Given: (a) FCF of each year t (between 2010 and 2013, both inclusive) grows at 17.5% (g_f) yearly; (b) estimated values of FCF of 2007-2009; (c) perpetual growth rate is 3%.

Based on our background info:

1. S&P grew approximately:
    1. 483% from Jan 1, 1988 to Jan 1, 2008, which is 9.21% annual growth
    2. 1451% from Jan 1, 1978 to Jan 1, 2008, which is 9.568% annual growth
2. CPI grew from 113.6 in Dec 1987 to 207.342 in Dec 2007, which is 3.05% annual growth

We make the following assumptions:

1. For perpetuity:
    1. the average market will grow at a rate equal to that of the S&P in the past 20 years: 9.21% per year
    2. the average annual CPI growth will be equal to that in the past 20 years: 3.05% per year
2. Visa's UL Beta (1.2) is chosen to be slightly below MasterCard's (1.27) because MC is...
    1. a smaller company (smaller companies are more volatile and risky and hence have higher UL betas)
    2. a direct competitor to Visa, so Visa should be close to MC.

Cash flow of year t (year t dollars—this value is unadjusted for inflation) unadjusted for the discount rate is

$FCF_t = FCF_{2009}(1+g_f)^{t-2009}$ for 2010-2013 and $FCF_t = FCF_{2013}(1+g_p)^{t-2013}$ for 2014 and beyond

If inflation is I (0.0305/year), the value of the FCF of year t in 2007 dollars is FCF(t)/(1+I)^(t-2007). Let that be the adjusted future cash flow value: $AFCF_t = \frac{FCF_t}{(1+I)^{t-2007}}$

So the total FCF in 2007 dollars for eternity is the sum of the following:

1. AFCF of 2007-2013: $AFCF_{2007-2013} = \sum_{t=2007}^{2013} \left(\frac{AFCF_t}{(1+r)^{t-2007}}\right)$

2. Perpetual AFCF growing at 3% a year, each divided by the cumulative discount rate for that year (the newlines mean equivalence):

$$AFCF_{2014-\infty}(2007\,dollars)$$
$$\frac{AFCF_{2014}}{(1+r)^{2014-2007}} + \ldots + \frac{AFCF_t}{(1+r)^{t-2007}} + \ldots$$
$$\frac{FCF_{2013}(1+g_p)^{2014-2013}}{((1+r)(1+I))^{2014-2007}} + \ldots + \frac{FCF_{2013}(1+g_p)^{t-2013}}{((1+r)(1+I))^{t-2007}} + \ldots$$
$$\sum_{t=2014}^{\infty} \left(\frac{FCF_{2013}(1+g_p)^{t-2013}}{((1+r)(1+I))^{t-2007}}\right)$$
$$\frac{FCF_{2013}}{((1+r)(1+I))^6} \sum_{t=2014}^{\infty} \left(\frac{1+g_p}{1+I+rI+r}\right)^{t-2013}$$
$$\frac{AFCF_{2013}(1+g_p)}{(1+r)^6(I+rI+r-g_p)}$$

Therefore, the total is just the sum of the two:

$$Total\ AFCF = AFCF_{2007-2013} + AFCF_{2014-\infty} = \left(\sum_{t=2007}^{2013} \frac{AFCF_t}{(1+r)^{t-2007}}\right) + \frac{AFCF_{2013}(1+g_p)}{(1+r)^6(r+rI+r-g_p)}$$