**Modelo Random Forest**

=== Run information ===

Scheme:

RandomForest -P 100 -I 100 -num-slots 1 -K 0 -M 1.0 -V 0.001 -S 1

Lagged and derived variable options:

-F Open -L 1 -M 12 -month -quarter

Relation: BTC-USD

Instances: 57

Attributes: 7

Date

Open

High

Low

Close

Adj Close

Volume

Transformed training data:

Open

ArtificialTimeIndex

Lag\_Open-1

Lag\_Open-2

Lag\_Open-3

Lag\_Open-4

Lag\_Open-5

Lag\_Open-6

Lag\_Open-7

Lag\_Open-8

Lag\_Open-9

Lag\_Open-10

Lag\_Open-11

Lag\_Open-12

ArtificialTimeIndex^2

ArtificialTimeIndex^3

ArtificialTimeIndex\*Lag\_Open-1

ArtificialTimeIndex\*Lag\_Open-2

ArtificialTimeIndex\*Lag\_Open-3

ArtificialTimeIndex\*Lag\_Open-4

ArtificialTimeIndex\*Lag\_Open-5

ArtificialTimeIndex\*Lag\_Open-6

ArtificialTimeIndex\*Lag\_Open-7

ArtificialTimeIndex\*Lag\_Open-8

ArtificialTimeIndex\*Lag\_Open-9

ArtificialTimeIndex\*Lag\_Open-10

ArtificialTimeIndex\*Lag\_Open-11

ArtificialTimeIndex\*Lag\_Open-12

Open:

RandomForest

Bagging with 100 iterations and base learner

weka.classifiers.trees.RandomTree -K 0 -M 1.0 -V 0.001 -S 1 -do-not-check-capabilities

=== Predictions for training data: Open (1-step ahead) ===

inst# actual predicted error

13 28994.0098 27053.0143 -1940.9955

14 33114.5781 30564.8586 -2549.7195

15 45159.5039 40289.7771 -4869.7269

16 58926.5625 51966.8661 -6959.6964

17 57714.6641 53836.1896 -3878.4745

18 37293.793 41517.2293 4223.4363

19 35035.9844 37749.5062 2713.5218

20 41460.8438 41408.5161 -52.3276

21 47099.7734 46144.3059 -955.4675

22 43816.7422 45072.988 1256.2458

23 61320.4492 54235.795 -7084.6542

24 56907.9648 53709.5855 -3198.3794

25 46311.7461 44929.9747 -1381.7714

26 38481.7656 39633.496 1151.7304

27 43194.5039 42070.0127 -1124.4912

28 45554.1641 42727.052 -2827.112

29 37713.2656 39281.6473 1568.3817

30 31792.5547 37064.9705 5272.4159

31 19820.4707 28230.1837 8409.713

32 23336.7188 24586.6506 1249.9318

33 20050.498 20109.8849 59.3868

34 19431.1055 20921.7362 1490.6307

35 20494.8984 20133.0707 -361.8278

36 17168.002 19014.5044 1846.5025

37 16547.9141 18807.1792 2259.2652

38 23137.8359 23197.6618 59.8259

39 23150.9297 23158.3209 7.3912

40 28473.332 26649.2179 -1824.1142

41 29227.1035 28644.4954 -582.6081

42 27218.4121 27124.3834 -94.0287

43 30471.8477 30266.6257 -205.2219

44 29230.873 29339.1083 108.2352

45 25934.0215 27749.0894 1815.0679

46 26967.3965 28877.0902 1909.6937

47 34657.2734 32850.316 -1806.9575

48 37718.0078 38084.3262 366.3184

49 42280.2344 40819.0206 -1461.2138

50 42569.7617 45745.7828 3176.0211

51 61168.0625 57285.6446 -3882.4179

52 71333.4844 67354.627 -3978.8574

53 60609.4961 62528.3598 1918.8637

54 67489.6094 65305.8071 -2183.8023

55 62673.6055 62587.9658 -85.6397

56 64625.8398 63326.4761 -1299.3637

57 58969.8008 60615.2666 1645.4658

=== Future predictions from end of training data ===

inst# Open

1 7194.8921

2 9346.3574

3 8599.7588

4 6437.3193

5 8672.7822

6 9463.6055

7 9145.9854

8 11322.5703

9 11679.3164

10 10795.2549

11 13780.9951

12 19633.7695

13 28994.0098

14 33114.5781

15 45159.5039

16 58926.5625

17 57714.6641

18 37293.793

19 35035.9844

20 41460.8438

21 47099.7734

22 43816.7422

23 61320.4492

24 56907.9648

25 46311.7461

26 38481.7656

27 43194.5039

28 45554.1641

29 37713.2656

30 31792.5547

31 19820.4707

32 23336.7188

33 20050.498

34 19431.1055

35 20494.8984

36 17168.002

37 16547.9141

38 23137.8359

39 23150.9297

40 28473.332

41 29227.1035

42 27218.4121

43 30471.8477

44 29230.873

45 25934.0215

46 26967.3965

47 34657.2734

48 37718.0078

49 42280.2344

50 42569.7617

51 61168.0625

52 71333.4844

53 60609.4961

54 67489.6094

55 62673.6055

56 64625.8398

57 58969.8008

58\* 62363.0561

=== Evaluation on training data ===

Target 1-step-ahead

===============================================

Open

N 45

Mean absolute error 2157.7092

Mean absolute percentage error 5.9323

Root mean squared error 2911.818

Mean squared error 8478684.3447

Total number of instances: 57

**Modelo Gaussian Processes**

=== Run information ===

Scheme:

GaussianProcesses -L 1.0 -N 0 -K "PolyKernel -E 1.0 -C 250007" -S 1

Lagged and derived variable options:

-F Open -L 1 -M 12 -month -quarter

Relation: BTC-USD

Instances: 57

Attributes: 7

Date

Open

High

Low

Close

Adj Close

Volume

Transformed training data:

Open

ArtificialTimeIndex

Lag\_Open-1

Lag\_Open-2

Lag\_Open-3

Lag\_Open-4

Lag\_Open-5

Lag\_Open-6

Lag\_Open-7

Lag\_Open-8

Lag\_Open-9

Lag\_Open-10

Lag\_Open-11

Lag\_Open-12

ArtificialTimeIndex^2

ArtificialTimeIndex^3

ArtificialTimeIndex\*Lag\_Open-1

ArtificialTimeIndex\*Lag\_Open-2

ArtificialTimeIndex\*Lag\_Open-3

ArtificialTimeIndex\*Lag\_Open-4

ArtificialTimeIndex\*Lag\_Open-5

ArtificialTimeIndex\*Lag\_Open-6

ArtificialTimeIndex\*Lag\_Open-7

ArtificialTimeIndex\*Lag\_Open-8

ArtificialTimeIndex\*Lag\_Open-9

ArtificialTimeIndex\*Lag\_Open-10

ArtificialTimeIndex\*Lag\_Open-11

ArtificialTimeIndex\*Lag\_Open-12

Open:

Gaussian Processes

Kernel used:

Linear Kernel: K(x,y) = <x,y>

All values shown based on: Normalize training data

Average Target Value : 0.4146420800826498

Inverted Covariance Matrix:

Lowest Value = -0.16557222665370322

Highest Value = 0.9798593589286736

Inverted Covariance Matrix \* Target-value Vector:

Lowest Value = -0.369063317663282

Highest Value = 0.28602516065362366

=== Predictions for training data: Open (1-step ahead) ===

inst# actual predicted error

13 28994.0098 38324.9976 9330.9878

14 33114.5781 41033.0428 7918.4647

15 45159.5039 43043.5628 -2115.9411

16 58926.5625 47784.2334 -11142.3291

17 57714.6641 52486.0041 -5228.66

18 37293.793 53061.6422 15767.8492

19 35035.9844 47550.6942 12514.7099

20 41460.8438 45741.2333 4280.3896

21 47099.7734 46723.9816 -375.7919

22 43816.7422 48014.7112 4197.9691

23 61320.4492 46523.0144 -14797.4348

24 56907.9648 50195.4791 -6712.4858

25 46311.7461 44407.6976 -1904.0485

26 38481.7656 37140.3631 -1341.4026

27 43194.5039 31485.8966 -11708.6073

28 45554.1641 30307.3687 -15246.7954

29 37713.2656 31025.4557 -6687.8099

30 31792.5547 33734.5897 1942.0351

31 19820.4707 31211.9001 11391.4294

32 23336.7188 22049.1609 -1287.5578

33 20050.498 17308.3858 -2742.1122

34 19431.1055 17111.6421 -2319.4634

35 20494.8984 12632.9154 -7861.9831

36 17168.002 15364.2846 -1803.7174

37 16547.9141 17057.7021 509.788

38 23137.8359 18847.0663 -4290.7696

39 23150.9297 21197.1658 -1953.7638

40 28473.332 23432.2192 -5041.1128

41 29227.1035 30844.3012 1617.1977

42 27218.4121 35193.0789 7974.6668

43 30471.8477 39902.9672 9431.1195

44 29230.873 40136.4491 10905.5761

45 25934.0215 41843.4378 15909.4164

46 26967.3965 41256.2592 14288.8627

47 34657.2734 40820.3053 6163.0319

48 37718.0078 44603.1274 6885.1196

49 42280.2344 45900.4818 3620.2474

50 42569.7617 45082.8598 2513.0981

51 61168.0625 46216.3221 -14951.7404

52 71333.4844 52771.5483 -18561.936

53 60609.4961 59612.1255 -997.3706

54 67489.6094 58782.259 -8707.3503

55 62673.6055 61300.2638 -1373.3417

56 64625.8398 59568.6733 -5057.1666

57 58969.8008 58545.3585 -424.4423

=== Future predictions from end of training data ===

inst# Open

1 7194.8921

2 9346.3574

3 8599.7588

4 6437.3193

5 8672.7822

6 9463.6055

7 9145.9854

8 11322.5703

9 11679.3164

10 10795.2549

11 13780.9951

12 19633.7695

13 28994.0098

14 33114.5781

15 45159.5039

16 58926.5625

17 57714.6641

18 37293.793

19 35035.9844

20 41460.8438

21 47099.7734

22 43816.7422

23 61320.4492

24 56907.9648

25 46311.7461

26 38481.7656

27 43194.5039

28 45554.1641

29 37713.2656

30 31792.5547

31 19820.4707

32 23336.7188

33 20050.498

34 19431.1055

35 20494.8984

36 17168.002

37 16547.9141

38 23137.8359

39 23150.9297

40 28473.332

41 29227.1035

42 27218.4121

43 30471.8477

44 29230.873

45 25934.0215

46 26967.3965

47 34657.2734

48 37718.0078

49 42280.2344

50 42569.7617

51 61168.0625

52 71333.4844

53 60609.4961

54 67489.6094

55 62673.6055

56 64625.8398

57 58969.8008

58\* 53190.3495

=== Evaluation on training data ===

Target 1-step-ahead

===============================================

Open

N 45

Mean absolute error 6706.6021

Mean absolute percentage error 18.7624

Root mean squared error 8433.5126

Mean squared error 71124134.459

Total number of instances: 57

Modelo Multilayer Perceptron

=== Run information ===

Scheme:

MultilayerPerceptron -L 0.3 -M 0.2 -N 500 -V 0 -S 0 -E 20 -H a

Lagged and derived variable options:

-F Open -L 1 -M 12 -month -quarter

Relation: BTC-USD

Instances: 57

Attributes: 7

Date

Open

High

Low

Close

Adj Close

Volume

Transformed training data:

Open

ArtificialTimeIndex

Lag\_Open-1

Lag\_Open-2

Lag\_Open-3

Lag\_Open-4

Lag\_Open-5

Lag\_Open-6

Lag\_Open-7

Lag\_Open-8

Lag\_Open-9

Lag\_Open-10

Lag\_Open-11

Lag\_Open-12

ArtificialTimeIndex^2

ArtificialTimeIndex^3

ArtificialTimeIndex\*Lag\_Open-1

ArtificialTimeIndex\*Lag\_Open-2

ArtificialTimeIndex\*Lag\_Open-3

ArtificialTimeIndex\*Lag\_Open-4

ArtificialTimeIndex\*Lag\_Open-5

ArtificialTimeIndex\*Lag\_Open-6

ArtificialTimeIndex\*Lag\_Open-7

ArtificialTimeIndex\*Lag\_Open-8

ArtificialTimeIndex\*Lag\_Open-9

ArtificialTimeIndex\*Lag\_Open-10

ArtificialTimeIndex\*Lag\_Open-11

ArtificialTimeIndex\*Lag\_Open-12

Open:

Linear Node 0

Inputs Weights

Threshold 1.7788756497022065

Node 1 -0.9215843846759637

Node 2 1.0793633774698077

Node 3 -1.5958352976761832

Node 4 -0.03459730445254613

Node 5 -0.5875114555049327

Node 6 -0.47895210851281506

Node 7 -0.49850514993063244

Node 8 -0.25998908409736565

Node 9 -0.2215835382667526

Node 10 1.3892503691999987

Node 11 -1.2688435851910573

Node 12 -0.07287068140937594

Node 13 -0.35001457365540395

Node 14 -1.3104836808763056

Sigmoid Node 1

Inputs Weights

Threshold -1.6370691049309871

Attrib ArtificialTimeIndex -1.9006602839145033

Attrib Lag\_Open-1 -0.10384605729423153

Attrib Lag\_Open-2 -0.7650905485918282

Attrib Lag\_Open-3 -0.46439688691420244

Attrib Lag\_Open-4 -0.4373107807072449

Attrib Lag\_Open-5 -0.7039450984866991

Attrib Lag\_Open-6 -0.8316851678057874

Attrib Lag\_Open-7 0.5415261011686416

Attrib Lag\_Open-8 0.6166724490523258

Attrib Lag\_Open-9 0.5670997000898215

Attrib Lag\_Open-10 0.5358184572901993

Attrib Lag\_Open-11 1.123091261728254

Attrib Lag\_Open-12 0.3630230408994724

Attrib ArtificialTimeIndex^2 -1.0179363395808163

Attrib ArtificialTimeIndex^3 -0.47199260426260287

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.7800632264271301

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.11115960147623068

Attrib ArtificialTimeIndex\*Lag\_Open-3 -0.1250001603948516

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.1389999855495394

Attrib ArtificialTimeIndex\*Lag\_Open-5 -0.29929008831251347

Attrib ArtificialTimeIndex\*Lag\_Open-6 -0.041369660629238525

Attrib ArtificialTimeIndex\*Lag\_Open-7 0.2527150992864238

Attrib ArtificialTimeIndex\*Lag\_Open-8 0.2017955307927075

Attrib ArtificialTimeIndex\*Lag\_Open-9 0.29464968464688046

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.0965581581102121

Attrib ArtificialTimeIndex\*Lag\_Open-11 0.6492444528795114

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.2917949852100371

Sigmoid Node 2

Inputs Weights

Threshold -0.8539147236583233

Attrib ArtificialTimeIndex 0.587258245391166

Attrib Lag\_Open-1 0.43796099821551265

Attrib Lag\_Open-2 -0.20778770497781207

Attrib Lag\_Open-3 0.3119125488719018

Attrib Lag\_Open-4 0.48944563844514277

Attrib Lag\_Open-5 0.29089864399292586

Attrib Lag\_Open-6 0.04329755377307707

Attrib Lag\_Open-7 0.06034789194010753

Attrib Lag\_Open-8 -0.18308964799231184

Attrib Lag\_Open-9 0.007623390747798771

Attrib Lag\_Open-10 -0.5875370111243389

Attrib Lag\_Open-11 0.586933260136729

Attrib Lag\_Open-12 0.3559830064653368

Attrib ArtificialTimeIndex^2 0.9321501812650168

Attrib ArtificialTimeIndex^3 1.1932809618651705

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.11334807148642645

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.13090631118519397

Attrib ArtificialTimeIndex\*Lag\_Open-3 0.3169286527668118

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.4643166744697221

Attrib ArtificialTimeIndex\*Lag\_Open-5 0.5244646301927298

Attrib ArtificialTimeIndex\*Lag\_Open-6 0.04811475045395816

Attrib ArtificialTimeIndex\*Lag\_Open-7 -0.07618854635844062

Attrib ArtificialTimeIndex\*Lag\_Open-8 0.18814330778920108

Attrib ArtificialTimeIndex\*Lag\_Open-9 0.2346407893851059

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.5022684542130201

Attrib ArtificialTimeIndex\*Lag\_Open-11 0.7000074862373804

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.14783732863430926

Sigmoid Node 3

Inputs Weights

Threshold 0.9666811302450542

Attrib ArtificialTimeIndex 0.3769283349494913

Attrib Lag\_Open-1 -2.7541487474924584

Attrib Lag\_Open-2 -2.744196104380458

Attrib Lag\_Open-3 -1.3537117114603059

Attrib Lag\_Open-4 -2.300086767414349

Attrib Lag\_Open-5 1.613574048747402

Attrib Lag\_Open-6 0.3908252064173678

Attrib Lag\_Open-7 -0.5051032776247912

Attrib Lag\_Open-8 -0.13751578600566433

Attrib Lag\_Open-9 -0.10213134467842892

Attrib Lag\_Open-10 0.6284692576484437

Attrib Lag\_Open-11 -0.08755879436192138

Attrib Lag\_Open-12 -0.42487796441620057

Attrib ArtificialTimeIndex^2 0.22751147026901253

Attrib ArtificialTimeIndex^3 -0.5252180299553805

Attrib ArtificialTimeIndex\*Lag\_Open-1 -0.018434845933709382

Attrib ArtificialTimeIndex\*Lag\_Open-2 -0.4610351327549852

Attrib ArtificialTimeIndex\*Lag\_Open-3 0.2597608930515556

Attrib ArtificialTimeIndex\*Lag\_Open-4 -0.8071505096021628

Attrib ArtificialTimeIndex\*Lag\_Open-5 0.4112165364752451

Attrib ArtificialTimeIndex\*Lag\_Open-6 0.8263663701659263

Attrib ArtificialTimeIndex\*Lag\_Open-7 0.6362591458498978

Attrib ArtificialTimeIndex\*Lag\_Open-8 0.2090281528363212

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.11409182652315865

Attrib ArtificialTimeIndex\*Lag\_Open-10 1.4232754894263395

Attrib ArtificialTimeIndex\*Lag\_Open-11 0.5082145618691204

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.7060519196045877

Sigmoid Node 4

Inputs Weights

Threshold -1.3391811269463967

Attrib ArtificialTimeIndex -0.5711966700587512

Attrib Lag\_Open-1 -0.095013218511257

