601.82	320.36
Sum		2945.28	

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S&P 500 valuation step 1 & 2 – dividends

Verizon steps 1 & 2 – dividend

Verizon is considered a dividend stock which makes things easy, so let's put the dividend and then elaborate on other factors affecting its intrinsic value from there.

Verizon [LINK TO RESEARCH](#)

COMPARATIVE TABLE 1A1

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	Growth rate		
Scenario 1 normal case	Dividend	2.56	2.69	2.82	2.96	3.11	3.27	3.59	3.95	4.35	4.78	5.26	95.67	5%	next 5 years
in points	PV(10%)	2.44	2.33	2.23	2.13	2.03	2.03	2.03	2.03	2.03	2.03	36.89	10%	5 to 10 years	
	INTRINSIC VALUE		58.19											10%	Discount rate
															20.0

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	Growth rate		
Scenario 2 best case	Dividend	2.56	2.69	2.82	2.96	3.11	3.27	3.66	4.10	4.59	5.14	5.76	128.53	5%	next 5 years
in points	PV(10%)	2.44	2.33	2.23	2.13	2.03	2.07	2.10	2.14	2.18	2.22	49.55	12%	5 to 10 years	
	Present value sum		71.42											10%	Discount rate
															25.0

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	Growth rate		
Scenario 3 worst case	Dividend	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	38.40	0%	next 5 years	
in points	PV(10%)	2.33	2.12	1.92	1.75	1.59	1.45	1.31	1.19	1.09	0.99	14.80	0%	5 to 10 years	
	Present value sum		30.53											10%	Discount rate
															15.0

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	58.19	34.91
Scenario 2 (best case)	0.2	71.42	14.28
Scenario 3 (worst case)	0.2	30.53	6.11
Sum		55.30	

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Verizon dividend per share input

STEP 3 – Present Value Calculation – How, What & When

As investing is about putting out money now to get more in the future, we must calculate the present value of the future 'more money' number in order to compare investment opportunities.

\$100 in 5 years is much less valuable than \$100 today where the difference in value depends on the discount rate used (or, to invert, on the return your current investing opportunities offer or your expected return). Let's first discuss the present value concept and then the discount rate.

How To Calculate Present Value

If the core concept of investing is to invest money now to get more in the future, the key thing to know is present value of the future amount of money. To know that we need to learn how to calculate the present value.

$$PV = FV \frac{1}{(1 + r)^n}$$

PV = present value

FV = future value

r = rate of return

n = number of periods

Present value formula – Source: Google

The present value (PV) equals: The future value (FV) divided by (1 plus the interest rate) factored by the number of periods used in the discount.

For example, if I expect a rate of return of 10% per year over 5 years and the future value is \$100, the present value is:

$$PV = FV \frac{1}{(1 + r)^n}$$

\$62.11 **\$100** **1**
0.1 **5**

So, if you are happy with a return of 10% per year, then the present value of the \$100 you will receive in 5 years is \$62. This leads to the second and most controversial factor related to the present value calculation – the discount rate.

STEP 4 - The Discount Rate

Academics have done everything possible to complicate the notion of the discount rate by adding things to consider that are impossible to know; like the risk free rate, the stock market premium, adjusting the discount rate for country risk etc. But,

I don't see those academic factors as adding any value to real investors and prefer the Fat Toni (Nassim Taleb) or grandma style discount rate approach, i.e. to use one rate that allows to compare investment opportunities. For example, I like to use 10% for all investments, which then allows me to simply compare my calculated intrinsic value with the market's value for all of my investing opportunities, be it investing in stocks, paying off your mortgage or whatever.

We will adjust for specific investment risks while modeling scenarios in our intrinsic value calculation so no point in adjusting for risk twice by complicating the discount rate estimation.

The Timeline Of The Valuation

In my intrinsic value template, I usually estimate the initial input over a period of 10 years and at the end the period I conclude my valuation with a terminal value calculation that we'll discuss in step 7.

BRK [LINK TO RESEARCH](#)

		COMPARATIVE TABLE A1										Terminal Value	Growth rate	
Scenario 1	EPS BRK.B	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	6%	next 5 years
normal case	15.67	16.61	17.61	18.66	19.78	20.97	22.23	23.56	24.98	26.47	28.06	529.48	6%	5 to 10 years
	PV(10%)											204.14	10%	Discount rate
	INTRINSIC VALUE												20.0	Terminal multiple

I find 10 years to be the perfect timeline to assess business developments as any shorter periods of time could be under a strong influence of market sentiment while to use more than 10 years seems a bit stretched given that going beyond 10 years implies even more unknowns. Also, businesses investment theses usually tend to need from 1 to 7 years to develop and mature, so by using 10 years one has a good margin of safety and covers the most important factors affecting the current intrinsic value. Of course, one then adjusts the intrinsic value calculation as new material information related to future creates cash flows arises (earnings, economic situations, sector etc..).

For example, in the early 2010s, one of the most discussed investment topics was how Microsoft stock has been flat for years and how it will likely remain flat forever. Of course, sooner or later business growth and development have to prevail over market sentiment and consequently the stock follows the business. That is why I feel like 10 years of estimation is the sweet spot when it comes to intrinsic value estimations.

309,16 USD

+309.15 (3,091,500.00%) ↑ all time

22 Oct, 16:00 GMT-4 · Disclaimer

NASDAQ: MSFT

+ Follow

1D | 5D | 1M | 6M | YTD | 1Y | 5Y | Max

Open	310,40	Mkt cap	2,32T	CDP score	A
High	311,09	P/E ratio	38,39	52-wk high	311,09
Low	307,80	Div yield	0,80%	52-wk low	199,62

MSFT stock – Source: Google

To note that Microsoft's net income more than doubled between 2003 and 2013, and then more than doubled since 2013. Eventually the stock caught up with the underlying growth of the business.

Whether to calculate the present value of the yearly inputs or not

Whatever input we pick for our intrinsic value calculation, we will get some yearly results based on our estimations, before we get to the terminal value in year 10. The question is whether to calculate the present value of each of those results or not? The answer depends on what kind of business it is, how it creates value for us and whether we have already calculated the value somewhere else.

For example, Berkshire is known for not paying any dividends (they paid 10 cents in 1968 when according to Buffett, he must have gone to the bathroom). So, I feel it is best to exclude calculating the present value of Berkshire's yearly earnings and adding that to the present value sum.

