

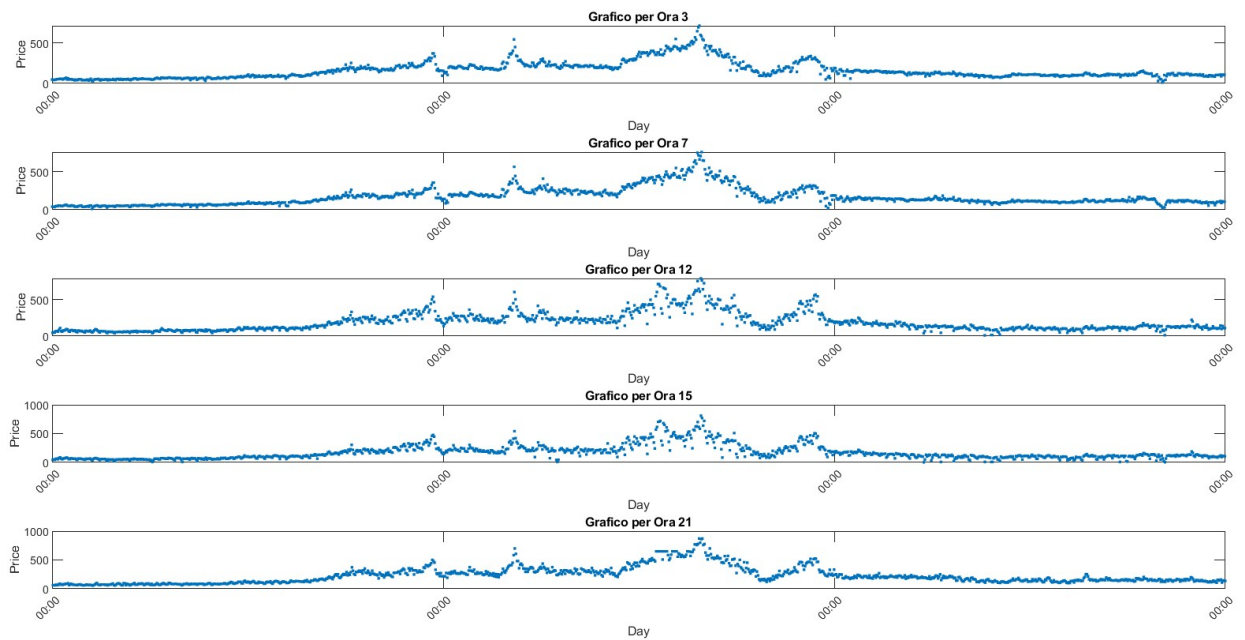
## % Creazione Matrici per Train per fasce orarie

Tabella con variabili dummy (ore, giorni settimana):

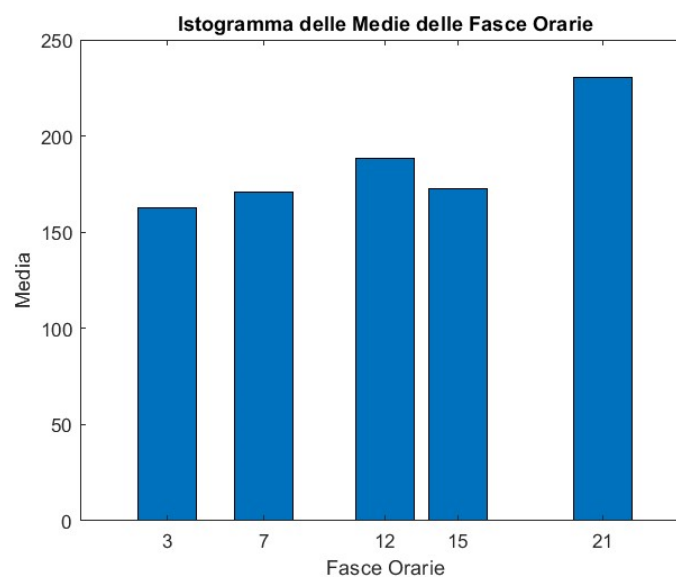
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>> head (TStt)
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Time	Price	h1	h2	h3	h4	h5	h6	h7	h8	h9	h10	h11	h12	h13
01-Jan-2021 01:00:00	50.87	0	1	0	0	0	0	0	0	0	0	0	0	0
01-Jan-2021 02:00:00	48.19	0	0	1	0	0	0	0	0	0	0	0	0	0
01-Jan-2021 03:00:00	44.68	0	0	0	1	0	0	0	0	0	0	0	0	0
01-Jan-2021 04:00:00	42.922	0	0	0	0	1	0	0	0	0	0	0	0	0
01-Jan-2021 05:00:00	40.392	0	0	0	0	0	1	0	0	0	0	0	0	0
01-Jan-2021 06:00:00	40.2	0	0	0	0	0	0	1	0	0	0	0	0	0
01-Jan-2021 07:00:00	39.633	0	0	0	0	0	0	0	1	0	0	0	0	0
01-Jan-2021 08:00:00	40.095	0	0	0	0	0	0	0	0	1	0	0	0	0

