



Quantitative analysis of the 10 leading contenders for the 2019 Ballon d'Or award. Spoiler alert (sort of): Messi is still the best player in the world, and by some margin.

¹Jack Morris, ²Jack Smith

Headlines

- **Messi** is the clear winner. His performances were **14%** better than the next highest rated player (**Lewandowski**), and a massive **32.4%** better than the bookmakers' second favourite, **Van Dijk** based on their respective *Carteret Ratings* so far for the 2019/20 season.
- Cristiano Ronaldo's *Carteret Rating* has decreased by only **12.2%**; however, this slight dip does see him fall from third to ninth in comparison to the other top 10 bookmakers' favourites.
- The second best performing player of the 2018/19 season was **Neymar** (*Carteret Rating: 446.2*) and he did not even make the shortlist.
- Last year's winner of the Ballon D'Or - **Luka Modric** - did not even make the original 30-man shortlist, nevermind the bookmakers' top 10 favourites to win the award.

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.

¹ Jack Smith, Corporate Finance Analyst - Carteret Capital, London. T: +44 20 3876 2414. E: jsmith@carteretcapital.com

² Jack Morris, Corporate Analyst - Carteret Analytics, London. T: +44 20 3876 2414. E: jmorris@carteretcapital.com

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. Ballon d'Or Outcome

2.1 30-man Shortlist

As part of the decision making process for the award, there is an initial 30-man shortlist. This shortlist is then voted on by journalists to decide who is awarded FranceFootball's Ballon d'Or.

As part of our analysis, we shortened the initial list to include the top 10 bookmakers' favourites according to Oddschecker⁴ 28 November 2019. The top 10 favourites list is dominated by 4 Liverpool players and 3 Manchester City players to total 70% of the list.

2.2 Carteret Ratings for the 2019/20 season to date

At Exhibit 1 below, the bookmakers' favourites are ranked in order of their respective *Carteret Ratings*. From performances to date this season, **Lionel Messi** is the standout player on the shortlist. His *Carteret Rating* of **521.9** is far higher than the next best player in our analysis, **Robert Lewandowski**, who has achieved a rating of **448.9** despite his goal scoring statistics this season sitting at an impressive 27 goals in 20 games.

Exhibit 1: Table to show the Ballon d'Or favourites ranked according to their *Carteret Rating* for the 2019/20 season to date

Rank	Name	Carteret Rating	Rank	Name	Carteret Rating
1.	Lionel Messi	521.9	6.	Virgil Van Dijk	352.7
2.	Robert Lewandowski	448.9	7.	Bernardo Silva	346.4
3.	Kevin De Bruyne	395.4	8.	Mohammed Salah	341.7
4.	Raheem Sterling	384.7	9.	Cristiano Ronaldo	337.1
5.	Sadio Mane	375.4	10.	Alisson Becker	226.3

