



Quantitative analysis of the PFA Player of the Year and Young Player of the Year. De Bruyne is the best performing nominee and Rashford tops the Young Players' shortlist.

¹Matthew Belford, ²Joe Lawlor

Headlines

- **De Bruyne** is the clear winner. His performances were **6.9%** better than the next highest rated player (**Van Dijk**), and a massive **38.3%** better than the bookmakers' joint favourite, **Henderson**, based on their respective *Carteret Ratings* for the 2019/20 season.
- The second best performing nominee of the 2019/20 season, and the previous season's winner, was **Virgil Van Dijk**, who achieved a clear improvement of **62.9%** on his performance in the previous season.
- **Marcus Rashford** is the best performer out of the Young Player nominees in the 2019/20 season, with a *Carteret Rating* of **314.4**, which is **77.8%** higher than the lowest rated nominee, **Bukayo Saka (176.8)**.
- **Trent Alexander-Arnold**, who is a nominee for both the PFA Player of the Year and Young Player of the Year awards, secured fifth place in the former and second place in the latter with a *Carteret Rating* of **278.1**, a respectable improvement upon **243.8** from the 2018/19 season.

1. A little bit of science...

At Carteret Analytics we have developed the quantitative analysis utilised to good effect in investment banking for trading strategy, portfolio optimisation, derivatives pricing and hedging, and risk management by our sister corporate finance firm, Carteret Capital - and applied it to football.

In particular, our work provides an objective measure of how good a football player really is - removing all the subjective noise and opinions.

An integral part of the analysis is to calculate a ***Carteret Rating***³ for every football player, which rates and values a player's contribution to his team winning football matches. It is incredibly accurate at predicting a player's capabilities. Indeed, we always start with the premise that a professional football club's primary objective is to win matches - and therefore the more a player contributes to his team winning matches, the better the player.

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³ *Carteret Rating*: this is a proprietary method of determining how good a player really is. It is a significant and leading-edge algorithm. We assess a player by identifying every match in which he has been involved (for which we have data) and identifying the key events in each and every one of those matches. These Key Match Events ("KMEs") are events that led to a goal being scored; could have led to a goal being scored; led to a goal being conceded; or could have led to a goal being conceded. Then, for each and every KME, in each and every single match, we analyse that player's contribution to each of those KMEs. This is a substantial piece of analysis, and one which produces a unique *Carteret Rating* for the player. It is a dynamic rating, and it changes with each additional match played.

2. PFA Player of the Year Outcome

2.1 Shortlist

As part of the decision-making process for the award, each member of the Professional Footballers' Association votes for two players, to which a shortlist of nominees is then compiled.

2.2 Carteret Ratings for the 2019/20 season

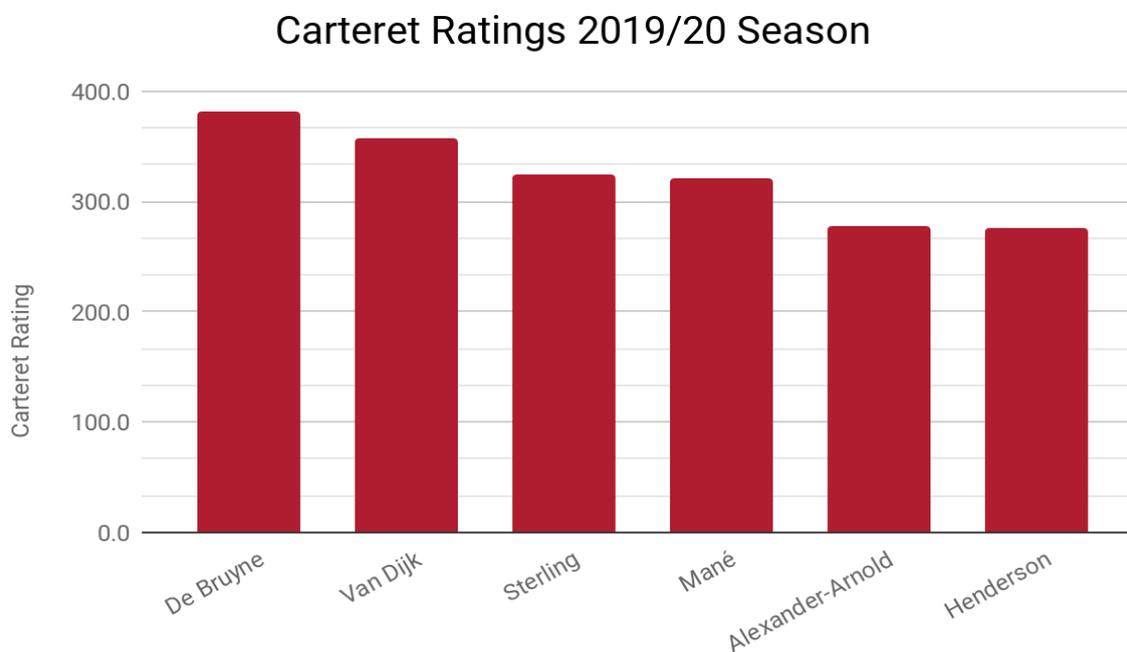
At Exhibit 1 below, the PFA Player of the Year nominees are ranked in order of their respective *Carteret Ratings*. From performances this season, **Kevin De Bruyne** is the exceptional player on the shortlist. His *Carteret Rating* of **382.4** is markedly higher than the next best player in our analysis, **Virgil Van Dijk**, who has achieved a rating of **357.5** despite his impressive 15 clean sheets in the Premier League in the 2019/20 season.