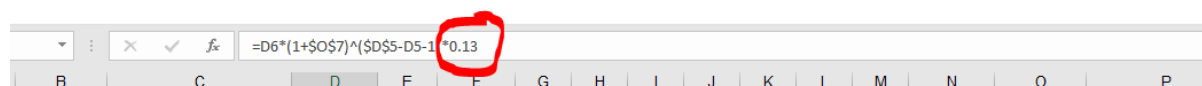
BRK [LINK TO RESEARCH](#)

COMPARATIVE TABLE 1A1											Terminal Value	Growth rate		
Scenario 1	EPS BRK.B	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	6%	next 5 years
normal case	15.67	16.61	17.61	18.66	19.78	20.97	22.23	23.56	24.98	26.47	28.06	529.48	6%	5 to 10 years
	PV(10%)											204.14	10%	Discount rate
	INTRINSIC VALUE												20.0	Terminal multiple

Berkshire present value

As Berkshire reinvests all the money for future growth, we can account the impact in the earnings growth rate. Calculating both the present value of the earnings for each year and having a higher earnings growth rate thanks to the reinvested earnings would make us count things twice and increase our intrinsic value result significantly. Same applies for buybacks.

As Apple is paying out 13% of its free cash flows in dividends, I have accounted for the present value of the yearly cash flows only for the part that investors actually receive in cash.



APPLE [LINK TO RESEARCH](#)

COMPARATIVE TABLE 1A1											Terminal Value	Growth rate		
Scenario 1	Cashflow per share	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	8%	next 5 years
normal case	6.02	6.50	7.02	7.58	8.19	8.85	9.55	10.32	11.14	12.03	13.00	240.68	8%	5 to 10 years
	PV(10%)	0.77	0.75	0.74	0.73	0.71	0.70	0.69	0.68	0.66	0.65	92.79	10%	Discount rate
	INTRINSIC VALUE												20.0	Terminal multiple

Apple stock valuation – calculating the dividend

The impact of the buybacks made with the rest of the money will be calculated within the growth rate of future per share cash flows.

With Verizon, which is a dividend stock, the full amount of the future estimated dividend for each year is discounted to the present value and summed up in the total intrinsic value table because investors get the dividend cash on their bank accounts. (here one could also account for dividend taxation depending on his local taxes)

Verizon [LINK TO RESEARCH](#)

COMPARATIVE TABLE 1A1											Terminal Value	Growth rate		
Scenario 1	Dividend	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	5%	next 5 years
normal case	2.56	2.69	2.82	2.96	3.11	3.27	3.59	3.95	4.35	4.78	5.26	95.67	10%	5 to 10 years
	PV(10%)	2.44	2.33	2.23	2.13	2.03	2.03	2.03	2.03	2.03	2.03	36.89	10%	Discount rate
	INTRINSIC VALUE												20.0	Terminal multiple

Verizon stock valuation – present value of dividends

STEP 5 – Estimating The Growth Rate

Let me tell you immediately; whatever your estimation of a future growth rate is, it will be wrong! Now you might wonder what is the point of doing intrinsic value calculations that are based on the future, thus factors we absolutely can't predict?

Well, the point of doing an intrinsic value calculation is to find the best investment opportunity within the options you have and can invest in based on current information. Investing is about being vaguely right, not about being precisely wrong.

So, based on one's knowledge of the business, the industry it operates in, the impacts of the possible economic situations and many other factors to vaguely weight for, one can estimate the growth rate of a business, not to be precise about it, but so that it offers insights into whether the investment can be a good one or not from a risk and reward perspective.

When it comes to our intrinsic value template, the growth rate has a huge impact as it compounds over 10 years. In the 3 below scenarios for Alibaba, I have estimated 3 different growth rates for the first 5 years and also for the 5 subsequent years.

ALIBABA VIDEO ANALYSIS RESEARCH

COMPARATIVE TABLE 'A1

		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value	Growth rate	
Scenario 1 normal case	Cash Flow in Billions	27.00	32.40	38.88	46.66	55.99	67.18	77.26	88.85	102.18	117.51	2031	20%	next 5 years
	PV(10%)											2350.13	15%	5 to 10 years
	INTRINSIC VALUE	906.08										906.08	10%	Discount rate
													20.0	Terminal multiple
Scenario 2 best case	Cash Flow in Billions	27.00	33.75	42.19	52.73	65.92	82.40	94.76	108.97	125.32	144.11	2031	25%	next 5 years
	PV(10%)											4323.41	15%	5 to 10 years
	Present value sum	1666.86										1666.86	10%	Discount rate
													30.0	Terminal multiple
Scenario 3 worst case	Cash Flow in Billions	27.00	31.05	35.71	41.06	47.22	54.31	58.65	63.34	68.41	73.88	2031	15%	next 5 years
	PV(10%)											1108.25	8%	5 to 10 years
	Present value sum	427.28										427.28	10%	Discount rate
													15.0	Terminal multiple

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	906.08	543.65
Scenario 2 (best case)	0.2	1666.86	333.37
Scenario 3 (worst case)	0.2	427.28	85.46
Sum		962.47	

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Alibaba stock valuation

The truth is that nobody knows what the exact growth rate will be, but you can have a vague idea of where the business could be in the future. To estimate a

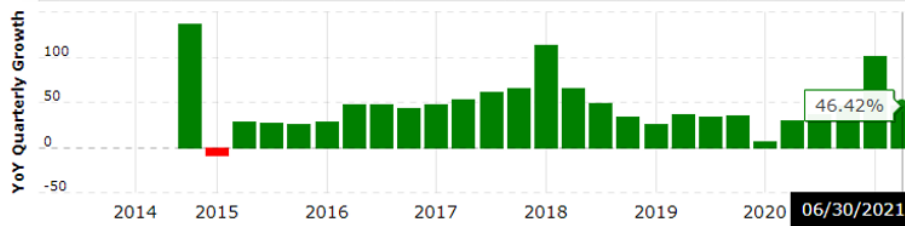
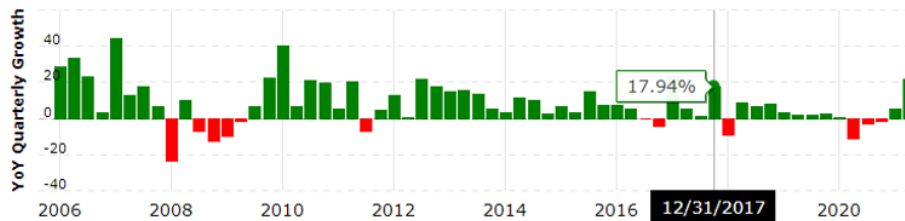
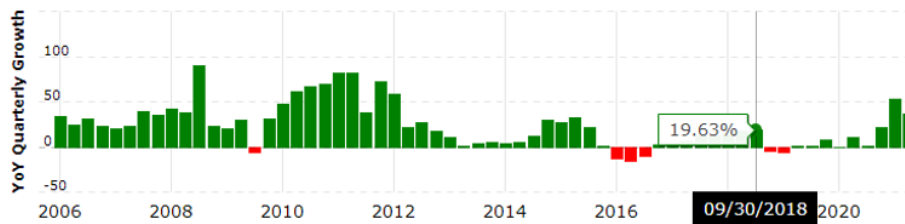
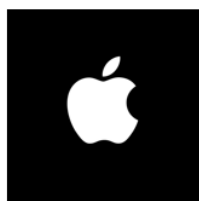
growth rate, you must know the business really well. Also, understand the type of the business; is it a cyclical, is it a growth focused company, is there opportunity for growth in the sector, does it have moats or other competitive advantages and then also weight the various scenarios.

