Statistics/Data analysis

```
      name:  <unnamed>
       log:  C:\Ourfolders\Aly\MK_WB/output/log/MK_validation_log_20230117.smcl
  log type:  smcl
 opened on:  17 Jan 2023, 05:49:05

1 .
  end of do-file

2 . do "C:\Users\info\AppData\Local\Temp\STD5878_000000.tmp"

3 . // Set global controls, options and sample
4 . global controls i.cvalue10 i.anb_type i.ca_type i.anb_location i.year i.market_id

5 . global options vce(robust)

6 . global sub_sample filter_ok

7 .
8 . // Individual indicator validation
9 . foreach var in corr_ben corr_decp corr_subm corr_proc taxhav3 w_ycsh4{
  2.
10. global dep_vars i.y`var'
  3. if inlist("`var'","w_ycsh4") global dep_vars c.y`var'
  4.
11. logit corr_singleb $dep_vars $controls if $sub_sample, $options
  5. }

  note: 1.ca_type != 0 predicts failure perfectly;
        1.ca_type omitted and 4 obs not used.

  note: 4.ca_type omitted because of collinearity.
  Iteration 0:   log pseudolikelihood = -160303.96
  Iteration 1:   log pseudolikelihood = -153069.09
  Iteration 2:   log pseudolikelihood = -152913.05
  Iteration 3:   log pseudolikelihood = -152912.39
  Iteration 4:   log pseudolikelihood = -152912.39

  Logistic regression                                     Number of obs =  265,920
                                                          Wald chi2(82) = 13457.35
                                                          Prob > chi2   =   0.0000
  Log pseudolikelihood = -152912.39                       Pseudo R2     =   0.0461
```

corr_singleb	Coefficient	Robust std. err.	z	P>|z|	[95% conf.	interval]
ycorr_ben						
2	.0733521	.0102851	7.13	0.000	.0531937	.0935104
9	.2341025	.0158867	14.74	0.000	.2029652	.2652398
cvalue10						
2	.1644619	.0212768	7.73	0.000	.1227602	.2061636
3	.320186	.0209951	15.25	0.000	.2790364	.3613356
4	.3442346	.0210105	16.38	0.000	.3030548	.3854143
5	.4642245	.020835	22.28	0.000	.4233885	.5050604
6	.5176038	.0208699	24.80	0.000	.4766996	.5585081
7	.4121167	.0211816	19.46	0.000	.3706015	.4536319
8	.4430213	.02123	20.87	0.000	.4014113	.4846312
9	.5478611	.0215376	25.44	0.000	.5056481	.5900741
10	.6279992	.0222527	28.22	0.000	.5843847	.6716137
99	.2205739	.0270236	8.16	0.000	.1676087	.2735392
anb_type						
NATIONAL_AUTHORITY	.6011866	.3949457	1.52	0.128	-.1728927	1.375266
OTHER	.4826724	.4185479	1.15	0.249	-.3376664	1.303011
PUBLIC_BODY	.8669368	.394668	2.20	0.028	.0934017	1.640472
REGIONAL_AUTHORITY	.7198183	.3948854	1.82	0.068	-.0541429	1.49378
ca_type						
NA	0	(empty)				
SERVICES	.7469867	.0235314	31.74	0.000	.700866	.7931074

SUPPLIES	.2734338	.0235068	11.63	0.000	.2273614	.3195063
WORKS	0	(omitted)				
anb_location						
MK002	-.1440199	.0224514	-6.41	0.000	-.1880238	-.100016
MK003	-.0188342	.0218437	-0.86	0.389	-.061647	.0239785
MK004	-.0599845	.024173	-2.48	0.013	-.1073628	-.0126062
MK005	-.1007166	.0207083	-4.86	0.000	-.1413041	-.060129
MK006	.1433327	.0263449	5.44	0.000	.0916978	.1949677
MK007	.2848641	.0256835	11.09	0.000	.2345255	.3352028
MK008	-.1487516	.0176891	-8.41	0.000	-.1834216	-.1140815
NA	.3274998	.2804466	1.17	0.243	-.2221655	.8771651
year						
2012	.2592637	.0315825	8.21	0.000	.1973631	.3211643
2013	.4020771	.0287774	13.97	0.000	.3456743	.4584798
2014	.0696784	.0286037	2.44	0.015	.0136161	.1257407
2015	.0111295	.0275762	0.40	0.687	-.0429189	.0651778
2016	.0949819	.0272693	3.48	0.000	.041535	.1484289
2017	-.048846	.027723	-1.76	0.078	-.103182	.00549
2018	-.0632871	.0275198	-2.30	0.021	-.1172249	-.0093494
2019	.1959255	.0299154	6.55	0.000	.1372924	.2545585
2020	.2804839	.0331332	8.47	0.000	.215544	.3454238
2021	.3602669	.0329756	10.93	0.000	.295636	.4248978
2022	.5338174	.034731	15.37	0.000	.4657459	.6018889
market_id						
09	.2225814	.0679341	3.28	0.001	.0894331	.3557297
14	.2247761	.1182276	1.90	0.057	-.0069458	.456498
15	-.7745834	.0741871	-10.44	0.000	-.9199875	-.6291794
16	.767562	.1370031	5.60	0.000	.499041	1.036083
18	-.4023202	.1068936	-3.76	0.000	-.6118277	-.1928127
19	-.8859714	.188019	-4.71	0.000	-1.254482	-.5174609
22	-.5578261	.0921846	-6.05	0.000	-.7385046	-.3771477
24	-.6407962	.0842672	-7.60	0.000	-.8059568	-.4756357
30	-.9035686	.0706488	-12.79	0.000	-1.042038	-.7650995
31	-.2692332	.0781188	-3.45	0.001	-.4223433	-.1161232
32	.1287593	.1044846	1.23	0.218	-.0760269	.3335454
33	-.0646467	.0638954	-1.01	0.312	-.1898794	.060586
34	.418604	.0712587	5.87	0.000	.2789395	.5582684
35	-.5193615	.1242267	-4.18	0.000	-.7628414	-.2758815
37	.9940636	.1240522	8.01	0.000	.7509257	1.237201
38	.0544925	.0885135	0.62	0.538	-.1189908	.2279758
39	-.7841399	.0809052	-9.69	0.000	-.9427111	-.6255687
41	-.2292653	.2842962	-0.81	0.420	-.7864756	.327945
42	.0456116	.0882811	0.52	0.605	-.1274162	.2186394
43	-.129643	.1559137	-0.83	0.406	-.4352283	.1759422
44	-.4041357	.0730365	-5.53	0.000	-.5472846	-.2609867
45	-.8667801	.0753379	-11.51	0.000	-1.01444	-.7191206
48	.7862042	.084298	9.33	0.000	.6209831	.9514254
50	.561356	.0665728	8.43	0.000	.4308757	.6918363
51	.3205433	.1963733	1.63	0.103	-.0643414	.705428
55	-.0728926	.1306031	-0.56	0.577	-.32887	.1830849
60	.3723822	.0737854	5.05	0.000	.2277654	.516999
63	-.0907642	.1397574	-0.65	0.516	-.3646837	.1831553
64	-.1762901	.0847628	-2.08	0.038	-.3424221	-.0101581
65	-.5077887	.1744781	-2.91	0.004	-.8497595	-.1658179
66	-1.474368	.0929148	-15.87	0.000	-1.656478	-1.292258
70	-1.249265	.3252219	-3.84	0.000	-1.886688	-.6118416
71	-.9888457	.0791171	-12.50	0.000	-1.143912	-.8337789
72	.8880425	.0790665	11.23	0.000	.7330751	1.04301
73	.1336941	.1842509	0.73	0.468	-.2274311	.4948193
75	-1.993593	.2029333	-9.82	0.000	-2.391335	-1.595851
76	.4422638	.2619565	1.69	0.091	-.0711615	.955689
77	1.319407	.0809463	16.30	0.000	1.160755	1.478059
79	-1.110736	.0789149	-14.08	0.000	-1.265407	-.9560662
80	.134192	.1667515	0.80	0.421	-.192635	.461019
85	-.2553069	.0933139	-2.74	0.006	-.4381988	-.0724149
90	-.1195357	.0831033	-1.44	0.150	-.2824152	.0433437
92	.5633068	.1737331	3.24	0.001	.2227962	.9038175
98	.3035203	.1146244	2.65	0.008	.0788606	.52818
99	.2261202	.0645355	3.50	0.000	.099633	.3526075

