

Appendix D: Full regression results from Section 4 of the main report

This appendix provides the full regression results for the time-series regression models that are reported in Section 4 of the EMSN Review of Capping Arrangements. These regression results provide the basis of the predicted values that are illustrated in Figures 4.1 through to 4.12.

In addition, Table 4.2 of the main report presents the partial regression results, focusing on the impact of EMSN caps. In this appendix, the full models are shown, including those partial results shown in Table 4.2. This appendix should be read in conjunction with Section 4 of the main report.

There is only one year of data available following the introduction of the EMSN caps. This makes it difficult to draw any robust conclusions about the likely impact that capping arrangements have had on the outcomes of interest: fees, Medicare benefits and out of pocket (OOP) costs. Particular attention needs to be paid in the treatment of the strong annual cycles present in the EMSN data. This annual pattern is primarily related to the structure and operation of EMSN policy; namely, as more people qualify for EMSN benefits throughout the calendar year, more benefits are paid.

We address these issues in our analysis in three ways. Firstly, we use monthly data from January 2000 to December 2010 to provide us with a greater number of time periods pre and post the introduction of EMSN caps. Secondly, to adjust for annual cycles in trends we use an autoregressive moving average time-series regression. The regression model for each outcome includes the value of the outcome for the previous time period (or lag) as a predictor to adjust for any existing time trend in the data that was unrelated to the EMSN policy changes. The model also included the residuals from the regression lagged by 12 time periods to adjust for the annual seasonality observed in the data. The effect of the EMSN over time and the introduction of the EMSN cap can then be estimated independent of any underlying trends or seasonality.

Finally, we include an indicator for the month of December to capture the end of year patterns observed in many of the outcome measures. Due to the strong seasonal trends in the data and because there are only 12 months of data since the introduction of EMSN caps, we have not included a post EMSN cap time trend. Any post-capping time trend would be confounded by the annual seasonality trend when only 12 months of data exist. Instead, a single indicator variable is included in the model for all months in 2010 to capture the effect of the EMSN cap, after accounting for trends over time.

Before turning to the results, Tables D1 and D2 detail how the information presented in the regression models should be interpreted. Table D1 explains the variables used in the models and Table D2 provides information on the Autoregressive Integrated Moving Average (ARIMA) model outputs.

Table D1: Variables used in the model

Variable name	Interpretation	Type of variable	Period	Notes
Average fee	The average fee charged for items claimed by service group i in month t.	Ordinal	All	Dependent variable
Average Medicare rebate + EMSN	The average Medicare benefit received by patients for items claimed for service group i in month t.	Ordinal	All	Dependent variable
Average Medicare rebate	The average Medicare rebate received by patients for items claimed for service group i in month t.	Ordinal	All	Dependent variable
Ave OOP cost	The average OOP cost incurred by patients for items claimed for service group i in month t.	Ordinal	All	Dependent variable
pretime	Time trend before EMSN	ordinal	Jan 2000 to Jan 2004	Independent variable. Takes on the value 1 in Jan 2000 through to 48 in Dec 2003
emsn	Captures the immediate effect of the introduction of the EMSN	dummy	Jan 2004 to Dec 2010	Independent variable. Takes on the value of 1 from Jan 2004 to Dec 2010 , 0 otherwise
emsntime	Time trend post EMSN introduction	ordinal	Jan 2004 to Dec 2010	Independent variable. Takes on the value 1 in Jan 2004 through to 84 in Dec 2010
dec dum2	Captures seasonal December effects	dummy	Dec each year	Independent variable. Takes on the value of 1 in Dec of each year , 0 otherwise
scap	Estimates the impact of capping arrangements. It captures the deviation from existing time trends and seasonality from January 2010 when the EMSN cap was introduced	dummy	Jan 2010 to Dec 2010	Independent variable. Takes on the value of 1 from Jan 2010 to Dec 2010, 0 otherwise
_cons	The value of the constant signifies the average amount (e.g. fee) for items claimed for service group i in January 2000.	Intercept	Jan 2000	

Table D2: Explanatory notes on the Autoregressive Moving Average (ARMA) model outputs

ARMA	TIME SERIES AUTOCORRELATIONS
AR	
L1.	lagged dependent variable from previous time period (i.e. previous month)
MA	
L12.	residual lagged by 12 months
/sigma	White noise
Prob > Q12	Test of stationarity of model. If significant then model is non-stationary.