The best way to estimate the future growth of the business is to read a lot about the sector the business is operating in. This includes specific sector reports but also good sources of information are conference calls, both from the business you are interested in and from competitors, annual reports and actually all the material you can find. Further, if you find small businesses, recent IPOs that want to compete with the established players, there you will usually find detailed explanations of the market's potential. But be careful not to fall into the promise trap most new companies make to attract investors.

Keep in mind business people are sales people first, so whatever presentation you look will likely be skewed towards the rosy outlook. To mitigate that, I like to look at the bad things that happened in the past and then see how would a negative scenario/situation impact the business if something similar materializes again.

If we take oil for example, prices per barrel over the last decade were between \$20 and \$140, which makes it impossible to predict future prices. But, if you understand the business, its cost of production, reserves in the ground, then you might estimate the growth in relation to a conservative scenario and a minimum secure long-term oil price – let's say \$40. If that conservative scenario makes a good investment, then the upside from an exuberant scenario comes as an investing bonus.

Another thing to keep in mind is that revenue growth will most likely be nonlinear as nonlinearity is the absolute nature of doing business.



Revenue growth per quarter for Apple, Berkshire & Alibaba – Source: Macrotrends

However, whenever we make an intrinsic value model, we will likely assume a linear progression in revenues which is what makes it easier for us. The key is to try to assume what the average will be over the long-term, which could make you vaguely right when it comes to investing.

The investing bonus here is that the market mostly thinks in a linear way and thus projects the current situation into eternity, giving us amazing investing opportunities. If you check Apple’s revenue growth per quarter above, you can see how there were only two periods with small revenue declines in 2016 and Q42018/Q12019. Needless to say, the market punished the stock to extreme lows, just because the market can’t think in long-term cycles.

148,64 USD

NASDAQ: AAPL

+148.60 (371,500.00%) ↑ all time

+ Follow

Closed: 25 Oct, 19:59 GMT-4 ·Disclaimer

After hours 148,60 -0,040 (0,027%)

1D | 5D | 1M | 6M | YTD | 1Y | 5Y | Max



Apple stock historical chart

Apple stock was down more than 25% in 2016 and I remember it trading at a PE ratio of 10, while the crash in 2018 was more than 30%, just because the market thought Apple will never grow again due to two quarters of revenue stagnation.

The morale of the story; never listen to the market and focus on your long-term intrinsic value calculation.

STEPS 6 & 7 – The Terminal Multiple & Terminal Value

We already discussed why I like to use 10 years to estimate intrinsic value which is where steps 6 & 7 come in; the terminal multiple and terminal value.

The terminal value, i.e. the assumed value of the business/stock in 10 years, is the largest contributor to the final intrinsic value sum and therefore one to really focus on.

APPLE [LINK TO RESEARCH](#)

COMPARATIVE TABLE 1A1

Scenario	Cashflow per share	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	Terminal Value	Growth rate
Scenario 1 normal case	6.00	6.48	7.00	7.56	8.16	8.82	9.52	10.28	11.11	11.99	12.95	239.88	92.48	8% next 5 years 8% 5 to 10 years
	PV(10%)													10% Discount rate
	INTRINSIC VALUE													20.0 Terminal multiple
Scenario 2 best case in EUR	6.00	6.72	7.53	8.43	9.44	10.57	11.42	12.33	13.32	14.39	15.54	431.58	183.03	12% next 5 years 8% 5 to 10 years
	PV(10%)													10% Discount rate
	Present value sum													30.0 Terminal multiple
Scenario 3 worst case in EUR	6.00	6.30	6.62	6.95	7.29	7.66	8.04	8.44	8.86	9.31	9.77	139.62	53.83	5% next 5 years 5% 5 to 10 years
	PV(10%)													10% Discount rate
	Present value sum													15.0 Terminal multiple

MARGIN OF SAFETY

The terminal multiple and terminal value

Over 10 years, our initial input has expanded in line with our assumed growth rate and is the basis for the terminal value assumption.

In short, I use the 2030 metric to estimate the 2031 terminal value because I don't have 2031 earnings in 2031. So, if cash flow per share for Apple is \$12.96 in 2031, to get to the terminal value, I must multiply the free cash flow per share with an assumed valuation in year 10.

How to estimate the terminal multiple

The terminal multiple is the reason why whatever input you use, the final result should be the same. For example, if you use earnings, the PE ratio (terminal multiple) could be 25, resulting in a 5% earnings yield but if the business pays out 50% of earnings in dividends, the dividend yield could be 2.5%, resulting in a terminal multiple on the dividend of 40 (100/40=2.5%).

As it is impossible to know what the market will think of a business and consequently stock in 10 years, we don't know what will the average valuation

be 10 years down the road, it is absolutely impossible to nail the exact terminal value. But again, we are doing this to find the best investment now from a current comparative perspective. So, what I prefer to do, is to value a business in a way that I as an investor am happy with the return of the business, no matter what the market will think of it at some point in time.

For example, Apple’s current PE ratio is 30, resulting in a 3.3% earnings yield. But, Apple’s PE ratio was 10 in 2016 and could easily be 15 again in 2031. It could also be 50 for that matter but the lower you go with the terminal multiple, the higher is your investing margin of safety because if the current valuation contracts, you already included that in your investment scenarios.

By changing the terminal multiple on Apple’s 2030 free cash flow per share, the present intrinsic value received also changes significantly.

