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STaTa®
Statistics/Data Analysis
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```
        name:  <unnamed>
         log:  C:\Users\k19056473\Downloads\elections.smcl
    log type:  smcl
   opened on:  8 Jan 2020, 11:01:38
```

1 . use "C:\Users\k19056473\Downloads\election8.dta"

2 .
3 .
4 . *C)
5 . gen dummyd=1 if difshare>=0
  (3,549 missing values generated)

6 . replace dummyd=0 if difshare<0
  (3,549 real changes made)

7 . tab dummyd

dummyd	Freq.	Percent	Cum.
0	3,549	45.50	45.50
1	4,251	54.50	100.00
Total	7,800	100.00	

8 . sort difshare

9 . gen difshareP = difshare if dummyd==1
  (3,549 missing values generated)

10. gen difshare2P = difshare^2 if dummyd==1
  (3,549 missing values generated)

11. gen difshare3P = difshare^3 if dummyd==1
  (3,549 missing values generated)

12. gen difshare4P = difshare^4 if dummyd==1
  (3,549 missing values generated)

13. reg mmyoutcomenext difshareP difshare2P difshare3P difshare4P, robust

```
  Linear regression                      Number of obs   =      4,251
                                         F(4, 4246)      =     890.55
                                         Prob > F        =     0.0000
                                         R-squared       =     0.3986
                                         Root MSE        =     .07559
```

mmyoutcome~t	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
difshareP	1.968099	.0681955	28.86	0.000	1.8344	2.101798
difshare2P	-5.610887	.3245355	-17.29	0.000	-6.247146	-4.974628
difshare3P	6.588802	.5593796	11.78	0.000	5.492125	7.685478
difshare4P	-2.744338	.3032284	-9.05	0.000	-3.338824	-2.149852
_cons	.5946255	.0042308	140.55	0.000	.586331	.60292

14. predict allfitqiP if dummyd==1
  (option xb assumed; fitted values)
  (3,549 missing values generated)

15. predict stderror1, stdp
   (3,549 missing values generated)

16.
17. gen difshareN = difshare if dummyd==0
   (4,251 missing values generated)

18. gen difshare2N = difshare^2 if dummyd==0
   (4,251 missing values generated)

19. gen difshare3N = difshare^3 if dummyd==0
   (4,251 missing values generated)

20. gen difshare4N = difshare^4 if dummyd==0
   (4,251 missing values generated)

21. reg mmyoutcomenext difshareN difshare2N difshare3N difshare4N, robust

```
   Linear regression                              Number of obs   =       3,549
                                                  F(4, 3544)      =      883.51
                                                  Prob > F        =      0.0000
                                                  R-squared       =      0.7015
                                                  Root MSE        =      .02338
```

mmyoutcome~t	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
difshareN	1.387509	.0460275	30.15	0.000	1.297266	1.477752
difshare2N	4.792761	.213724	22.42	0.000	4.373726	5.211795
difshare3N	6.774068	.3822483	17.72	0.000	6.024619	7.523517
difshare4N	3.2694	.2291653	14.27	0.000	2.820091	3.71871
_cons	.141717	.0031289	45.29	0.000	.1355825	.1478516

22. predict allfitqiN if dummyd==0
   (option **xb** assumed; fitted values)
   (4,251 missing values generated)

23. predict stderror2, stdp
   (4,251 missing values generated)

24.
25. summ allfitqiP stderror1 allfitqiN stderror2

Variable	Obs	Mean	Std. Dev.	Min	Max
allfitqiP	4,251	.7936001	.0615153	.5951261	.8374658
stderror1	4,251	.0025319	.0017157	.0014273	.008727
allfitqiN	3,549	.0248753	.035822	-.0302803	.1412899
stderror2	3,549	.0007568	.0008372	.0003151	.023853

26.
27. twoway (scatter mmyoutcomenext difshare if difshare >=-.25 & difshare <=.25, xline(
   > 0, lstyle(foreground))) (line allfitqiN difshare if dummyd==0 & difshare >=-.25 & di
   > fshare <=.25, lcolor(red black)) ///
   >   (line a
   > llfitqiP difshare if dummyd==1 & difshare >=-.25 & difshare <=.25, lcolor(red black)
   >)
   >