Table D3: Regression results for obstetrics (including all time points and all obstetric items)

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	-0.91	1.32	0.43	1.53	0.06	0.15	-1.43	1.05
emsn	-45.27	70.42	32.38	74.49	3.08	7.23	-76.72	56.32
emsntime	2.19	0.59	1.56	0.45	0.16	0.06	0.69	0.75
decum2	50.75	2.65	50.63	2.80	0.83	0.21	-3.25	2.27
scap	-165.39	31.69	-135.38	32.28	7.97	3.37	-24.63	22.88
_cons	147.21	62.03	25.45	66.77	30.49	5.57	120.74	34.04
ARMA								
ar								
L1.	0.88	0.06	0.81	0.10	0.92	0.04	0.92	0.06
ma								
L12.	-0.08	0.11	0.26	0.10	0.11	0.11	0.02	0.08
/sigma	13.66	0.76	10.35	0.44	0.75	0.05	9.59	0.62
Prob> Q12	.436		.183		.644		.766	

Interpretation example of coefficients in Table D3: The coefficients for *_cons* indicate that the average fee charged for obstetric items in Jan 2000 was \$147.21. The *pretime* coefficient indicates that between 2000 and 2004, average obstetric fees per item decreased by \$0.91 every month. The size of standard error in relation to the coefficient indicates that this trend was not statistically significant. The coefficient for the *emsn* variable shows that the instantaneous effect of the EMSN was that fees fell by \$47.27 – but again this was not a statistically significant result. The coefficient for the time trend following the introduction of the EMSN (*emsntime*) is highly significant and indicates that after 2004 average fees charged per obstetric item increased by \$2.19 every month. The *scap* coefficient indicates that average fees fell by \$165.39 when the EMSN was introduced. As noted in the text of the main report, this result should be interpreted with caution as it reflects, in part, the anticipatory behaviour that occurred in last few months of 2009 – just prior to the introduction of capping arrangements.

Table D4: Regression results for obstetrics (without Dec 09, Jan 10 or items 16401 and 16404) (b)

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	-0.48	0.72	0.51	0.86	0.07	0.22	-1.13	0.64
Emsn	-24.79	36.35	40.51	42.36	3.48	11.24	-64.25	32.28
emsntime	1.40	0.27	1.21	0.28	0.12	0.07	0.09	0.56
dec dum2	38.12	3.37	42.11	1.96	0.59	0.20	-7.29	2.64
Scap	-57.03	19.23	-93.82	15.15	12.26	2.84	40.77	24.98
_cons	141.58	34.47	24.82	37.71	30.67	8.97	119.02	18.89
ARMA								
Ar	0.71	0.08	0.72	0.10	0.93	0.05		
L1.							0.86	0.11
Ma	0.17	0.12	0.52	0.08	0.25	0.08		
L12.	12.08	0.59	9.06	0.40	0.73	0.05	0.08	0.08
/sigma							8.88	0.49
Prob > Q12	0.352		0.179		0.709		0.939	

Note: obstetrics (b): December 2009 and January 2010 have been dropped as influential observations and ITEMS 16401, 16404 (new in 2010) were dropped for comparability

Table D5: Regression results for specialist (excluding items 16401 and 16404)

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.16	0.03	-0.06	0.08	-0.06	0.02	0.21	0.06
emsn	7.45	1.62	-3.50	4.18	-3.76	0.98	10.34	3.23
emsntime	0.16	0.03	0.06	0.04	-0.01	0.02	0.10	0.03
dec dum2	-1.10	0.29	2.20	0.15	-0.55	0.20	-3.40	0.15
scap	-2.24	1.20	-3.38	1.09	-0.72	0.97	1.07	0.78
_cons	74.81	0.96	55.84	3.14	55.66	0.61	19.29	2.54
ARMA								
ar								
L1.	0.81	0.05	0.86	0.03	0.83	0.05	0.83	0.05
ma								
L12.	0.86	0.11	1.00		0.75	0.11	0.83	0.09
/sigma	0.65	0.05	0.61	0.03	0.37	0.03	0.66	0.03
Prob > Q12	0.002		0.006		0.021		<.0001	