APPLE [LINK TO RESEARCH](#)

COMPARATIVE TABLE'A1											Terminal Value	Growth rate		
Scenario 1	Cashflow per share	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	8%	next 5 years
normal case	6.02	6.50	7.02	7.58	8.19	8.85	9.55	10.32	11.14	12.03	13.00	361.02	8%	5 to 10 years
	PV(10%)	0.77	0.75	0.74	0.73	0.71	0.70	0.69	0.68	0.66	0.65	139.19	10%	Discount rate
	INTRINSIC VALUE	146.27										30.0	Terminal multiple	

APPLE [LINK TO RESEARCH](#)

COMPARATIVE TABLE'A1											Terminal Value	Growth rate		
Scenario 1	Cashflow per share	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	8%	next 5 years
normal case	6.02	6.50	7.02	7.58	8.19	8.85	9.55	10.32	11.14	12.03	13.00	180.51	8%	5 to 10 years
	PV(10%)	0.77	0.75	0.74	0.73	0.71	0.70	0.69	0.68	0.66	0.65	69.59	10%	Discount rate
	INTRINSIC VALUE	76.68										15.0	Terminal multiple	

APPLE [LINK TO RESEARCH](#)

COMPARATIVE TABLE'A1											Terminal Value	Growth rate		
Scenario 1	Cashflow per share	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	8%	next 5 years
normal case	6.02	6.50	7.02	7.58	8.19	8.85	9.55	10.32	11.14	12.03	13.00	120.34	8%	5 to 10 years
	PV(10%)	0.77	0.75	0.74	0.73	0.71	0.70	0.69	0.68	0.66	0.65	46.40	10%	Discount rate
	INTRINSIC VALUE	53.48										10.0	Terminal multiple	

Apple stock intrinsic value in relation to terminal multiple

If the terminal multiple (valuation) remains unchanged over the next 10 years, then Apple’s current stock price of \$148 (October 2021) sees the stock as fairly valued for a 10% investing return (discount rate used) over the next 10 years assuming a growth rate of 8% per year for the cash flows. However, if we change the valuation, something that could easily happen, the intrinsic value is much lower. If we take a third of the current valuation, thus go down to 10 which was Apple’s PE ratio in 2016, the intrinsic value is also almost a third of the full valuation intrinsic value - \$53 per share.

To reiterate on this, when you put a conservative terminal multiple (low valuation) and the intrinsic value is still below the current stock price, you might

be onto something. Risk is the first focus when it comes to value investing and therefore by lowering the terminal multiple as much as possible, you get a lower current intrinsic value and thus invest with a higher margin of safety. This will be discussed more in depth in the following steps regarding scenarios.

STEPS 8 & 9 – Exuberant and Worst-Case Scenarios

Over a 10 years period, I can guarantee that a lot will happen, whatever is the business you invest in is. Therefore, I get lots of value by adding two possible scenarios to my first intrinsic value calculation. A pessimistic and exuberant scenario give me a range of intrinsic values I can work with over time.

Investing is a dynamic discipline, and one must always keep in mind various scenarios. Even something presumed stable as an index fund, has had, and will have huge variations in valuation, price, value, yields etc. over time. The max PE ratio for the S&P 500 was 123 in 2009 due to low earnings but the minimum was 5.32 in 1917, around 7 in 1949 and 1980 due to high interest rates.



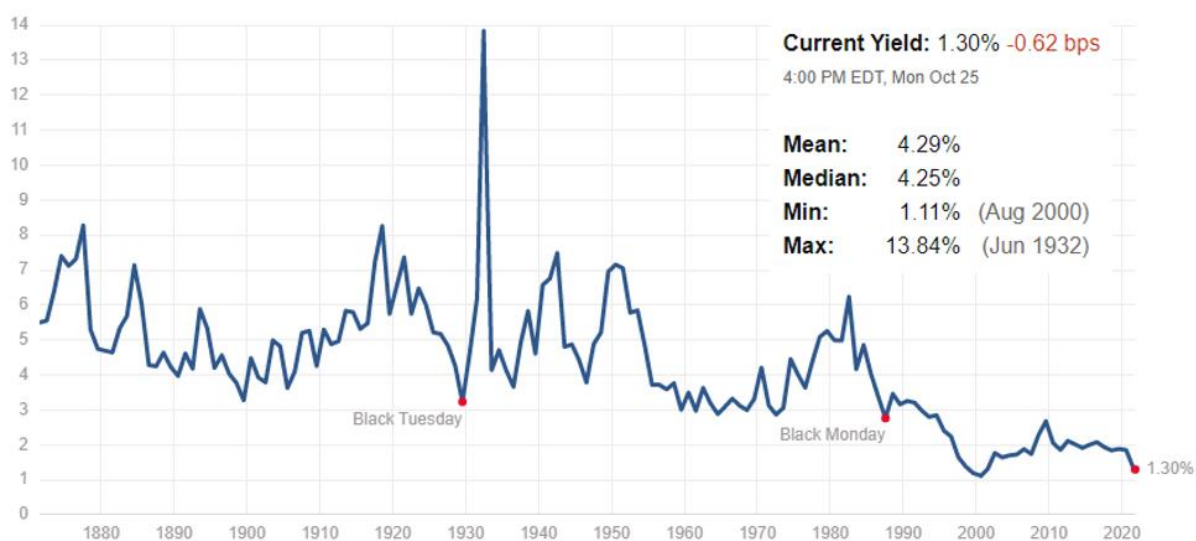
S&P 500 valuation is cyclical

Therefore, over time, we might again see low valuations, you never know. It is better to be prepared for whatever the future brings and allowing for such volatility and cyclical, also allows to make better decisions over time, i.e. dynamic decisions. You might consider selling your position when the market is exuberant about something and replacing with something where the market is pessimistic due to temporary issues.

Whenever I make an intrinsic value calculation, I know that both a pessimistic and exuberant scenario will likely be the reality at some point over the coming years – at some point the market will splash a PE ratio of 30 while at another point the PE ratio will be 10 on the same business – this might be rational at that moment in time, but the biggest advantage we, retail value investors, have, is to

have a long-term perspective on things, accepting both bad and great times as normal and then taking advantage of market irrationalities. An intrinsic value estimation is perhaps most valuable exactly for that; to have the conviction to be greedy when others are fearful and be conservative when others are exuberant.

Using the S&P 500 as example here, the current dividend yield is almost at historical lows and the only time in history it was lower was during the peak of the dot-com bubble in 2000. Over the last 150 years the dividend yield went as high as 13.84% in 1932 while the average was around 4.25%.



S&P 500 historical dividend yield – Source: [Multpl](#)

If the required yield from the S&P 500 would return to the historical mean of 4.29%, the current S&P 500 level would drop 70%, from 4,566 to an extreme of 1,407 points. This might sound ridiculous given the zero interest rate environment and chase for yield, but let me remind you that the low reached on March 06, 2009 was 666.8 points for the S&P 500. Thus, anything can be expected when it comes to investing.

This just to show the importance of thinking in scenarios and the most important thing related to that: **HOW IT IMPACTS YOUR FINANCIAL LIFE AND GOALS?** Many would be psychologically destroyed if the S&P 500 would drop 70%, but that is almost what happened both in 2002 and 2009, thus something to expect to happen again. Therefore, the key is to create scenarios and then also approach them in an absolute way.