_cons	**-2.745151**	**.4021237**	**-6.83**	**0.000**	**-3.533299**	**-1.957003**

note: **1.ca_type** != 0 predicts failure perfectly;
1.ca_type omitted and 4 obs not used.

note: **4.ca_type** omitted because of collinearity.
Iteration 0: log pseudolikelihood = **-160303.96**
Iteration 1: log pseudolikelihood = **-152412.63**
Iteration 2: log pseudolikelihood = **-152240.18**
Iteration 3: log pseudolikelihood = **-152239.46**
Iteration 4: log pseudolikelihood = **-152239.46**

Logistic regression — Number of obs = **265,920**
Wald chi2(**82**) = **14524.79**
Prob > chi2 = **0.0000**
Log pseudolikelihood = **-152239.46** — Pseudo R2 = **0.0503**

corr_singleb	Coefficient	Robust std. err.	z	P>|z|	[95% conf.	interval]
ycorr_decp						
1	**.4265565**	**.0119285**	**35.76**	**0.000**	**.4031771**	**.4499358**
2	**.3710314**	**.0114142**	**32.51**	**0.000**	**.34866**	**.3934027**
cvalue10						
2	**.1715411**	**.0213293**	**8.04**	**0.000**	**.1297364**	**.2133458**
3	**.3248669**	**.0210654**	**15.42**	**0.000**	**.2835795**	**.3661543**
4	**.3494587**	**.0210957**	**16.57**	**0.000**	**.3081118**	**.3908056**
5	**.4680237**	**.0209026**	**22.39**	**0.000**	**.4270554**	**.508992**
6	**.5185953**	**.0209493**	**24.75**	**0.000**	**.4775355**	**.5596551**
7	**.4150863**	**.0212207**	**19.56**	**0.000**	**.3734945**	**.456678**
8	**.4459825**	**.0212855**	**20.95**	**0.000**	**.4042636**	**.4877014**
9	**.5513358**	**.0216389**	**25.48**	**0.000**	**.5089244**	**.5937473**
10	**.6307082**	**.0223576**	**28.21**	**0.000**	**.5868881**	**.6745283**
99	**.2285897**	**.0271174**	**8.43**	**0.000**	**.1754406**	**.2817387**
anb_type						
NATIONAL_AUTHORITY	**.5667579**	**.3908315**	**1.45**	**0.147**	**-.1992578**	**1.332773**
OTHER	**.5592708**	**.4151458**	**1.35**	**0.178**	**-.2544**	**1.372942**
PUBLIC_BODY	**.8285514**	**.3905482**	**2.12**	**0.034**	**.0630909**	**1.594012**
REGIONAL_AUTHORITY	**.6353023**	**.3907607**	**1.63**	**0.104**	**-.1305747**	**1.401179**
ca_type						
NA	**0**	(empty)				
SERVICES	**.7316296**	**.023373**	**31.30**	**0.000**	**.6858194**	**.7774399**
SUPPLIES	**.2655778**	**.0233046**	**11.40**	**0.000**	**.2199017**	**.311254**
WORKS	**0**	(omitted)				
anb_location						
MK002	**-.1367624**	**.0225193**	**-6.07**	**0.000**	**-.1808993**	**-.0926255**
MK003	**-.0041931**	**.0219418**	**-0.19**	**0.848**	**-.0471982**	**.0388121**
MK004	**-.0496011**	**.0242415**	**-2.05**	**0.041**	**-.0971137**	**-.0020886**
MK005	**-.0995494**	**.0207544**	**-4.80**	**0.000**	**-.1402274**	**-.0588715**
MK006	**.1812575**	**.0263808**	**6.87**	**0.000**	**.1295521**	**.232963**
MK007	**.2721272**	**.0257348**	**10.57**	**0.000**	**.2216878**	**.3225665**
MK008	**-.1569028**	**.0176928**	**-8.87**	**0.000**	**-.1915799**	**-.1222256**
NA	**.4425864**	**.2750642**	**1.61**	**0.108**	**-.0965294**	**.9817023**
year						
2012	**.2609721**	**.031609**	**8.26**	**0.000**	**.1990197**	**.3229245**
2013	**.4159692**	**.0288002**	**14.44**	**0.000**	**.3595219**	**.4724166**
2014	**.1056905**	**.0286299**	**3.69**	**0.000**	**.049577**	**.1618041**
2015	**.0463808**	**.0276122**	**1.68**	**0.093**	**-.0077382**	**.1004998**
2016	**.1320303**	**.0273117**	**4.83**	**0.000**	**.0785004**	**.1855602**
2017	**-.010561**	**.0277591**	**-0.38**	**0.704**	**-.0649678**	**.0438458**
2018	**-.0158985**	**.027742**	**-0.57**	**0.567**	**-.0702718**	**.0384748**
2019	**.2133787**	**.0301478**	**7.08**	**0.000**	**.15429**	**.2724673**
2020	**.2871332**	**.0333054**	**8.62**	**0.000**	**.2218558**	**.3524106**
2021	**.3626283**	**.0331912**	**10.93**	**0.000**	**.2975747**	**.4276818**

