

I have been playing FIFA consistently for the last year and I kept noticing the game play seemed rigged. One game my players felt great or half way through a game they started playing badly. I read on forum and found talk of momentum or dynamic difficulty and from my experience this seemed to be present within the game. However was this just my bias to blame the game rather than my own skill or lack of? It occurred to me that if Dynamic difficulty occurred then keeping a log of the games played and the keys stats at half time and at full time I should notice the effects.

I therefore kept a log of all my games I noted at the start of the game the ratings of my team and the oppositions. Also the 2 best and 2 worst players of each team. When each goal was scored I logged the time, at half time the key stats, Possession, total shots, shots on target and passing percentage. At full time the same stats. I took a decision to stop recording at full time so no data for games that went to extra time.

KICK OFF GOALS

The first aspect I wanted to look at was the high number of goals at kick off. This has been reported widely online and from my experience I seemed to both score and concede more than usual just after kick off. The latest patch aims to deal with this and the patch notes are very revealing.

They were;

Made the following changes in Gameplay:

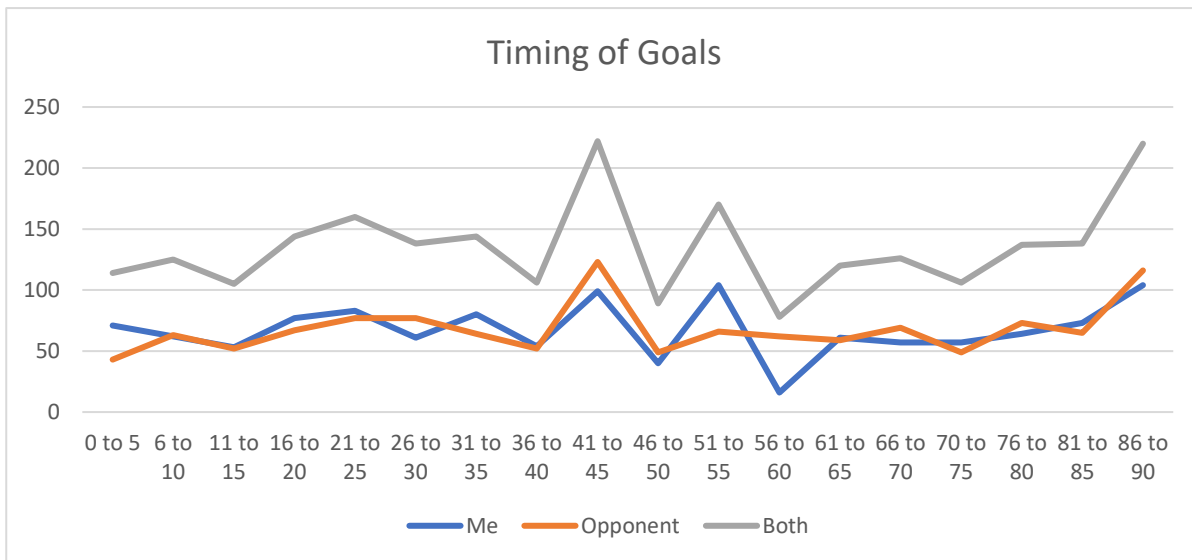
- After kickoff, the defending team will be more compact in defence.
 - Their attacking players will be less aggressive in pushing up the field.
 - Their defensive players will close the space between them and their attacking players to reduce the gap and limit the attacking team's space.

This means that they can change how you and your opponents players behave in game depending on a predefined event. In this case someone scoring. This is scripting/momentum/Dynamic difficulty whatever you want to call it. The behaviour of the AI controlled players can be changed by EA during the game!

From the 398 games I played I noted the timing of every goal. From this I plotted how this is distributed in game see tables below.

	0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45
Me	71	62	53	77	83	61	80	54	99
Opponent	43	63	52	67	77	77	64	52	123
Both	114	125	105	144	160	138	144	106	222
	4.7%	5.1%	4.3%	5.9%	6.6%	5.7%	5.9%	4.3%	9.1%

	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	70 to 75	76 to 80	81 to 85	86 to 90
Me	40	104	16	61	57	57	64	73	104
Opponent	49	66	62	59	69	49	73	65	116
Both	89	170	78	120	126	106	137	138	220
	3.6%	7.0%	3.2%	4.9%	5.2%	4.3%	5.6%	5.7%	9.0%



I then calculated on average how many goals were scored in 5 minutes of the game. I scored 1216 and the other player had scored 1226 . In every 5 minute I had scored 67.55 goals and the opponent had scored 68.11 or 5.56% of the total goals per 5 minutes.

The total number of goals scored by the team that conceded within 5 minutes of that goal was 397 of 2442 goals scored this was or 16.3% of the total goals scored and 2.93 times more than would be expect to be scored in 5 minutes. This is highly significant as it shows the game was very tipped in favour of scoring goals from kick-off.

I scored 211 (3.123 more likely than average) kick off goals and the opposition scored 186 ((2.731 more likely than average) so this cannot be put down to me being worse at defending from kick off.

I also looked at how likely it was for a player to score again within 5 minutes. I scored 106 (1.56 more likely than average) kick off goals and the opposition scored 125 ((1.85 more likely than average). As the game was increasing the aggressiveness of your players it was allowing the opposition to counter this effect was less drastic but was significant.