```
28.
29. *D)
30. reg mrunagain difshareP difshare2P difshare3P difshare4P, robust
```

```
Linear regression                          Number of obs   =      4,251
                                           F(4, 4246)      =      11.42
                                           Prob > F        =     0.0000
                                           R-squared       =     0.0149
                                           Root MSE        =     .06403
```

mrunagain	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
difshareP	.0035973	.0583081	0.06	0.951	-.1107171	.1179117
difshare2P	.3848779	.2848961	1.35	0.177	-.1736674	.9434232
difshare3P	-.9797261	.4973172	-1.97	0.049	-1.954728	-.0047244
difshare4P	.585648	.270745	2.16	0.031	.0548463	1.11645
_cons	.8656249	.0034102	253.84	0.000	.8589392	.8723106

```
31. predict Fitlin2
   (option xb assumed; fitted values)
   (3,549 missing values generated)

32.
33. reg mrunagain difshareN difshare2N difshare3N difshare4N, robust
```

```
Linear regression                          Number of obs   =      3,549
                                           F(4, 3544)      =    1604.93
                                           Prob > F        =     0.0000
                                           R-squared       =     0.5808
                                           Root MSE        =     .06699
```

mrunagain	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
difshareN	2.77124	.11761	23.56	0.000	2.54065	3.00183
difshare2N	9.170333	.7339798	12.49	0.000	7.731268	10.6094
difshare3N	12.77864	1.625612	7.86	0.000	9.59141	15.96587
difshare4N	6.202893	1.165776	5.32	0.000	3.917233	8.488552
_cons	.4312079	.0049812	86.57	0.000	.4214417	.4409742

```
34. predict LinFit2
   (option xb assumed; fitted values)
   (4,251 missing values generated)

35. twoway (scatter mrunagain difshare if difshare >=-.25 & difshare <=.25,  xline(0, ls
  > tyle(foreground))) (line LinFit2 difshare if difshare <= 0 & difshare >=-.25 & difsh
  > are <=.25,  lcolor(red black)) ///
  >                                          (line Fitlin2  difshare if difshare >= 0 &
  > difshare >=-.25 & difshare <=.25, lcolor(red black))

36. *E)
37.
38. reg mofficeexp difshareP difshare2P difshare3P difshare4P, robust
```