2022	.5375519	.0349406	15.38	0.000	.4690695	.6060343
market_id						
09	.2554434	.068211	3.74	0.000	.1217523	.3891345
14	.2794169	.1189885	2.35	0.019	.0462037	.5126302
15	-.752972	.0746106	-10.09	0.000	-.8992061	-.606738
16	.7834441	.1371322	5.71	0.000	.5146699	1.052218
18	-.3943201	.1071467	-3.68	0.000	-.6043239	-.1843164
19	-.9020708	.1880931	-4.80	0.000	-1.270726	-.5334151
22	-.5446376	.0923638	-5.90	0.000	-.7256674	-.3636078
24	-.6253185	.0846426	-7.39	0.000	-.7912149	-.4594221
30	-.8746016	.0710218	-12.31	0.000	-1.013802	-.7354014
31	-.2582268	.0784423	-3.29	0.001	-.4119709	-.1044827
32	.1695735	.1050085	1.61	0.106	-.0362395	.3753864
33	-.0182224	.0641455	-0.28	0.776	-.1439453	.1075006
34	.4376955	.0715689	6.12	0.000	.297423	.5779679
35	-.4945528	.1244577	-3.97	0.000	-.7384854	-.2506203
37	1.046482	.1247771	8.39	0.000	.8019236	1.291041
38	.1128907	.0886349	1.27	0.203	-.0608306	.286612
39	-.7717749	.081204	-9.50	0.000	-.9309318	-.612618
41	-.2225475	.2868216	-0.78	0.438	-.7847074	.3396125
42	.054809	.0885166	0.62	0.536	-.1186804	.2282984
43	-.1028633	.1565082	-0.66	0.511	-.4096139	.2038872
44	-.385126	.0734895	-5.24	0.000	-.5291627	-.2410893
45	-.847739	.0755713	-11.22	0.000	-.9958561	-.6996219
48	.8145794	.0845827	9.63	0.000	.6488002	.9803585
50	.5736966	.0668757	8.58	0.000	.4426226	.7047706
51	.3322426	.1983592	1.67	0.094	-.0565342	.7210195
55	-.0357792	.1303548	-0.27	0.784	-.2912699	.2197116
60	.4627372	.0742026	6.24	0.000	.3173027	.6081717
63	-.0180855	.141449	-0.13	0.898	-.2953203	.2591494
64	-.1715185	.0852051	-2.01	0.044	-.3385175	-.0045196
65	-.5127217	.1751953	-2.93	0.003	-.856098	-.1693453
66	-1.470326	.093451	-15.73	0.000	-1.653487	-1.287166
70	-1.235153	.3247528	-3.80	0.000	-1.871656	-.5986488
71	-.9678933	.0793589	-12.20	0.000	-1.123434	-.8123526
72	.9009426	.0792338	11.37	0.000	.7456473	1.056238
73	.1319047	.1828078	0.72	0.471	-.2263921	.4902014
75	-1.984803	.2040101	-9.73	0.000	-2.384655	-1.58495
76	.4792073	.2620145	1.83	0.067	-.0343316	.9927463
77	1.326717	.0811744	16.34	0.000	1.167618	1.485816
79	-1.094381	.079233	-13.81	0.000	-1.249675	-.9390875
80	.1442398	.1671872	0.86	0.388	-.1834412	.4719207
85	-.2490211	.0936339	-2.66	0.008	-.4325402	-.0655021
90	-.1195721	.0834087	-1.43	0.152	-.2830502	.043906
92	.571714	.1743862	3.28	0.001	.2299234	.9135046
98	.3723391	.115129	3.23	0.001	.1466905	.5979877
99	.2642295	.0648907	4.07	0.000	.137046	.391413
_cons	-2.971069	.3981031	-7.46	0.000	-3.751336	-2.190801

note: **1.ca_type** != 0 predicts failure perfectly;
1.ca_type omitted and 4 obs not used.

note: **4.ca_type** omitted because of collinearity.
Iteration 0: log pseudolikelihood = **-160303.96**
Iteration 1: log pseudolikelihood = **-152360.27**
Iteration 2: log pseudolikelihood = **-152186.55**
Iteration 3: log pseudolikelihood = **-152185.82**
Iteration 4: log pseudolikelihood = **-152185.82**

Logistic regression — Number of obs = **265,920**
Wald chi2(**81**) = **14466.69**
Prob > chi2 = **0.0000**
Log pseudolikelihood = **-152185.82** — Pseudo R2 = **0.0506**

corr_singleb	Coefficient	Robust std. err.	z	P>|z|	[95% conf.	interval]
2.ycorr_subm	.4602824	.0114355	40.25	0.000	.4378692	.4826955
cvalue10						
2	.1642317	.0213923	7.68	0.000	.1223036	.2061598
3	.3174417	.0211079	15.04	0.000	.276071	.3588124
4	.3475506	.0211279	16.45	0.000	.3061407	.3889606
5	.4730973	.020947	22.59	0.000	.432042	.5141526
6	.5340007	.0209975	25.43	0.000	.4928464	.5751549
7	.4798863	.0213924	22.43	0.000	.4379579	.5218147
8	.5799531	.0216789	26.75	0.000	.5374632	.622443
9	.8053954	.0227857	35.35	0.000	.7607363	.8500544
10	.8963368	.0236052	37.97	0.000	.8500715	.9426021
99	.2443323	.0271785	8.99	0.000	.1910634	.2976011
anb_type						
NATIONAL_AUTHORITY	.4885821	.3937077	1.24	0.215	-.2830708	1.260235
OTHER	.4948395	.4172841	1.19	0.236	-.3230224	1.312701
PUBLIC_BODY	.7572078	.3934237	1.92	0.054	-.0138885	1.528304
REGIONAL_AUTHORITY	.5568954	.3936342	1.41	0.157	-.2146134	1.328404
ca_type						
NA	0	(empty)				
SERVICES	.7735652	.0233095	33.19	0.000	.7278795	.8192509
SUPPLIES	.3373645	.0232948	14.48	0.000	.2917074	.3830215
WORKS	0	(omitted)				
anb_location						
MK002	-.1270079	.022479	-5.65	0.000	-.1710659	-.0829498
MK003	.0315631	.0218982	1.44	0.149	-.0113566	.0744829
MK004	-.0446373	.024155	-1.85	0.065	-.0919803	.0027057
MK005	-.1031542	.0207143	-4.98	0.000	-.1437535	-.0625549
MK006	.1871043	.0263301	7.11	0.000	.1354982	.2387105
MK007	.310654	.0258091	12.04	0.000	.2600691	.3612388
MK008	-.1375478	.017657	-7.79	0.000	-.1721548	-.1029408
NA	.3827267	.2816027	1.36	0.174	-.1692044	.9346579
year						
2012	.2147622	.0316431	6.79	0.000	.1527429	.2767816
2013	.3203238	.0288767	11.09	0.000	.2637266	.3769211
2014	.0061385	.0286945	0.21	0.831	-.0501017	.0623788
2015	-.0392844	.0276773	-1.42	0.156	-.093531	.0149621
2016	.0409392	.0273751	1.50	0.135	-.0127149	.0945934
2017	-.1057623	.0278495	-3.80	0.000	-.1603464	-.0511783
2018	-.1247136	.0276768	-4.51	0.000	-.1789591	-.0704681
2019	.1143929	.0300822	3.80	0.000	.0554329	.1733529
2020	.1964813	.0332548	5.91	0.000	.131303	.2616597
2021	.2816607	.0330959	8.51	0.000	.2167939	.3465275
2022	.4588947	.0348532	13.17	0.000	.3905836	.5272058
market_id						
09	.2435229	.067302	3.62	0.000	.1116134	.3754323
14	.2325928	.1181274	1.97	0.049	.0010673	.4641183
15	-.7005213	.0735783	-9.52	0.000	-.8447322	-.5563104
16	.8669142	.137474	6.31	0.000	.5974701	1.136358
18	-.4158984	.1069821	-3.89	0.000	-.6255794	-.2062173
19	-.9316214	.188426	-4.94	0.000	-1.30093	-.5623131
22	-.6178876	.0914619	-6.76	0.000	-.7971496	-.4386255
24	-.6457446	.0841239	-7.68	0.000	-.8106244	-.4808648
30	-.9389505	.0702831	-13.36	0.000	-1.076703	-.8011981
31	-.2785197	.0778234	-3.58	0.000	-.4310508	-.1259885
32	.1372399	.1048973	1.31	0.191	-.068355	.3428348
33	.004511	.0631943	0.07	0.943	-.1193476	.1283696
34	.4679205	.0709269	6.60	0.000	.3289064	.6069346
35	-.5403021	.124112	-4.35	0.000	-.7835572	-.297047
37	.962922	.1229523	7.83	0.000	.7219398	1.203904
38	.1057	.0881846	1.20	0.231	-.0671387	.2785386
39	-.8271993	.0805109	-10.27	0.000	-.9849977	-.6694009
41	-.2810748	.285151	-0.99	0.324	-.8399605	.2778108