From the further 40 games post patch the same percentage goals have been scored in 5 minutes of 5.56% and the proportion of goals scored in minutes is 12.9% or 2.3 times more than average. It would appear that they have not killed the kick off goal just turned it down.

2 GOAL LEAD

I then investigated what happens when one player has a 2 or more goal lead to see if there were any noticeable increase or decrease in performance. I researched to see what the odd were for a team to lose a 2 goal lead.

<https://5addedminutes.com/2012/04/03/the-not-so-dangerous-2-0-lead/>

They have an over 90 % chance of winning.

I then analysed which games had a 2 goal lead and the eventual result see below.

	Both	Me	Opponent
Games with 2 goal Lead	328	159	169
Won	274	131	143
%	84%	82%	85%
Lost	26	14	12
%	8%	9%	7%
Drawn	28	14	14
%	9%	9%	8%

The chance of winning although high is slightly lower than what is found in real football. Fifa 18 is not real football so should we expect it to be identical? Probably not so this a good approximation.

I analysed the games where one team had a lead of 2 goals or more goals at half time and compared the performance from first to second half. I calculated the average % shots on target and of those shots on target the average shot on target to goal ratio and the number of goals scored in each half.

		Losing Team 1st Half Goals	Losing Team 1st Half Shots	Winning Team 1st Half Goals	Winning Team 1st Half Shots	Losing Team 2nd Half Goals	Losing Team 2nd Half Shots	Winning Team 2nd Half Goals	Winning Team 2nd Half shots
2 or more goal Lead	Total	72	554	373	927	191	673	218	748
	Per game	0.60	4.58	3.08	7.66	1.58	5.56	1.80	6.18
	% of goals								
	% +/-					265%	121%	42%	19%
2 or more goal lead both teams scoring	Total	72	328	211	464	87	328	109	352
	Per game	1.20	5.47	3.52	7.73	1.45	5.47	1.82	5.87
	% of goals								
	% +/-					121%	100%	48%	24%
2 or more goal lead one team scoring	Total	0	226	162	463	104	345	109	396
	Per game	0	3.70	2.66	7.59	1.70	5.66	1.79	6.49
	% of goals								
	% +/-					INFINITE	153%	33%	14%

This shows that when a team is winning by 2 goals they score 156 fewer goals in the second half as they did in the first over the game studied on average this 1.29 fewer goals in the second half. The team losing scored 119 more goals than they did in the first half or .99 more goals in the second half than the first.

If we look at the number of shots we can see the winning team had 19% fewer shots and the losing team had 121% more as compared to the first half. When we look at the key stat of goals the losing team scored a massive 265% more goals and the winning team scored 42% fewer goals in the second half. 265% more goals from 121% more chances is a big improvement!

I then broke this down into games where the losing team had scored and had not in the first half. Where the losing team had scored the effect was less pronounced. On average the losing team had the same number of shots in the second half as compared to the first however the losing teams scored 121% more goals. The winning Team showed a 24% reduction in shots in the second half as compared to the first half and this led to a 48% reduction in goals scored.

Where the losing team had not score the effect was more pronounced. On average the losing team had 153% more shots in the second half as compared to the first however they scored infinity more goals increase from 0 to 173 or an average of 1.7 per game. The winning Team showed a 14% reduction in shots in the second half as compared to the first half and this led to a 33% reduction in goals scored. Which is lower than where both Teams had scored.

This results seems highly significant as the increase in shots for the losing team is not proportionate to the increase in goals. Also the decrease in shots for the losing team is not proportionate to the number of goals.

I also looked at the likelihood of scoring in the first 10 minutes of the half by both players, the last 10 minutes of the half and scoring a comeback goal. See results.

		Goal First 10 mins 2nd half Losing Team	Goal First 10 mins 2nd half Winning Team	Goal Last 10 mins Losing team	Goal Last 10 mins winning team	5 min goal Losing team	5 min goal Winning team
2 or more goal Lead	Total	31	33	51	77	71	54
	Per game	0.26	0.27	0.42	0.64	0.59	0.45
	% of goals	16%	15%	27%	35%	27%	9%
	% +/-	-6%	-7%	-4%	5%	11%	-7%
2 or more goal lead both teams scoring	Total	11	12	29	33	49	40
	Per game	0.18	0.20	0.48	0.55	0.82	0.67
	% of goals	13%	11%	33%	30%	31%	13%
	% +/-	-9%	-11%	3%	0%	15%	-4%
2 or more goal lead one team scoring	Total	20	21	22	44	22	14
	Per game	0.33	0.34	0.36	0.72	0.36	0.23
	% of goals	19%	19%	21%	40%	21%	5%
	% +/-	-3%	-3%	-9%	10%	5%	-11%

On average 21.9% of goals were scored in the first 10 minutes of the second half. Therefore it was less likely to occur for both teams where there was a 2 or more goal lead at half time. It was more likely for goals to be scored in the first 10 minutes where the losing team had not scored than when they had.

In the last 10 minutes of the second half 30.2% of goals were scored. Therefore the team losing is 3% less likely to score in the last 10 minutes and the winning team is 5% more likely to score.

