

```
1 . summarize
```

Variable	Obs	Mean	Std. Dev.	Min	Max
make	0				
price	74	6165.257	2949.496	3291	15906
mpg	74	21.2973	5.785503	12	41
rep78	69	3.405797	.9899323	1	5
headroom	74	2.993243	.8459948	1.5	5
trunk	74	13.75676	4.277404	5	23
weight	74	3019.459	777.1936	1760	4840
length	74	187.9324	22.26634	142	233
turn	74	39.64865	4.399354	31	51
displacement	74	197.2973	91.83722	79	425
gear_ratio	74	3.014865	.4562871	2.19	3.89
foreign	74	.2972973	.4601885	0	1

```
2 . tab foreign
```

Car type	Freq.	Percent	Cum.
Domestic	52	70.27	70.27
Foreign	22	29.73	100.00
Total	74	100.00	

```
3 . reg price foreign
```

Source	SS	df	MS	Number of obs	=	74
Model	1507382.66	1	1507382.66	F(1, 72)	=	0.17
Residual	633558013	72	8799416.85	Prob > F	=	0.6802
				R-squared	=	0.0024
				Adj R-squared	=	-0.0115
Total	635065396	73	8699525.97	Root MSE	=	2966.4

price	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
foreign	312.2587	754.4488	0.41	0.680	-1191.708	1816.225
_cons	6072.423	411.363	14.76	0.000	5252.386	6892.46

```
4 . margins, over(foreign)
```

Predictive margins Number of obs = 74
 Model VCE : OLS

Expression : Linear prediction, predict()
 over : foreign

	Delta-method					
	Margin	Std. Err.	t	P> t	[95% Conf. Interval]	
foreign						
Domestic	6072.423	411.363	14.76	0.000	5252.386	6892.46
Foreign	6384.682	632.4346	10.10	0.000	5123.947	7645.417

5 . marginsplot

Variables that uniquely identify margins: foreign

6 . reg price foreign mpg

Source	SS	df	MS	Number of obs	=	74
Model	180261702	2	90130850.8	F(2, 71)	=	14.07
Residual	454803695	71	6405685.84	Prob > F	=	0.0000
				R-squared	=	0.2838
				Adj R-squared	=	0.2637
Total	635065396	73	8699525.97	Root MSE	=	2530.9

price	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
foreign	1767.292	700.158	2.52	0.014	371.2169	3163.368
mpg	-294.1955	55.69172	-5.28	0.000	-405.2417	-183.1494
_cons	11905.42	1158.634	10.28	0.000	9595.164	14215.67

7 . reg price foreign mpg weight

Source	SS	df	MS	Number of obs	=	74
Model	317252881	3	105750960	F(3, 70)	=	23.29
Residual	317812515	70	4540178.78	Prob > F	=	0.0000
				R-squared	=	0.4996
				Adj R-squared	=	0.4781
Total	635065396	73	8699525.97	Root MSE	=	2130.8

price	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
foreign	3673.06	683.9783	5.37	0.000	2308.909	5037.212
mpg	21.8536	74.22114	0.29	0.769	-126.1758	169.883
weight	3.464706	.630749	5.49	0.000	2.206717	4.722695
_cons	-5853.696	3376.987	-1.73	0.087	-12588.88	881.4934

8 . estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of price

```

chi2(1)      =    6.34
Prob > chi2   =    0.0118

```

```
9 . rvfplot
```

```
10 . estat vif
```

Variable	VIF	1/VIF
weight	3.86	0.258809
mpg	2.96	0.337297
foreign	1.59	0.627761
Mean VIF	2.81	

```

11 . reg logprice foreign mpg c.weight##c.weight
variable logprice not found
r(111);

```

```
12 . gen logprice = log(price)
```

```
13 . reg logprice foreign mpg c.weight##c.weight
```

Source	SS	df	MS	Number of obs	=	74
Model	6.64569586	4	1.66142397	F(4, 69)	=	25.04
Residual	4.57783722	69	.066345467	Prob > F	=	0.0000
				R-squared	=	0.5921
				Adj R-squared	=	0.5685
Total	11.2235331	73	.153747029	Root MSE	=	.25758

logprice	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
foreign	.4738565	.0856453	5.53	0.000	.3029988	.64471
mpg	-.0077143	.0093785	-0.82	0.414	-.0264238	.01099
weight	-.0004685	.0003481	-1.35	0.183	-.0011629	.00022
c.weight#c.weight	1.40e-07	5.13e-08	2.73	0.008	3.77e-08	2.42e-07
_cons	8.719349	.7194679	12.12	0.000	7.28405	10.154

```
14 . reg price foreign
```

Source	SS	df	MS	Number of obs	=	74
Model	1507382.66	1	1507382.66	F(1, 72)	=	0.17
Residual	633558013	72	8799416.85	Prob > F	=	0.6802
				R-squared	=	0.0024
				Adj R-squared	=	-0.0115
Total	635065396	73	8699525.97	Root MSE	=	2966.4

price	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
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foreign	312.2587	754.4488	0.41	0.680	-1191.708	1816.225
_cons	6072.423	411.363	14.76	0.000	5252.386	6892.46

15 . estimates store a1

16 .