Table D6: Regression results for specialist attendances (including items 16401 and 16404)

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.16	0.03	-0.06	0.08	-0.06	0.02	0.21	0.07
emsn	7.45	1.64	-3.54	4.26	-3.76	0.98	10.38	3.39
emsntime	0.16	0.03	0.06	0.04	-0.01	0.02	0.10	0.03
decdum2	-1.09	0.29	2.20	0.14	-0.55	0.20	-3.40	0.15
scap	-1.77	1.19	-3.33	1.08	-0.69	0.98	1.52	0.77
_cons	74.82	0.97	55.85	3.22	55.66	0.61	19.29	2.69
ARMA								
ar								
L1.	0.81	0.05	0.86	0.03	0.83	0.05	0.84	0.05
ma								
L12.	0.86	0.11	1.00	1211.90	0.75	0.11	0.83	0.09
/sigma	0.65	0.05	0.61	371.46	0.37	0.03	0.66	0.03
Prob > Q12	0.002		0.006		0.021		<.0001	

Table D7: Regression results for consultant physician

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.00	0.04	-0.10	0.07	-0.12	0.04	0.11	0.07
emsn	-1.01	1.83	-6.27	3.20	-7.25	2.12	5.10	3.50
emsntime	0.20	0.03	0.16	0.04	0.11	0.03	0.03	0.03
decdum2	-1.63	0.64	1.13	0.27	-1.23	0.74	-2.52	0.12
scap	-0.60	2.27	-2.35	1.31	-0.48	2.26	1.91	0.63
_cons	100.10	0.98	86.51	2.20	86.61	1.31	13.75	2.81
ARMA								
ar								
L1.	0.77	0.07	0.82	0.05	0.81	0.06	0.85	0.05
ma								
L12.	0.61	0.05	0.65	0.05	0.53	0.06	0.83	0.08
/sigma	0.88	0.04	0.95	0.04	0.77	0.04	0.58	0.03
Prob > Q12	0.043		0.354		0.083		<.0001	

Table D8: Regression results for psychiatry

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.03	0.12	-0.09	0.27	-0.13	0.10	0.10	0.25
emsn	-0.95	5.88	-5.43	13.68	-8.13	5.11	3.67	12.43
emsntime	0.39	0.07	0.38	0.10	0.17	0.06	0.02	0.07
decdum2	-0.88	0.83	6.50	0.60	0.22	0.58	-6.93	0.36
scap	-4.02	4.25	-9.97	2.30	-3.38	3.89	5.37	1.37
_cons	146.47	4.14	128.82	12.25	129.02	3.79	17.71	11.85
ARMA								
ar								
L1.	0.82	0.06	0.81	0.06	0.81	0.06	0.84	0.06
ma								
L12.	0.62	0.08	0.77	0.07	0.51	0.08	1.00	1163.37
/sigma	1.60	0.06	2.35	0.09	1.41	0.06	1.47	855.85
Prob > Q12	<.0001		<.0001		<.0001		<.0001	

Table D9: Regression results for optometry

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	-0.06	0.03	-0.06	0.03	-0.06	0.03	0.00	0.00
emsn	-3.62	1.77	-3.45	1.75	-3.45	1.72	-0.14	0.02
emsntime	-0.01	0.02	-0.01	0.02	-0.01	0.02	0.00	0.00
dec dum2	-0.07	0.20	-0.03	0.19	-0.05	0.19	-0.04	0.00
scap	-0.92	1.50	-0.95	1.45	-0.93	1.46	0.02	0.02
_cons	53.16	1.45	52.55	1.44	52.54	1.41	0.58	0.01
ARMA								
ar								
L1.	0.89	0.05	0.89	0.05	0.89	0.05	0.72	0.06
ma								
L12.	0.72	0.09	0.73	0.09	0.72	0.09	0.22	0.08
/sigma	0.31	0.02	0.31	0.02	0.31	0.02	0.01	0.00
Prob > Q12	0.001		0.000		0.000		0.837	

