Price vs. Value Weighted Index

Assume that we have two stocks in the market

	Today's price	Number of Shares Outstanding	Market Value of the equity (MV)
Stock A	$50	200 mil shares	50*200 mil = 10 bil
Stock B	$20	900 mil shares	20*900 mil = 18 bil

Price weighted index for Today = Stock A Price + Stock B price = 50 + 20 = 70 = 500
Divisor 0.14 0.14

Value weighted index for Today = Stock A (MV) + Stock B (MV) = 10 + 18 = 28 = 70
Divisor 0.4 0.4

	Tomorrow's price	Number of Shares Outstanding	Market Value of the equity (MV)
Stock A	$45	200 mil shares	45*200 mil = 9 bil
Stock B	$22	900 mil shares	22*900 mil =19.8 bil

Price weighted index for Today = Stock A Price + Stock B price = 45 + 22 = 67 = 478.57
Divisor 0.14 0.14

Value weighted index for Today = Stock A (MV) + Stock B (MV) = 9 + 19.8 = 28.8 = 72
Divisor 0.4 0.4

In this example, price weighted index declines while value weighted index rises. Price weighted index declines because it gives more weight to stock A which was declining. While, price weighted index rises because it gives more weight to stock B which was rising.

Which index should be trusted more?

Price weighted index gives more weight to the stock with highest price while value weighted index gives more weight to the stock with highest market value. Value weighted index makes more sense because the stock with highest market value is the one that affect the stock market and the economy more.

Dow Jones industrial average is a price weighted index
S&P 500 index is value weighted index.