42	.0530814	.0882466	0.60	0.547	-.1198787	.2260415
43	-.1401669	.1565911	-0.90	0.371	-.4470799	.1667461
44	-.398495	.0725933	-5.49	0.000	-.5407753	-.2562148
45	-.8242441	.0747246	-11.03	0.000	-.9707017	-.6777865
48	.7732547	.0843099	9.17	0.000	.6080103	.9384992
50	.598392	.0660641	9.06	0.000	.4689088	.7278752
51	.2932451	.1990364	1.47	0.141	-.0968591	.6833493
55	-.0862677	.130151	-0.66	0.507	-.3413589	.1688235
60	.5142561	.0736179	6.99	0.000	.3699676	.6585445
63	-.0187447	.1419869	-0.13	0.895	-.297034	.2595445
64	-.21146	.08438	-2.51	0.012	-.3768417	-.0460783
65	-.5026223	.1739605	-2.89	0.004	-.8435785	-.161666
66	-1.50197	.0926696	-16.21	0.000	-1.683599	-1.320341
70	-1.310179	.3284286	-3.99	0.000	-1.953888	-.6664712
71	-.9672336	.0787249	-12.29	0.000	-1.121532	-.8129357
72	.8672922	.0786172	11.03	0.000	.7132053	1.021379
73	.1379927	.1844326	0.75	0.454	-.2234886	.499474
75	-1.973553	.2015442	-9.79	0.000	-2.368573	-1.578534
76	.4172279	.2599789	1.60	0.109	-.0923214	.9267772
77	1.415967	.080638	17.56	0.000	1.257919	1.574014
79	-1.11635	.0785191	-14.22	0.000	-1.270245	-.9624558
80	.0954572	.171421	0.56	0.578	-.2405218	.4314362
85	-.330139	.0933042	-3.54	0.000	-.5130119	-.1472662
90	-.1464047	.0827148	-1.77	0.077	-.3085227	.0157132
92	.5180034	.1742208	2.97	0.003	.1765369	.8594698
98	.3206431	.1144092	2.80	0.005	.0964052	.5448809
99	.1282121	.0640039	2.00	0.045	.0027667	.2536574
_cons	-2.837245	.4007189	-7.08	0.000	-3.62264	-2.05185

note: **1.ca_type** != 0 predicts failure perfectly;
1.ca_type omitted and 4 obs not used.

note: **4.ca_type** omitted because of collinearity.
Iteration 0: log pseudolikelihood = **-160303.96**
Iteration 1: log pseudolikelihood = **-149728.9**
Iteration 2: log pseudolikelihood = **-149532.25**
Iteration 3: log pseudolikelihood = **-149531.45**
Iteration 4: log pseudolikelihood = **-149531.45**

Logistic regression — Number of obs = **265,920**
Wald chi2(**82**) = **17533.35**
Prob > chi2 = **0.0000**
Log pseudolikelihood = **-149531.45** — Pseudo R2 = **0.0672**

corr_singleb	Coefficient	Robust std. err.	z	P>|z|	[95% conf.	interval]
ycorr_proc						
1	.3093948	.0123925	24.97	0.000	.2851059	.3336837
2	2.270609	.0308043	73.71	0.000	2.210234	2.330985
cvalue10						
2	.1829481	.0215233	8.50	0.000	.1407632	.225133
3	.3638695	.0212261	17.14	0.000	.3222672	.4054718
4	.398674	.0212772	18.74	0.000	.3569715	.4403764
5	.5231127	.0210831	24.81	0.000	.4817905	.5644348
6	.5916494	.021134	28.00	0.000	.5502274	.6330714
7	.4906439	.021535	22.78	0.000	.448436	.5328518
8	.5495358	.0216378	25.40	0.000	.5071264	.5919451
9	.7154458	.0228937	31.25	0.000	.6705751	.7603166
10	.8340559	.0245997	33.91	0.000	.7858414	.8822703
99	.2704509	.0272672	9.92	0.000	.2170081	.3238937
anb_type						
NATIONAL_AUTHORITY	.5967339	.4032	1.48	0.139	-.1935236	1.386991
OTHER	.6478514	.4262915	1.52	0.129	-.1876646	1.483367
PUBLIC_BODY	.9039016	.402912	2.24	0.025	.1142085	1.693595
REGIONAL_AUTHORITY	.7220952	.4031418	1.79	0.073	-.0680482	1.512239