Table D10: Regression results for miscellaneous diagnostic procedures and investigations

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.06	0.02	0.02	0.02	0.02	0.02	0.04	0.03
emsn	4.35	0.81	2.63	0.76	1.75	0.73	1.98	1.32
emsntime	0.07	0.01	0.05	0.01	0.05	0.01	0.01	0.01
dec dum2	0.48	0.87	1.69	0.45	0.44	0.53	-1.09	0.07
scap	-1.30	0.68	-1.08	0.53	-0.80	0.57	0.17	0.29
_cons	70.09	0.51	61.36	0.53	61.40	0.47	8.78	1.02
ARMA								
ar								
L1.	0.55	0.08	0.52	0.10	0.57	0.08	0.82	0.05
ma								
L12.	0.50	0.11	0.50	0.10	0.46	0.11	0.66	0.07
/sigma	0.80	0.05	0.77	0.05	0.69	0.04	0.29	0.02
Prob > Q12	0.006		0.011		0.010		0.000	

Table D11: Regression results for ART services

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	3.65	0.85	1.49	1.24	0.37	0.14	1.63	2.20
emsn	282.59	38.05	232.72	60.85	28.89	8.11	35.99	115.90
emsntime	8.13	0.42	7.39	0.66	0.00	0.14	1.37	0.86
dec dum2	-287.30	17.96	-181.22	12.27	-84.45	9.12	-124.40	8.75
scap	68.82	36.01	-200.55	35.18	211.43	7.31	200.27	51.66
_cons	594.38	30.14	433.23	51.38	448.35	5.58	166.22	108.84
ARMA								
ar								
L1.	0.22	0.11	0.54	0.07	-0.30	0.14	0.69	0.09
ma								
L12.	0.39	0.10	0.49	0.08	0.53	0.08	0.63	0.10
/sigma	52.77	3.24	43.11	2.47	20.23	1.19	28.51	1.64
Prob > Q12	0.017		0.242		0.311		0.109	

Table D12: Regression results for radiation oncology

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.42	0.51	0.39	0.49	0.24	0.39	0.10	0.05
emsn	24.15	25.83	22.83	24.74	13.03	19.88	3.72	2.40
emsntime	0.10	0.39	0.19	0.33	0.07	0.26	-0.12	0.03
decum2	-2.75	2.55	0.57	1.48	-1.11	1.98	-2.86	0.38
scap	-0.06	32.66	-3.24	23.67	-1.25	13.66	2.33	1.14
_cons	146.59	20.00	130.13	19.74	131.17	14.22	14.81	1.99
ARMA								
ar								
L1.	0.93	0.07	0.92	0.07	0.92	0.07	0.70	0.07
ma								
L12.	0.26	0.10	0.32	0.08	0.25	0.10	0.66	0.09
/sigma	3.12	0.11	3.05	0.10	2.51	0.09	1.24	0.07
Prob > Q12	0.294		0.267		0.308		0.004	

Table D13: Regression results for anaesthetics

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.14	0.03	0.01	0.05	0.01	0.04	0.12	0.06
emsn	5.40	1.57	0.48	2.43	0.47	2.07	5.08	2.64
emsntime	0.32	0.02	0.19	0.03	0.13	0.03	0.12	0.02
decum2	2.76	0.47	4.44	0.37	3.06	0.39	-1.89	0.28
scap	-4.96	1.40	-3.16	0.87	-2.70	1.99	-1.22	0.72
_cons	80.53	1.16	68.82	1.95	68.78	1.48	12.02	2.20
ARMA								
ar								
L1.	0.53	0.08	0.65	0.06	0.67	0.05	0.77	0.07
ma								
L12.	0.29	0.09	0.45	0.08	0.41	0.08	0.38	0.10
/sigma	1.35	0.08	1.22	0.07	1.03	0.05	0.80	0.05
Prob > Q12	0.519		0.147		0.042		0.944	

