1.Introduction

A key component of current financial theory, the Capital Asset Pricing Model (CAPM) provides insight into the connection between risk and expected return. The Capital Asset Pricing Model (CAPM), which was separately introduced by (Sharpe et.al, 1964) states that the rate on a risk-free security in addition to a risk premium, which is based on the security's beta, equals the expected return of a security.

In this study, we used a dataset that included daily stock price data from 15 different companies in at least two different sectors between January 2021 and January 2023. This dataset, obtained from Yahoo Finance, includes a risk-free rate for computing excess returns and a market index representing the market return. To evaluate the explanatory power of CAPM across various market segments, companies were selected to represent a diverse cross-section of industries.

2.Regression

2.1 Results for Lloyds

1 **Lloyds**

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.064101189
R Square	0.004108962
Adjusted R Squar	0.002109181
Standard Error	0.019350062
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.000769333	0.00077	2.054706022	0.152364049
Residual	498	0.186463607	0.00037		
Total	499	0.18723294			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.000700487	0.000867388	0.80758	0.419716893	-0.001003704	0.002404678	-0.001003704	0.002404678
FTSE 100	-0.090527985	0.063155039	-1.43342	0.152364049	-0.214611152	0.033555182	-0.214611152	0.033555182

The results of the regression show that there is little correlation between the shares of Lloyds Banking Group and the FTSE 100 index. The FTSE 100's fluctuations can only account for 0.41% of the volatility in Lloyds' shares, according to the R-squared value of 0.0041. Furthermore, the model is not statistically significant at common thresholds (like 0.05) according to the low F-statistic and accompanying p-value of 0.1526. The coefficient for the FTSE 100 is -0.0905 with a p-value of 0.1523, indicating that changes in the FTSE 100 have less effect on the stock performance of Lloyds Banking Group. Additionally, the FTSE 100 coefficient's t-statistic of -1.43342.

2.2 Results for Vodafone

Vodafone

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.01863948
R Square	0.00034743
Adjusted R Squar	-0.001659904
Standard Error	0.017027399
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	5.01816E-05	5E-05	0.173080383	0.677567782
Residual	498	0.144386299	0.00029		
Total	499	0.144436481			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.000731339	0.000763272	0.95816	0.338445203	-0.000768291	0.00223097	-0.000768291	0.00223097
FTSE 100	0.023120535	0.055574294	0.41603	0.677567782	-0.086068448	0.132309518	-0.086068448	0.132309518

The results of Vodafone's regression show that there is very little correlation between the performance of Vodafone's stock and the FTSE 100 index. The FTSE 100's fluctuations only account for 0.347% of the variation in Vodafone's stock price, according to the R-squared value of 0.0034743. With a p-value of 0.677567782, the coefficient for the FTSE 100 is also not statistically significant, suggesting that changes in the FTSE 100 have little to no impact on Vodafone's stock performance.

2.3 Results for HSBC

HSBC

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.074984248
R Square	0.005622637
Adjusted R Squar	0.003625896
Standard Error	0.018612034
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.000975452	0.00098	2.815906236	0.093961562
Residual	498	0.172511089	0.00035		
Total	499	0.173486541			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.0005265	0.000834305	-0.63106	0.52828787	-0.002165692	0.001112691	-0.002165692	0.001112691
FTSE 100	0.10193623	0.06074625	1.67807	0.093961562	-0.017414295	0.221286756	-0.017414295	0.221286756

The FTSE 100 index and HSBC's stock performance have very little association, according to the company's regression study. The FTSE 100's fluctuations only account for 0.562% of the variation in HSBC's stock price, according to the R-squared value of 0.005622637. The FTSE 100's coefficient is 0.10193623, and its marginally significant p-value of 0.093961562 indicates that the index has a minor and not very significant effect on the performance of HSBC's shares. Since the p-value is near the traditional significance level of 0.05.

