



xij variables:

```
1 . clear
2 . set more off
3 .
4 . * PS5-II.2.a
5 .
6 . use fish
7 .
8 . gen n = _n
9 . reshape long price_ qty_, i(n) j(race) string
   (note: j = a w)
```

Data	wide	->	long
Number of obs.	97	->	194
Number of variables	15	->	14
j variable (2 values)		->	race
xij variables:			
	price_a price_w	->	price_
	qty_a qty_w	->	qty_

```
10 .
11 . gen ln_price = log(price)
12 . gen asian = race == "a"
13 . gen t = n
14 . replace t = n + 100 if asian == 1
   (97 real changes made)
15 .
16 . eststo: reg ln_price asian day* wave* if t != 1 & t != 101
```

Source	SS	df	MS	Number of obs	=	192
Model	10.6043386	7	1.51490551	F(7, 184)	=	12.97
Residual	21.4922995	184	.116805976	Prob > F	=	0.0000
				R-squared	=	0.3304
				Adj R-squared	=	0.3049
Total	32.0966381	191	.168045226	Root MSE	=	.34177

ln_price	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
asian	-.099551	.0493301	-2.02	0.045	-.1968764	-.0022257
day1	.0030533	.0801333	0.04	0.970	-.155045	.1611517
day2	-.0241972	.0776076	-0.31	0.756	-.1773123	.1289179
day3	.0513563	.0773578	0.66	0.508	-.1012659	.2039786
day4	.1087446	.0768008	1.42	0.158	-.0427788	.2602681
wave2	.0974961	.0147694	6.60	0.000	.068357	.1266352
wave3	.0575787	.0140804	4.09	0.000	.0297988	.0853585
_cons	-.9950681	.1044741	-9.52	0.000	-1.201189	-.7889468

(est1 stored)

```
17 . tsset t
      time variable: t, 1 to 197, but with a gap
      delta: 1 unit
```

```
18 . eststo: prais ln_price asian day* wave2 wave3, corc twostep
```

Number of gaps in sample: 1

(note: computations for rho restarted at each gap)

Iteration 0: rho = 0.0000

Iteration 1: rho = 0.5792

Cochrane-Orcutt AR(1) regression -- twostep estimates

Source	SS	df	MS	Number of obs	=	192
Model	2.64091725	7	.377273893	F(7, 184)	=	5.09
Residual	13.6427548	184	.074145407	Prob > F	=	0.0000
				R-squared	=	0.1622
				Adj R-squared	=	0.1303
Total	16.283672	191	.085254827	Root MSE	=	.2723

ln_price	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
asian	-.0963775	.0933951	-1.03	0.303	-.2806405	.0878854
day1	.0051914	.0499291	0.10	0.917	-.0933156	.1036985
day2	-.014794	.0560661	-0.26	0.792	-.1254091	.0958211
day3	.0604477	.0562757	1.07	0.284	-.0505809	.1714764
day4	.1013305	.0473123	2.14	0.034	.0079862	.1946749
wave2	.0605689	.0126723	4.78	0.000	.0355673	.0855705
wave3	.0435863	.0128231	3.40	0.001	.0182871	.0688855
_cons	-.7280926	.1216098	-5.99	0.000	-.9680215	-.4881636
rho	.5791789					

Durbin-Watson statistic (original) 0.820225

Durbin-Watson statistic (transformed) 1.639846

(est2 stored)

```
19 . esttab using PS5-22a.tex, replace ///
> nonumbers mtitles("OLS" "CORC")
(output written to PS5-22a.tex)
```

```
20 . eststo clear
```

```
21 .
```

```
22 . * PS5-II.2.b
```

```
23 .
```

```
24 . predict e, residual
```

```
25 . gen l_e = e[_n-1]
```

(1 missing value generated)

```
26 . reg e l_e if t != 1 & t != 101
```

Source	SS	df	MS	Number of obs	=	192
Model	9.05711204	1	9.05711204	F(1, 190)	=	126.83
Residual	13.5683838	190	.071412546	Prob > F	=	0.0000
				R-squared	=	0.4003
				Adj R-squared	=	0.3971
Total	22.6254959	191	.118458093	Root MSE	=	.26723

e	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
l_e	.6368918	.0565533	11.26	0.000	.5253388	.7484448
_cons	.0014294	.0193366	0.07	0.941	-.0367125	.0395713

```

27 .
28 . foreach var in ln_price asian day1 day2 day3 day4 wave2 wave3 {
    2.      gen l_`var' = `var' - `var'[_n-1]*_b[l_e]
    3. }
(1 missing value generated)
(1 missing value generated)
(1 missing value generated)
(1 missing value generated)
(1 missing value generated)
(1 missing value generated)
(1 missing value generated)
(1 missing value generated)
29 .
30 . eststo: reg l_ln_price l_asian l_day* l_wave* if t != 1 & t != 101

```

Source	SS	df	MS	Number of obs	=	192
Model	2.28776062	7	.326822945	F(7, 184)	=	4.44
Residual	13.5571299	184	.073680054	Prob > F	=	0.0001
				R-squared	=	0.1444
				Adj R-squared	=	0.1118
Total	15.8448905	191	.082957542	Root MSE	=	.27144

l_ln_price	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
l_asian	-.0955066	.1078992	-0.89	0.377	-.3083854	.1173721
l_day1	.0048546	.048457	0.10	0.920	-.0907482	.1004573
l_day2	-.0128394	.0547404	-0.23	0.815	-.120839	.0951602
l_day3	.0621024	.054932	1.13	0.260	-.0462752	.17048
l_day4	.101109	.0459152	2.20	0.029	.010521	.191697
l_wave2	.0563523	.012584	4.48	0.000	.0315247	.0811799
l_wave3	.0403625	.0127649	3.16	0.002	.0151781	.0655468
_cons	-.2497904	.0464199	-5.38	0.000	-.3413741	-.1582067

(est1 stored)

```

31 . eststo: prais ln_price asian day* wave2 wave3, corc twostep

```

Number of gaps in sample: 1
(note: computations for rho restarted at each gap)

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rho	.5791789					

Durbin-Watson statistic (original) 0.820225
Durbin-Watson statistic (transformed) 1.639846
(est2 stored)

```
32 . esttab using PS5-22b.csv, replace ///  
    >          nonumbers mtitles("Manual" "CORC")  
    (output written to PS5-22b.csv)  
  
33 . eststo clear  
  
34 .  
35 . log close  
    name: <unnamed>  
    log: C:\Users\wonja\Documents\GitHub\DEDP\14.320\PS5\PS5-22.smcl  
    log type: smcl  
    closed on: 29 Apr 2021, 14:32:41
```