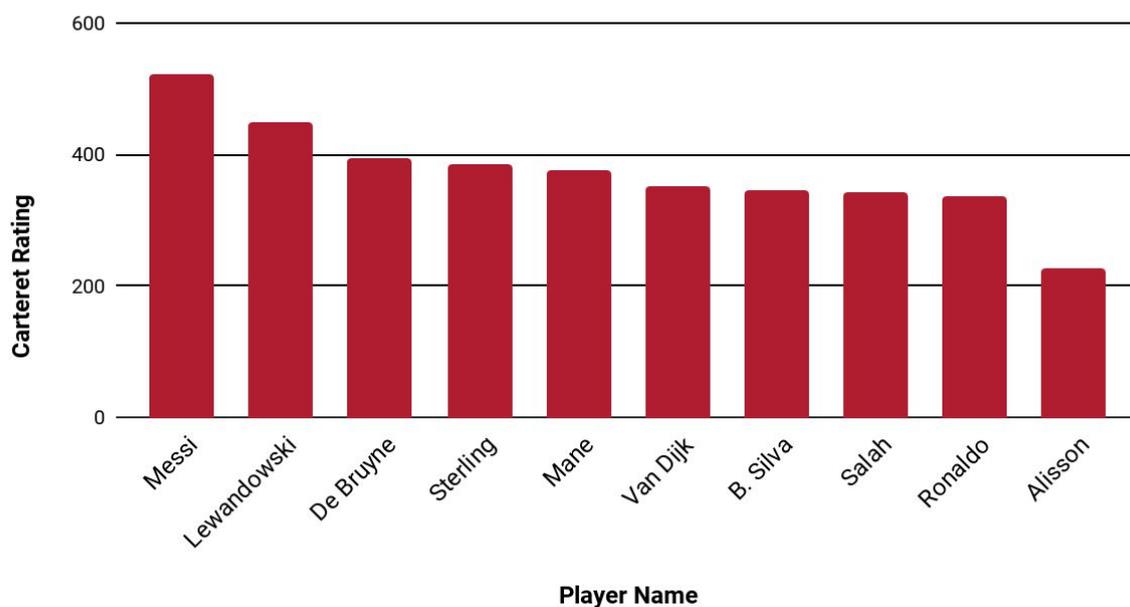
Source: Carteret Analytics, London

Exhibit 2 below, displays visually the *Carteret Ratings* from Exhibit 1. This clearly shows that **Lionel Messi** is ahead, but also shows that there are two groupings which include 6 of the 7 EPL representatives. There is little difference between **Kevin De Bruyne** in third with a *Carteret Rating* of **395.4** and **Sadio Mane** in fifth with a rating of **375.4**. There is then a second grouping of EPL players where there is an even smaller differential between **Virgil Van Dijk** in sixth place with *Carteret Rating* of **352.7** and **Mohammed Salah** in eight with a rating of **341.7**.

⁴ <https://www.oddschecker.com/football/football-specials/ballon-dor/player-of-the-year>

Exhibit 2: Bar chart to show bookmakers' Ballon d'Or top 10 favourites respective Carteret Ratings for the 2019/20 season to date

Carteret Ratings 2019/2020



Source: Carteret Analytics, London

2.3 Carteret Ratings for the 2018/19 season

Exhibit 3 below, ranks the bookmakers' top 10 favourites in order according to their respective *Carteret Ratings* for the 2018/19 season. Again, as may be expected, **Lionel Messi** is the clear front-runner with a rating of **518.4**. This score is **25.9%** higher than **Cristiano Ronaldo** who lies in second place with a *Carteret Rating* of **384.3**.

Exhibit 3: Table to show the Ballon d'Or favourites ranked according to their Carteret Rating for the 2018/19 season

Rank	Name	Carteret Rating	Rank	Name	Carteret Rating
1.	Lionel Messi	518.4	6.	Sadio Mane	353.3
2.	Cristiano Ronaldo	384.3	7.	Robert Lewandowski	349.6
3.	Raheem Sterling	382.6	8.	Bernardo Silva	338.9
4.	Virgil Van Dijk	380.6	9.	Alisson Becker	238
5.	Mohammed Salah	364.2	10.	Kevin De Bruyne	223.1

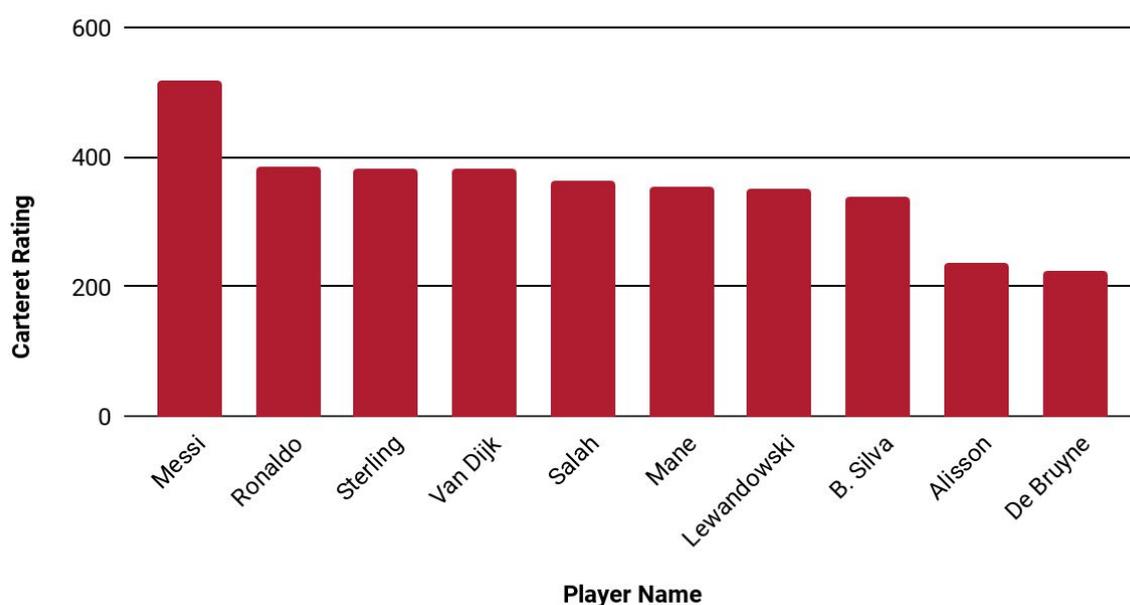
Source: Carteret Analytics, London

Exhibit 4 below is similar to Exhibit 2 in that it visually illustrates just how substantial the gap is between **Lionel Messi** and the next best rated player.

It also presents a grouping between **Cristiano Ronaldo**, **Raheem Sterling** and **Virgil Van Dijk** who have *Carteret Ratings* of **384.3**, **382.6** and **380.6** respectively.

