



An analysis of the player transfer activity of each English Football League club in the Summer 2020 Transfer Window to determine, based on quantitative measures, which club has been most successful

Matthew Belford¹, Jack Morris², James Powell³

1. So, how active have the English Football League clubs been in the domestic transfer window?

Following on from what was an interesting International Deadline Day, the Domestic Transfer Window extension is a second chance for EPL and EFL clubs to bring in new players and finalise prospective sales.

In total the EFL Clubs have spent just **£56.4m** on player transfers in this window but generated **£312.9m** in player sales. Overall the net expenditure during the Summer Transfer Window has been **£256.5m**.

2. The research headlines

- Based on our objective analysis of every domestic transfer deal completed, **Norwich City** have conducted the best transfer business of the EFL clubs. They have acquired **Jordan Hugill** and **Kieran Dowell** for transfer fees significantly lower than their *Intrinsic value* and sold **Ben Godfrey** and **Jamal Lewis** for a combined comparable performance value delta of over **£14m**.
- The biggest transfer of the Summer 2020 Transfer Window saw the departure of striker **Oliver Watkins** to **Aston Villa**, a **£27.72m** signing from Championship side **Brentford**. This transfer was more than two thirds of the total **£6.57m** **Brentford** have spent on new players during this window as they look to strengthen their squad to ensure they can challenge for promotion again in the 2020/21 season.
- In League One the biggest spenders have been **Peterborough United**, spending a combined total of **£2.25m** on striker **Jonson Clarke-Harris** and former loanee, **Sammie Szmodics**. This comparatively high level of spending was supported by funds generated from the transfer of striker **Ivan Toney**, who was sold to **Brentford** for **£5.04m**. **Peterborough United** have made a net profit of **£2.79m** in this transfer window and will be hoping that their new signings can fill the attacking void left by Toney, who scored 24 goals in the 2019/20 season.

¹ Matthew Belford, Director, Carteret Group, London. T: +44 20 3876 2414. E: mbelford@carteret.group

² Jack Morris, Corporate Analyst, Carteret Group, London. T: +44 20 3876 2414. E: jmorris@carteret.group

³ James Powell, Chief Executive Officer, Carteret Group, London. T: +44 20 3876 2414. E: jpowell@carteret.group

3. 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 Rating⁴** 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.

Carteret Analytics has also extended the *Carteret Rating* to give each player an **Intrinsic Value** (in monetary terms). This is essentially the value of the player 'in use' - the monetary value of his contribution to his club winning football matches. It is a sophisticated financial calculation - utilising proprietary algorithms - and which can be applied to and by other clubs. This enables, for example, a prospective buying club to virtually (yet objectively) 'transplant' a player into its own team to determine his potential *Intrinsic Value* for the buying club. Once the prospective buying club has this information, it can help inform them of the appropriate transfer fee to offer to the player's current club.

4. Intelligent business

The *Intrinsic Value* of **Kieran Dowell** to Norwich City is **£12.39m**, this is over **525%** higher than the **£1.98m** transfer fee paid for the attacking midfielder. This represents an excellent deal for Norwich. It appears that in monetary terms, his objective performance levels have not been reflected in the transfer fee paid. The data suggests that at the age of 23, Kieran Dowell has yet to reach his peak, and his performance levels will continue to improve over the next four to five years.

Another excellent piece of transfer business by Norwich, was the acquisition of striker **Jordan Hugill** from West Ham United for **£2.97m**. **Hugill** has an *Intrinsic Value* to Norwich City of **£11.5m**. The deal represents an additional **£8.53m (287%)** of objective playing performance when compared to the initial fee paid. Hugill is a proven goal scorer in the Championship, scoring a total of 13 goals in 39 matches during a loan spell at Queens Park Rangers in the 2019/20 season.