2.4 Results for Admiral

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.169447915
R Square	0.028712596
Adjusted R Squar	0.026762219
Standard Error	0.018901816
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.005259701	0.00526	14.72156711	0.000140633
Residual	498	0.177924762	0.00036		
Total	499	0.183184464			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.000632414	0.000847295	0.74639	0.455782966	-0.001032299	0.002297127	-0.001032299	0.002297127
FTSE 100	0.23670432	0.061692044	3.83687	0.000140633	0.115495555	0.357913084	0.115495555	0.357913084

The regression analysis for Admiral reveals a marginally stronger association between Admiral's stock performance and the FTSE 100 index. The FTSE 100's fluctuations account for 2.87% of the variation in Admiral's stock price, according to the R- squared figure of 0.028712596. With a p-value of 0.000140633, the coefficient for the FTSE 100 is 0.23670432, indicating statistical significance. This shows that Admiral's stock performance increases by 0.2367 units on average for every unit increase in the FTSE 100.

2.5 Results for Barclays

Barclays

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.217199078
R Square	0.047175439
Adjusted R Squar	0.045262137
Standard Error	0.019970663
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.009833709	0.00983	24.65655246	9.42796E-07
Residual	498	0.198616042	0.0004		
Total	499	0.20844975			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.000136868	0.000895207	-0.15289	0.878546988	-0.001895717	0.00162198	-0.001895717	0.00162198
FTSE 100	0.323656477	0.065180566	4.96554	9.42796E-07	0.195593678	0.451719276	0.195593678	0.451719276

There is a moderate association between Barclays and the FTSE 100, according to the regression study. The FTSE 100's fluctuations account for 4.72% of the variation in Barclays' stock price, according to the R-squared value of 0.047175439. With a p-value of 9.42796E-07, the coefficient of 0.323656477 for the FTSE 100 is significant and shows a substantial correlation between the two. Keeping other things equal, Barclays' stock price is predicted to rise by an average of 0.3237 units for each unit increase in the FTSE 100. The FTSE 100 has a stronger predictive power over Barclays' stock performance.

2.6 Results for Rolls Royce

Rolls Royce

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.263558715
R Square	0.069463196
Adjusted R Squar	0.067594648
Standard Error	0.029158138
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.031606044	0.03161	37.17496346	2.1674E-09
Residual	498	0.423398126	0.00085		
Total	499	0.45500417			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.000384742	0.001307046	0.29436	0.768605456	-0.002183262	0.002952746	-0.002183262	0.002952746
FTSE 100	0.580244064	0.095166792	6.09713	2.1674E-09	0.393266158	0.767221971	0.393266158	0.767221971

The regression analysis for Rolls-Royce shows a moderate correlation with the FTSE 100 index. With an R-squared of 0.069463196, it can be inferred that fluctuations in the FTSE 100 account for approximately 6.95% of the variance in Rolls-Royce's stock performance. With a very low p- value of 2.1674E-09 and a significant coefficient of 0.580244064 for the FTSE 100, there is a substantial correlation. Which indicates that FTSE 100 fluctuations are a somewhat strong predictor of Rolls Royce's stock. On average, a one-unit increase in the FTSE 100 correlates to a 0.5802 increase in Rolls Royce's stock performance.

2.7 Results for Burberry

Burburry

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.321638679
R Square	0.10345144
Adjusted R Squar	0.101651142
Standard Error	0.018995697
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.020734929	0.02073	57.46349887	1.69587E-13
Residual	498	0.179696589	0.00036		
Total	499	0.200431518			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-1.25661E-05	0.000851503	-0.01476	0.988231486	-0.001685548	0.001660415	-0.001685548	0.001660415
FTSE 100	0.469977336	0.061998457	7.58047	1.69587E-13	0.34816655	0.591788121	0.34816655	0.591788121

The R-squared value of 0.10345144 indicates a moderate relationship between Burberry and the FTSE 100, implying that 10.34% of the fluctuations in Burberry's stock price can be explained by changes in the FTSE 100 index. With a p-value of 1.69587E-13, the coefficient for the FTSE 100 is 0.469977336 and is statistically significant. This indicates a significant correlation, with a gain of approximately 0.47 units in Burberry's stock performance for every unit increase in the FTSE 100.