17 . reg price foreign mpg

Source	SS	df	MS	Number of obs	=	74
Model	180261702	2	90130850.8	F(2, 71)	=	14.07
Residual	454803695	71	6405685.84	Prob > F	=	0.0000
				R-squared	=	0.2838
				Adj R-squared	=	0.2637
Total	635065396	73	8699525.97	Root MSE	=	2530.9

price	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
foreign	1767.292	700.158	2.52	0.014	371.2169	3163.368
mpg	-294.1955	55.69172	-5.28	0.000	-405.2417	-183.1494
_cons	11905.42	1158.634	10.28	0.000	9595.164	14215.67

18 . estimates store a2

19 . reg price foreign mpg weight

Source	SS	df	MS	Number of obs	=	74
Model	317252881	3	105750960	F(3, 70)	=	23.29
Residual	317812515	70	4540178.78	Prob > F	=	0.0000
				R-squared	=	0.4996
				Adj R-squared	=	0.4781
Total	635065396	73	8699525.97	Root MSE	=	2130.8

price	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
foreign	3673.06	683.9783	5.37	0.000	2308.909	5037.212
mpg	21.8536	74.22114	0.29	0.769	-126.1758	169.883
weight	3.464706	.630749	5.49	0.000	2.206717	4.722695
_cons	-5853.696	3376.987	-1.73	0.087	-12588.88	881.4934

20 . estimates store a3

21 . reg logprice foreign mpg weight

Source	SS	df	MS	Number of obs	=	74
Model	6.15100417	3	2.05033472	F(3, 70)	=	28.29
Residual	5.07252892	70	.072464699	Prob > F	=	0.0000
				R-squared	=	0.5480

Total	11.2235331	73	.153747029	Adj R-squared	=	0.5287
				Root MSE	=	.26919

logprice	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
foreign	.534841	.086411	6.19	0.000	.3624997	.7071824
mpg	-.0002581	.0093768	-0.03	0.978	-.0189595	.0184433
weight	.0004589	.0000797	5.76	0.000	.0002999	.0006178
_cons	7.101614	.4266347	16.65	0.000	6.250718	7.952511

22 . estimates store a4

23 . reg logprice foreign mpg c.weight##c.weight

Source	SS	df	MS	Number of obs	=	74
Model	6.64569586	4	1.66142397	F(4, 69)	=	25.04
Residual	4.57783722	69	.066345467	Prob > F	=	0.0000
				R-squared	=	0.5921
				Adj R-squared	=	0.5685
Total	11.2235331	73	.153747029	Root MSE	=	.25758

logprice	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
foreign	.4738565	.0856453	5.53	0.000	.3029988	.64471
mpg	-.0077143	.0093785	-0.82	0.414	-.0264238	.01099
weight	-.0004685	.0003481	-1.35	0.183	-.0011629	.00022
c.weight#c.weight	1.40e-07	5.13e-08	2.73	0.008	3.77e-08	2.42e-07
_cons	8.719349	.7194679	12.12	0.000	7.28405	10.154

24 . estimates store a5

25 . esttab a1 a2 a3 a4 a5, b(3) se(3) star compress nogap s(N r2)

	(1) price	(2) price	(3) price	(4) logprice	(5) logprice
foreign	312.259 (754.449)	1767.292* (700.158)	3673.060*** (683.978)	0.535*** (0.086)	0.474*** (0.086)
mpg		-294.196*** (55.692)	21.854 (74.221)	-0.000 (0.009)	-0.008 (0.009)
weight			3.465*** (0.631)	0.000*** (0.000)	-0.000 (0.000)
c.weight~t					0.000** (0.000)
_cons	6072.423*** (411.363)	11905.415*** (1158.634)	-5853.696 (3376.987)	7.102*** (0.427)	8.719*** (0.719)

N	74.000	74.000	74.000	74.000	74.000
r2	0.002	0.284	0.500	0.548	0.592

Standard errors in parentheses

* p<0.05, ** p<0.01, *** p<0.001

26 .