Attrib Lag\_Open-2 -0.010507855705269395

Attrib Lag\_Open-3 0.09550724790607433

Attrib Lag\_Open-4 0.1612659611647893

Attrib Lag\_Open-5 0.16397193031566454

Attrib Lag\_Open-6 0.26048509080684235

Attrib Lag\_Open-7 -0.0666484382909714

Attrib Lag\_Open-8 0.07442200963250659

Attrib Lag\_Open-9 0.006166367000357225

Attrib Lag\_Open-10 0.35269137772858694

Attrib Lag\_Open-11 0.22231153983430246

Attrib Lag\_Open-12 0.17909927720714633

Attrib ArtificialTimeIndex^2 -0.09638910527731377

Attrib ArtificialTimeIndex^3 0.03452071917975697

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.5854984356299452

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.05803510568467721

Attrib ArtificialTimeIndex\*Lag\_Open-3 0.19307854434670044

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.31441940659157763

Attrib ArtificialTimeIndex\*Lag\_Open-5 -0.05195383185011231

Attrib ArtificialTimeIndex\*Lag\_Open-6 0.40369544067538293

Attrib ArtificialTimeIndex\*Lag\_Open-7 -0.21952533141736721

Attrib ArtificialTimeIndex\*Lag\_Open-8 -0.13178946828136465

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.380814639482358

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.07185827188736371

Attrib ArtificialTimeIndex\*Lag\_Open-11 -0.03662162894158353

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.0778629178396697

Sigmoid Node 5

Inputs Weights

Threshold -1.23960534256112

Attrib ArtificialTimeIndex 0.06718724746624977

Attrib Lag\_Open-1 0.5351264405708703

Attrib Lag\_Open-2 -0.18991272607902382

Attrib Lag\_Open-3 -0.09632962995936711

Attrib Lag\_Open-4 0.19542454999342485

Attrib Lag\_Open-5 -0.19071518130991647

Attrib Lag\_Open-6 -0.30317868726108943

Attrib Lag\_Open-7 0.6200660297010878

Attrib Lag\_Open-8 0.15403315656905286

Attrib Lag\_Open-9 -0.10525197297628092

Attrib Lag\_Open-10 -0.10016996198957637

Attrib Lag\_Open-11 0.35970905852546586

Attrib Lag\_Open-12 0.4165701640498301

Attrib ArtificialTimeIndex^2 0.2273395171410096

Attrib ArtificialTimeIndex^3 0.41655738443304885

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.1510635872502936

Attrib ArtificialTimeIndex\*Lag\_Open-2 -0.07757019518858933

Attrib ArtificialTimeIndex\*Lag\_Open-3 -0.1840158839078328

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.2425408689614117

Attrib ArtificialTimeIndex\*Lag\_Open-5 0.16356154041144472

Attrib ArtificialTimeIndex\*Lag\_Open-6 -0.24925948012176957

Attrib ArtificialTimeIndex\*Lag\_Open-7 0.06025283832447206

Attrib ArtificialTimeIndex\*Lag\_Open-8 -0.07460563705432242

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.09317380251195828

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.41427569762105815

Attrib ArtificialTimeIndex\*Lag\_Open-11 0.18288568513667086

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.2820043471388138

Sigmoid Node 6

Inputs Weights

Threshold -1.3385598517569124

Attrib ArtificialTimeIndex -0.13804128741463287

Attrib Lag\_Open-1 0.44806201167158966

Attrib Lag\_Open-2 -0.1368757164496615

Attrib Lag\_Open-3 -0.0933918089602853

Attrib Lag\_Open-4 0.11696904928477651

Attrib Lag\_Open-5 -0.025493492778005104

Attrib Lag\_Open-6 -0.18280134190573122

Attrib Lag\_Open-7 0.45615091729287166

Attrib Lag\_Open-8 0.17150440251099386

Attrib Lag\_Open-9 0.04313316953333753

Attrib Lag\_Open-10 0.08104057300203664

Attrib Lag\_Open-11 0.37595286818132834

Attrib Lag\_Open-12 0.3706814566419611

Attrib ArtificialTimeIndex^2 0.05908489247216377

Attrib ArtificialTimeIndex^3 0.27609612943287215

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.2886353454956577

Attrib ArtificialTimeIndex\*Lag\_Open-2 -0.06577421184530638

Attrib ArtificialTimeIndex\*Lag\_Open-3 -0.1425832526105343

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.35030842803555146

Attrib ArtificialTimeIndex\*Lag\_Open-5 0.30336623609777924

Attrib ArtificialTimeIndex\*Lag\_Open-6 -0.08664703640249168

Attrib ArtificialTimeIndex\*Lag\_Open-7 0.025959946403342562

Attrib ArtificialTimeIndex\*Lag\_Open-8 -0.056873694752826755

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.11590559360645838

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.23708655240123797

Attrib ArtificialTimeIndex\*Lag\_Open-11 -0.03023087758581066

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.14129556856467249

Sigmoid Node 7

Inputs Weights

Threshold -1.323138966485886

Attrib ArtificialTimeIndex -0.2170549617747128

Attrib Lag\_Open-1 0.3558298985422485

Attrib Lag\_Open-2 -0.10301452305142715

Attrib Lag\_Open-3 -0.11360499914170358

Attrib Lag\_Open-4 0.210130213961386

Attrib Lag\_Open-5 0.043035901827132725

Attrib Lag\_Open-6 -0.08503095657582618

Attrib Lag\_Open-7 0.415951946325759

Attrib Lag\_Open-8 0.3326551583018095

Attrib Lag\_Open-9 -0.03510098955059993

Attrib Lag\_Open-10 0.2497069612516392

Attrib Lag\_Open-11 0.3456823158852845

Attrib Lag\_Open-12 0.3077628923907295

Attrib ArtificialTimeIndex^2 0.03402694588770237

Attrib ArtificialTimeIndex^3 0.19228677716356576