Where both teams have scored there is little difference with the losing team 3% more likely to score and the winning team showing no change from the average.

Where the losing team did not score in the first half we notice a large difference in that the losing team is 9% less likely to score in the last 10 minutes of the game and the winning team is 10% more likely as if the game is in favour of the losing team until the last 10 minutes and then favours the team that was leading at half time.

The losing team was much more likely to score a goal after the restart with 27% of the goals scored coming within 5 minutes of conceding. This was 4.85 times more likely than average. The winning team only has 9% of goals coming from the restart which is 7% less likely than the average. The boost is more where both teams scored in the first half with 31% goals scored by the losing team coming from the restart or 5.5 times more likely than average. Where the losing team did not score in the first half the winning team had 5% of their goals come from the restart or just less than the average.

Let's consider some likely explanations for this. The winning team plays more defensively and therefore creates fewer chances and scores fewer goals. This is possible however you would expect them to also concede fewer goals. This does not fit the pattern. The losing team plays more attacking meaning they create more chance and score more goals. Except in this scenario you would also expect them to concede more goals which does not happen. It would explain why they have more shots but not why they score more of those shots. Or the increase in comeback goals by the losing team.

We know that after kick off EA alters compactness of your defence, the aggressiveness of the attackers and how effectively your players close the space between them and their attacking players to reduce the gap and limit the attacking team's space.

This seems to me that something similar happens when there is a 2 goal or more lead and to be the likely cause of this pattern. It is also more effective when the losing team does not score in the first half.

FIRST GOAL SCORER

I then investigate if when the first goal is scored has an impact. The results are below.

	0 to 10	11 to 20	21 to 30	31 to 40	40+	Total
Total	194	108	55	24	16	397
Win	121	70	42	13	9	255
Win %	62%	65%	76%	54%	56%	64%
Lose	47	25	10	7	4	93
Lose %	24%	23%	18%	29%	25%	23%
Draw	26	13	3	4	3	49
Draw %	13%	12%	5%	17%	19%	12%

If you score first then overall you have a 64% chance of winning if you score first, a 23% chance of losing and a 12% chance of a draw. The chance of a draw is very low and I would expect this to be

close to 25%. I would think the earlier you score the higher the chance of winning in fact the best time to score first is between the 21st and 30th minutes. In a previous post on Reddit it was claimed that scoring in the first 20 minutes leads to the opponent being boosted.

It is interesting to note most first goals are scored within the first 10 minutes of the game.

I also analysed the relative performance of both teams depending on the timing of the first goal

	First Team to Score			Other Team		
	Shots on Time	Shot on target to goal Ratio	Average goal Scored	Shots on Time	Shot on target to goal Ratio	Average goal Scored
0 to 5	68%	48%	4.18	64%	41%	2.69
6 to 10	63%	47%	3.67	64%	36%	2.67
11 to 15	67%	49%	3.85	68%	38%	2.64
16 to 20	66%	43%	3.57	62%	34%	2.40
21 to 25	63%	45%	3.41	69%	35%	2.41
26 to 30	67%	41%	3.30	62%	33%	1.85
31 to 35	60%	52%	3.14	62%	34%	2.50
36 to 40	57%	35%	2.56	57%	31%	1.56
40 to 45	58%	42%	2.67	48%	18%	1.17

The performance of the team that scores first is largely consistent there is some fluctuation in the times lower down the table however these are smaller sample sizes. I am confident with more data these should even out. It is interesting to note that the earlier the first goal is scored the higher scoring the game with both players scoring more.

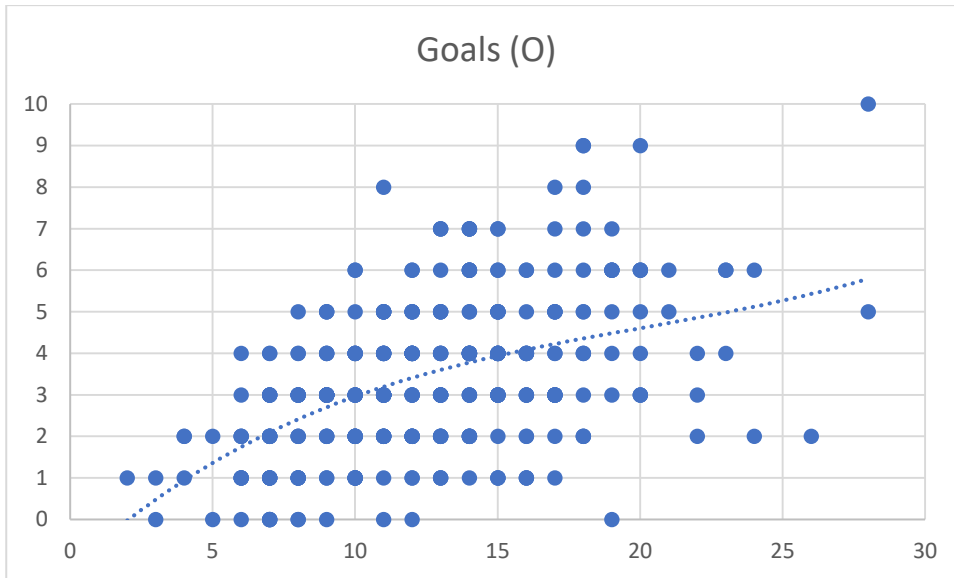
The later the first goals are scored the fewer goals the other player scored. Also the worse the performance of the other team with them being more wasteful in front of goal or the goal keeper was more effective in front for goals. This is the pattern you would likely see if there was boost to the opponent after scoring an early goal although not a big a boost as found from kick off or when 2 or more goals behind.