Scenarios – have an absolute investing perspective, don't think in percentages

I have 3 scenarios in my table and then I usually give a probability chance to each scenario resulting in my final intrinsic value.

S&P 500 <https://svencarlin.com/index-fund-investing-explained/>
EARNINGS 140 - half paid out as dividends

COMPARATIVE TABLE 1A

		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	Terminal Value	Growth rate	
Scenario 1 normal case in points	DIVIDENDS	59.40	62.37	65.49	68.76	72.20	75.81	79.60	83.58	87.76	92.15	96.76	4607.44	5%	next 5 years
	PV(10%)		56.70	54.12	51.66	49.31	47.07	44.93	42.89	40.94	39.08	37.30	1776.37	5%	5 to 10 years
	INTRINSIC VALUE		2240.39											10%	Discount rate
														50.0	Terminal multiple
Scenario 2 best case in points	DIVIDENDS	59.40	62.37	65.49	68.76	72.20	75.81	79.60	83.58	87.76	92.15	96.76	6911.17	5%	next 5 years
	PV(10%)		56.70	54.12	51.66	49.31	47.07	44.93	42.89	40.94	39.08	37.30	2664.55	5%	5 to 10 years
	Present value sum		3128.58											10%	Discount rate
														75.0	Terminal multiple
Scenario 3 worst case in points	DIVIDENDS	59.40	61.78	64.25	66.82	69.49	72.27	75.16	78.17	81.29	84.54	87.93	1690.89	4%	next 5 years
	PV(10%)		56.16	53.10	50.20	47.46	44.87	42.43	40.11	37.92	35.86	33.90	651.91	4%	5 to 10 years
	Present value sum		1093.92											10%	Discount rate
														20.0	Terminal multiple

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	2240.39	1344.23
Scenario 2 (best case)	0.2	3128.58	625.72
Scenario 3 (worst case)	0.2	1093.92	218.78
Sum		2188.73	

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However, this is just for indicative reasons so that I get to an average assumed value and then compare it on my comparative list with other investing options.

	A	B	C	D	E	F	INT
1	STOCK	TICKER	MKT CAP/Price	10% RETURN	Ratio	LINK to RESEARCH	
38	Salesforce	CRM	290.00	100.00	0.66	https://www.youtube.com/CRM	
61	Melco	MLCO	5.49	7.50	1.37	https://sven-carlin-research.com/MELCO	
62	Berkshire	BRK.B	651.02	210.98	0.32	https://www.youtube.com/BRKB	
63	Google	GOOG	1894.21	1410.20	0.75	https://www.youtube.com/GOOG	
64	Microsoft	MSFT	2308.00	887.86	0.38	https://www.youtube.com/MSFT	
65	Apple	AAPL	149.26	82.76	0.55	https://svencarlin.com/APPL	
66	NIO	NIO	65.18	46.09	0.71	https://www.youtube.com/NIO	
67	S&P 500	SPY	452.41	294.53	0.65	https://www.youtube.com/S&P500	
68	Tencent	TCEHY	623.89	866.61	1.39	https://sven-carlin-research.com/TCEHY	
69	TSMC	TSM	115.59	104.34	0.90	https://www.youtube.com/TSM	
70	Kroger	KR	29.24	20.18	0.69	https://www.youtube.com/KROGER	
71	Sprout Farmers Market	SFM	2.54	2.19	0.86	https://www.youtube.com/SFM	
72	Norsk Hydro	NHY	139.72	100.32	0.72	https://sven-carlin-research.com/NHY	
73	Alibaba	BABA	481.58	962.47	2.00	https://sven-carlin-research.com/BABA	
74	Tesla	TSLA	857.16	83.58	0.10	https://www.youtube.com/TSLA	
75	Amazon	AMZN	1729.52	1535.58	0.89	https://www.youtube.com/AMZN	
76	AT&T	T	185.00	193.64	1.05	https://www.youtube.com/AT&T	
77	Ahold	AD	29.29	20.23	0.69	https://www.youtube.com/AHOLD	
78	Wiener	WIE	30.64	20.73	0.68	https://svencarlin.com/WIE	
79	Nestle	NESN	328.06	202.13	0.62	https://www.youtube.com/NESTLE	

After I see that from a comparative perspective a stock might be offering interesting long-term returns, then I dig deeper into the specific scenarios, and I don't assume the average will materialize. I actually assume the worst-case scenario could happen, and then adjust my strategy to it so that I am ready if it actually happens. Also, the worst-case scenario provides a margin of safety because if you can buy something trading below your worst case intrinsic value calculation, it is really unlikely you will lose money.

For example, my Alibaba stock valuation shows that even at slower than expected growth over time and with a lower multiple, I would still get a 10% investing return if I invest at a market cap at \$427 billion which is why I invested in Alibaba when the market cap was close to that recently. Things can always get ugly and that is why value investors firstly focus on risk, i.e. invest with a margin of safety.

[ALIBABA](#) [VIDEO ANALYSIS](#) [RESEARCH](#)

COMPARATIVE TABLE 1A1

		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Terminal Value	Growth rate		
Scenario 1 normal case	Cash Flow in Billions	27.00	32.40	38.88	46.66	55.99	67.18	77.26	88.85	102.18	117.51	135.13	2031	20%	next 5 years
	PV(10%)											2350.13	15%	5 to 10 years	
	INTRINSIC VALUE		906.08									906.08	10%	Discount rate	
													20.0	Terminal multiple	
Scenario 2 best case	Cash Flow in Billions	27.00	33.75	42.19	52.73	65.92	82.40	94.76	108.97	125.32	144.11	165.73	2031	25%	next 5 years
	PV(10%)											4323.41	15%	5 to 10 years	
	Present value sum		1666.86									1666.86	10%	Discount rate	
													30.0	Terminal multiple	
Scenario 3 worst case	Cash Flow in Billions	27.00	31.05	35.71	41.06	47.22	54.31	58.65	63.34	68.41	73.88	79.79	2031	15%	next 5 years
	PV(10%)											1108.25	8%	5 to 10 years	
	Present value sum		427.28									427.28	10%	Discount rate	
													15.0	Terminal multiple	

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	906.08	543.65
Scenario 2 (best case)	0.2	1666.86	333.37
Scenario 3 (worst case)	0.2	427.28	85.46
Sum		962.47	

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Following on the above, risk and the worst-case scenario are also the reason why I am not interested in investing in the S&P 500. If due to inflationary pressures the FED is forced to increase interest rates and the required yield from the S&P 500 goes to 5% (a terminal multiple of 20 from a dividend basis – $100/20=5$), the S&P 500 could easily drop to 1,600 points which is a risk I don't like. I don't know whether it will materialize or not, but that is why I emphasize having an absolute perspective on the investing scenarios is important. Nothing might happen for a while, but when you think about it, the world looks much different now that it looked 15 years ago, thus it will look much different again in 15 years.