The sale of central defender **Nathan Aké**, from AFC Bournemouth to Manchester City for **£40.77m** represents smart business for the South Coast club. A percentage delta of over **51%** when compared to his *Intrinsic Value* of **£19.94m**. Interestingly, with a total net income of **£79.25m** being made on player sales during the Summer Transfer Window, AFC Bournemouth have not made any significant signings, to replace the players who have recently left the club.

Another notable transfer deal was completed by Queens Park Rangers. The sale of attacking midfielder **Eberechi Eze**, to Crystal Palace for **£16.02m**, represents an upside on the deal of **80%** when compared to his *Intrinsic Value* of only **£3.21m**. The *Intrinsic Value* demonstrates, in monetary terms, **Eze's**

⁴ *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.

contribution to Queens Park Rangers winning football matches. This shows that the club have made a great profit on the deal and now have the funds to find an even better player or players.

5. Who sold players for less than their Intrinsic Value?

There have been notable sales completed by clubs which are at a price that is more than **10%** under their *Intrinsic Value* to the selling club. This is what we have classed as a notable undervalue of the performance that player brought to the team.

The player that was sold for the largest amount lower than their *Intrinsic Value* to their previous club, was **Niclas Eliasson** from Bristol City to Nîmes Olympique. The *Intrinsic Value* he held for Bristol City was **£5.37m** meaning that Bristol City sold **Eliasson** at an undervalue of **£2.67m** when they allowed him to depart to join Nîmes Olympique for **£2.7m**. At the age of 24, **Eliasson** is still a considerable time away from his prime playing years (27-29 years old). As **Eliasson** is yet to reach peak performing years, it is believed that a player's performance will (typically) continue sustainable growth through to their prime. This suggests that Bristol City should have negotiated to increase the transfer fee from Nîmes Olympique to better reflect the loss of a player who's value would continue to increase as he matures. In addition, his contribution to Bristol City winning football matches was at a much higher objective performance level than was reflected in the transfer fee paid.

Modou Barrow's transfer from Reading to Jeonbuk Motors and **Bersant Celina's** transfer from Swansea to Dijon are both transfers that have been completed for values lower than their *Intrinsic Value*. At 28 and 24 respectively, they have been sold at values **£2.28m** and **£1.05m** less than their *Intrinsic Values* to their previous clubs.

6. Intrinsic Value - the data analysis of 'The good, the average and the... let's see'

The tables below highlight whether a team has had a good, average or below average Summer Transfer Window by showing the *Intrinsic Value* each player holds for the club that they are either arriving to or departing from within the EFL in contrast with their actual transfer value.

'Good Value' is defined as completing transfers where the Club has either:

- purchased players for $\geq 10\%$ less than their *Intrinsic Value*; or
- sold players for $\geq 10\%$ more than their *Intrinsic Value*.

'Average Value' is defined as having either:

- purchasing/selling players for values within 10% of their *Intrinsic Value*.

'Below Average Value' is defined as completing transfers where the Club has either:

- purchased players for $\leq 10\%$ more than their *Intrinsic Value*; or
- sold players for $\leq 10\%$ less than their *Intrinsic Value*

EFL Clubs - Good Value Business - Summer 2020 Transfer Window					
Team	Arrivals	Departures	Intrinsic Value	Transfer Fee	Intrinsic Value Delta
Norwich City	Jordan Hugill Kieran Dowell	Ben Godfrey Jamal Lewis	£11,500,000	£2,970,000	£8,530,000
			£12,390,000	£1,980,000	£10,410,000
			£14,640,000	£24,750,000	£10,110,000
			£10,700,000	£14,850,000	£4,150,000
Brentford	Ivan Toney	Oliver Watkins	£9,810,000	£5,040,000	£4,770,000
			£8,550,000	£27,720,000	£19,170,000
Bournemouth		Nathan Aké Callum Wilson Aaron Ramsdale	£19,940,000	£40,770,000	£20,830,000
			£13,840,000	£20,030,000	£6,190,000
			£13,440,000	£18,450,000	£5,010,000
Peterborough United	Jonson Clarke-Harris	Ivan Toney	£590,000	£1,260,000	£670,000
			£800,000	£5,040,000	£4,240,000
QPR	Rob Dickie Lyndon Dykes Macauley Bonne	Eberechi Eze	£2,980,000	£2,430,000	£550,000
			£3,280,000	£1,980,000	£1,300,000
			£2,320,000	£1,980,000	£340,000
			£3,210,000	£16,020,000	£12,810,000
Stoke City	Jacob Brown		£6,600,000	£1,980,000	£4,620,000
Cardiff City	Kieffer Moore		£6,540,000	£1,980,000	£4,560,000