Table D14: Regression results for vascular procedures

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.83	1.06	0.31	0.58	0.14	0.26	0.57	0.59
emsn	54.56	49.08	31.99	26.95	2.97	12.97	21.79	27.50
emsntime	3.20	0.27	2.02	0.20	0.04	0.13	1.20	0.21
decum2	-17.71	5.66	20.67	3.94	-5.62	1.57	-37.50	2.64
scap	-95.70	13.22	-105.72	9.33	6.04	5.95	10.53	8.13
_cons	198.94	45.76	115.82	24.09	118.63	10.49	82.34	24.38
ARMA								
ar								
L1.	0.59	0.05	0.58	0.06	0.76	0.06	0.72	0.06
ma								
L12.	0.26	0.07	0.40	0.08	0.45	0.10	0.45	0.08
/sigma	13.89	0.65	11.58	0.58	4.86	0.27	8.18	0.49
Prob > Q12	0.113		0.001		0.004		0.000	

Table D15: Regression results for ophthalmology

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.44	0.15	0.06	0.24	0.03	0.08	0.38	0.43
emsn	25.90	5.80	10.44	10.39	4.41	3.71	15.68	21.79
emsntime	1.03	0.10	0.83	0.14	0.27	0.07	0.13	0.15
decdum2	3.98	3.44	14.55	2.57	2.10	2.86	-9.99	0.94
scap	-13.86	5.60	-23.71	3.60	-4.51	3.94	12.77	2.07
_cons	234.58	4.31	209.88	8.08	210.58	2.40	25.58	19.31
ARMA								
ar								
L1.	0.50	0.08	0.63	0.08	0.47	0.08	0.83	0.05
ma								
L12.	0.29	0.08	0.50	0.07	0.46	0.08	0.71	0.07
/sigma	6.75	0.46	7.13	0.42	4.67	0.31	3.22	0.14
Prob > Q12	0.009		0.028		0.000		0.026	

Table D16: Regression results for plastic and reconstructive surgery

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	-1.09	0.22	-0.60	0.25	-0.67	0.18	-0.48	0.12
emsn	-54.50	8.71	-28.34	10.51	-39.33	9.76	-30.68	5.61
emsntime	1.33	0.18	0.92	0.21	0.05	0.19	0.50	0.11
decdum2	14.69	4.34	15.83	2.09	-0.96	1.06	-1.64	4.30
scap	-24.06	14.55	-25.92	8.96	3.03	10.48	-1.84	5.00
_cons	357.29	4.91	296.68	5.99	300.16	4.50	62.00	2.71
ARMA								
ar								
L1.	0.60	0.06	0.75	0.06	0.89	0.04	0.64	0.06
ma								
L12.	0.10	0.09	0.17	0.09	0.07	0.11	0.13	0.12
/sigma	9.22	0.55	6.94	0.44	3.51	0.19	4.73	0.21
Prob > Q12	0.581		0.545		0.807		0.981	

Table D17: Regression results for other therapeutic procedures

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	-0.15	0.06	-0.17	0.11	-0.17	0.07	0.02	0.02
emsn	-8.38	3.10	-9.11	5.32	-9.32	3.26	0.58	0.83
emsntime	0.08	0.04	0.07	0.05	0.03	0.04	0.02	0.01
decdum2	0.52	0.64	1.42	0.31	0.09	0.73	-1.01	0.11
scap	-1.31	1.66	-2.63	2.37	-0.62	2.38	0.29	0.33
_cons	88.11	2.08	78.43	4.00	78.49	2.28	9.67	0.56
ARMA								
ar								
L1.	0.81	0.07	0.88	0.06	0.85	0.07	0.80	0.05
ma								
L12.	1.68	0.24	0.60	0.08	1.70	0.26	0.71	0.08
/sigma	0.58	0.09	0.87	0.04	0.46	0.07	0.32	0.02
Prob > Q12	0.005		0.078		0.087		0.001	