S&P 500 <https://svencarlin.com/index-fund-investing-explained/>
 EARNINGS 140 - half paid out as dividends

COMPARATIVE TABLE 1A1

Scenario 1 normal case in points	DIVIDENDS	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	Terminal Value	Growth rate
	59.40	62.37	65.49	68.76	72.20	75.81	79.60	83.58	87.76	92.15	96.76	4607.44	5%	next 5 years
	PV(10%)	56.70	54.12	51.66	49.31	47.07	44.93	42.89	40.94	39.08	37.30	1776.37	10%	5 to 10 years
	INTRINSIC VALUE	2240.39											50.0	Discount rate
														Terminal multiple

Scenario 2 best case in points	DIVIDENDS	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	Terminal Value	Growth rate
	59.40	62.37	65.49	68.76	72.20	75.81	79.60	83.58	87.76	92.15	96.76	6911.17	5%	next 5 years
	PV(10%)	56.70	54.12	51.66	49.31	47.07	44.93	42.89	40.94	39.08	37.30	2664.55	10%	5 to 10 years
	Present value sum	3128.58											75.0	Discount rate
														Terminal multiple

Scenario 3 worst case in points	DIVIDENDS	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	Terminal Value	Growth rate
	59.40	61.78	64.25	66.82	69.49	72.27	75.16	78.17	81.29	84.54	87.93	1690.89	4%	next 5 years
	PV(10%)	56.16	53.10	50.20	47.46	44.87	42.43	40.11	37.92	35.86	33.90	651.91	4%	5 to 10 years
	Present value sum	1093.92											20.0	Discount rate
														Terminal multiple

Scenario	Probability	PV	Part
Scenario 1 (normal case)	0.6	2240.39	1344.23
Scenario 2 (best case)	0.2	3128.58	625.72
Scenario 3 (worst case)	0.2	1093.92	218.78
Sum		2188.73	

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Of course, one must not forget about the positive side of things that materialize when the market is exuberant about a certain business. If the market turns exuberant in relation with Alibaba I would not exclude a market capitalization above \$4 trillion down the road which would give a 10x return.

[ALIBABA](#) [VIDEO ANALYSIS](#) [RESEARCH](#)

COMPARATIVE TABLE 1A1

Scenario 1 normal case	Cash Flow in Billions	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	Terminal Value	Growth rate
	27.00	32.40	38.88	46.66	55.99	67.18	77.26	88.85	102.18	117.51	135.13	2350.13	20%	next 5 years
	PV(10%)											906.08	15%	5 to 10 years
	INTRINSIC VALUE	906.08											10%	Discount rate
														Terminal multiple

Scenario 2 best case	Cash Flow in Billions	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2031	Terminal Value	Growth rate
	27.00	33.75	42.19	52.73	65.92	82.40	94.76	108.97	125.32	144.11	165.73	4323.41	25%	next 5 years
	PV(10%)											1666.86	15%	5 to 10 years
	Present value sum	1666.86											10%	Discount rate
														Terminal multiple

Whenever you consider an investment option, always analyze it from a scenario perspective and then see how both the risk and reward would impact your investing performance over the long term. The goal is always to minimize risk first because that allows for compounding and gives the necessary patience to also wait for those exuberant times. To give you another guarantee; I am 100% sure bad times and good times will come, no matter the business you are invested in.

STEP 10 – Intrinsic Value

Now that we have the estimated intrinsic value for our investing purposes, we can see how best to take advantage of that. I have a list of companies that I follow over time and my list is similar to the below list in form but with other businesses than the freely shared analysis on the below list. As I am a professional researcher, I run a research platform and obviously I can't share my list here, but if you are interested in the work that I do professionally, you can check my [Stock Market Research Platform here](#).