2.8 Results for Sainsbury

Sainsburry

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.240391643
R Square	0.057788142
Adjusted R Squar	0.055896151
Standard Error	0.016534197
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.008349985	0.00835	30.54354985	5.27251E-08
Residual	498	0.13614307	0.00027		
Total	499	0.144493055			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	8.23596E-05	0.000741164	0.11112	0.911564403	-0.001373834	0.001538553	-0.001373834	0.001538553
FTSE 100	0.298241785	0.053964572	5.52662	5.27251E-08	0.192215488	0.404268083	0.192215488	0.404268083

The FTSE 100 index and Sainsbury's stock performance have a moderate association, according to the regression results. With an R-squared of 0.057788142, it can be inferred that variations in the FTSE 100 account for 5.78% of the volatility in Sainsbury's stock price. With a p-value of 5.27251E-08, the coefficient for the FTSE 100 is 0.298241785, showing a statistically significant and meaningful link. This indicates that Sainsbury's stock price increases by 0.298 on average for every unit increase in the FTSE 100. Despite a statistically significant association, the research indicates that the overall effect is still quite tiny.

2.9 Results for M&S

M&S

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.168491704
R Square	0.028389454
Adjusted R Squar	0.026438429
Standard Error	0.025052339
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.009132522	0.00913	14.55104441	0.000153551
Residual	498	0.31255461	0.00063		
Total	499	0.321687132			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.000199301	0.001122999	0.17747	0.859209437	-0.002007098	0.002405701	-0.002007098	0.002405701
FTSE 100	0.311904042	0.08176622	3.81458	0.000153551	0.151254763	0.472553322	0.151254763	0.472553322

The results of M&S's regression study show a weak but substantial relationship between the FTSE 100 and the company's stock performance. Approximately 2.84% of the variation in M&S's stock price through the fluctuations of the FTSE 100 index is explained by the R-squared value of 0.028389454. With a p-value of 0.000153551, the coefficient of 0.311904042 for the FTSE 100 is statistically significant and indicates a moderately favorable impact on M&S's stock performance when the FTSE 100 rises.

2.10 Results for Coca-Cola

Coca-Cola

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.297527344
R Square	0.088522521
Adjusted R Squar	0.086692245
Standard Error	0.017274834
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.014433277	0.01443	48.36566593	1.11633E-11
Residual	498	0.148613109	0.0003		
Total	499	0.163046387			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.000576915	0.000774364	0.74502	0.456611826	-0.000944507	0.002098338	-0.000944507	0.002098338
FTSE 100	0.392110175	0.056381877	6.95454	1.11633E-11	0.281334504	0.502885846	0.281334504	0.502885846

According to Coca-Cola's regression research, the FTSE 100 index accounts for approximately 8.85% of the variation in the company's stock performance, as indicated by the R-squared value of 0.088522521. With a p-value of 1.11633E-11, the FTSE 100 coefficient of 0.392110175 is statistically significant, indicating a robust association whereby an average gain of one unit in the FTSE 100 corresponds to a 0.3921 increase in Coca-Cola's stock performance.

2.11 Results for Tesco

Tesco

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.063476423
R Square	0.004029256
Adjusted R Squar	0.002029315
Standard Error	0.012973811
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.000339112	0.00034	2.014687299	0.156408979
Residual	498	0.083823252	0.00017		
Total	499	0.084162364			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	9.86208E-05	0.000581565	0.16958	0.86541081	-0.001044004	0.001241245	-0.001044004	0.001241245
FTSE 100	0.060103124	0.04234413	1.4194	0.156408979	-0.02309204	0.143298287	-0.02309204	0.143298287

Regression study for Tesco reveals a very weak correlation with the FTSE 100 index. The FTSE 100's fluctuations only account for 0.403% of the variation in Tesco's stock price, according to the R-squared value of 0.004029256. Furthermore, the FTSE 100 coefficient is 0.060103124; however, its p-value of 0.156408979 indicates that it is not statistically significant.

