

46A Comparison of Natural Gas Spot Price Linear Regression Forecasting Models

Table T-4 Summary of Model Regression Equations

Equation 1

$$SP = 2.06017 + 0.206948 (SP[-4]) + (-0.0374542) (TDEVAL4) + 0.000131413 (STORDEV)$$

Equation 2

$$SP = 0.525472 + (-0.121956) (SP[-4]) + (0.828343) (F1LAG4) + (0.00236407) (TDEVAL4) + (-0.000155519) (STORDEV)$$

Equation 3

$$SP = 0.170323 + (0.0158816) (SP[-4]) + (0.832910) (F2LAG4) + (-0.00285751) (TDEVAL4) + (-0.000281059) (STORDEV)$$

Equation 4

$$SP = 0.0491542 + (0.121484) (SP[-4]) + (0.826627 * F3LAG4) + (-0.0115368) * (TDEVAL4) + (-0.000224388) (STORDEV)$$

Equation 5

$$SP = 1.34651 + (0.124192) (SP[-4]) + (0.0171614) (SPOILL4) + (-0.0203783) (TDEVAL4) + (0.000423749) (STORDEV)$$

Equation 6

$$SP = 0.49452 + (-0.083457) (SP[-4]) + (0.597371 * F1LAG4) + (0.0110346) (SPOILL4) + (0.00224099) (TDEVAL4) + (0.000112458) (STORDEV)$$

Equation 7

$$SP = 0.262138 + (0.0186882) (SP[-4]) + (0.600341 * F2LAG4) + (0.0104815) (SPOILL4) + (-0.00208849) (TDEVAL4) + (0.0000126602) (STORDEV)$$

Equation 8

$$SP = 0.278328 + (0.095889) (SP[-4]) + (0.534711 * F3LAG4) + (0.0115665) (SPOILL4) + (-0.00918037) (TDEVAL4) + (0.0000982905) (STORDEV)$$

Equation 9

$$SP = 0.225398 + (0.018256) (SP[-4]) + (0.610634 * F2LAG4) + (0.0105088) (SPOILL4) + (0.000799505) (WTTEDL4) + (0.00000210459) (STORDEV)$$

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Equation 10

$$\text{SP} = 6.53496 + (0.168076) (\text{SP}[-4]) + (-0.179459) (\text{GASCOIL4}) + (-0.000204653) (\text{TDEVAL4}) + (0.00068201) (\text{STORDEV})$$

Equation 11

$$\text{SP} = 4.05314 + (0.211512) (\text{SP}[-4]) + (-0.000469843) (\text{M2NTAJL6}) + (-0.0230317) (\text{TDEVAL4}) + (0.000267374) (\text{STORDEV})$$

Equation 12

$$\text{SP} = 4.07021 + (0.20849) (\text{SP}[-4]) + (-0.000471257) (\text{M2ADJL6}) + (-0.0234508) (\text{TDEVAL4}) + (0.000275211) (\text{STORDEV})$$

Equation 13

$$\text{SP} = 2.43812 + (0.240321) (\text{SP}[-4]) + (-0.00150724) (\text{UNEMATL6}) + (-0.0344526) (\text{TDEVAL4}) + (-0.0000567485) (\text{STORDEV})$$

Equation 14

$$\text{SP} = 1.2499 + (0.207001) (\text{SP}[-4]) + (0.00255843) (\text{UNEMAJL6}) + (-0.0311248) (\text{TDEVAL4}) + (0.000140593) (\text{STORDEV})$$

Equation 15

$$\text{SP} = 2.62428 + (0.0117803) (\text{SP}[-4]) + (0.57394) (\text{F2LAG4}) + (0.00597847) (\text{SPOILL4}) + (0.0133582) (\text{TDEVAL4}) + (-0.0871949) (\text{GASCOIL4})$$

Equation 16

$$\text{SP} = 3.60161 + (0.0499185) (\text{SP}[-4]) + (0.414738) (\text{F2LAG4}) + (0.00777963) (\text{SPOILL4}) + (0.0108716) (\text{TDEVAL4}) + (-0.112533) (\text{GASCOIL4}) + (0.00040381) (\text{STORDEV})$$

Equation 17

$$\text{SP} = 3.53544 + (0.0505391) (\text{SP}[-4]) + (0.357855) (\text{F2LAG4}) + (0.0168304) (\text{SPOILL4}) + (0.0157735) (\text{TDEVAL4}) + (-0.000704218) (\text{M2NTAJL6}) + (0.000444679) (\text{STORDEV})$$

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Equation 18

$$\text{SP} = 0.328172 + (0.0249035) (\text{SP}[-4]) + (0.586788) (\text{F2LAG4}) \\ + (0.0104896 * \text{SPOILL4}) + (-0.00236052) (\text{TDEVAL4}) + (- \\ 0.000142049 * \text{UNEMATL6}) + (0.00000177689) (\text{STORDEV})$$

Equation 19

$$\text{SP} = 4.05960 + (0.0547424) (\text{SP}[-4]) + (0.362853) (\text{F2LAG4}) \\ + (0.0113358 * \text{SPOILL4}) + (0.0149005) (\text{TDEVAL4}) + (- \\ 0.0798253 * \text{GASCOIL4}) + (-0.000307349 * \text{M2NTAJL6}) + \\ (0.000478673) (\text{STORDEV})$$

Equation 20

$$\text{SP} = 1.60249 + (0.0409559) (\text{SP}[-4]) + (0.384204) (\text{F2LAG4}) \\ + (0.0172345 * \text{SPOILL4}) + (0.00356614 * \text{UNEMAJL6}) + (- \\ 0.000532842 * \text{M2NTAJL6}) + (0.0208319 * \text{TDEVAL4}) + \\ (0.000401719) * (\text{STORDEV})$$

Equation 21

$$\text{SP} = 2.51014 + (0.54941 * \text{F2LAG4}) + (-0.07785 * \text{GASCOIL4})$$

Equation 22

$$\text{SP} = 3.79430 + (0.39516 * \text{F2LAG4}) + (-0.11332 * \text{GASCOIL4}) + \\ (0.00828 * \text{SPOILL4}) + (0.00043 * \text{STORDEV})$$

Equation 23

$$\text{SP} = 0.233204 + (0.0177326 * \text{SP}[-4]) + (0.609645 * \text{F2LAG4}) + \\ (0.0104529 * \text{SPOILL4})$$

Equation 25

$$\text{SP} = 2.50573 + (0.0105252 * \text{SP}[-4]) + (0.548188 * \text{F2LAG4}) + \\ (0.0060033 * \text{SPOILL4}) + (0.0782268 * \text{GASCOIL4})$$

Equation 28

$$\text{SP} = 0.444193 + (-0.0432733 * \text{SP}[-4]) + (0.571544 * \text{F2LAG4}) + \\ (0.0102957 * \text{SPOILL4}) + (-0.176812 * \text{TDVSUSWA})$$

Equation 29

$$\text{SP} = 2.35333 + (-0.0424421 * \text{SP}[-4]) + (0.523611 * \text{F2LAG4}) + \\ (0.00652848 * \text{SPOILL4}) + (-0.0665468 * \text{GASCOIL4}) + (- \\ 0.156633 * \text{TDVSUSWA})$$