ca_type						
NA	0	(empty)				
SERVICES	.8490649	.0235428	36.06	0.000	.8029218	.895208
SUPPLIES	.4518648	.0235928	19.15	0.000	.4056237	.4981059
WORKS	0	(omitted)				
anb_location						
MK002	-.1404258	.0226211	-6.21	0.000	-.1847624	-.0960892
MK003	.0140863	.0219732	0.64	0.521	-.0289805	.057153
MK004	-.0583687	.024305	-2.40	0.016	-.1060056	-.0107317
MK005	-.1488154	.0208348	-7.14	0.000	-.1896509	-.1079799
MK006	.1801334	.0264437	6.81	0.000	.1283047	.2319621
MK007	.2290223	.0259023	8.84	0.000	.1782547	.2797898
MK008	-.2067591	.0177938	-11.62	0.000	-.2416344	-.1718838
NA	.4164798	.2910913	1.43	0.153	-.1540487	.9870083
year						
2012	.2905814	.0330514	8.79	0.000	.2258018	.3553609
2013	.4750629	.0298261	15.93	0.000	.4166048	.533521
2014	.2130528	.0296729	7.18	0.000	.1548949	.2712107
2015	.1979178	.0285922	6.92	0.000	.141878	.2539576
2016	.285814	.0282829	10.11	0.000	.2303806	.3412473
2017	.1397556	.0287129	4.87	0.000	.0834793	.1960319
2018	.1265961	.0285455	4.43	0.000	.0706478	.1825443
2019	.2189791	.0309933	7.07	0.000	.1582334	.2797248
2020	.2108867	.0339681	6.21	0.000	.1443105	.2774629
2021	.3157351	.0337577	9.35	0.000	.2495713	.381899
2022	.4872057	.0355114	13.72	0.000	.4176047	.5568067
market_id						
09	.2450862	.0680689	3.60	0.000	.1116736	.3784989
14	.2444972	.1187674	2.06	0.040	.0117175	.477277
15	-.7316034	.0743555	-9.84	0.000	-.8773375	-.5858693
16	.78817	.1380048	5.71	0.000	.5176855	1.058655
18	-.4102943	.1075469	-3.82	0.000	-.6210824	-.1995062
19	-.9011605	.188291	-4.79	0.000	-1.270204	-.5321169
22	-.5397791	.0920844	-5.86	0.000	-.7202612	-.3592969
24	-.6398157	.0845578	-7.57	0.000	-.805546	-.4740855
30	-.8693877	.0708061	-12.28	0.000	-1.008165	-.7306102
31	-.2743748	.0783929	-3.50	0.000	-.4280221	-.1207276
32	.1613243	.1046882	1.54	0.123	-.0438608	.3665094
33	-.0381788	.0639946	-0.60	0.551	-.163606	.0872483
34	.4369343	.0715167	6.11	0.000	.296764	.5771045
35	-.4800423	.1241379	-3.87	0.000	-.7233482	-.2367365
37	1.021871	.1243417	8.22	0.000	.778166	1.265577
38	.0725873	.0886995	0.82	0.413	-.1012606	.2464352
39	-.7823202	.08108	-9.65	0.000	-.941234	-.6234064
41	-.22899	.2861974	-0.80	0.424	-.7899266	.3319465
42	.0515925	.0884634	0.58	0.560	-.1217925	.2249776
43	-.1623236	.1575697	-1.03	0.303	-.4711546	.1465075
44	-.3970876	.0732372	-5.42	0.000	-.5406299	-.2535452
45	-.7698935	.0754882	-10.20	0.000	-.9178477	-.6219393
48	.8333526	.0845686	9.85	0.000	.6676011	.9991041
50	.6399364	.0667534	9.59	0.000	.5091022	.7707706
51	.380572	.1939225	1.96	0.050	.0004908	.7606532
55	-.0545474	.136152	-0.40	0.689	-.3214005	.2123057
60	.5012531	.0739733	6.78	0.000	.3562681	.646238
63	-.0016457	.1403653	-0.01	0.991	-.2767567	.2734653
64	-.110336	.0851118	-1.30	0.195	-.2771521	.0564801
65	-.4400963	.1752862	-2.51	0.012	-.783651	-.0965417
66	-1.382486	.0934237	-14.80	0.000	-1.565593	-1.199379
70	-1.195875	.3256133	-3.67	0.000	-1.834065	-.5576846
71	-.9290809	.0793594	-11.71	0.000	-1.084622	-.7735394
72	.9405845	.0792458	11.87	0.000	.7852655	1.095903
73	.1937058	.1856409	1.04	0.297	-.1701438	.5575554
75	-1.945028	.2037552	-9.55	0.000	-2.34438	-1.545675
76	.5098311	.264845	1.93	0.054	-.0092556	1.028918
77	1.547515	.0814407	19.00	0.000	1.387895	1.707136
79	-1.035653	.0792971	-13.06	0.000	-1.191073	-.8802336
80	.1648015	.1690392	0.97	0.330	-.1665092	.4961123
85	-.1778641	.0939521	-1.89	0.058	-.3620068	.0062786
90	-.0753988	.0834026	-0.90	0.366	-.238865	.0880673

92	.5974058	.1768507	3.38	0.001	.2507848	.9440268
98	.4252886	.1155653	3.68	0.000	.1987848	.6517924
99	.0517912	.06474	0.80	0.424	-.0750968	.1786792
_cons	-3.169034	.4103707	-7.72	0.000	-3.973346	-2.364723

note: **1.ca_type** != 0 predicts failure perfectly;
1.ca_type omitted and 4 obs not used.

note: **4.ca_type** omitted because of collinearity.
Iteration 0: log pseudolikelihood = **-160303.96**
Iteration 1: log pseudolikelihood = **-152927.43**
Iteration 2: log pseudolikelihood = **-152771.28**
Iteration 3: log pseudolikelihood = **-152770.63**
Iteration 4: log pseudolikelihood = **-152770.63**

Logistic regression — Number of obs = **265,920**
Wald chi2(**82**) = **13749.95**
Prob > chi2 = **0.0000**
Log pseudolikelihood = **-152770.63** — Pseudo R2 = **0.0470**

corr_singleb	Coefficient	Robust std. err.	z	P>|z|	[95% conf.	interval]
ytaxhav3						
2	.8279433	.0384651	21.52	0.000	.752553	.9033335
4	1.617164	.3148549	5.14	0.000	1.000059	2.234268
cvalue10						
2	.1715137	.0212423	8.07	0.000	.1298796	.2131478
3	.3253968	.0209707	15.52	0.000	.284295	.3664986
4	.3486098	.0209918	16.61	0.000	.3074666	.389753
5	.4678161	.0208117	22.48	0.000	.427026	.5086063
6	.5203467	.020846	24.96	0.000	.4794892	.5612041
7	.4120958	.0211419	19.49	0.000	.3706584	.4535333
8	.4437476	.0211947	20.94	0.000	.4022069	.4852884
9	.515297	.0215089	23.96	0.000	.4731402	.5574538
10	.5699808	.0222783	25.58	0.000	.5263161	.6136456
99	.2199344	.0269936	8.15	0.000	.167028	.2728408
anb_type						
NATIONAL_AUTHORITY	.6428908	.3974435	1.62	0.106	-.1360842	1.421866
OTHER	.6293185	.4208764	1.50	0.135	-.1955841	1.454221
PUBLIC_BODY	.8931054	.3971655	2.25	0.025	.1146753	1.671535
REGIONAL_AUTHORITY	.7212142	.3973821	1.81	0.070	-.0576405	1.500069
ca_type						
NA	0	(empty)				
SERVICES	.7166954	.0233732	30.66	0.000	.6708847	.7625062
SUPPLIES	.2378774	.023308	10.21	0.000	.1921945	.2835602
WORKS	0	(omitted)				
anb_location						
MK002	-.1367152	.0224585	-6.09	0.000	-.1807331	-.0926974
MK003	-.0168028	.02186	-0.77	0.442	-.0596476	.0260421
MK004	-.050994	.0241586	-2.11	0.035	-.098344	-.0036441
MK005	-.1064737	.0207048	-5.14	0.000	-.1470543	-.065893
MK006	.1627861	.0263221	6.18	0.000	.1111957	.2143764
MK007	.2814716	.0256756	10.96	0.000	.2311484	.3317948
MK008	-.1777001	.0176524	-10.07	0.000	-.2122983	-.143102
NA	.4845234	.285098	1.70	0.089	-.0742583	1.043305
year						
2012	.6339906	.0369006	17.18	0.000	.5616668	.7063143
2013	.8167264	.0353007	23.14	0.000	.7475383	.8859145
2014	.479553	.0351831	13.63	0.000	.4105955	.5485105
2015	.4210029	.0343645	12.25	0.000	.3536497	.4883562
2016	.5065556	.0340982	14.86	0.000	.4397245	.5733868
2017	.3644609	.0344625	10.58	0.000	.2969157	.4320062
2018	.3505335	.0343093	10.22	0.000	.2832885	.4177786

