



# Northern Ireland Football League

# Season Curtailment Recommendation

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June 2020



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# Report Brief

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On 22 June, the NIFL agreed to curtail the 2019/20 season, and use a mathematical model to determine the final league standings in each division.

The possible models were to be assessed against three principles:

1. Alignment with UEFA principles of applying an objective, transparent, and non-discriminatory procedure that is based on sporting merit
2. Alignment with other curtailed European leagues
3. Assessment of model appropriateness based on 21<sup>st</sup> Club statistical expertise

Two models have been assessed as part of the brief:

1. **Points per game average:** taking a team's current points and dividing it by the number of matches played to date
2. **Weighted points per game average:** taking a team's home and away points per game to date and multiplying these two values by the number of home and away games each team was scheduled to play during the entire season, to provide a final points total



## Recommendation

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# Executive Summary

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**21<sup>st</sup> Club** recommend using a points per game average to determine the final league standings in all three divisions.

Points per game best fulfils the three principles that are used to assess model suitability, specifically:

1. It is an objective, transparent, non-discriminatory procedure that is based on sporting merit
2. It has been applied in other European top divisions to curtail their seasons
3. It is a statistically appropriate method that uses the biggest sample of matches available to make an assessment on each team

Weighted points per game average fulfils the first principle, but has not been used by any other European top divisions, and is also more susceptible to being skewed by smaller sample sizes when projecting end-of-season outcomes.



# Points per game average is the model that best fulfils the principles set out by the NIFL

## Review of models vs principles

Principle	Points Per Game Average	Weighted Points Per Game Average
Alignment with UEFA principles of applying an objective, transparent, and non-discriminatory procedure that is based on sporting merit	 <ul style="list-style-type: none"> <li>Points per game average is a transparent, objective methodology</li> <li>It is not biased towards any particular type of club</li> <li>It reflects sporting performance to date</li> </ul>	 <ul style="list-style-type: none"> <li>Weighted points per game average is a transparent, objective methodology</li> <li>It is not biased towards any particular type of club</li> <li>It reflects sporting performance to date</li> </ul>
Alignment with other curtailed European leagues	 <ul style="list-style-type: none"> <li>France, Scotland and Wales' top divisions all applied points per game averages to their curtailed seasons.</li> <li>Wales used goal difference as a tiebreaker, whereas France used head-to-head results only if all fixtures had been played between the relevant teams</li> <li>For all other leagues, in the event that all teams had played the same number of games, the standings at the point of the league's suspension stood as final</li> </ul>	 <ul style="list-style-type: none"> <li>No other European first division has chosen to apply weighted points per game average as part of its season curtailment</li> <li>In the event that all teams had played the same number of games, no league sought to make an adjustment based on matches that were due to be played (a key principle behind weighted points per game average)</li> </ul>
Assessment of model appropriateness based on 21st Club statistical expertise	 <ul style="list-style-type: none"> <li>While points per game does not reflect the difficulty of matches still to be played, it uses the maximum sample of matches available from the season to make an assessment of team quality and, in effect, forecast future results (i.e. assumes a team's points per game 'run rate' for the rest of the season is constant)</li> </ul>	 <ul style="list-style-type: none"> <li>Compared to points per game average, weighted points per game uses a smaller sample size (i.e. subsets of home/away games) to, in effect, forecast future results</li> <li>In the event that a team has had a particularly skewed schedule (easy or hard), using this smaller sample size of matches can under- or overestimate a team's future points by more than the effect of having played an uneven number of home and away matches</li> </ul>

# League Tables

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## Danske Bank Premiership

# Recommended final standings based on points per game average

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Pos	Team	P	W	D	L	F	A	GD	Pts	PPG
1	Linfield	31	22	3	6	71	24	+47	69	2.23
2	Coleraine	31	19	8	4	64	24	+40	65	2.10
3	Crusaders	31	17	8	6	66	30	+36	59	1.90
4	Cliftonville	31	18	5	8	48	22	+26	59	1.90
5	Glentoran	31	17	7	7	60	33	+27	58	1.87
6	Larne	31	16	8	7	59	29	+30	56	1.81
7	Glenavon	31	10	5	16	46	71	-25	35	1.13
8	Carrick Rangers	31	10	2	19	34	47	-13	32	1.03
9	Dungannon Swifts	31	8	6	17	36	76	-40	30	0.97
10	Ballymena United	31	7	6	18	34	54	-20	27	0.87
11	Warrenpoint Town	31	5	3	23	26	85	-59	18	0.58
12	Institute	31	2	9	20	23	72	-49	15	0.48

Given every team in the Danske Bank Premiership has played the same number of matches, the application of points per game average is academic, but is provided for consistency. The tiebreak between Crusaders and Cliftonville is determined by goal difference, in accordance with the normal tiebreaker rules for the Premiership and in alignment with other leagues.