Exhibit 1: Table to show the PFA Player of the Year nominees ranked according to their *Carteret Rating* for the 2019/20 season

Rank	Name	Carteret Rating
1.	Kevin De Bruyne	382.4
2.	Virgil Van Dijk	357.5
3.	Raheem Sterling	325.3
4.	Sadio Mané	321.2
5.	Trent Alexander-Arnold	278.1
6.	Jordan Henderson	276.6

Source: Carteret Analytics, London

Exhibit 2 below, displays visually the *Carteret Ratings* from Exhibit 1. This clearly shows that **Kevin De Bruyne** is ahead, but also shows that there are two groupings. There is little difference between **Raheem Sterling** in third with a *Carteret Rating* of **325.3** and **Sadio Mané** with a rating of **321.2**. There is then a second grouping where there is an even smaller differential between **Trent Alexander-Arnold** in fifth place with *Carteret Rating* of **278.1** and **Jordan Henderson** in sixth with a rating of **276.6**.

Exhibit 2: Bar chart to show PFA Player of the Year nominees respective Carteret Ratings for the 2019/20 season

Source: Carteret Analytics, London

2.3 Carteret Ratings for the 2018/19 season

Exhibit 3 below, ranks this year's nominees in order according to their respective *Carteret Ratings* for the 2018/19 season. Interestingly, **Raheem Sterling** was the clear front-runner with a rating of **350.0**. This score is **59.3%** higher than this year's leader, **Kevin De Bruyne**, who was in fifth place with a *Carteret Rating* of **219.7**.

Exhibit 3: Table to show the PFA Player of the Year nominees ranked according to their Carteret Rating for the 2018/19 season

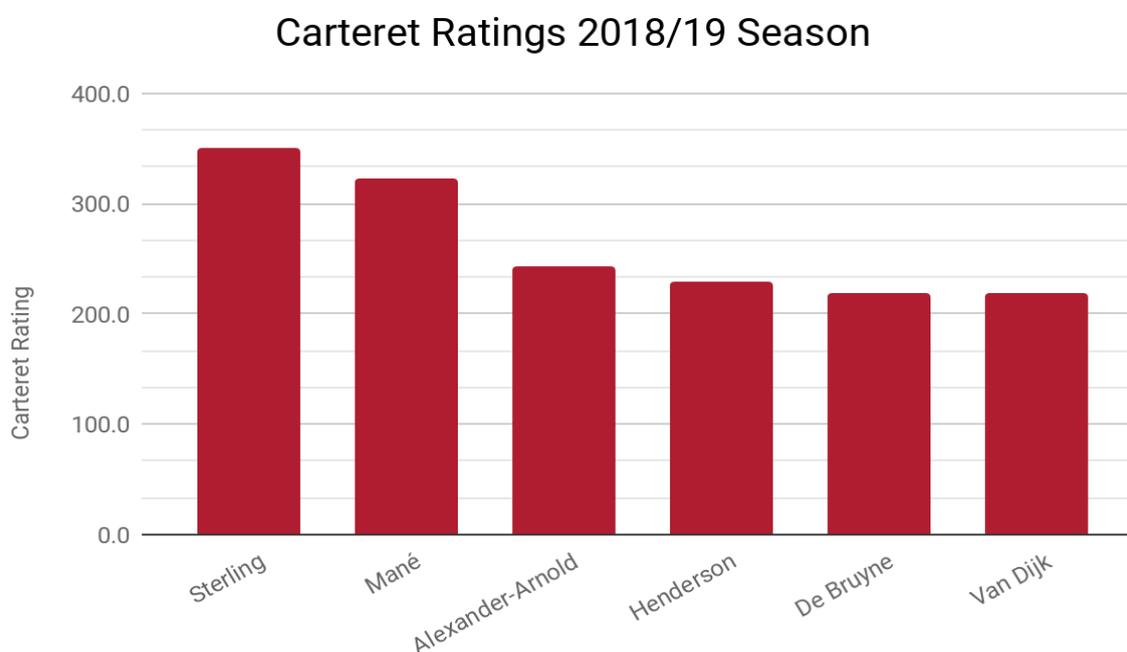
Rank	Name	Carteret Rating
1.	Raheem Sterling	350.0
2.	Sadio Mané	323.0
3.	Trent Alexander-Arnold	243.8
4.	Jordan Henderson	228.5
5.	Kevin De Bruyne	219.7
6.	Virgil Van Dijk	219.5