Table D18: Regression results for obstetric ultrasound

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	0.17	0.19	0.08	0.33	-0.16	0.11	0.43	0.14
emsn	7.51	12.20	5.22	12.00	-9.92	5.35	20.45	5.83
emsntime	0.04	0.27	-0.07	0.22	-0.15	0.11	0.02	0.11
decdum2	1.54	12.89	6.78	4.02	1.09	7.97	-5.53	0.80
scap	-2.60	12.09	-6.18	13.43	4.27	11.73	5.63	5.66
_cons	116.12	2.58	77.10	4.38	85.68	1.30	25.18	2.46
ARMA								
ar								
L1.	-0.04	0.11	0.59	0.06	-0.34	0.03	0.78	0.05
ma								
L12.	-328.20	30256.46	0.39	0.06	0.05	0.12	0.62	0.07
/sigma	0.02	2.05	5.53	0.20	5.18	0.16	2.59	0.13
Prob > Q12	0.998		0.134		0.219		0.844	

Table D19: Regression results for other ultrasound

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	-0.15	0.08	-0.32	0.13	-0.34	0.08	0.17	0.17
emsn	-6.29	3.72	-16.05	5.83	-17.25	3.65	9.36	8.56
emsntime	-0.13	0.05	-0.06	0.07	-0.10	0.05	-0.07	0.04
decdum2	0.63	1.04	2.71	0.51	0.31	0.91	-1.98	0.10
scap	-1.86	5.41	-2.71	4.28	-0.31	3.61	0.65	1.45
_cons	160.71	2.07	140.19	3.47	140.64	1.91	20.71	8.38
ARMA								
ar								
L1.	0.84	0.07	0.87	0.06	0.86	0.07	0.92	0.03
ma								
L12.	0.25	0.10	0.34	0.09	0.21	0.12	0.73	0.07
/sigma	1.57	0.08	1.70	0.07	1.49	0.07	0.55	0.03
Prob > Q12	0.223		0.716		0.167		0.000	

Table D20: Regression results for general radiology and other diagnostic imaging

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	-0.11	0.04	-0.18	0.05	-0.18	0.05	0.06	0.02
emsn	-4.93	1.80	-8.76	2.46	-9.02	2.09	2.89	0.84
emsntime	-0.08	0.03	-0.02	0.04	-0.03	0.04	-0.05	0.01
decdum2	2.65	0.87	2.96	0.65	2.12	0.82	-0.41	0.06
scap	-1.48	1.68	-1.99	2.25	-1.43	2.01	-0.17	0.53
_cons	90.96	1.23	82.59	1.61	82.49	1.31	8.76	0.48
ARMA								
ar								
L1.	0.73	0.07	0.81	0.05	0.80	0.05	0.87	0.04
ma								
L12.	0.51	0.10	0.55	0.11	0.51	0.11	0.61	0.07
/sigma	1.23	0.06	1.23	0.05	1.18	0.05	0.25	0.01
Prob > Q12	0.005		0.009		0.011		0.854	

Table D21: Regression results for pathology

	Average fee		Average Medicare rebate + EMSN		Average Medicare rebate		Average OOP	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
pretime	-0.05	0.02	-0.04	0.02	-0.04	0.02	0.00	0.01
emsn	-2.53	0.79	-2.28	0.75	-2.33	0.76	-0.21	0.72
emsntime	-0.04	0.01	-0.04	0.01	-0.04	0.01	0.00	0.00
dec dum2	-0.12	0.10	-0.08	0.09	-0.14	0.11	-0.04	0.02
scap	-0.28	0.52	-0.32	0.86	-0.19	0.89	0.07	0.06
_cons	25.87	0.52	24.87	0.48	24.88	0.48	0.99	0.65
ARMA								
ar								
L1.	0.90	0.05	0.90	0.05	0.90	0.05	0.95	0.03
ma								
L12.	0.46	0.09	0.46	0.09	0.46	0.08	0.17	0.07
/sigma	0.19	0.01	0.19	0.01	0.18	0.01	0.04	0.00
Prob > Q12	0.009		0.030		0.045		0.002	