## Pass Volatility Ratio

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In finance, there is something called a debt equity ratio which states how much debt a company has compared to how much ownership it has related to its financial leverage. Essentially, a company that has a high debt equity ratio means a company will be more aggressive in its growth and may lead to financial distress if the earning do not exceed the borrowed funds. This may not seem like it can relate to basketball however it can a lot easier than one thinks. We must consider debt to be a turnover because although it had the promise to perhaps be a very nice pass, the end result was negative. We consider equity to be an assist because it leads to points and ownership of the game in a way. Essentially the turnover to assist ratio is one that is tells us how risk averse a team is willing to play. If a team has a turnover to assist ratio below 1, that means they are not making risky passes. The team is making safe passes and relying on screens or perimeter passing. Having a pass volatility ratio above 1 means that the team is making more aggressive passes whether it be through the paint or in transition offence. If we take an example of this, we can look at McMaster university. McMaster averages 12.5 assists per game as well as 14.2 turnovers per game. In total they have a pass volatility ratio of 1.136 which means that they are either very sloppy with their passes or pass in a transition offence or an offence that relies on passes in the paint. If we look at their next opponent Algoma, who have an average of 12.5 assist per game and 12.4 turnovers per game for a pass volatility of 0.992. This means that Algoma does not like to play a risky game. They make safe simple passes, passes around the perimeter and never anything fancy. Pass volatility ratio is a good statistic when determining how risk averse a team will be with their passing. It can also tell you that maybe the team isn't very good at passing or even positioning and helps determine what to expect from the passing game.