2.12 Results for JD Sports

JD Sports

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.118076728
R Square	0.013942114
Adjusted R Squar	0.011962078
Standard Error	0.025157478
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.004456457	0.00446	7.041343864	0.008219473
Residual	498	0.315183555	0.00063		
Total	499	0.319640012			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.000530722	0.001127712	0.47062	0.638119263	-0.001684937	0.002746381	-0.001684937	0.002746381
FTSE 100	0.21788158	0.082109374	2.65355	0.008219473	0.056558093	0.379205068	0.056558093	0.379205068

According to JD Sports' regression result, the FTSE 100 index fluctuations account for approximately 1.39% of the variance in the company's stock performance, or an R-squared value of 0.013942114. With a p-value of 0.008219473, the coefficient for the FTSE 100 is 0.21788158, suggesting that it is marginally significant. This indicates that, on average, a unit gain in the FTSE 100 corresponds to a 0.2179 increase in the performance of JD Sports' shares, indicating a minor but significant positive link.

2.13 Results for NatWest

NatWest

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.055993974
R Square	0.003135325
Adjusted R Squar	0.001149539
Standard Error	0.019650287
Observations	504

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.00060966	0.00061	1.578883545	0.209505972
Residual	502	0.193839153	0.00039		
Total	503	0.194448813			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.001306802	0.000875491	-1.49265	0.136157071	-0.00302688	0.000413277	-0.00302688	0.000413277
FTSE 100	0.052652794	0.041903121	1.25654	0.209505972	-0.029674303	0.134979891	-0.029674303	0.134979891

NatWest's regression summary indicates a poor linear association with the FTSE 100, with a Multiple R of around 0.0559. With an R-squared of 0.0031, Imperial's stock performance fluctuation is only very slightly (0.31%) explained by variations in the FTSE 100 index. The ANOVA table shows that the regression model does not fit the data very well, with a Significance F of 0.209 much higher than the typical significance level of 0.05. This indicates that, at the 5% level, there is no statistically significant correlation between the performance of NatWest's shares and the FTSE 100.

2.14 Results for Unilever

Unilever

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.309056122
R Square	0.095515687
Adjusted R Squar	0.093699453
Standard Error	0.012744066
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.008541203	0.00854	52.58998002	1.58146E-12
Residual	498	0.080880785	0.00016		
Total	499	0.089421988			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.000246923	0.000571267	0.43224	0.66575567	-0.000875467	0.001369313	-0.000875467	0.001369313
FTSE 100	0.301637372	0.041594283	7.25189	1.58146E-12	0.219915462	0.383359281	0.219915462	0.383359281

Unilever's regression study reveals a moderate linear correlation with the FTSE 100 index, with a Multiple R value of 0.309056122. With an R-squared of 0.095515687, changes in the FTSE 100 can account for around 9.55% of the variation in Unilever's stock performance. With a high coefficient of 0.301637372, the FTSE 100 indicates that Unilever's stock is likely to rise by an average of 0.3016 units for every unit gained in the FTSE 100. The FTSE 100's t-statistic of 7.25189 supports the model's conclusion that it is significant.

2.15 Results for Diageo

Diageo

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.266583293
R Square	0.071066652
Adjusted R Squar	0.069201324
Standard Error	0.012241661
Observations	500

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.005709412	0.00571	38.09874289	1.39551E-09
Residual	498	0.074629416	0.00015		
Total	499	0.080338828			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.000301769	0.000548594	-0.55008	0.582512829	-0.001379612	0.000776074	-0.001379612	0.000776074
FTSE 100	0.171708165	0.027818623	6.17242	1.39551E-09	0.117051833	0.226364498	0.117051833	0.226364498

There is a moderate correlation between Diageo and the FTSE 100, according to the regression summary. The correlation strength, or Multiple R, is 0.2666. The R Square value, or 0.071, indicates that approximately 7.1% of the variation in Diageo's stock performance can be attributed to changes in the FTSE 100 index. The coefficient for the FTSE 100 is 0.171708165. This means that the model predicts that Diageo's stock will increase by an average of 0.1717 units for every unit increase in the FTSE 100. Diageo's stock performance and the FTSE 100 index are positively correlated.