A	B	C	D	E	F	G	H	I	J	K
1 STOCK	TICKER	MKT CAP/Price	10% RETURN	Ratio	LINK TO RESEARCH	INTRINSIC	UPDATED	TYPE	CURRENCY	Comment
THIS IS JUST AN OVERVIEW, NOT INVESTMENT ADVICE! THIS IS JUST FOR EDUCATIONAL PURPOSES TO SHOW WHAT IS PRICED IN BY THE MARKET AND WHAT GROWTH OR DIVIDENDS SHOULD BE REACHED FOR A IMAGINARY RETURN										
3	Kinder Morgan	KMI	18.65	21.78	1.17	https://sven-carlin-res/KMIA1	Oct-21	Interesting play	USD	interesting play, short term likely up, but with long-term risks.
4	DSM	AMS: DSM	32.11	20.17	0.63	https://sven-carlin-res/DSMA1	Oct-21	Good business	EUR	Good business, going for specialty high margin acquisition strategy
5	CTP NV	AMS: CTP	8.01	8.83	1.10	https://sven-carlin-res/CTPNVIA1	Sep-21	Fast Growth	EUR	interesting logistics play in Eastern Europe - borrowing in Europe at low rates investing in higher eastern
6	Corban	AMS: CRBN	2.41	0.89	0.37	https://sven-carlin-res/CRBLIA1	Sep-21	Slow Growth	EUR	An industrial business doing interesting things but at the mercy of price movements in the sectors.
7	Coca-Cola Europacific	CCEP	24.66	16.52	0.67	https://sven-carlin-res/CCEPIA1	Sep-21	Slow Growth	USD	A good but slow business where you can expect the 2% dividend and slow growth
8	Vipshop Holdings	VIPS	12.5	11.96	0.96	https://sven-carlin-res/VIPSA1	Jul-21	Fast growth	USD	an ok business but nothing more, which leads to risks
9	ArcelorMittal	MT	26.66	16.91	0.63	https://sven-carlin-res/MTIA1	Jun-21	Cyclical	USD BILLION	Steel cyclical, watch when things look bad again with steel, likely low future debt gives a margin of safety
10	Beyond Meat	BYND	6.77	3.61	0.53	https://www.youtube.com/watch?v=BYNDIA1	Jun-21	Fast growth	USD BILLION	Growth stock that needs a lot of growth and then also has to reach profitability to justify valuation - not for
11	Aperam	AMS: APAM	47.75	30.01	0.63	https://sven-carlin-res/APAMIA1	31-May-21	Watch	EUR	Steel cyclical, watch when things look bad again with steel, no debt gives a margin of safety.
12	Facebook	FB	340.78	419.26	1.21	https://youtu.be/mh02lDIA1	May-21	FAST GROWTH	USD	Growth stock, moatish, huge growth ahead and opportunities
13	Alfen	AMS: ALFEN	92.75	15.86	0.17	https://www.youtube.com/watch?v=ALFENIA1	May-21	FAST GROWTH	EUR	Just an installing business, low net profit margin, expensive.
14	Alzko Nobel	AMS: AKZA	93.56	62.88	0.67	https://sven-carlin-res/AKZOA1	May-21	CYCLIAL	EUR	Buybacks will likely push the stock up
15	ASML	ASML	660.3	261.19	0.40	https://www.youtube.com/watch?v=ASMLIA1	May-21	FAST GROWTH	EUR	Priced for eternal perfection
16	Siemens	SIEB	138.72	78.04	0.56	https://www.youtube.com/watch?v=SIEMENSA1	May-21	SLOW GROWTH	EUR	Expensive for absolute returns
17	Adyen	ADYEN	2672	569.39	0.21	https://sven-carlin-res/ADYENIA1	May-21	FAST GROWTH	EUR	Great growth stock with great business m
18	Deutsche Borse	DB1	146.6	83.16	0.57	https://www.youtube.com/watch?v=DB1IA1	May-21	Growth	EUR	Moat business in Germany - financials, tr
19	Aesdica	EBR: AED	116	69.06	0.60	https://sven-carlin-res/EBR_AED_1	May-21	REIT	EUR	European Healthcare REIT in a strong trer
20	Baidu HK 9888	BIDU	396.75	73.14	0.18	https://sven-carlin-res/BIDUIA1	Apr-21	GROWTH	USD BILLION	Search engine in China with 72% of mark
21	3M Company	MMM	182.42	156.59	0.86	https://www.youtube.com/watch?v=MMMA1	Apr-21	SLOW GROWTH	USD	Great business, strong moat, strong cash
22	American Express	AXP	179.60	47.43	0.26	https://www.youtube.com/watch?v=AXPIA1	Apr-21	SLOW GROWTH	USD	Good business, I am not so sure about th
23	Amgen	AMGN	209.66	134.95	0.64	https://www.youtube.com/watch?v=AMGNIA1	Apr-21	SLOW GROWTH	USD	Biosimilar risks, competition, pricing but o
24	Boeing	BA	216.17	126.12	0.58	https://www.youtube.com/watch?v=BAIA1	Apr-21	CYCLIAL	USD	Cyclical and we will see whether the issue
25	Caterpillar	CAT	204.19	91.94	0.45	https://www.youtube.com/watch?v=CATA1	Apr-21	CYCLIAL	USD	Cyclical nature but still exposed to global
26	Cisco	CSCO	56.2	34.88	0.62	https://sven-carlin-res/CSCOA1	Apr-21	SLOW GROWTH	USD	Interesting behemoth exposed to positive i
27	Coca-cola	KO	54.63	33.70	0.62	https://www.youtube.com/watch?v=KCOIA1	Apr-21	SLOW GROWTH	USD	Coca cola is coca cola - not at these valu
28	Dow	Dow	59.89	54.66	0.91	https://www.youtube.com/watch?v=DOWIA1	Apr-21	CYCLIAL	USD	Cyclical chemical - but well positioned in the sector - should do ok - dividend is key.
29	Goldman Sachs	GS	407.89	162.24	0.37	https://www.youtube.com/watch?v=GSIA1	Apr-21	Financial	USD	Finance and banking - things look great while good, very ugly when things turn...
30	Home Depot	HD	358.23	187.52	0.52	https://www.youtube.com/watch?v=HDIA1	Apr-21	SLOW GROWTH	USD	Covid tailwind work from home, high RE prices etc.
31	Honeywell	HON	223.64	97.88	0.44	https://www.youtube.com/watch?v=HONIA1	Apr-21	CYCLIAL	USD	Fairly priced at the moment - see how this fits you.
32	IBM	IBM	141.9	131.87	0.93	https://www.youtube.com/watch?v=IBMA1	Apr-21	SLOW GROWTH	USD	IBM has its own issues - see how it fits you - you need to be a specialist on it to get it
33	J&J	JNJ	163.78	93.91	0.57	https://www.youtube.com/watch?v=JNJIA1	Apr-21	SLOW GROWTH	USD	JNJ Pharma - depends on drugs, regulation, pricing, success of new stories, environment and sentiment.
34	JP Morgan	JPM	170.94	114.45	0.67	https://www.youtube.com/watch?v=JPMIA1	Apr-21	Financial	USD	Finance and banking - things look great while good, very ugly when things turn...
35	McDonalds	MCD	239.72	109.07	0.46	https://www.youtube.com/watch?v=MCDIA1	Apr-21	SLOW GROWTH	USD	McDonalds - cash cow now. Divs and buybacks hoping for some growth.
36	Nike	NKE	168.45	45.58	0.29	https://www.youtube.com/watch?v=NKEIA1	Apr-21	GROWTH	USD	Nike is I feel wrongly perceived as an eternal growth stock which it isn't. It can get ugly ahead.
37	P&G	PG	141.21	72.89	0.52	https://www.youtube.com/watch?v=PGIA1	Apr-21	SLOW GROWTH	USD	Slow and steady, likely cash cow so watch valuations.
38	Salesforce	CRM	290.09	192.09	0.66	https://www.youtube.com/watch?v=CRMA1	Apr-21	FAST GROWTH	USD	All depends on future growth
39	Travelers	TRV	158.69	73.42	0.46	https://www.youtube.com/watch?v=TRVIA1	Apr-21	SLOW GROWTH	USD	Insurance - thus all related things
40	United Health	UNH	435.09	257.75	0.59	https://www.youtube.com/watch?v=UNHIA1	Apr-21	FAST GROWTH	USD	United Health - regulation risk, but seems great business.
41	Visa	V	231.42	169.85	0.69	https://www.youtube.com/watch?v=VISAIA1	Apr-21	FAST GROWTH	USD	All depends on future growth
42	Walgreens	WBA	48.39	43.85	0.91	https://www.youtube.com/watch?v=WBAIA1	Apr-21	SLOW GROWTH	USD	Stable position, all about valuation
43	Walmart	WMT	146	50.54	0.35	https://www.youtube.com/watch?v=WMTIA1	Apr-21	SLOW GROWTH	USD	Stable position, growth, potential, but also huge size



Comparative table

I usually make an initial analysis of the business and get to an indicative intrinsic value based on 3 scenarios. As time passes, I update my analysis after the quarterly reports and get to know the business better. Over time it allows me to know whether the stock offers value in relation to the intrinsic value and investing opportunity at any moment in time.