## % Trend grafico delle fasce orarie (3.00am;7.00am;12.00am;15.00am;21.00am)



## % Istogramma delle medie (3.00am;7.00am;12.00am;15.00am;21.00am)



% Regressione fasce orarie (3.00am;7.00am;12.00am;15.00am;21.00am)  
 $R^2=0.0368$

Estimated Coefficients:

	Estimate	SE	tStat	pValue
(Intercept)	194.95	3.7807	51.563	0
x1	-20.493	5.3468	-3.8327	0.00012703
x2	-25.515	5.3468	-4.772	1.8335e-06
x3	-32.451	5.3468	-6.0693	1.302e-09
x4	-36.823	5.3468	-6.887	5.8259e-12
x5	-39.381	5.3468	-7.3655	1.8173e-13
x6	-36.73	5.3468	-6.8695	6.5846e-12
x7	-24.098	5.3468	-4.5069	6.6052e-06
x8	-3.7177	5.3468	-0.69531	0.48687
x9	10.864	5.3468	2.0318	0.042179
x10	11.348	5.3468	2.1223	0.03382
x11	1.7601	5.3468	0.32919	0.74201
x12	-6.6226	5.3468	-1.2386	0.2155
x13	-13.816	5.3468	-2.584	0.0097728
x14	-21.68	5.3468	-4.0548	5.0322e-05
x15	-22.524	5.3468	-4.2126	2.5331e-05
x16	-17.76	5.3468	-3.3216	0.00089624
x17	-9.4849	5.3468	-1.7739	0.076084
x18	1.2429	5.3468	0.23245	0.81619
x19	17.485	5.3468	3.2702	0.0010761
x20	35.046	5.3468	6.5546	5.6811e-11
x21	35.78	5.3468	6.6919	2.2468e-11
x22	17.188	5.3468	3.2146	0.001308
x23	0	0	NaN	NaN
x24	-11.403	5.3468	-2.1327	0.032955
x25	2.4514	1.8923	1.2954	0.19519
x26	9.6625	1.8925	5.1056	3.3204e-07
x27	8.8131	1.8925	4.6568	3.2275e-06
x28	11.089	1.8925	5.8595	4.6984e-09
x29	7.6606	1.8877	4.0581	4.9609e-05
x30	-13.446	1.8875	-7.1237	1.0779e-12

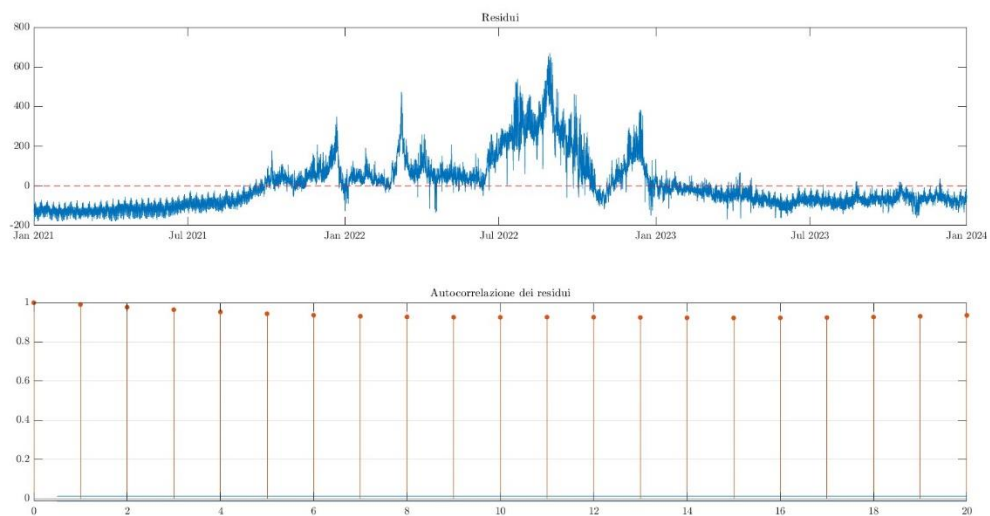
Number of observations: 26280, Error degrees of freedom: 26250

Root Mean Squared Error: 125

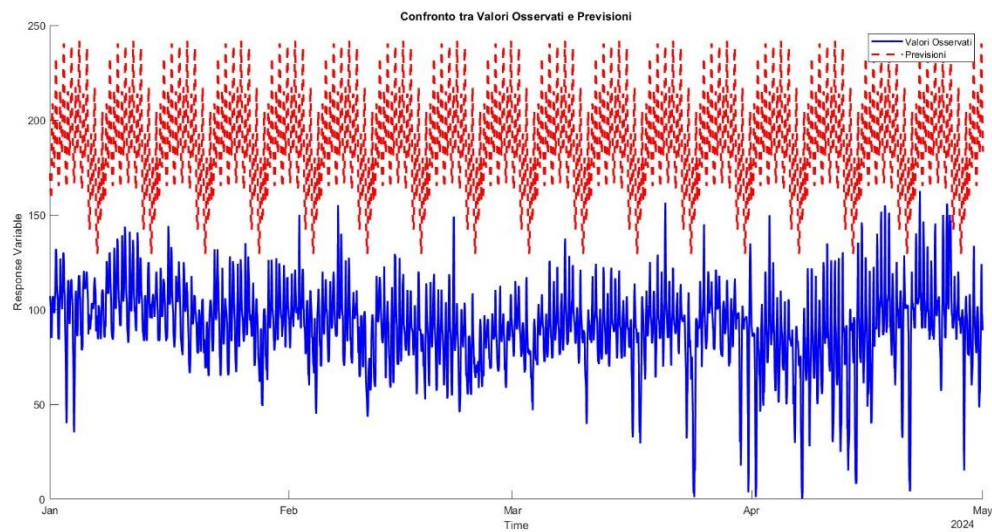
R-squared: 0.0379, Adjusted R-Squared: 0.0368