3. Implications of CAPM (Capital Asset Pricing Model)

Diverse levels of correlation with the market index are revealed by analyzing the regression findings for each company. The assumption of a systemic risk-return tradeoff made by the CAPM is referred to into question by certain companies, which exhibit a statistically significant beta, which indicates a degree of predictability based on market movements, while others show little to no significance. There are concerns over the applicability of CAPM in predicting stock returns due to the distinct levels of beta significance observed in the dataset.

4. Sensitivity to Sector Characteristics

Based on the regression results, a pattern relating to sector characteristics can be identified. There is a moderate degree of correlation between market movements and financial organizations like HSBC and Barclays, but there is less correlation in areas like telecoms (Vodafone). This implies that industry-specific characteristics can impact CAPM's effectiveness.

5. References

Sharpe, W. F. et al. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. Journal of Finance, 19(3), 425-442.

6. Appendix

Closing Prices

Date	Lloyds	Vodafone	HSBC	Admiral	Barclays	Rolls Royce	Burburry	Sainsburry	M&S	Coca-Cola	Tesco	JD Sports	NatWest	Unilever	Diageo		FTSE 100
04/01/21	30.620893	13.339	21.3099	2715.417	125.694	103.2	1663.31311	194.23192	130.885	2165.722	220.36	160.938	133.137	3957.93	2721.58		6,460.52
05/01/21	30.950529	13.4887	21.4672	2742.5803	125.414	107.75	1640.91614	193.88815	133.076	2173.902	221.475	163.745	130.831	3935.75	2719.27		6,544.25
06/01/21	32.664631	13.8827	23.3548	2733.5259	135.783	111.05	1677.02527	199.81822	138.953	2196.622	227.984	168.922	140.263	3963.26	2720.2		6,611.87
07/01/21	32.427296	13.9693	23.2389	2695.4973	136.729	111.1	1699.87964	213.56917	140.796	2181.172	228.728	166.037	140.389	3945.51	2759.43		6,795.11
08/01/21	32.370159	13.8196	23.0733	2683.7271	133.927	107.3	1677.02527	208.67043	137.359	2209.345	228.449	168.132	138.419	3948.17	2804.67		6,836.08
11/01/21	31.790001	13.733	22.7587	2693.6868	132.42	105.75	1651.42908	203.25597	133.774	2135.731	227.24	174.534	135.736	3918.01	2729.43		6,768.72
12/01/21	32.299835	13.5202	23.1892	2681.0107	135.083	107.75	1610.29175	202.13869	133.923	2130.278	224.079	169.554	136.826	3833.72	2699.42		6,738.21
13/01/21	31.860317	13.7487	22.7007	2669.24	133.436	105.6	1579.21033	206.52182	132.528	2113.919	225.102	169.159	134.227	3861.22	2705.89		6,736.01
14/01/21	32.044918	13.9063	23.0071	2671.9563	133.874	106.65	1583.32422	208.32661	137.559	2121.19	224.451	168.25	135.023	3863	2700.81		6,736.78
15/01/21	31.587824	13.6778	22.6428	2646.6038	130.318	105.9	1568.69763	204.54512	139.053	2094.834	224.637	163.982	132.927	3898.49	2680.04		6,676.55