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.3386201318370998

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.01291907174651646

Attrib ArtificialTimeIndex\*Lag\_Open-3 -0.05131348799115163

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.41817975690334586

Attrib ArtificialTimeIndex\*Lag\_Open-5 0.26359578698159

Attrib ArtificialTimeIndex\*Lag\_Open-6 0.05629291256928389

Attrib ArtificialTimeIndex\*Lag\_Open-7 0.0307247791840353

Attrib ArtificialTimeIndex\*Lag\_Open-8 0.05219224154929679

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.1255863936942893

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.09284046066699037

Attrib ArtificialTimeIndex\*Lag\_Open-11 0.04801583336134095

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.15473882829149346

Sigmoid Node 8

Inputs Weights

Threshold -1.4495074765511289

Attrib ArtificialTimeIndex -0.4915470546459583

Attrib Lag\_Open-1 -0.27403792741822947

Attrib Lag\_Open-2 0.1553160221032682

Attrib Lag\_Open-3 0.4863734177545796

Attrib Lag\_Open-4 0.14843582436863043

Attrib Lag\_Open-5 0.24603412942718147

Attrib Lag\_Open-6 0.2168533446414603

Attrib Lag\_Open-7 -0.25120557433485163

Attrib Lag\_Open-8 -0.25600746550770925

Attrib Lag\_Open-9 0.16983918415511987

Attrib Lag\_Open-10 0.19509551740102715

Attrib Lag\_Open-11 0.1726282648741369

Attrib Lag\_Open-12 0.09778610217369572

Attrib ArtificialTimeIndex^2 -0.0898829620367245

Attrib ArtificialTimeIndex^3 -9.756509368282869E-4

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.7455264437768877

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.20796993299711103

Attrib ArtificialTimeIndex\*Lag\_Open-3 0.2653291603232533

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.2241019547849993

Attrib ArtificialTimeIndex\*Lag\_Open-5 -0.09003329936828719

Attrib ArtificialTimeIndex\*Lag\_Open-6 0.30238938473731547

Attrib ArtificialTimeIndex\*Lag\_Open-7 -0.4290796667250514

Attrib ArtificialTimeIndex\*Lag\_Open-8 -0.42292237287161805

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.30307669903655093

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.2356453437835626

Attrib ArtificialTimeIndex\*Lag\_Open-11 -0.14136121974844232

Attrib ArtificialTimeIndex\*Lag\_Open-12 -0.0013438239795977062

Sigmoid Node 9

Inputs Weights

Threshold -1.3426681292841933

Attrib ArtificialTimeIndex -0.21948453489867153

Attrib Lag\_Open-1 0.22988919424429352

Attrib Lag\_Open-2 -0.13506851742618378

Attrib Lag\_Open-3 -0.01862556463939704

Attrib Lag\_Open-4 0.1163555000931561

Attrib Lag\_Open-5 0.09847828482213815

Attrib Lag\_Open-6 -0.0658164364575354

Attrib Lag\_Open-7 0.27992901837156736

Attrib Lag\_Open-8 0.08276505572401524

Attrib Lag\_Open-9 0.029621746568884392

Attrib Lag\_Open-10 0.14664233700308005

Attrib Lag\_Open-11 0.26350830996920177

Attrib Lag\_Open-12 0.29807891196319153

Attrib ArtificialTimeIndex^2 0.09764528596129168

Attrib ArtificialTimeIndex^3 0.2620445848363703

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.14720235210723479

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.0378215999591035

Attrib ArtificialTimeIndex\*Lag\_Open-3 0.04577111010368829

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.28125277798983384

Attrib ArtificialTimeIndex\*Lag\_Open-5 0.30749557429625385

Attrib ArtificialTimeIndex\*Lag\_Open-6 0.06843256414130691

Attrib ArtificialTimeIndex\*Lag\_Open-7 -0.030840145653678944

Attrib ArtificialTimeIndex\*Lag\_Open-8 -0.04115601230512633

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.12982395235521144

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.28725560833772323

Attrib ArtificialTimeIndex\*Lag\_Open-11 -0.019145845646221096

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.001183684563329379

Sigmoid Node 10

Inputs Weights

Threshold -1.0325399299729858

Attrib ArtificialTimeIndex 0.4255278126685034

Attrib Lag\_Open-1 0.059652343534768816

Attrib Lag\_Open-2 -0.10861082524894365

Attrib Lag\_Open-3 0.4816551343721056

Attrib Lag\_Open-4 0.5464679590936987

Attrib Lag\_Open-5 0.5770201119718377

Attrib Lag\_Open-6 -0.05909135543661665

Attrib Lag\_Open-7 0.05445567671607097

Attrib Lag\_Open-8 -0.1694047620256931

Attrib Lag\_Open-9 0.33491489428383947

Attrib Lag\_Open-10 -0.48902033309155535

Attrib Lag\_Open-11 0.9227374979586258

Attrib Lag\_Open-12 0.777554330251792

Attrib ArtificialTimeIndex^2 0.675710462861523

Attrib ArtificialTimeIndex^3 0.8826612678263108

Attrib ArtificialTimeIndex\*Lag\_Open-1 -0.19792188019263654

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.1092192067894581

Attrib ArtificialTimeIndex\*Lag\_Open-3 0.47433359189485347

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.45195916386671436

Attrib ArtificialTimeIndex\*Lag\_Open-5 0.579252566337056

Attrib ArtificialTimeIndex\*Lag\_Open-6 -0.034808436893983996

Attrib ArtificialTimeIndex\*Lag\_Open-7 -0.21077722737573684

Attrib ArtificialTimeIndex\*Lag\_Open-8 0.041776507190977

Attrib ArtificialTimeIndex\*Lag\_Open-9 0.39653652590680255