Goals Scored.

I then investigated what happens when one player scores more goals. I found that when I was leading it appeared to be harder to score goals after a certain point and I conceded easy goals and vice versa. To

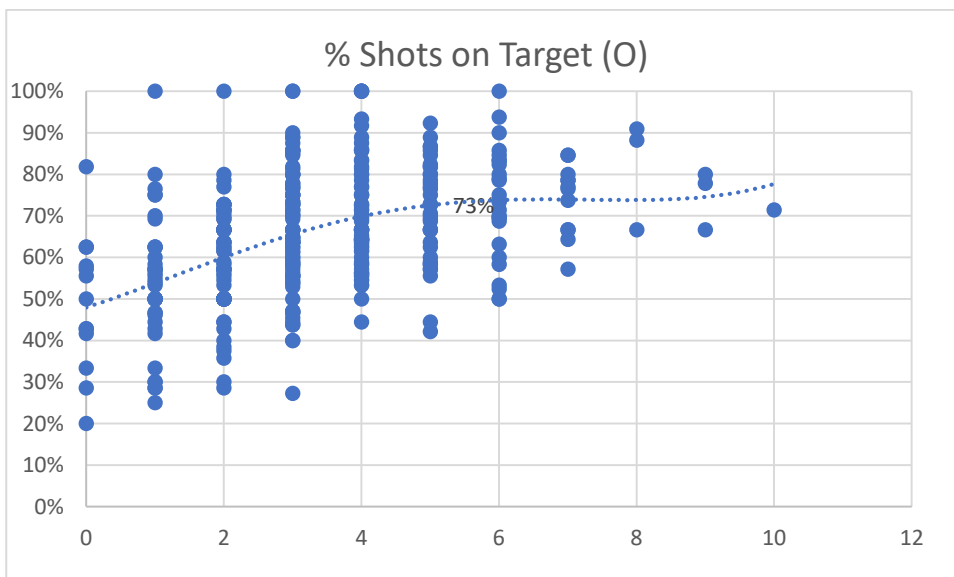
investigate I plotted the goals scored against the keys performance indicators to see if there was a pattern.

I looked at how many shots taken and goals scored.



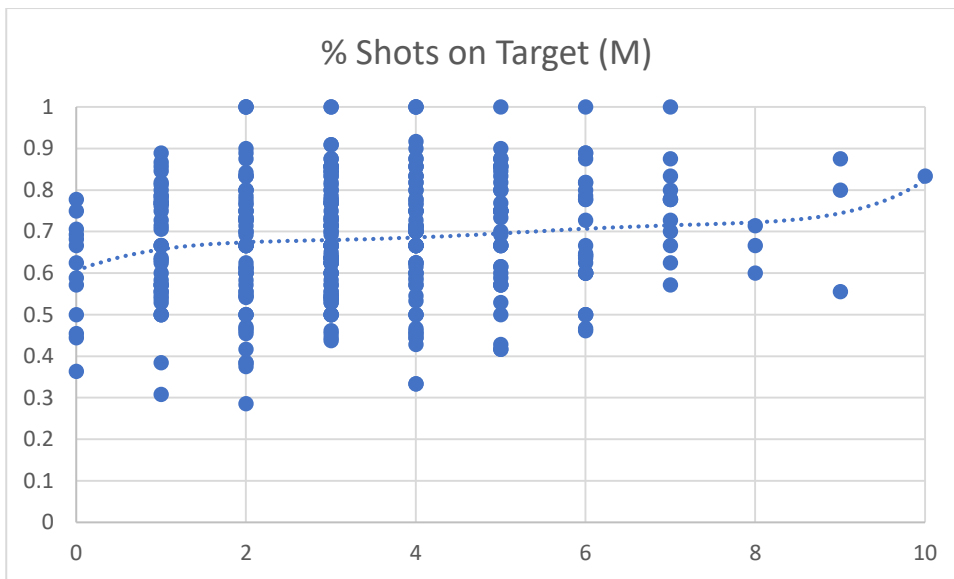
The trend line on this plots a logarithmic curve. This means that the more shots taken although leading to more goals it is not a straight line. Eg 15 shots will average 4 goals where as 30 shots will average 6 goals. Or you achieve better results if you have fewer but better shots. Please note the 10 goals from 28 shots was TOTY Kane destroying me (I literally could not stop him scoring).

I wanted to look at how the % shots on Target correlated by the opposition to the number of goals scored by the opposition see below.