2019	.6154005	.0361585	17.02	0.000	.5445311	.6862699
2020	.7039637	.0387381	18.17	0.000	.6280384	.7798889
2021	.7891613	.0386075	20.44	0.000	.713492	.8648305
2022	.9648468	.0401122	24.05	0.000	.8862283	1.043465
market_id						
09	.2655314	.067771	3.92	0.000	.1327027	.3983602
14	.2354878	.1185501	1.99	0.047	.0031339	.4678418
15	-.7671123	.0741688	-10.34	0.000	-.9124805	-.6217442
16	.7485408	.1372085	5.46	0.000	.4796172	1.017464
18	-.4238442	.1071716	-3.95	0.000	-.6338967	-.2137917
19	-.911647	.1887775	-4.83	0.000	-1.281644	-.5416498
22	-.56517	.0921005	-6.14	0.000	-.7456837	-.3846563
24	-.6607654	.0841259	-7.85	0.000	-.8256492	-.4958816
30	-.8873324	.0705949	-12.57	0.000	-1.025696	-.7489689
31	-.2882208	.0780938	-3.69	0.000	-.4412819	-.1351597
32	.1334333	.1046398	1.28	0.202	-.0716569	.3385235
33	-.1104441	.0636905	-1.73	0.083	-.2352751	.0143869
34	.3980957	.0712751	5.59	0.000	.258399	.5377924
35	-.5246013	.1242002	-4.22	0.000	-.7680292	-.2811734
37	1.024192	.1245192	8.23	0.000	.7801388	1.268245
38	.0224165	.0886105	0.25	0.800	-.151257	.1960899
39	-.7823729	.0808494	-9.68	0.000	-.9408348	-.6239111
41	-.2396914	.2843239	-0.84	0.399	-.7969559	.3175731
42	.01187	.0882629	0.13	0.893	-.1611222	.1848622
43	-.1676389	.156378	-1.07	0.284	-.4741341	.1388562
44	-.4126686	.0729966	-5.65	0.000	-.5557393	-.2695979
45	-.8707736	.0752345	-11.57	0.000	-1.018231	-.7233167
48	.7942919	.0843039	9.42	0.000	.6290592	.9595246
50	.5283679	.0664251	7.95	0.000	.3981771	.6585587
51	.3129575	.1975999	1.58	0.113	-.0743311	.7002462
55	-.0410174	.1297587	-0.32	0.752	-.2953398	.2133049
60	.3975006	.073565	5.40	0.000	.2533158	.5416853
63	-.0517305	.1388926	-0.37	0.710	-.323955	.220494
64	-.1721684	.0846063	-2.03	0.042	-.3379938	-.0063431
65	-.4912632	.1740653	-2.82	0.005	-.8324248	-.1501015
66	-1.483309	.092972	-15.95	0.000	-1.665531	-1.301087
70	-1.246482	.325211	-3.83	0.000	-1.883884	-.6090802
71	-1.00956	.0790192	-12.78	0.000	-1.164435	-.854685
72	.8736751	.0789795	11.06	0.000	.7188782	1.028472
73	.0977133	.1847773	0.53	0.597	-.2644435	.4598701
75	-1.969821	.2025685	-9.72	0.000	-2.366848	-1.572794
76	.4640881	.2605726	1.78	0.075	-.0466248	.974801
77	1.34333	.0810803	16.57	0.000	1.184415	1.502244
79	-1.100999	.0788304	-13.97	0.000	-1.255504	-.9464939
80	.1011988	.1670872	0.61	0.545	-.2262862	.4286837
85	-.2646466	.0931765	-2.84	0.005	-.4472691	-.082024
90	-.1294949	.0829721	-1.56	0.119	-.2921172	.0331275
92	.5633665	.1735544	3.25	0.001	.2232061	.9035268
98	.2948882	.1141514	2.58	0.010	.0711555	.518621
99	.226561	.0644488	3.52	0.000	.1002437	.3528783
_cons	-3.065434	.4048305	-7.57	0.000	-3.858887	-2.271981

note: **1.ca_type** != 0 predicts failure perfectly;
1.ca_type omitted and 4 obs not used.

note: **4.ca_type** omitted because of collinearity.
Iteration 0: log pseudolikelihood = **-160303.96**
Iteration 1: log pseudolikelihood = **-152958.27**
Iteration 2: log pseudolikelihood = **-152801.12**
Iteration 3: log pseudolikelihood = **-152800.45**
Iteration 4: log pseudolikelihood = **-152800.45**

Logistic regression — Number of obs = **265,920**
Wald chi2(**81**) = **13738.30**
Prob > chi2 = **0.0000**
Log pseudolikelihood = **-152800.45** — Pseudo R2 = **0.0468**