Source: Carteret Analytics, London

Exhibit 4 below presents a sharp contrast to Exhibit 2 in that it visually illustrates just how much **Kevin De Bruyne's** performances have improved since the previous season.

It also presents a grouping between **Kevin De Bruyne** and **Virgil Van Dijk**, with respective *Carteret Ratings* of **219.7** and **219.5**, demonstrating that both players have gone from the bottom of the list to the top.

Exhibit 4: Bar chart to show the PFA Player of the Year nominees respective *Carteret Ratings* from the 2018/19 season



Source: Carteret Analytics, London

2.4 Comparison of Carteret Ratings between the 2018/19 season and the 2019/20

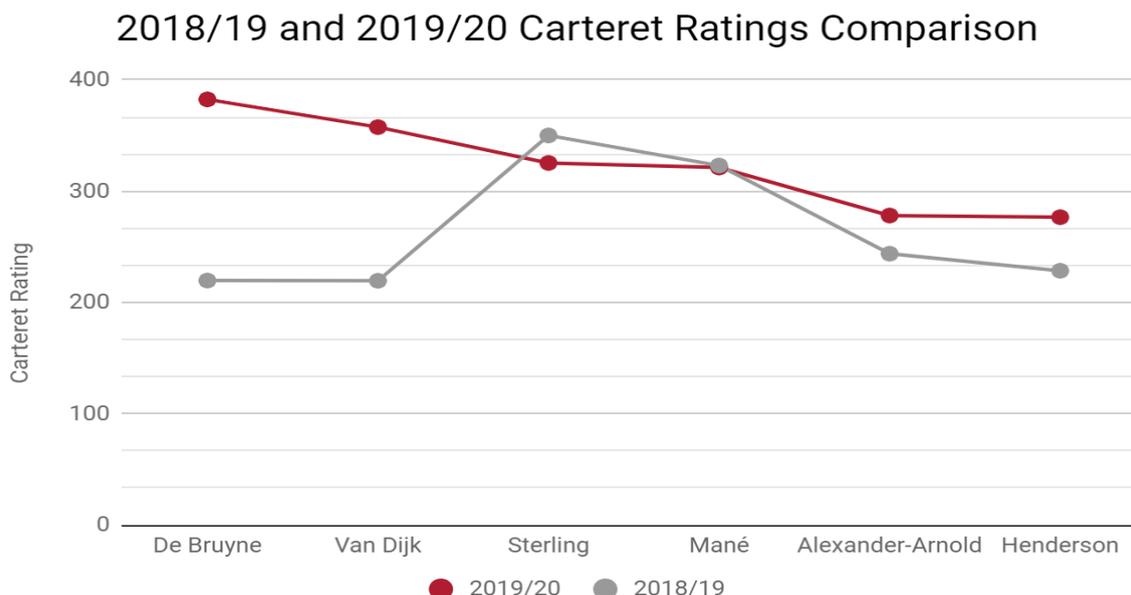
Exhibit 5 below showcases the significant increase in the performance levels of both **Kevin De Bruyne** and **Virgil Van Dijk**. It also shows the consistent level of **Raheem Sterling** who has achieved a marginally higher *Carteret Rating* of **384.7** this season compared with **382.6** for the 2018/19 season. The same can be attributed to **Sadio Mané**, who achieved a marginally lower *Carteret Rating* of **321.2** compared with **323.0** for the previous season. Interestingly, **Mohamed Salah's** *Carteret Rating* for the 2019/20 season was actually higher than his Liverpool counterpart's at **345.0**, yet he was not nominated for the award.

Kevin De Bruyne is seen to be the player with the largest increase between the two seasons' *Carteret Ratings* with a significant increase of **74.1%** to **382.4** from **219.7**. As can be seen below this drastic increase leaves De Bruyne in top place, in comparison with fifth for last season.

Virgil Van Dijk has experienced a similar positive increase to that of **Kevin De Bruyne** with a **62.9%** increase in his *Carteret Rating* from **219.5** to **357.5**. This increase also moves the defender higher up the ranks to sit second, as opposed to sixth for the 2018/19 season.

The line graph illustrates that both **Trent Alexander-Arnold** and **Jordan Henderson** have made consistent improvements, which reflects Liverpool's success in achieving their first Premier League title in the 2019/20 season.