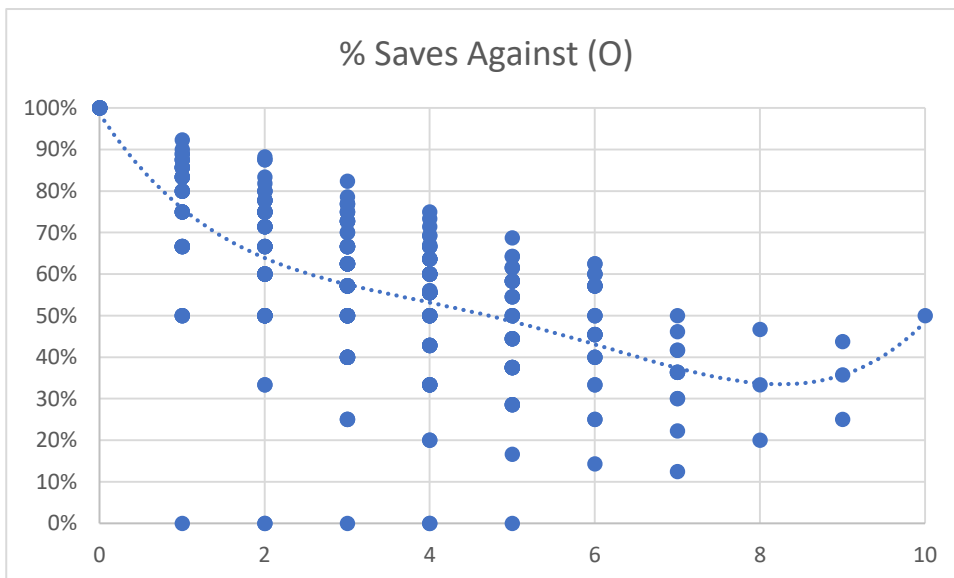
This shows that the teams that from 0 to around 5 goals there is an increase in the % shots on Target which shows to the teams that were better at shooting scored more. After 5 goals the % levelled off at an average of 73%. Within this there is a band of variation within around 20% of the average. In short this shows to score more goals you need to 'Git Gud'.

I then wanted to see how my shooting changed when the opposition scored and plotted the following graph.



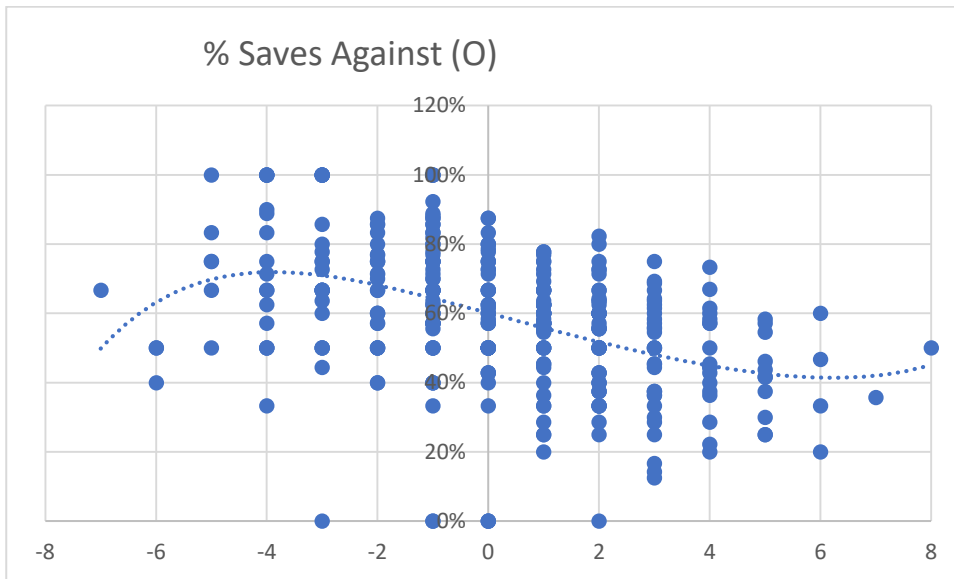
This shows on average as more goals are scored against me my shooting shows a slight improvement from mid 60% to just over 70%. Also I am less likely to have a low shooting percentage.

I then wanted to investigate how the likelihood of scoring changed with more goals scored. I plotted the number of goals scored against the goals scored with the trend line see below.



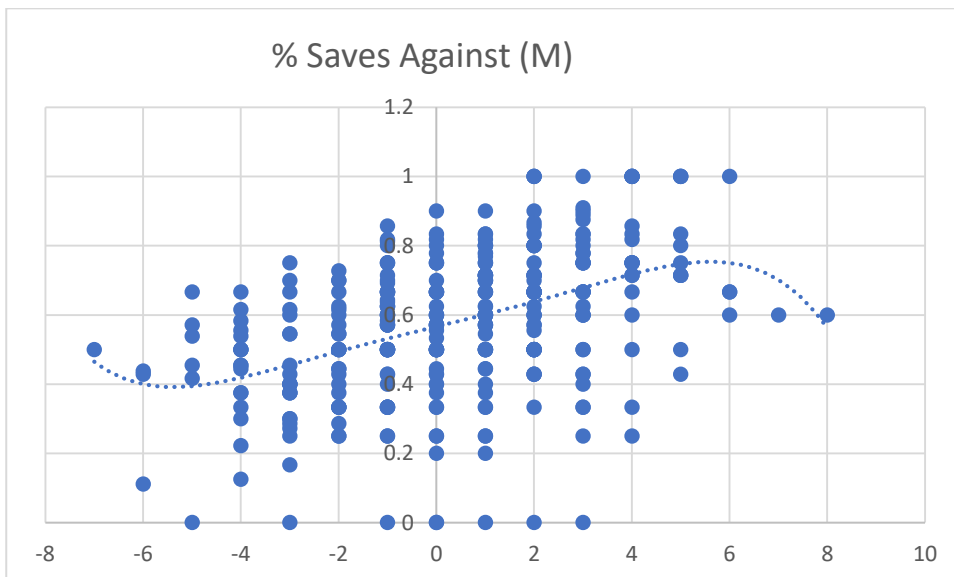
You can see a clear correlation of goals scored to the percentage saves. The more goals scored the better the opposition were at taking their chances until around 8 goals where the goal keeper starts to improve making more saves.