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.47104344780805224

Attrib ArtificialTimeIndex\*Lag\_Open-11 0.9275826454614626

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.4542254811978271

Sigmoid Node 11

Inputs Weights

Threshold -1.7291882340731077

Attrib ArtificialTimeIndex -0.3327239028357494

Attrib Lag\_Open-1 0.5451874025555136

Attrib Lag\_Open-2 1.1610983434354225

Attrib Lag\_Open-3 1.6024006205575496

Attrib Lag\_Open-4 0.9412705079113888

Attrib Lag\_Open-5 0.38997895051395226

Attrib Lag\_Open-6 -0.4725820468007269

Attrib Lag\_Open-7 -0.44786433228755274

Attrib Lag\_Open-8 0.3143330634089979

Attrib Lag\_Open-9 0.5793049793869767

Attrib Lag\_Open-10 0.26490546732782694

Attrib Lag\_Open-11 -0.5555504172721105

Attrib Lag\_Open-12 0.2678634850523462

Attrib ArtificialTimeIndex^2 0.028269292175287345

Attrib ArtificialTimeIndex^3 0.0022627534279980157

Attrib ArtificialTimeIndex\*Lag\_Open-1 2.24259924823051

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.2555495517525924

Attrib ArtificialTimeIndex\*Lag\_Open-3 0.2828998797945219

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.7516224084526467

Attrib ArtificialTimeIndex\*Lag\_Open-5 -0.6368116578270685

Attrib ArtificialTimeIndex\*Lag\_Open-6 -0.1714945119688641

Attrib ArtificialTimeIndex\*Lag\_Open-7 -0.8592208441830154

Attrib ArtificialTimeIndex\*Lag\_Open-8 -0.012727391893076121

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.17110247537225065

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.33736080630918974

Attrib ArtificialTimeIndex\*Lag\_Open-11 -0.8777161582593418

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.5243165128086555

Sigmoid Node 12

Inputs Weights

Threshold -1.417139191503704

Attrib ArtificialTimeIndex -0.5060322462964145

Attrib Lag\_Open-1 -0.35462983849443674

Attrib Lag\_Open-2 0.053231278943474736

Attrib Lag\_Open-3 0.40197580663664373

Attrib Lag\_Open-4 0.1916541337472821

Attrib Lag\_Open-5 0.19007635853007207

Attrib Lag\_Open-6 0.283153721158235

Attrib Lag\_Open-7 -0.2689772233661367

Attrib Lag\_Open-8 -0.24598124966806223

Attrib Lag\_Open-9 0.008286144764291169

Attrib Lag\_Open-10 0.2801476346091017

Attrib Lag\_Open-11 0.2100621971977016

Attrib Lag\_Open-12 0.14747665191790119

Attrib ArtificialTimeIndex^2 -0.07455855694679003

Attrib ArtificialTimeIndex^3 0.03840910180386899

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.6893166878194246

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.14710314423792098

Attrib ArtificialTimeIndex\*Lag\_Open-3 0.2765429987252801

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.31457131945046224

Attrib ArtificialTimeIndex\*Lag\_Open-5 -0.13790917926312732

Attrib ArtificialTimeIndex\*Lag\_Open-6 0.43459140666870477

Attrib ArtificialTimeIndex\*Lag\_Open-7 -0.35410594336573165

Attrib ArtificialTimeIndex\*Lag\_Open-8 -0.3066204865885206

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.4636602387922547

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.155201994987481

Attrib ArtificialTimeIndex\*Lag\_Open-11 -0.09002012358873121

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.06366166355539048

Sigmoid Node 13

Inputs Weights

Threshold -1.3348320564946017

Attrib ArtificialTimeIndex -0.16120294219837347

Attrib Lag\_Open-1 0.34041425238626444

Attrib Lag\_Open-2 -0.16595143603154744

Attrib Lag\_Open-3 -0.03931498209118776

Attrib Lag\_Open-4 0.1184172019458342

Attrib Lag\_Open-5 0.04875176848758148

Attrib Lag\_Open-6 -0.0917316690630317

Attrib Lag\_Open-7 0.4074014280408429

Attrib Lag\_Open-8 0.24034151465061626

Attrib Lag\_Open-9 -0.01956421206897242

Attrib Lag\_Open-10 0.12960701263506452

Attrib Lag\_Open-11 0.30828990783670135

Attrib Lag\_Open-12 0.34346575529490775

Attrib ArtificialTimeIndex^2 0.14501096505293698

Attrib ArtificialTimeIndex^3 0.3141567509888145

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.18561553365274866

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.026232951322421073

Attrib ArtificialTimeIndex\*Lag\_Open-3 -0.05968169000688218

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.30795491651460155

Attrib ArtificialTimeIndex\*Lag\_Open-5 0.33935076419396715

Attrib ArtificialTimeIndex\*Lag\_Open-6 0.03689543441352385

Attrib ArtificialTimeIndex\*Lag\_Open-7 0.028438800400153917

Attrib ArtificialTimeIndex\*Lag\_Open-8 -0.0037652325205595775

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.17705306244395816

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.2641621001641678

Attrib ArtificialTimeIndex\*Lag\_Open-11 -0.04079965898453996

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.029838588197382943

Sigmoid Node 14

Inputs Weights

Threshold -0.8910074549895949

Attrib ArtificialTimeIndex 0.3971654607826694

Attrib Lag\_Open-1 -0.6360113313964654

Attrib Lag\_Open-2 1.1726485226284509

Attrib Lag\_Open-3 1.2918089184244794

Attrib Lag\_Open-4 0.17975980649481357

Attrib Lag\_Open-5 0.670018284694973