F-statistic vs. constant model: 35.6, p-value = 1.01e-194

% Grafici - Analisi dei residui



## %% Grafico comparazione Forecast e valori registrati



Cambio base dati (anni 2016-2019):

%% Regressione fasce orarie (3.00am;7.00am;12.00am;15.00am;21.00am)  
R<sup>2</sup>=0.192

Estimated Coefficients:

	Estimate	SE	tStat	pValue
(Intercept)	50.764	0.48868	103.88	0
x1	-2.0778	0.6911	-3.0065	0.0026449
x2	-4.9088	0.6911	-7.1028	1.2535e-12
x3	-7.7672	0.6911	-11.239	3.0623e-29
x4	-9.3974	0.6911	-13.598	5.7351e-42
x5	-9.9457	0.6911	-14.391	8.8702e-47
x6	-8.8916	0.6911	-12.866	9.1166e-38
x7	-4.7362	0.6911	-6.8531	7.3872e-12
x8	1.1677	0.6911	1.6897	0.0911
x9	6.8599	0.6911	9.926	3.5263e-23
x10	8.5728	0.6911	12.405	3.098e-35
x11	7.1232	0.6911	10.307	7.3081e-25
x12	5.2647	0.6911	7.6179	2.666e-14
x13	2.4621	0.6911	3.5626	0.00036787
x14	0	0	NaN	NaN
x15	0.47534	0.6911	0.6878	0.49159
x16	2.1829	0.6911	3.1586	0.001587
x17	4.343	0.6911	6.2842	3.3481e-10
x18	5.9594	0.6911	8.6231	6.88e-18
x19	9.7744	0.6911	14.143	3.0136e-45
x20	13.85	0.6911	20.04	1.1274e-88
x21	12.6	0.6911	18.232	8.146e-74
x22	7.7555	0.6911	11.222	3.7107e-29
x23	3.3496	0.6911	4.8467	1.2622e-06
x24	-0.014594	0.6911	-0.021117	0.98315
x25	1.0443	0.24406	4.2787	1.8863e-05
x26	2.6174	0.24469	10.697	1.1917e-26
x27	3.5415	0.24471	14.472	2.7732e-47
x28	3.2248	0.24471	13.178	1.5715e-39
x29	2.1918	0.24409	8.9796	2.8942e-19
x30	-4.6348	0.24406	-18.99	7.0726e-80

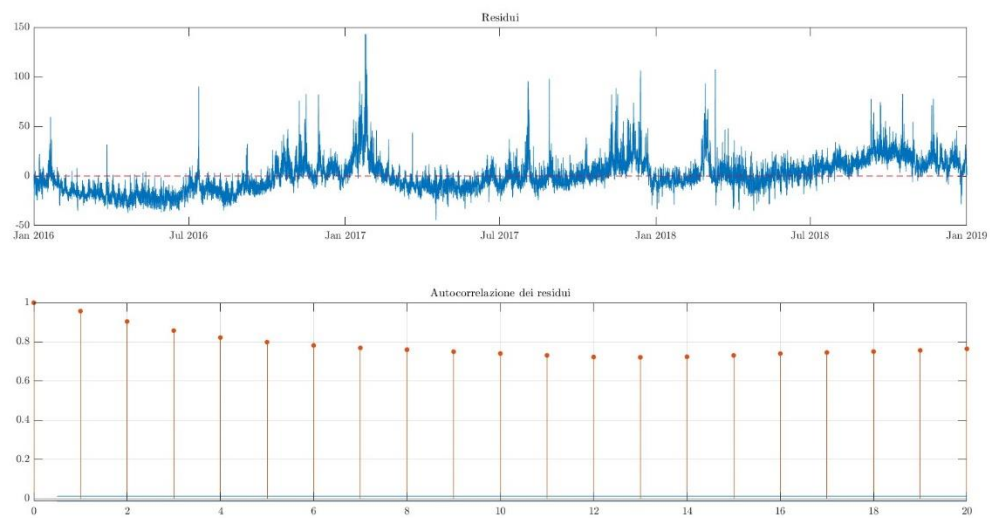
Number of observations: 26304, Error degrees of freedom: 26274

Root Mean Squared Error: 16.2

R-squared: 0.192, Adjusted R-Squared: 0.192

F-statistic vs. constant model: 216, p-value = 0

## %% Grafici - Analisi dei residui



## %% Grafico comparazione Forecast e valori registrati