These graphs showed that there was a link between the goals scored shooting stats. I wanted to investigate further so looked at how the goal difference linked to these stats. The graph below shows save against the opposition and goals difference. The opposition is positive and I am negative.



The middle of the graph shows the expected pattern where I score more goals than the opposition my keeper makes more save and where I am losing fewer saves. At the ends of the graph this is reversed so when I am leading by a large margin my keeper starts making fewer saves. Where I am losing by a large margin my keeper starts improving.

I then did the same analysis but with saves made against me see below.



Again where the goals difference is low this shows the pattern you would expect the more the opponent is winning the better the opponent keeper performs. The more I am winning the better my goal keeper performs. However where I am losing by a large margin then the opposition goal keeper tends to perform worse and where I am winning by a large margin then the opposition goal keeper tends to perform better.

I feel this shows that in order to score more goals and win more games improving your shooting is vital. By this I mean your situational awareness to create better chances and make the right choice of shot depending on your position and other players. However, once winning the game will start to try and help your opponent come back and make it harder for you to score.

You will note that there were fewer games with a large goal difference in my favour and I lost more than I won by a larger margin. I did not rage quit any games however few opponents let me score a lot of goals without quitting and I have only included full games played. I also think a larger sample would help to show if the pattern is caused by a few anomalies or is a definite pattern.

Matchmaking

After 398 Games I won 173 (43.5%) lost 176 (44.2%) and a Draw 49 (12.5%). If we look at global football for the season 2016/17 the percentage draws can be found here.

https://www.progressivebetting.co.uk/statistics/football_statistics/leagues_by_draws

Of 180 leagues only 2 had the number of draws less than 12%. For example the English Premier league 26.48 games end in a draw. From this can conclude that FIFA 18 there is some factor that pushes for the game to end in a result one way or another. The most likely explanation is that the matchmaking algorithm is designed so that one player is better than another. To prove this I would need a wider sample if the percentage of draws remains low then this would be significant.

FIFA Ranking

Having shown that the game tends to adjust to allow the losing team to come back. I wanted to investigate if having a higher rating improves your results in game. I therefore looked at the FIFA rank of all the players I played and took the average of each key indicator see below.

FIFA RANKING

	# Teams	Goals	Average Shots per game	Average Shots on Target	Average % Shots on Target	Average Saves Against %	Average Passing
Less 80	38	3.41	11.47	7.47	64.4%	53.2%	83.6
80 to 82	109	3.27	12.38	7.83	63.2%	59.6%	82.9
82 to 84	182	3.44	13.17	8.71	65.4%	58.3%	83.7
84 to 86	54	3.57	12.49	8.43	68.4%	55.9%	82.7
86 +	10	2.78	12.78	9.33	74.5%	68.6%	83.4

The lowest ranked team Below 80 had the fewest shots, shots on targets and the second lowest % shots on target. However they had the lowest number of shots on target saved. This means the lowest ranked teams were most likely to score when they shot on target.

If we look at the highest ranked teams 86 and above. They had the highest number of shots on target, % shots on target and the second highest shots per game. However of the shots on Target a massive 68.6% were saved and this led to the lowest goals per game.

This is a very counter intuitive result. The better players should be better at shooting and when the shot is on target it should be more likely to go in not less. This pattern is what you would expect to see if the game handicaps the better teams when they play worse teams.

I looked at the results from these games see below wins are for me and losses are for the opposition.

FIFA RANKING

	Win	win %	Loss	Loss %	Draw	Draw %
Less 80	18	47%	14	37%	6	16%
80 to 82	51	47%	45	41%	13	12%
82 to 84	81	45%	84	46%	17	9%
84 to 86	19	35%	25	46%	10	19%
86 +	3	30%	5	50%	2	20%

Although the teams under 80 were boosted they lost more games and any other bracket and the teams over 86 won the most games.

I looked at my performance against these teams see table below.

FIFA RANKING

	# Teams	Goals	Average Shots per game	Average Shots on Target	Average % Shots on Target	Average Saves Against %	Average Passing
Less 80	38	3.62	12.41	8.71	71.0%	55.4%	84.38
80 to 82	109	3.07	10.93	7.23	66.8%	57.0%	83.63
82 to 84	182	3.08	10.91	7.34	68.1%	57.1%	83.91
84 to 86	54	2.64	10.70	7.17	68.5%	60.8%	83.85
86 +	10	1.89	11.44	7.56	70.3%	75.3%	84.33

This shows that when I played higher ranked teams I performed worse. I had fewer shots, fewer shots on target and my more of my shots were saved meaning less goals were scored. This pattern I would expect to see as I should perform worse against better teams this is a small sample so further data would be required to prove a link.