Attrib Lag\_Open-6 0.3074131884591941

Attrib Lag\_Open-7 -0.08426412035976379

Attrib Lag\_Open-8 -1.2581604969931388

Attrib Lag\_Open-9 -0.37950722922512886

Attrib Lag\_Open-10 -0.1725567993839282

Attrib Lag\_Open-11 -0.3901595187038738

Attrib Lag\_Open-12 -0.11797705858892046

Attrib ArtificialTimeIndex^2 0.419645857262757

Attrib ArtificialTimeIndex^3 0.21174947295182545

Attrib ArtificialTimeIndex\*Lag\_Open-1 0.8295365245664557

Attrib ArtificialTimeIndex\*Lag\_Open-2 0.5289793260299058

Attrib ArtificialTimeIndex\*Lag\_Open-3 0.18950060794580148

Attrib ArtificialTimeIndex\*Lag\_Open-4 0.32542254098210177

Attrib ArtificialTimeIndex\*Lag\_Open-5 -0.13693978741338722

Attrib ArtificialTimeIndex\*Lag\_Open-6 -0.010670602908444597

Attrib ArtificialTimeIndex\*Lag\_Open-7 -0.23816430822724943

Attrib ArtificialTimeIndex\*Lag\_Open-8 -0.9703998344122706

Attrib ArtificialTimeIndex\*Lag\_Open-9 -0.60431440282347

Attrib ArtificialTimeIndex\*Lag\_Open-10 -0.5127307586649854

Attrib ArtificialTimeIndex\*Lag\_Open-11 -0.35036930022897056

Attrib ArtificialTimeIndex\*Lag\_Open-12 0.48714783026495145

Class

Input

Node 0

=== Predictions for training data: Open (1-step ahead) ===

inst# actual predicted error

13 28994.0098 31757.1626 2763.1528

14 33114.5781 35429.9746 2315.3964

15 45159.5039 45828.6613 669.1574

16 58926.5625 62974.8415 4048.279

17 57714.6641 57984.706 270.0419

18 37293.793 37475.1591 181.3662

19 35035.9844 34322.9667 -713.0177

20 41460.8438 40802.0791 -658.7646

21 47099.7734 49950.6412 2850.8677

22 43816.7422 46516.2121 2699.4699

23 61320.4492 62883.0181 1562.5688

24 56907.9648 57509.7777 601.8128

25 46311.7461 47544.7859 1233.0398

26 38481.7656 40873.3474 2391.5818

27 43194.5039 44429.8705 1235.3666

28 45554.1641 49174.5269 3620.3628

29 37713.2656 38376.2724 663.0067

30 31792.5547 30966.7828 -825.7719

31 19820.4707 21689.1553 1868.6846

32 23336.7188 26990.4085 3653.6898

33 20050.498 21596.0612 1545.5631

34 19431.1055 20876.7505 1445.645

35 20494.8984 20419.2821 -75.6163

36 17168.002 18162.6051 994.6031

37 16547.9141 20066.2982 3518.3842

38 23137.8359 25760.6366 2622.8006

39 23150.9297 27149.9968 3999.0671

40 28473.332 30262.448 1789.116

41 29227.1035 33247.6881 4020.5846

42 27218.4121 29313.3095 2094.8974

43 30471.8477 31593.9107 1122.063

44 29230.873 28639.2674 -591.6057

45 25934.0215 25427.3562 -506.6652

46 26967.3965 30838.0485 3870.652

47 34657.2734 35639.2522 981.9787

48 37718.0078 38750.7369 1032.7291

49 42280.2344 46612.9007 4332.6663

50 42569.7617 45895.2238 3325.462

51 61168.0625 61984.8627 816.8002

52 71333.4844 73725.6951 2392.2108

53 60609.4961 61760.6974 1151.2013

54 67489.6094 69745.5425 2255.9331

55 62673.6055 65170.6507 2497.0453

56 64625.8398 65782.1303 1156.2904

57 58969.8008 61270.5408 2300.7401

=== Future predictions from end of training data ===

inst# Open

1 7194.8921

2 9346.3574

3 8599.7588

4 6437.3193

5 8672.7822

6 9463.6055

7 9145.9854

8 11322.5703

9 11679.3164

10 10795.2549

11 13780.9951

12 19633.7695

13 28994.0098

14 33114.5781

15 45159.5039

16 58926.5625

17 57714.6641

18 37293.793

19 35035.9844

20 41460.8438

21 47099.7734

22 43816.7422

23 61320.4492

24 56907.9648

25 46311.7461

26 38481.7656

27 43194.5039

28 45554.1641

29 37713.2656

30 31792.5547

31 19820.4707

32 23336.7188

33 20050.498

34 19431.1055

35 20494.8984

36 17168.002

37 16547.9141

38 23137.8359

39 23150.9297

40 28473.332

41 29227.1035

42 27218.4121

43 30471.8477

44 29230.873

45 25934.0215

46 26967.3965

47 34657.2734

48 37718.0078

49 42280.2344

50 42569.7617

51 61168.0625

52 71333.4844

53 60609.4961

54 67489.6094

55 62673.6055

56 64625.8398

57 58969.8008

58\* 76020.4617

=== Evaluation on training data ===

Target 1-step-ahead

===============================================

Open

N 45

Mean absolute error 1894.7938

Mean absolute percentage error 5.7459

Root mean squared error 2249.9044

Mean squared error 5062069.8774

Total number of instances: 57

Modelo SMO Reg

=== Run information ===

Scheme:

SMOreg -C 1.0 -N 0 -I "RegSMOImproved -T 0.001 -V -P 1.0E-12 -L 0.001 -W 1" -K "PolyKernel -E 1.0 -C 250007"

Lagged and derived variable options:

-F Open -L 1 -M 12 -month -quarter

Relation: BTC-USD

Instances: 57

Attributes: 7

Date

Open

High

Low

Close

Adj Close

Volume

Transformed training data:

Open

ArtificialTimeIndex

Lag\_Open-1

Lag\_Open-2

Lag\_Open-3

Lag\_Open-4

Lag\_Open-5

Lag\_Open-6

Lag\_Open-7

Lag\_Open-8

Lag\_Open-9

Lag\_Open-10

Lag\_Open-11

Lag\_Open-12

ArtificialTimeIndex^2

ArtificialTimeIndex^3

ArtificialTimeIndex\*Lag\_Open-1

ArtificialTimeIndex\*Lag\_Open-2

ArtificialTimeIndex\*Lag\_Open-3

ArtificialTimeIndex\*Lag\_Open-4

ArtificialTimeIndex\*Lag\_Open-5

ArtificialTimeIndex\*Lag\_Open-6

ArtificialTimeIndex\*Lag\_Open-7

ArtificialTimeIndex\*Lag\_Open-8

ArtificialTimeIndex\*Lag\_Open-9

ArtificialTimeIndex\*Lag\_Open-10

ArtificialTimeIndex\*Lag\_Open-11

ArtificialTimeIndex\*Lag\_Open-12

Open:

SMOreg

weights (not support vectors):

+ 0.0433 \* (normalized) ArtificialTimeIndex

+ 0.6185 \* (normalized) Lag\_Open-1

- 0.1514 \* (normalized) Lag\_Open-2

- 0.0083 \* (normalized) Lag\_Open-3

+ 0.1215 \* (normalized) Lag\_Open-4

+ 0.0525 \* (normalized) Lag\_Open-5

- 0.0453 \* (normalized) Lag\_Open-6

+ 0.0933 \* (normalized) Lag\_Open-7

+ 0.0532 \* (normalized) Lag\_Open-8

- 0.1316 \* (normalized) Lag\_Open-9

- 0.001 \* (normalized) Lag\_Open-10

+ 0.2126 \* (normalized) Lag\_Open-11

+ 0.0505 \* (normalized) Lag\_Open-12

+ 0.0179 \* (normalized) ArtificialTimeIndex^2

+ 0.1896 \* (normalized) ArtificialTimeIndex^3

+ 0.1543 \* (normalized) ArtificialTimeIndex\*Lag\_Open-1

+ 0.1336 \* (normalized) ArtificialTimeIndex\*Lag\_Open-2

+ 0.0079 \* (normalized) ArtificialTimeIndex\*Lag\_Open-3

- 0.0718 \* (normalized) ArtificialTimeIndex\*Lag\_Open-4

+ 0.005 \* (normalized) ArtificialTimeIndex\*Lag\_Open-5

- 0.1128 \* (normalized) ArtificialTimeIndex\*Lag\_Open-6

- 0.0504 \* (normalized) ArtificialTimeIndex\*Lag\_Open-7

+ 0.0051 \* (normalized) ArtificialTimeIndex\*Lag\_Open-8

+ 0.0525 \* (normalized) ArtificialTimeIndex\*Lag\_Open-9

- 0.1404 \* (normalized) ArtificialTimeIndex\*Lag\_Open-10

- 0.0985 \* (normalized) ArtificialTimeIndex\*Lag\_Open-11

- 0.2546 \* (normalized) ArtificialTimeIndex\*Lag\_Open-12

+ 0.1779

Number of kernel evaluations: 1653 (98.661% cached)

=== Predictions for training data: Open (1-step ahead) ===

inst# actual predicted error

13 28994.0098 28206.8081 -787.2017

14 33114.5781 32990.4864 -124.0917

15 45159.5039 34375.3155 -10784.1885

16 58926.5625 43490.2171 -15436.3454

17 57714.6641 52063.2143 -5651.4498

18 37293.793 50065.2276 12771.4347

19 35035.9844 38391.3718 3355.3874

20 41460.8438 41470.0566 9.2128

21 47099.7734 45342.876 -1756.8974

22 43816.7422 45258.8654 1442.1232

23 61320.4492 42266.9302 -19053.519

24 56907.9648 56830.4448 -77.5201

25 46311.7461 47949.9403 1638.1942

26 38481.7656 38488.4086 6.643

27 43194.5039 37645.7012 -5548.8027

28 45554.1641 43351.8911 -2202.2729

29 37713.2656 37621.8988 -91.3668

30 31792.5547 33579.5476 1786.9929

31 19820.4707 32794.6524 12974.1817

32 23336.7188 23208.7405 -127.9782

33 20050.498 20024.6609 -25.8371

34 19431.1055 20516.9404 1085.8349

35 20494.8984 17997.6314 -2497.2671

36 17168.002 18770.2903 1602.2883

37 16547.9141 16975.2843 427.3703

38 23137.8359 17516.0626 -5621.7733

39 23150.9297 23050.8199 -100.1098

40 28473.332 23005.5601 -5467.7719

41 29227.1035 29463.1307 236.0272

42 27218.4121 30486.84 3268.4279

43 30471.8477 33972.9382 3501.0906

44 29230.873 34472.1782 5241.3051

45 25934.0215 35209.3218 9275.3003

46 26967.3965 33694.6248 6727.2283

47 34657.2734 34047.1203 -610.1531

48 37718.0078 40377.9232 2659.9154

49 42280.2344 42278.4203 -1.8141

50 42569.7617 42440.5896 -129.1721

51 61168.0625 44483.7958 -16684.2667

52 71333.4844 57524.4436 -13809.0407

53 60609.4961 62830.6511 2221.155

54 67489.6094 56413.5395 -11076.0699

55 62673.6055 62771.5902 97.9847

56 64625.8398 60750.7122 -3875.1276

57 58969.8008 59008.2263 38.4255

=== Future predictions from end of training data ===

inst# Open

1 7194.8921

2 9346.3574

3 8599.7588

4 6437.3193

5 8672.7822

6 9463.6055

7 9145.9854

8 11322.5703

9 11679.3164

10 10795.2549

11 13780.9951

12 19633.7695

13 28994.0098

14 33114.5781

15 45159.5039

16 58926.5625

17 57714.6641

18 37293.793

19 35035.9844

20 41460.8438

21 47099.7734

22 43816.7422

23 61320.4492

24 56907.9648

25 46311.7461

26 38481.7656

27 43194.5039

28 45554.1641

29 37713.2656

30 31792.5547

31 19820.4707

32 23336.7188

33 20050.498

34 19431.1055

35 20494.8984

36 17168.002

37 16547.9141

38 23137.8359

39 23150.9297

40 28473.332

41 29227.1035

42 27218.4121

43 30471.8477

44 29230.873

45 25934.0215

46 26967.3965

47 34657.2734

48 37718.0078

49 42280.2344

50 42569.7617

51 61168.0625

52 71333.4844

53 60609.4961

54 67489.6094

55 62673.6055

56 64625.8398

57 58969.8008

58\* 52540.6151

=== Evaluation on training data ===

Target 1-step-ahead

===============================================

Open

N 45

Mean absolute error 4264.5903

Mean absolute percentage error 11.0418

Root mean squared error 6686.9543

Mean squared error 44715357.5829

Total number of instances: 57