EFL Clubs - Average Value Business - Summer 2020 Transfer Window					
Team	Arrivals	Departures	Intrinsic Value	Transfer Fee	Intrinsic Value Delta
Birmingham City		Jude Bellingham Álvaro Giménez	£3,980,000	£20,700,000	£16,720,000
			£3,150,000	£2,430,000	-£720,000
Oxford United		Rob Dickie	£720,000	£2,430,000	£1,710,000
Wigan Athletic		Kieffer Moore Antonee Robinson	£830,000	£1,980,000	£1,150,000
			£730,000	£1,890,000	£1,160,000
Nottingham Forest	Scott Mckenna	Matty Cash	£4,210,000	£2,940,000	£1,270,000
			£6,360,000	£14,180,000	£7,820,000
Huddersfield		Steve Mounié Karlán Grant	£4,960,000	£4,500,000	-£460,000
			£8,070,000	£14,850,000	£6,780,000
Swansea		Joe Roden Bersant Celina	£4,800,000	£11,000,000	£6,200,000
			£3,750,000	£2,700,000	-£1,050,000
Reading	Ovie Ejaria	Modou Barrow	£5,370,000	£3,510,000	£1,860,000
			£3,720,000	£1,440,000	-£2,280,000
Bristol Rovers		Jonson Clarke-Harris	£770,000	£1,260,000	£490,000
Charlton Athletic		Macauley Bonne	£1,340,000	£1,980,000	£640,000
Hull City		Leonardo da Silva Lopes	£1,420,000	£1,800,000	£380,000
Watford		Abdoulaye Doucouaré Pervis Estupiñán Dimitri Foulquier	£15,970,000	£19,890,000	£3,920,000
			£12,130,000	£14,760,000	£2,630,000
			£2,820,000	£1,800,000	-£1,020,000
Barnsley	Herbie Kane	Jacob Brown	£1,840,000	£1,250,000	£590,000
			£1,930,000	£1,980,000	£50,000
Coventry City	Gustavo Hamer		£1,380,000	£1,350,000	£30,000

EFL Clubs - Below Average Value Business - Summer 2020 Transfer Window					
Team	Arrivals	Departures	Intrinsic Value	Transfer Fee	Intrinsic Value Delta
Derby County		Max Lowe	£4,020,000	£3,470,000	-£550,000
		Jayden Bogle	£3,670,000	£3,470,000	-£200,000
Bristol City		Niclas Eliasson	£5,370,000	£2,700,000	-£2,670,000

Once again, these *Intrinsic Values* place a monetary value on each player's contribution to their respective teams winning matches, and these *Ratings* are dynamic and change with each game they play.

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.

Further information and contact details

If you have any questions, or would like to enquire about further services provided by the Carteret Group, then please feel free to contact one of the team members listed below.

Matthew Belford

Director - Carteret Group

E: mbelford@carteret.group

T: +44 20 3876 2414

James Powell

CEO - Carteret Group

E: jpowell@carteret.group

T: +44 20 3876 2414

Jack Morris

Corporate Analyst - Carteret Group

E: jmorris@carteret.group

T: +44 20 3876 2414

Joseph Lawlor

Corporate Finance - Carteret Group

E: jlawlor@carteret.group

T: +44 20 3876 2414