Difference in FIFA Ranking

The apparent lack of performance of higher ranked and lower ranked teams led me to consider whether the difference between my Rank and the opposition had an effect.

The table below shows the average performance indicator for the opposing player and the difference in rank - is lower than my rank and + is higher.

Rank Difference FIFA

	# Teams	Goals	Shots	Shots on Target	% Shots on Target	Saves Against %	Passing
less than -2	59	2.92	10.70	6.68	61.8%	56.2%	82.9
-2 to 0	103	3.47	12.97	8.48	65.8%	58.9%	82.9
0 to 2	138	3.50	13.47	8.79	64.0%	58.8%	83.6
2 to 4	70	3.47	12.15	8.23	68.5%	56.2%	83.5
4+	11	3.00	13.30	9.60	72.2%	65.6%	85.1

Teams lower ranked more than 2 below me scored the fewest goals and had the least shots, shots and target and lowest shots on target. However they scored more goals when they were on target.

The teams ranked more than 4 above me had the most shots on target, the highest % shots on target and the second highest number of shots. However they had the second lowest goals and the highest percentage shots saved.

I then looked to see how this impacts on the results.

Rank Difference FIFA RANK

	Win	win %	Loss	Loss %	Draw	Draw %
less than -2	34	58%	17	29%	8	14%
-2 to 0	43	42%	48	47%	12	12%
0 to 2	56	41%	68	49%	14	10%
2 to 4	24	34%	36	51%	10	14%
4+	3	27%	4	36%	4	36%

I was most likely to beat the teams ranked 2 below me and lost slightly more to the teams with similar ranking. Those teams ranked between 2 to 4 above me won more than average however the largest difference the games were roughly equal between wins, losses and draws. You would expect the better teams to win more however this is a small sample so further data would be required to prove a link.

I also noted my key performance indicators for the different rank difference see below.

Rank Difference FIFA

	# Teams	Goals	Average Shots per game	Average Shots on Target	Average % Shots on Target	Average Saves Against %	Average Passing
less than -2	59	3.72	12.51	8.60	68.9%	53.9%	84.13
-2 to 0	103	3.11	11.48	7.49	66.3%	57.6%	83.83
0 to 2	138	2.86	10.35	7.04	68.6%	58.4%	83.77
2 to 4	70	2.89	10.88	7.27	68.8%	59.0%	84.03
4+	11	2.10	9.20	6.20	69.3%	65.9%	83.80

This shows a clear pattern the teams ranked worse than me I performed better and the teams ranked better than me I performed worse. This is what I would expect.

True (My) Rank

Most player put low ranked player on their bench to lower there FIFA ranking. I was interested to see if this helped player get more wins. For each team I noted the 2 best and 2 worst players and took an average to indicate the true strength of the squad. I chose 4 as it is possible to note this down whilst waiting for the game to load.

I looked at my rank of all the player I played and took the average of each keys indicator see below.

MY RANKING

	# Teams	Goals	Shots	Shots on Target	% Shots on Target	Saves Against %	Passing
Less 80	17	3.00	11.31	7.15	62.6%	59.6%	85.1
80 to 82	73	3.11	11.98	7.45	61.7%	57.8%	82.8
82 to 84	142	3.44	13.07	8.46	64.5%	59.1%	83.3
84 to 86	124	3.54	12.55	8.47	67.3%	55.5%	83.5
86 +	35	3.55	13.76	9.61	70.7%	61.5%	83.5

This shows the pattern I would expect with the lower ranked teams performing worse and the higher ranked teams performing better. A few number were slightly higher or lower but with a bigger sample this should even out.

I then looked at the results of those games see below

MY RANKING

	Win	win %	Loss	Loss %	Draw	Draw %
Less 80	11	65%	4	24%	2	12%
80 to 82	36	49%	30	41%	7	10%
82 to 84	66	46%	56	39%	20	14%
84 to 86	49	40%	63	51%	12	10%
86 +	11	31%	19	54%	5	14%

This shows the pattern you would expect with lower ranked teams losing more games and higher ranked teams winning more games.

I then analysed my performance against teams of each rank.

MY RANKING

	# Teams	Goals	Shots	Shots on Target	% Shots on Target	Saves Against %	Passing
Less 80	17	3.85	11.00	8.15	74%	48%	84.92
80 to 82	73	3.32	11.73	7.77	67%	57%	83.53
82 to 84	142	3.11	11.30	7.68	68%	58%	83.82
84 to 86	124	2.87	10.86	7.06	66%	58%	84.30
86 +	35	2.58	9.55	6.76	73%	62%	83.24

This showed the results I expected against lower ranked teams I performed better and higher ranked teams worse.

Therefore in conclusion if you have better players they will perform better expect where the difference between the FIFA rank of your team and the opponent is more than 4 points.

Bronze Benching.

I wanted to see how effective this was in improving the performance of your team. I therefore compared the difference between the FIFA ranking and My Ranking by subtracting one from the other. A positive figure meant the FIFA ranking was higher and a negative meant it was lower.