```
Linear regression                          Number of obs   =      4,251
                                           F(4, 4246)      =    4457.88
                                           Prob > F        =     0.0000
                                           R-squared       =     0.6600
                                           Root MSE        =      .7396
```

mofficeexp	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
difshareP	16.14351	.6344562	25.44	0.000	14.89964	17.38737
difshare2P	-17.9769	3.289203	-5.47	0.000	-24.42545	-11.52834
difshare3P	-3.788628	5.794954	-0.65	0.513	-15.14977	7.572512
difshare4P	8.00229	3.133405	2.55	0.011	1.859178	14.1454
_cons	1.181515	.0306238	38.58	0.000	1.121477	1.241554

39. predict Fitlin3
   (option **xb** assumed; fitted values)
   (3,549 missing values generated)

40.
41. reg mofficeexp difshareN difshare2N difshare3N difshare4N, robust

Linear regression

Number of obs	=	3,549
F(4, 3544)	=	892.27
Prob > F	=	0.0000
R-squared	=	0.6341
Root MSE	=	.21813

mofficeexp	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
difshareN	7.166663	.2233713	32.08	0.000	6.728713	7.604612
difshare2N	17.07679	1.048376	16.29	0.000	15.02131	19.13227
difshare3N	16.11116	1.917502	8.40	0.000	12.35164	19.87068
difshare4N	4.993611	1.142567	4.37	0.000	2.753455	7.233767
_cons	1.052536	.0178734	58.89	0.000	1.017493	1.087579

42. predict LinFit3
   (option **xb** assumed; fitted values)
   (4,251 missing values generated)

43. twoway (scatter mofficeexp difshare if difshare >=-.25 & difshare <=.25, xline(0, ls
   > tyle(foreground))) (line LinFit3 difshare if difshare <= 0 & difshare >=-.25 & difsh
   > are <=.25, lcolor(red black)) ///
   >   (line Fitlin3 difshare if difshare >= 0 &
   > difshare >=-.25 & difshare <=.25, lcolor(red black))

44. reg melectexp difshareP difshare2P difshare3P difshare4P, robust

Linear regression

Number of obs	=	4,251
F(4, 4246)	=	4270.44
Prob > F	=	0.0000
R-squared	=	0.6272
Root MSE	=	.75129

melectexp	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
difshareP	15.6208	.6372548	24.51	0.000	14.37145	16.87015
difshare2P	-17.84929	3.341433	-5.34	0.000	-24.40024	-11.29833
difshare3P	-3.334285	5.916129	-0.56	0.573	-14.93299	8.26442
difshare4P	7.728815	3.205643	2.41	0.016	1.444078	14.01355
_cons	1.453521	.0296204	49.07	0.000	1.39545	1.511593

45. predict Fitlin4
   (option **xb** assumed; fitted values)
   (3,549 missing values generated)

46.
47. reg melectexp difshareN difshare2N difshare3N difshare4N, robust

```
Linear regression                          Number of obs   =      3,549
                                           F(4, 3544)      =     937.92
                                           Prob > F        =     0.0000
                                           R-squared       =     0.6055
                                           Root MSE        =     .26107
```

melectexp	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
difshareN	7.273535	.3701724	19.65	0.000	6.547763	7.999308
difshare2N	14.92868	2.120458	7.04	0.000	10.77124	19.08612
difshare3N	10.28729	4.220139	2.44	0.015	2.013144	18.56144
difshare4N	1.145411	2.445857	0.47	0.640	-3.650018	5.94084
_cons	1.328024	.0211684	62.74	0.000	1.286521	1.369528

48. predict LinFit4
   (option **xb** assumed; fitted values)
   (4,251 missing values generated)

49. twoway (scatter melectexp difshare if difshare >=-.25 & difshare <=.25, xline(0, lst
   > yle(foreground))) (line LinFit4 difshare if difshare <=0 & difshare >=-.25 & difshar
   > e <=.25, lcolor(red black)) ///
   >   (line Fitlin4 difshare if difshare >= 0 &
   > difshare >=-.25 & difshare <=.25, lcolor(red black))

50. *F)
51.
52. reg mmyoutcomenext melectexp mofficeexp difshareP difshare2P difshare3P difshare4P,
   > robust

```
Linear regression                          Number of obs   =      4,251
                                           F(6, 4244)      =     595.25
                                           Prob > F        =     0.0000
                                           R-squared       =     0.4021
                                           Root MSE        =     .07539
```

mmyoutcome~t	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
melectexp	-.048082	.0169932	-2.83	0.005	-.0813976	-.0147665
mofficeexp	.0543106	.0173643	3.13	0.002	.0202674	.0883538
difshareP	1.842416	.0814268	22.63	0.000	1.682776	2.002055
difshare2P	-5.492781	.3267902	-16.81	0.000	-6.133461	-4.852101
difshare3P	6.634245	.551167	12.04	0.000	5.553669	7.714821
difshare4P	-2.80733	.2988511	-9.39	0.000	-3.393234	-2.221425
_cons	.600345	.0066516	90.26	0.000	.5873043	.6133857

53. predict Fitlin5
   (option **xb** assumed; fitted values)
   (3,549 missing values generated)

54.
55. reg mmyoutcomenext melectexp mofficeexp difshareN difshare2N difshare3N difshare4N,
> robust