## Bluefin Sport Championship

### Recommended final standings based on points per game average

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Pos	Team	P	W	D	L	F	A	GD	Pts	PPG
1	Portadown	31	20	6	5	72	30	+42	66	2.13
2	Ballinamallard United	30	19	3	8	71	34	+37	60	2.00
3	Loughgall	31	18	4	9	64	45	+19	58	1.87
4	Ards	31	16	6	9	68	44	+24	54	1.74
5	Newry City	30	15	6	9	55	32	+23	51	1.70
6	Dundela	31	13	7	11	43	49	-6	46	1.48
7	Ballyclare Comrades	30	11	7	12	53	49	+4	40	1.33
8	HW Welders	31	10	5	16	52	63	-11	35	1.13
9	Queens University	31	11	1	19	59	69	-10	34	1.10
10	Dergview	30	8	5	17	38	54	-16	29	0.97
11	Knockbreda	30	7	4	19	36	84	-48	25	0.83
12	PSNI	30	7	2	21	40	98	-58	23	0.77

## Bluefin Sport Premier Intermediate

### Recommended final standings based on points per game average

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Pos	Team	P	W	D	L	F	A	GD	Pts	PPG
1	Annagh United	14	10	3	1	32	14	+18	33	2.36
2	Portstewart	14	8	6	0	28	13	+15	30	2.14
3	Dollingstown	13	8	1	4	31	15	+16	25	1.92
4	Bangor	12	6	2	4	30	21	+9	20	1.67
5	Newington	11	5	3	3	16	18	-2	18	1.64
6	Banbridge Town	12	3	4	5	16	20	-4	13	1.08
7	Armagh City	14	3	5	6	15	26	-11	14	1.00
8	Lisburn Distillery	13	3	4	6	13	25	-12	13	1.00
9	Moyola Park	12	3	1	8	21	28	-7	10	0.83
10	Limavady United	13	2	3	8	21	32	-11	9	0.69
11	Tobermore United	12	2	2	8	14	25	-11	8	0.67

# Appendix 1

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# Determination of final standings in curtailed European leagues

League	Methodology applied	Detail
Azerbaijan Premier League	Standings at season suspension	Every team had played the same number of matches. No adjustment made to reflect unplayed matches
Belgium First Division A	Standings at season suspension	Every team had played the same number of matches. No adjustment made to reflect unplayed matches
Bosnia and Herzegovina Premier League	Standings at season suspension	Every team had played the same number of matches. No adjustment made to reflect unplayed matches
Cyprus Cypriot First Division	Standings at season suspension	Season declared void, European places decided based on standings at season suspension with everyone having played the same number of matches
France Ligue 1	Points per game average	Head-to-head used as a tiebreaker instead of goal difference, but only if the teams had played each other twice
Gibraltar National League	Standings at season suspension	Season declared void, European places decided based on standings at season suspension; points per game methodology would not have altered European positions
Luxembourg National Division	Standings at season suspension	Every team had played the same number of matches. No adjustment made to reflect unplayed matches
Malta Premier League	Standings at season suspension	Every team had played the same number of matches. No adjustment made to reflect unplayed matches
Netherlands Eredivisie	Standings at season suspension	Season declared void, European places decided based on standings at season suspension; points per game methodology would not have altered European positions
North Macedonia First Football League	Standings at season suspension	Season declared void, European places decided based on standings at season suspension with everyone having played the same number of matches
San Marino Campionato Sammarinese di Calcio	Standings at season suspension	Every team had played the same number of matches. No adjustment made to reflect unplayed matches
Scotland Premiership	Points per game average	Curtailed meant the league split did not take place. Goal difference used as a tiebreaker between teams
Wales Cymru Premier	Points per game average	Curtailed meant the league split did not take place. Goal difference used as a tiebreaker between teams

# Models considered but rejected

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The following two models were not placed through the assessment process, for the reasons described below

Model	Description	Reason model was rejected
Standings after 22 matches (Premiership & Championship)	League standings after 22 matches, on the basis that this was the only point of the season where every team had played each other twice; once at home and once away	In the top two divisions, this meant disregarding the results of up to 9 matches, and therefore violated the principle of sporting merit. Also, no other league adopted this approach to curtailing the season
Projected league standings based on 21 <sup>st</sup> Club simulation model	Leveraging 21 <sup>st</sup> Club team ratings and simulation model to forecast the most likely end-of-season standings, accounting for future fixtures	This model uses a machine learning algorithm, which limits the degree of transparency in determining the final standings. This therefore violates one of UEFA's principles for season curtailment



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