corr_singleb	Coefficient	Robust std. err.	z	P>|z|	[95% conf.	interval]
yw_ycsh4	.4904625	.0233322	21.02	0.000	.4447322	.5361929
cvalue10						
2	.1639003	.0212262	7.72	0.000	.1222977	.2055029
3	.3152011	.0209639	15.04	0.000	.2741127	.3562895
4	.333805	.0209948	15.90	0.000	.292656	.3749539
5	.4488865	.0208297	21.55	0.000	.4080611	.4897118
6	.4955105	.0208726	23.74	0.000	.4546009	.53642
7	.3780359	.021205	17.83	0.000	.3364748	.419597
8	.4009128	.0212864	18.83	0.000	.3591922	.4426334
9	.4835682	.0216561	22.33	0.000	.4411229	.5260134
10	.5299745	.022555	23.50	0.000	.4857675	.5741814
99	.234295	.0269812	8.68	0.000	.1814127	.2871772
anb_type						
NATIONAL_AUTHORITY	.6221452	.3964709	1.57	0.117	-.1549234	1.399214
OTHER	.5810714	.4203193	1.38	0.167	-.2427393	1.404882
PUBLIC_BODY	.8677538	.3961929	2.19	0.029	.0912299	1.644278
REGIONAL_AUTHORITY	.6758752	.3964018	1.71	0.088	-.101058	1.452809
ca_type						
NA	0	(empty)				
SERVICES	.7455926	.0234214	31.83	0.000	.6996875	.7914977
SUPPLIES	.2664078	.0233733	11.40	0.000	.2205971	.3122186
WORKS	0	(omitted)				
anb_location						
MK002	-.142405	.0224591	-6.34	0.000	-.1864241	-.0983859
MK003	-.0182354	.0218477	-0.83	0.404	-.061056	.0245853
MK004	-.0544949	.0241515	-2.26	0.024	-.101831	-.0071588
MK005	-.1120802	.0206822	-5.42	0.000	-.1526166	-.0715438
MK006	.1679381	.0263175	6.38	0.000	.1163567	.2195195
MK007	.2764513	.0256388	10.78	0.000	.2262001	.3267025
MK008	-.1780389	.0176613	-10.08	0.000	-.2126545	-.1434234
NA	.4840945	.2825196	1.71	0.087	-.0696338	1.037823
year						
2012	.2597049	.0315843	8.22	0.000	.1978008	.321609
2013	.4090796	.0287448	14.23	0.000	.3527409	.4654184
2014	.0706973	.028594	2.47	0.013	.014654	.1267406
2015	.0071776	.0275712	0.26	0.795	-.0468611	.0612162
2016	.0896266	.0272591	3.29	0.001	.0361997	.1430536
2017	-.042046	.0276951	-1.52	0.129	-.0963274	.0122354
2018	-.0515863	.0274901	-1.88	0.061	-.1054659	.0022934
2019	.2230501	.0298215	7.48	0.000	.1646011	.281499
2020	.3128183	.0329864	9.48	0.000	.2481661	.3774705
2021	.4030105	.0328198	12.28	0.000	.3386848	.4673362
2022	.576508	.0345477	16.69	0.000	.5087957	.6442203
market_id						
09	.3096727	.0680077	4.55	0.000	.1763801	.4429652
14	.1221656	.1172082	1.04	0.297	-.1075583	.3518895
15	-.7604113	.0742701	-10.24	0.000	-.905978	-.6148446
16	.7209821	.1371845	5.26	0.000	.4521053	.9898588
18	-.4312612	.1069511	-4.03	0.000	-.6408815	-.2216409
19	-.9072528	.1887591	-4.81	0.000	-1.277214	-.5372917
22	-.5564553	.0922641	-6.03	0.000	-.7372897	-.3756209
24	-.6412937	.0843218	-7.61	0.000	-.8065613	-.4760261
30	-.866791	.0707759	-12.25	0.000	-1.005509	-.7280728
31	-.3107694	.0783775	-3.97	0.000	-.4643864	-.1571524
32	.1345494	.1041155	1.29	0.196	-.0695133	.338612
33	-.0771063	.0638956	-1.21	0.228	-.2023393	.0481268
34	.3503657	.0714415	4.90	0.000	.2103429	.4903885
35	-.5208885	.1239804	-4.20	0.000	-.7638856	-.2778913
37	1.045792	.1246265	8.39	0.000	.8015281	1.290055
38	.0235871	.0888453	0.27	0.791	-.1505465	.1977207
39	-.7710932	.0810139	-9.52	0.000	-.9298775	-.6123089
41	-.2505722	.284853	-0.88	0.379	-.8088739	.3077295

42	-.0416759	.0887561	-0.47	0.639	-.2156347	.1322829
43	-.2776756	.1580681	-1.76	0.079	-.5874835	.0321323
44	-.4429748	.0731901	-6.05	0.000	-.5864248	-.2995248
45	-.8722499	.075421	-11.57	0.000	-1.020072	-.7244274
48	.8143522	.0844254	9.65	0.000	.6488815	.979823
50	.5258723	.0666283	7.89	0.000	.3952833	.6564614
51	.3088967	.1987328	1.55	0.120	-.0806125	.6984058
55	-.0539508	.1305283	-0.41	0.679	-.3097816	.20188
60	.3454822	.073806	4.68	0.000	.200825	.4901393
63	-.0629131	.1381653	-0.46	0.649	-.3337121	.2078859
64	-.121296	.0847114	-1.43	0.152	-.2873274	.0447354
65	-.4671853	.1741096	-2.68	0.007	-.8084338	-.1259368
66	-1.454398	.0929623	-15.65	0.000	-1.636601	-1.272195
70	-1.220665	.3260086	-3.74	0.000	-1.85963	-.5817003
71	-1.008942	.079177	-12.74	0.000	-1.164126	-.8537575
72	.8956591	.0790771	11.33	0.000	.7406707	1.050647
73	.0970514	.1843113	0.53	0.598	-.2641922	.4582949
75	-1.936577	.2024512	-9.57	0.000	-2.333374	-1.53978
76	.4701137	.2599349	1.81	0.071	-.0393494	.9795769
77	1.257983	.0810374	15.52	0.000	1.099152	1.416813
79	-1.090985	.078934	-13.82	0.000	-1.245693	-.9362771
80	.1168578	.1667441	0.70	0.483	-.2099546	.4436703
85	-.2524281	.0934522	-2.70	0.007	-.435591	-.0692653
90	-.1285573	.0832474	-1.54	0.123	-.2917192	.0346046
92	.5792683	.1730398	3.35	0.001	.2401165	.9184202
98	.2011427	.1146307	1.75	0.079	-.0235294	.4258148
99	.2444668	.0646169	3.78	0.000	.11782	.3711135
_cons	-2.713726	.4035165	-6.73	0.000	-3.504604	-1.922848

```
12.
13. // Combined indicator validation
14. global dep_vars yw_ycsh4 i.ycorr_ben i.ytaxhav3 i.ycorr_decp  i.ycorr_subm i.ycorr_p
  > roc

15. logit corr_singleb $dep_vars $controls if $sub_sample, $options

  note: 1.ca_type != 0 predicts failure perfectly;
        1.ca_type omitted and 4 obs not used.

  note: 4.ca_type omitted because of collinearity.
  Iteration 0:   log pseudolikelihood = -160303.96
  Iteration 1:   log pseudolikelihood = -148861.14
  Iteration 2:   log pseudolikelihood =  -148640.5
  Iteration 3:   log pseudolikelihood =  -148639.6
  Iteration 4:   log pseudolikelihood =  -148639.6

  Logistic regression                               Number of obs =  265,920
                                                    Wald chi2(90) = 19009.61
                                                    Prob > chi2   =   0.0000
  Log pseudolikelihood = -148639.6                  Pseudo R2     =   0.0728
```

corr_singleb	Coefficient	Robust std. err.	z	P>|z|	[95% conf.	interval]
yw_ycsh4	.5091458	.0238486	21.35	0.000	.4624034	.5558883
ycorr_ben						
2	.0797623	.0106659	7.48	0.000	.0588576	.100667
9	.1935743	.0166149	11.65	0.000	.1610096	.226139
ytaxhav3						
2	.5644863	.0419508	13.46	0.000	.4822642	.6467084
4	.9530484	.3443851	2.77	0.006	.2780659	1.628031
ycorr_decp						
1	.1848291	.0125273	14.75	0.000	.1602761	.2093821
2	.3365706	.0118732	28.35	0.000	.3132996	.3598415
2.ycorr_subm	.165122	.015247	10.83	0.000	.1352384	.1950056