A positive number meant the team had players with a high overall ranking which is over the FIFA rating. A negative number meant the starting team had low rated players making my rank lower than the FIFA rating. I looked at the results in each band for the key performance indicators.

Bronze Benching

	# Teams	Goals	Shots	Shots on Target	% Shots on Target	Saves Against %	Passing
less than -1	38	3.66	12.72	8.53	67.4%	57.4%	83.0
-1 to 1	224	3.21	12.61	8.09	63.3%	58.8%	83.4
1 to 3	91	3.51	12.71	8.44	67.3%	57.6%	83.2
3 to 5	22	3.95	12.90	8.90	69.6%	52.4%	83.2
5+	6	3.20	13.80	9.80	71.7%	66.6%	84.6

The best results came from lowering the FIFA rating by between 3 to 5 points with the most goals and lowest percentage saved. Lowering the rating by more than this meant the most shots, shots on target and the highest % shots on target. However most shots on target were saved and lowest goals per game.

It is interesting to note that a negative figure had the second highest goals per game so having low rated players in your starting 11 would appear to have an advantage.

I then looked to see how this impacted on the results in game see below.

Bronze Benching

	Win	win %	Loss	Loss %	Draw	Draw %
less than -1	16	42%	18	47%	4	11%
-1 to 1	104	46%	91	41%	29	13%
1 to 3	43	47%	44	48%	4	4%
3 to 5	5	23%	9	41%	8	36%
5+	3	50%	3	50%	0	0%

Teams ranked -1 to 3 the results were roughly even. Negative teams won slightly more than me. Teams 3-5 I lost most with the results of a win for the opposition or a draw being the most common. Over 5 was 3 wins a piece.

I then looked to see how this impacted my key performance stats see below.

Bronze Benching

	# Teams	Goals	Shots	Shots on Target	% Shots on Target	Saves Against %	Passing
less than -1	38	3.06	12.16	8.19	68.9%	61.0%	83.97
-1 to 1	224	3.04	11.07	7.42	67.9%	57.9%	83.89
1 to 3	91	3.06	11.23	7.48	67.2%	58.3%	84.11
3 to 5	22	3.05	9.81	6.57	69.7%	52.5%	84.05
5+	6	3.00	10.80	7.80	72.3%	60.0%	81.60

I performed worse against teams with a reduction in rating between 3 - 5 with the fewest shots, shots on target. However in each category I scored almost the same number of goals as saves against compensated for any other changes.

In conclusion the ranking of your Team and opponents seems to have an impact on how well both teams play. It is hard to conclude that this is because of handicapping as we do not know the relative skill of both players. However bronze benching to reduce the overall ranking of your team definitely improves results and I would recommend for everyone.

Summary.

Before the patch a Kick off Goal occurred on average 1 per game and accounted for 16.3% of goals 3.123 times more likely than in a normal 5 minute period.

After the patch this has been reduced to 12.9% of goals or 2.3 times more likely.

If a team is losing by 2 or more goals at half time on average they will have 121% more shots in the second half and score 265 % more goals.

If a team is winning by 2 or more goals at half time they will have 19% fewer shots and score 42% fewer goals.

If a team is losing by 2 or more goals at half time they are 4.85 times more likely to score within 5 minutes of conceding whilst the winning team is 1.6 times more likely than average to score within 5 minutes of conceding.

You have the greatest chance of winning if you score between then 20 to 30th minute.

The earlier you score the more goals on average you will concede and the less likely your goal keeper will make a save.

Matchmaking appears to work to ensure there is a winner than even matches due to the low level of draws in 90 minutes of Football 12.5%.

Shooting shows a logarithmic progression with more shots leading to more goals but with diminishing returns

A higher percentage of shots on target leads to more goals.

Goal Keepers tend to improve after you have scored more than 8 goals.

The losing goal keepers tend to improve after goal difference is more than 6.

The winning goal keepers tend to play worse after goal difference is more than 6.

Teams with a rank over 86 will on average have 75% of shots on target saved. The average is 58%

Where your team is ranked more than 4 above the opposition on average 65% of shots on Target will be saved.

If your Team has better players they will play better and win more games.

Bronze benching is most effective when your teams rank is reduced by between 3 to 5.

Conclusion.

Kick off goals are a real and the cause as explained by EA is that they make the defending team less compact in defence, make the attacking players will be more aggressive in pushing up the field. Their defensive players will increase the space between them and their attacking players to increase the gap and allow the attacking team's space. This means that everyone who has played FIFA 18 has complained and this effect has been reduced.

If they can change these things at kick then they change this for other events. I have looked at 2 goal leads, scoring early goals, leading by a large margin and playing with high ranked squads. In all of these events we can see on average the team with an advantage is handicapped whilst the team behind is given an advantage. Most of the time this does not lead to the team at a disadvantage winning but keeps with games interesting and us playing. This is like the classic Mario Kart you are hit by a bomb and game slows the leading and lets you catch up.

This study is not conclusive proof as the sample of 398 games is large but in order to prove this we would need a much larger sample and from many more players of different skill levels and squad strengths. What it does show is when I play the game it shows all the signs of scripting / momentum / Dynamic difficulty and I am not very good.