Our 5 Stock Example Comparisons

If we go back to the examples used in this intrinsic value calculation guide, by comparing the market capitalization or the stock price with my derived intrinsic value with stocks we have discussed here, I see immediately that Apple, with its stock price of \$148 compared to my conservative valuation of \$82 is too risky to consider investing in.

Similarly, the S&P 500 at a level of 4,556 points compared to my intrinsic value of 2,188 points that would give a 10% likely long-term return.

Berkshire is always Berkshire – thus a financial fortress currently offering a 7% return based on earnings and likely future growth, which is an amazing return for most people. So, as said at the beginning of this paragraph; you have to see how the investment fits you and your financial goals.

Verizon is already looking interesting, where if the dividend increases as the 5G capex expenditures decrease over the coming years, it is already offering a return of around 10% at current valuations (October 2021).

If my estimation of Alibaba’s future ecosystem value to be around \$2 trillion is vaguely correct, investors can expect a 3x to 7x return in the next decade which makes it a buy for most investors out there and an absolute investing bargain.

1	A	B	C	D	E	F	G	H	I	J
STOCK	TICKER	MKT CAP/Price	10% RETURN	Ratio	LIN	to RESEARCH	INTRINSIC	UPDATED	TYPE	CURRENCY
47	Store Capital	STOR	9.42	8.61	0.91	http://www.youtube.com/watch?v=STOR1A1		Mar-21	DIVIDEND	USD BILLION
48	Douglas Emmett	DEI	5.92	5.87	0.99	http://www.youtube.com/watch?v=DEI1A1		Mar-21	DIVIDEND	USD BILLION
49	SmartCentres	SRU	31.51	30.65	0.97	http://www.youtube.com/watch?v=SRU1A1		Mar-21	DIVIDEND	CAD BILLION
50	Abbvie	ABBV	108.50	125.03	1.15	http://www.youtube.com/watch?v=ABBV1A1		Mar-21	STALWARTH	USD
51	Bristol Myers	BMJ	57.81	46.42	0.80	http://www.youtube.com/watch?v=BMJ1A1		Mar-21	STALWARTH	USD
52	Merck	MRK	81.66	60.39	0.74	http://www.youtube.com/watch?v=MRK1A1		Mar-21	STALWARTH	USD
53	Verizon	VZ	52.58	55.30	1.05	http://www.youtube.com/watch?v=VZ1A1		Oct-21	DIVIDEND	USD
54	Nutrien	NTR	49.92	24.43	0.49	http://www.youtube.com/watch?v=NTR1A1		Mar-21	CYCLIAL	USD BILLION
55	Chevron	CVX	220.18	143.80	0.65	http://www.youtube.com/watch?v=CVX1A1		Mar-21	CYCLIAL	USD BILLION
56	Lukoil	LKOH	5183.39	75.90	0.01	http://www.youtube.com/watch?v=LKOH1A1		Mar-21	CYCLIAL	USD BILLION
57	Barrick	GOLD	34.22	22.06	0.64	http://www.youtube.com/watch?v=GOLD1A1		Mar-21	GOLD	USD BILLION
58	Anglogold	AU	121.23	10.42	0.09	http://www.youtube.com/watch?v=AU1A1		Mar-21	GOLD	USD BILLION
59	JOYY	YY	NO RELIABLE NUMBERS FOR VALUATION			http://svencarlin.com		Mar-21		
60	China Yangtze Power	CYPC: LSE	31.00	18.44	0.59	http://svencarlin.com		Mar-21	SLOW GROWT	USD
61	Melco	MELCO	5.37	7.50	1.40	http://svencarlin.com		Feb-21	HOLDING	USD BILLION
62	Berkshire	BRK.B	290.26	210.98	0.73	http://www.youtube.com/watch?v=BRK1A1		Oct-21	HOLDING	USD BILLION
63	Google	GOOG	1839.64	1419.20	0.77	http://www.youtube.com/watch?v=GOOG1A1		Feb-21	GROWTH	USD BILLION
64	Microsoft	MSFT	2313.41	887.86	0.38	http://www.youtube.com/watch?v=MSFT1A1		Feb-21	GROWTH	USD BILLION
65	Apple	AAPL	148.64	82.76	0.56	http://svencarlin.com		Oct-21	STALWARTH	USD
66	NIO	NIO	67.63	46.09	0.68	http://www.youtube.com/watch?v=NIO1A1		Feb-21	FAST GROWTH	USD BILLION
67	S&P 500	SPY	455.55	218.87	0.48	http://www.youtube.com/watch?v=SPY1A1		Oct-21	INDEX	points
68	Tencent	TCEHY	619.52	868.61	1.40	http://svencarlin.com		Feb-21	GROWTH	USD BILLION
69	TSMC	TSM	113.64	104.34	0.92	http://www.youtube.com/watch?v=TSM1A1		Feb-21	GROWTH	USD BILLION
70	Kroger	KR	29.99	20.18	0.67	http://www.youtube.com/watch?v=KROGER1A1		Feb-21	SLOW GROWT	USD BILLION
71	Sprout Farmers Market	SFM	2.53	2.19	0.86	http://www.youtube.com/watch?v=SFM1A1		Feb-21	GROWTH	USD BILLION
72	Norsk Hydro	NHY	138.14	100.32	0.73	http://svencarlin.com		Feb-21	CYCLIAL	NOK BILLION
73	Alibaba	BABA	478.83	962.47	2.01	http://svencarlin.com		Oct-21	FAST GROWTH	USD BILLION
74	Tesla	TSLA	1014.63	83.58	0.08	http://www.youtube.com/watch?v=TSLA1A1		Feb-21	FAST GROWTH	USD BILLION
75	Amazon	AMZN	1681.57	1535.58	0.91	http://www.youtube.com/watch?v=AMZN1A1		Feb-21	FAST GROWTH	USD BILLION
76	AT&T	T	183.07	193.64	1.06	http://www.youtube.com/watch?v=AT1A1		Feb-21	SLOW GROWT	USD BILLION
77	Ahold	AD	29.61	20.23	0.68	http://www.youtube.com/watch?v=AHOLD1A1		Feb-21	SLOW GROWT	EUR BILLION
78	Wiener	WIE	31.48	20.73	0.66	http://svencarlin.com		Feb-21	CYCLIAL	EUR BILLION
79	Nestle	NESN	228.74	222.43	0.64	http://www.youtube.com/watch?v=NESN1A1		Feb-21	STALWARTH	CHF

Over time, my market capitalization and stock price are updated automatically and if something falls into an intriguing valuation, like Melco currently does, then I investigate it in depth.

I hope my method will give you value over time, don't forget you can download the above intrinsic value template for free here and if you are interested in me

doing the above investing work/research for you, you can always check my [Stock Market Research Platform](#).