```
Linear regression                               Number of obs   =       3,549
                                                F(6, 3542)      =      671.92
                                                Prob > F        =      0.0000
                                                R-squared       =      0.7057
                                                Root MSE        =      .02322
```

mmyoutcome~t	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
melectexp	-.0048541	.0034361	-1.41	0.158	-.0115911	.0018828
mofficeexp	.0175649	.0041066	4.28	0.000	.0095134	.0256164
difshareN	1.296934	.0516621	25.10	0.000	1.195643	1.398224
difshare2N	4.565274	.2275671	20.06	0.000	4.119098	5.011449
difshare3N	6.541012	.4006451	16.33	0.000	5.755494	7.32653
difshare4N	3.187248	.2392446	13.32	0.000	2.718177	3.656319
_cons	.1296757	.0042338	30.63	0.000	.1213747	.1379767

56. predict LinFit5
   (option **xb** assumed; fitted values)
   (4,251 missing values generated)

57. twoway (scatter mmyoutcomenext difshare if difshare >=-.25 & difshare <=.25, xline(0
> , lstyle(foreground))) (line LinFit5 difshare if difshare <= 0 & difshare >=-.25 & d
> ifshare <=.25, lcolor(red black)) ///
>   (line Fitlin5 difshare if difshare >= 0 &
> difshare >=-.25 & difshare <=.25, lcolor(red black))

58.
59. reg mrunagain melectexp mofficeexp difshareP difshare2P difshare3P difshare4P, robus
> t

```
Linear regression                               Number of obs   =       4,251
                                                F(6, 4244)      =        8.18
                                                Prob > F        =      0.0000
                                                R-squared       =      0.0177
                                                Root MSE        =      .06395
```

mrunagain	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf. Interval]	
melectexp	.005084	.0151201	0.34	0.737	-.0245593	.0347274
mofficeexp	-.0004776	.0155477	-0.03	0.975	-.0309593	.030004
difshareP	-.0681093	.0703047	-0.97	0.333	-.2059432	.0697246
difshare2P	.4670386	.2907405	1.61	0.108	-.102965	1.037042
difshare3P	-.964584	.492563	-1.96	0.050	-1.930265	.0010971
difshare4P	.5501763	.2665267	2.06	0.039	.0276446	1.072708
_cons	.8587994	.0052343	164.07	0.000	.8485375	.8690613

60. predict Fitlin6
   (option **xb** assumed; fitted values)
   (3,549 missing values generated)

61.
62. reg mrunagain melectexp mofficeexp difshareN difshare2N difshare3N difshare4N, robus
  > t

```
Linear regression                          Number of obs   =       3,549
                                           F(6, 3542)      =     1185.72
                                           Prob > F        =      0.0000
                                           R-squared       =      0.5882
                                           Root MSE        =      .06641
```

	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
mrunagain						
melectexp	.0351837	.0233995	1.50	0.133	-.0106941	.0810616
mofficeexp	-.0745601	.0255212	-2.92	0.004	-.1245979	-.0245223
difshareN	3.049677	.111182	27.43	0.000	2.83169	3.267664
difshare2N	9.918334	.6867063	14.44	0.000	8.571954	11.26471
difshare3N	13.61794	1.531198	8.89	0.000	10.61583	16.62006
difshare4N	6.534917	1.113592	5.87	0.000	4.351571	8.718263
_cons	.4629603	.0075344	61.45	0.000	.448188	.4777326

63. predict LinFit6
  (option **xb** assumed; fitted values)
  (4,251 missing values generated)

64. twoway (scatter mrunagain difshare if difshare >=-.25 & difshare <=.25, xline(0, lst
  > yle(foreground))) (line LinFit6 difshare if difshare <= 0 & difshare >=-.25 & difsha
  > re <=.25, lcolor(red black)) ///
  >   (line Fitlin6 difshare if difshare >= 0& d
  > ifshare >=-.25 & difshare <=.25, lcolor(red black))

65.