Exhibit 4: Bar chart to show the bookmakers' Ballon d'Or top 10 favourites respective *Carteret Ratings* from the 2018/19 season

Carteret Ratings 2018/19



Source: Carteret Analytics, London

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

Exhibit 5 below showcases the consistency of the two *Carteret Ratings* that **Lionel Messi** has achieved (**521.9** and **518.4**). It also shows the consistent level of **Raheem Sterling** who has achieved a marginally higher *Carteret Rating* of **384.7** this season to date compared with **382.6** for the 2018/19 season.

As mentioned in the Headlines section above, **Cristiano Ronaldo's** *Carteret Rating* dropped by **12.2%** from **384.3** for the 2018/19 season to **337.1** for the current season to date. This dip leaves him second lowest for the current season with the only Goalkeeper in the top 10 bookmakers' favourites, **Alisson**, below him.

Kevin De Bruyne is seen to be the player with the largest increase between the two seasons' *Carteret Ratings* with an increase of **43.6%** to **395.4** from **223.1**. As can be seen below this drastic increase leaves De Bruyne in third place for this season so far, in comparison with tenth for last season.

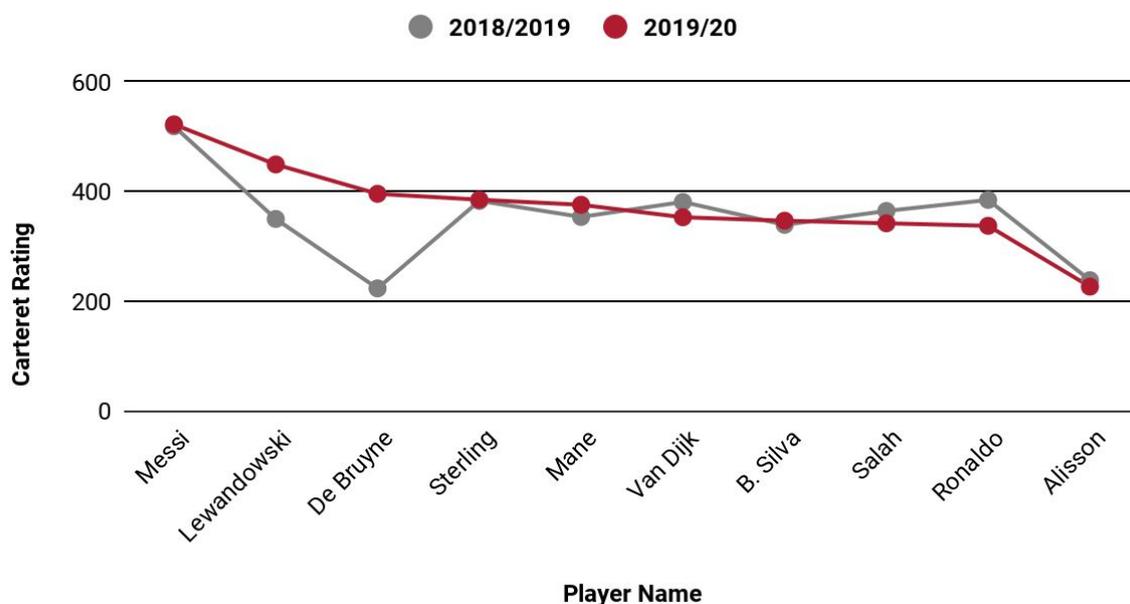
Robert Lewandowski has experienced a similar positive increase to that of **Kevin De Bruyne** with a **22.1%** increase in his *Carteret Rating* from **349.6** to **448.9**. This increase also moves the striker higher

up the ranks to sit second to Lionel Messi so far this season as opposed to seventh for the 2018/19 season.

The line graph does illustrate that **Virgil Van Dijk** is another player who holds a consistently high *Carteret Rating*. This is an illustration of common divergence between subjective opinions and objective analysis. Many commentators consider **Van Dijk** to have had an excellent 2018/19 season as he won the UEFA Champions League and he has started the current season very strongly with Liverpool who are currently leading the English Premier League and are 8 points clear of Leicester in second place. In many respects **Van Dijk** has been outstanding, however, in the rarified group of players included in this Ballon d'Or top 10 favourites, his rating illustrates that he still has some distance to go to climb out of the middle of the pack into the top 3 despite being the bookmakers' second favourite to win the award.

Exhibit 5: Line graph to show comparative Carteret Ratings for the bookmakers' top 10 favourites for season 2018/19 and 2019/20 to date.

2018/19 and 2019/20 Carteret Ratings Comparison



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

At Carteret Analytics, we have developed quantitative analysis methods that have been 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.

James Powell - CEO, Carteret Group

E: jpowell@carteretcapital.com - T: +44 20 3876 2414

Stephen Metcalfe - COO, Carteret Group

E: smetcalfe@carteretcapital.com - T: +44 20 3876 2414

Jack Morris - Corporate Analyst, Carteret Analytics

E: jmorris@carteretcapital.com - T: +44 20 3876 2414

Jack Smith - Corporate Finance Analyst, Carteret Capital

E: jsmith@carteretcapital.com - T: +44 20 3876 2414