Exhibit 5: Line graph to show comparative Carteret Ratings for the PFA Player of the Year nominees for season 2018/19 and 2019/20



Source: Carteret Analytics, London

3. PFA Young Player of the Year Outcome

3.1 Carteret Ratings for the 2019/20 season

At Exhibit 6 below, the PFA Young Player of the Year nominees are ranked in order of their respective *Carteret Ratings*. From performances this season, **Marcus Rashford** is the outstanding player on the shortlist. His *Carteret Rating* of **314.4** is markedly higher than the next best player in our analysis, **Trent Alexander-Arnold**, who has achieved a rating of **278.1** despite his impressive 13 assists.

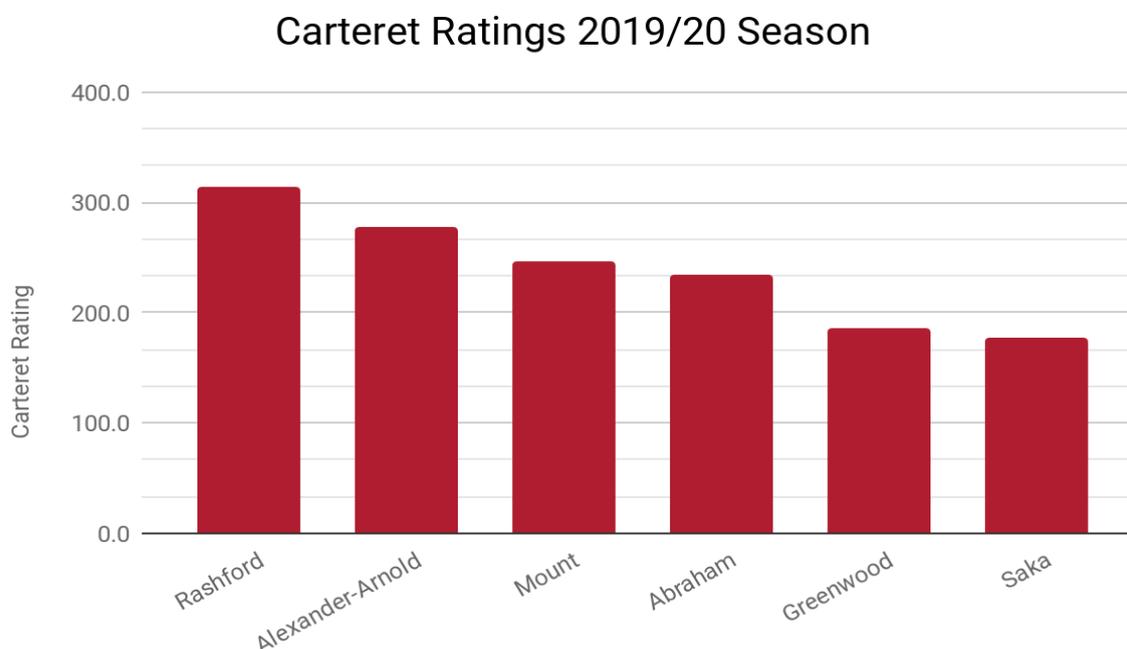
Exhibit 6: Table to show the PFA Young Player of the Year nominees ranked according to their Carteret Rating for the 2019/20 season

Rank	Name	Carteret Rating
1.	Marcus Rashford	314.4
2.	Trent Alexander-Arnold	278.1
3.	Mason Mount	247.4
4.	Tammy Abraham	234.2
5.	Mason Greenwood	185.8
6.	Bukayo Saka	176.8

Source: Carteret Analytics, London

Exhibit 7 below demonstrates that **Marcus Rashford** is head and shoulders above the rest with a *Carteret Rating* of **314.4**. This indicates that there is quite a disparity with the bottom two players, **Mason Greenwood** and **Bukayo Saka**, with *Carteret Ratings* of **185.8** and **176.8**, respectively. **Rashford's** rating is a staggering **77.8%** higher than **Saka's**, highlighting a polarity between the nominees. There is little difference between Chelsea colleague's **Mason Mount** and **Tammy Abraham** whose respective *Carteret Ratings* are **247.4** and **234.2**.

Exhibit 7: Bar chart to show PFA Young Player of the Year nominees respective *Carteret Ratings* for the 2019/20 season



Source: Carteret Analytics, London

4. About Carteret Analytics

Carteret Analytics is part of the Carteret Group of companies, based in the City of London, New York and Geneva. It provides leading-edge quantitative analysis and commercial analytics to clients worldwide, with particular expertise in the sports sector. In football our work includes player rating and valuation, head coach assessment, team performance analysis, and applying proprietary analytics to transform commercial revenues.

Contact details

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