ycorr_proc						
1	.1299251	.0165624	7.84	0.000	.0974633	.1623868
2	2.038646	.0343879	59.28	0.000	1.971247	2.106045
cvalue10						
2	.1718084	.0216162	7.95	0.000	.1294415	.2141753
3	.3434035	.0213181	16.11	0.000	.3016208	.3851862
4	.3750191	.0213712	17.55	0.000	.3331323	.416906
5	.4945352	.0212013	23.33	0.000	.4529815	.536089
6	.5667548	.0212815	26.63	0.000	.5250438	.6084657
7	.4807762	.0217534	22.10	0.000	.4381402	.5234121
8	.55421	.0220331	25.15	0.000	.511026	.597394
9	.7108882	.0234712	30.29	0.000	.6648854	.7568909
10	.7735524	.0250945	30.83	0.000	.724368	.8227368
99	.2783222	.0274215	10.15	0.000	.2245769	.3320674
anb_type						
NATIONAL_AUTHORITY	.5405407	.4008907	1.35	0.178	-.2451906	1.326272
OTHER	.5864447	.4244332	1.38	0.167	-.2454291	1.418318
PUBLIC_BODY	.8630023	.400602	2.15	0.031	.0778368	1.648168
REGIONAL_AUTHORITY	.6773191	.4008636	1.69	0.091	-.1083591	1.462997
ca_type						
NA	0	(empty)				
SERVICES	.8823067	.0238101	37.06	0.000	.8356397	.9289738
SUPPLIES	.5018578	.0238895	21.01	0.000	.4550352	.5486803
WORKS	0	(omitted)				
anb_location						
MK002	-.1443784	.022684	-6.36	0.000	-.1888382	-.0999185
MK003	.0283521	.0220466	1.29	0.198	-.0148584	.0715627
MK004	-.0644737	.0243979	-2.64	0.008	-.1122928	-.0166547
MK005	-.1455859	.0209158	-6.96	0.000	-.18658	-.1045917
MK006	.178535	.0265829	6.72	0.000	.1264335	.2306365
MK007	.2126626	.025928	8.20	0.000	.1618447	.2634805
MK008	-.1877054	.0179185	-10.48	0.000	-.222825	-.1525858
NA	.2576489	.2895742	0.89	0.374	-.3099061	.8252038
year						
2012	.5124189	.0382418	13.40	0.000	.4374664	.5873714
2013	.6992522	.0361588	19.34	0.000	.6283823	.7701221
2014	.4538187	.0359573	12.62	0.000	.3833438	.5242936
2015	.4327838	.0351089	12.33	0.000	.3639716	.501596
2016	.5188392	.0348999	14.87	0.000	.4504367	.5872417
2017	.3835894	.0352053	10.90	0.000	.3145882	.4525906
2018	.417294	.0353201	11.81	0.000	.3480679	.48652
2019	.5167654	.0371954	13.89	0.000	.4438637	.5896672
2020	.516263	.0396772	13.01	0.000	.4384972	.5940289
2021	.6257241	.0395817	15.81	0.000	.5481454	.7033028
2022	.7975648	.0411337	19.39	0.000	.7169442	.8781854
market_id						
09	.2788438	.067282	4.14	0.000	.1469734	.4107141
14	.1730465	.1162701	1.49	0.137	-.0548387	.4009317
15	-.6860635	.0734755	-9.34	0.000	-.8300729	-.5420542
16	.8308734	.137152	6.06	0.000	.5620605	1.099686
18	-.3672555	.1066912	-3.44	0.001	-.5763663	-.1581447
19	-.9106884	.1883506	-4.84	0.000	-1.279849	-.541528
22	-.5193898	.0913808	-5.68	0.000	-.6984929	-.3402866
24	-.5538346	.0841038	-6.59	0.000	-.718675	-.3889942
30	-.850538	.0701089	-12.13	0.000	-.9879489	-.7131272
31	-.27243	.0778005	-3.50	0.000	-.4249161	-.1199438
32	.1842539	.1040582	1.77	0.077	-.0196965	.3882043
33	.1252325	.0633486	1.98	0.048	.0010715	.2493934
34	.4372861	.0707212	6.18	0.000	.2986751	.575897
35	-.4625166	.124078	-3.73	0.000	-.7057051	-.2193281
37	.9904131	.1235848	8.01	0.000	.7481913	1.232635
38	.1642575	.0880814	1.86	0.062	-.0083789	.3368938
39	-.757869	.0804413	-9.42	0.000	-.915531	-.600207
41	-.202079	.2866592	-0.70	0.481	-.7639208	.3597627
42	.0553209	.088111	0.63	0.530	-.1173736	.2280154

43	-.2148108	.1595409	-1.35	0.178	-.5275052	.0978837
44	-.3879203	.0724504	-5.35	0.000	-.5299205	-.24592
45	-.7020341	.0748017	-9.39	0.000	-.8486426	-.5554255
48	.8589842	.0839465	10.23	0.000	.6944521	1.023516
50	.7077681	.066091	10.71	0.000	.5782321	.837304
51	.4064261	.1968925	2.06	0.039	.0205239	.7923283
55	-.0787568	.1361795	-0.58	0.563	-.3456637	.1881502
60	.4848675	.073511	6.60	0.000	.3407886	.6289464
63	.0093511	.1400271	0.07	0.947	-.2650971	.2837992
64	-.035866	.0844349	-0.42	0.671	-.2013554	.1296234
65	-.4169602	.17366	-2.40	0.016	-.7573275	-.076593
66	-1.32594	.0924791	-14.34	0.000	-1.507196	-1.144684
70	-1.160402	.3274917	-3.54	0.000	-1.802274	-.5185299
71	-.8707236	.0787058	-11.06	0.000	-1.024984	-.7164631
72	.9749482	.0785531	12.41	0.000	.8209868	1.128909
73	.2051906	.181668	1.13	0.259	-.1508722	.5612534
75	-1.893216	.2030398	-9.32	0.000	-2.291167	-1.495266
76	.5259486	.2630359	2.00	0.046	.0104077	1.04149
77	1.447665	.081042	17.86	0.000	1.288825	1.606504
79	-1.013114	.0786457	-12.88	0.000	-1.167257	-.8589715
80	.1718964	.1713061	1.00	0.316	-.1638574	.5076503
85	-.172068	.0937186	-1.84	0.066	-.3557531	.011617
90	-.039057	.0826281	-0.47	0.636	-.2010052	.1228912
92	.6011772	.1764295	3.41	0.001	.2553818	.9469726
98	.3840839	.1149433	3.34	0.001	.1587992	.6093686
99	.0811891	.0639811	1.27	0.204	-.0442115	.2065897
_cons	-3.761456	.4086496	-9.20	0.000	-4.562395	-2.960518

```
16.
17. **# Close log file
18. log close
      name:  <unnamed>
       log:  C:\Ourfolders\Aly\MK_WB/output/log/MK_validation_log_20230117.smcl
  log type:  smcl
 closed on:  17 Jan 2023, 05:51:01
```