Daily Returns

Date	Lloyds	Vodafone	HSBC	Admiral	Barclays	Rolls Royce	Burburry	Sainsburry	M&S	Coca-Cola	Tesco	JD Sports	NatWest	Unilever	Diageo		FTSE 100
04/01/21	0.011	0.011	0.007	0.010	(0.002)	0.044	(0.013)	(0.002)	0.017	0.004	0.005	0.017	(0.017)	(0.006)	(0.001)		0.013
05/01/21	0.055	0.029	0.088	(0.003)	0.083	0.031	0.022	0.031	0.044	0.010	0.029	0.032	0.072	0.007	0.000		0.010
06/01/21	(0.007)	0.006	(0.005)	(0.014)	0.007	0.000	0.014	0.069	0.013	(0.007)	0.003	(0.017)	0.001	(0.004)	0.014		0.028
07/01/21	(0.002)	(0.011)	(0.007)	(0.004)	(0.020)	(0.034)	(0.013)	(0.023)	(0.024)	0.013	(0.001)	0.013	(0.014)	0.001	0.016		0.006
08/01/21	(0.018)	(0.006)	(0.014)	0.004	(0.011)	(0.014)	(0.015)	(0.026)	(0.026)	(0.033)	(0.005)	0.038	(0.019)	(0.008)	(0.027)		(0.010)
11/01/21	0.016	(0.015)	0.019	(0.005)	0.020	0.019	(0.025)	(0.005)	0.001	(0.003)	(0.014)	(0.029)	0.008	(0.022)	(0.011)		(0.005)
12/01/21	(0.014)	0.017	(0.021)	(0.004)	(0.012)	(0.020)	(0.019)	0.022	(0.010)	(0.008)	0.005	(0.002)	(0.019)	0.007	0.002		(0.000)
13/01/21	0.006	0.011	0.013	0.001	0.003	0.010	0.003	0.009	0.038	0.003	(0.003)	(0.005)	0.006	0.000	(0.002)		0.000
14/01/21	(0.014)	(0.016)	(0.016)	(0.009)	(0.027)	(0.007)	(0.009)	(0.018)	0.011	(0.012)	0.001	(0.025)	(0.016)	0.009	(0.008)		(0.009)
15/01/21	0.007	0.006	0.024	0.002	0.017	(0.016)	0.013	0.004	(0.011)	0.005	0.005	0.012	0.014	(0.007)	(0.002)		0.005

Excess Returns

Date	Lloyds	Vodafone	HSBC	Admiral	Barclays	Rolls Royce	Burburry	Sainsburry	M&S	Coca-Cola	Tesco	JD Sports	NatWest	Unilever	Diageo		FTSE 100
04/01/21	-0.0301	0.02967	0.03351	0.0308866	0.04312	-0.00319918	0.054355277	0.0426599	0.02416	0.03712	0.03584	0.02346	0.05821719	0.046503918	-0.0582		0.0237
05/01/21	0.05538	-0.0292	-0.0879	0.0033014	-0.0827	-0.03062648	-0.02200547	-0.030585	-0.0442	-0.0105	-0.02939	-0.0316	-0.072092517	-0.00698797	0.07209		-0.0061
06/01/21	-0.0073	-0.0062	0.00496	0.0139119	-0.007	-0.0004502	-0.013627922	-0.068817	-0.0133	0.00703	-0.00326	0.01708	-0.0008964	0.004477162	0.0009		-0.0347
07/01/21	-0.0018	0.01072	0.00712	0.0043666	0.0205	0.034203376	0.013444699	0.0229375	0.02441	-0.0129	0.00122	-0.0126	0.014034401	-0.00067466	-0.014		-0.0022
08/01/21	-0.0179	0.00627	0.01363	-0.003711	0.01125	0.014445508	0.015262854	0.0259474	0.02611	0.03332	0.00529	-0.0381	0.019381657	0.00764019	-0.0194		-0.0024
11/01/21	0.01604	0.01549	-0.0189	0.0047058	-0.0201	-0.01891253	0.02491014	0.0054969	-0.0011	0.00255	0.01391	0.02853	-0.008029367	0.021512741	0.00803		0.0109
12/01/21	-0.0136	-0.0169	0.02106	0.0043904	0.01219	0.019953615	0.019301733	-0.021684	0.01041	0.00768	-0.00456	0.00233	0.018995387	-0.00717401	-0.019		0.0065
13/01/21	0.00579	-0.0115	-0.0135	-0.001018	-0.0033	-0.00994322	-0.002605031	-0.008739	-0.038	-0.0034	0.00289	0.00537	-0.005934166	-0.00045967	0.00593		0.0013
14/01/21	-0.0143	0.01643	0.01583	0.0094884	0.02656	0.007032349	0.009237898	0.0181518	-0.0109	0.01242	-0.00083	0.02537	0.015523193	-0.00918684	-0.0155		-0.0084
15/01/21	0.00668	-0.0058	-0.0241	-0.002053	-0.0169	0.015580755	-0.01311182	-0.003781	0.01074	-0.0052	-0.00538	-0.0121	-0.013875643	0.00728272	0.01388		0.0097