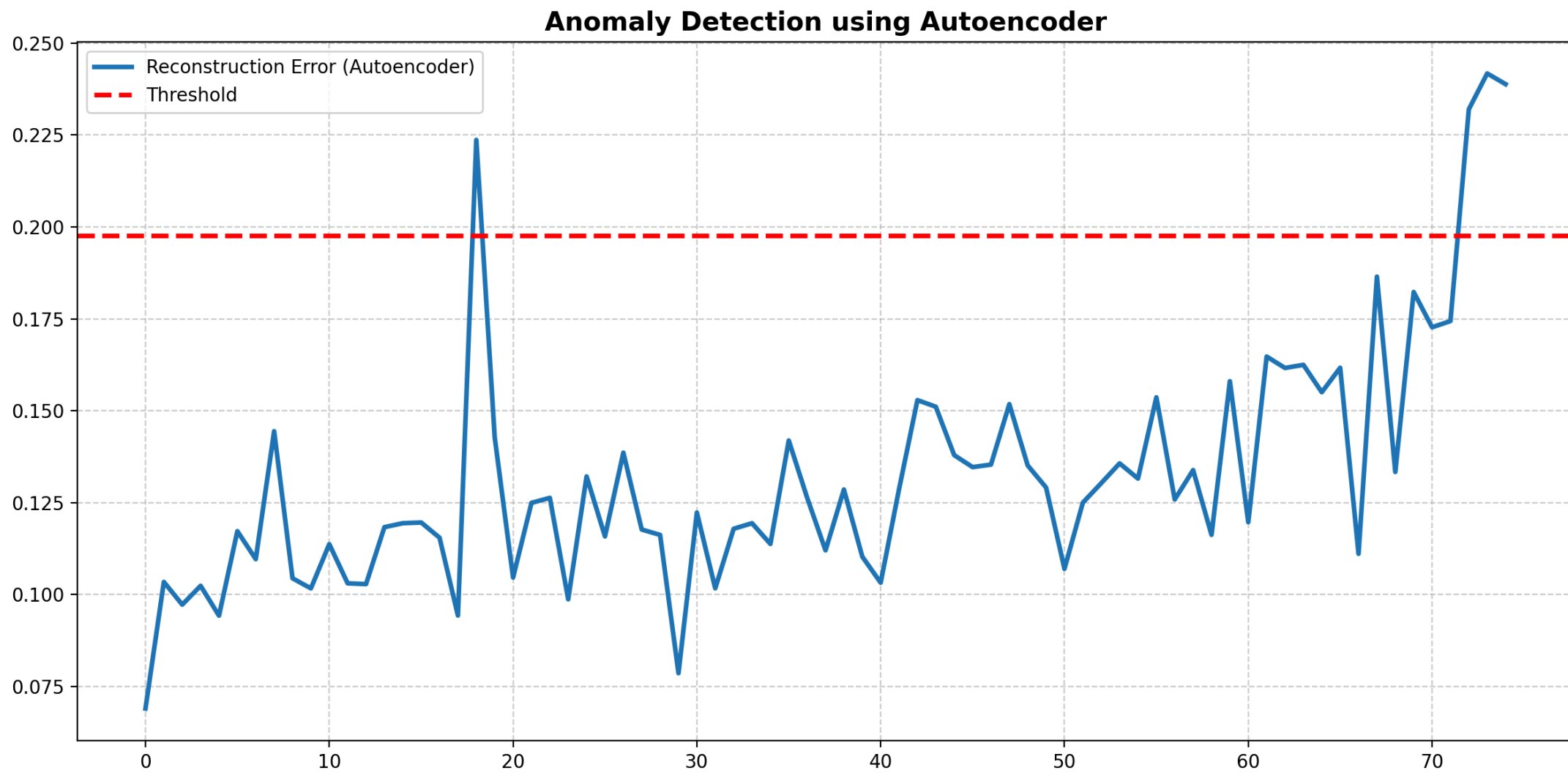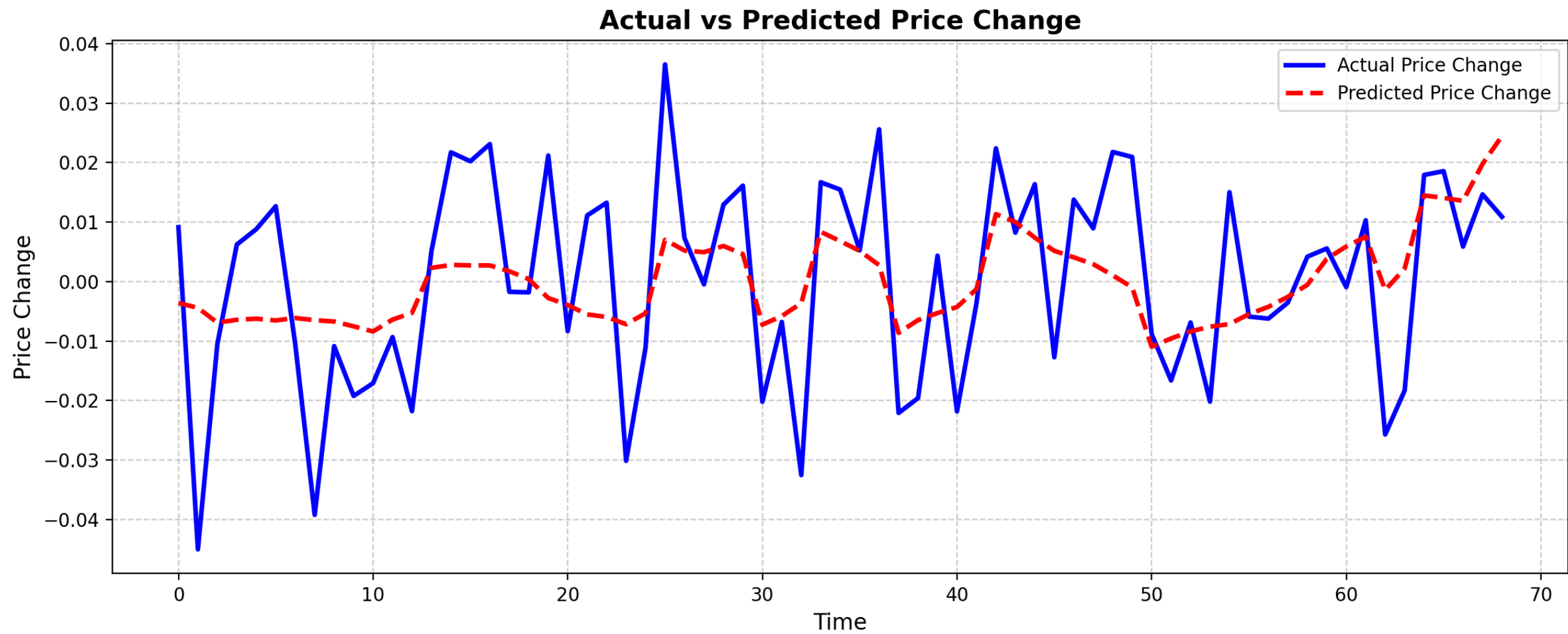| Label	Shape
X Test	(75, 28)
X Test Latent	(75, 8)
X Train	(296, 28)
X Train Latent	(296, 8)

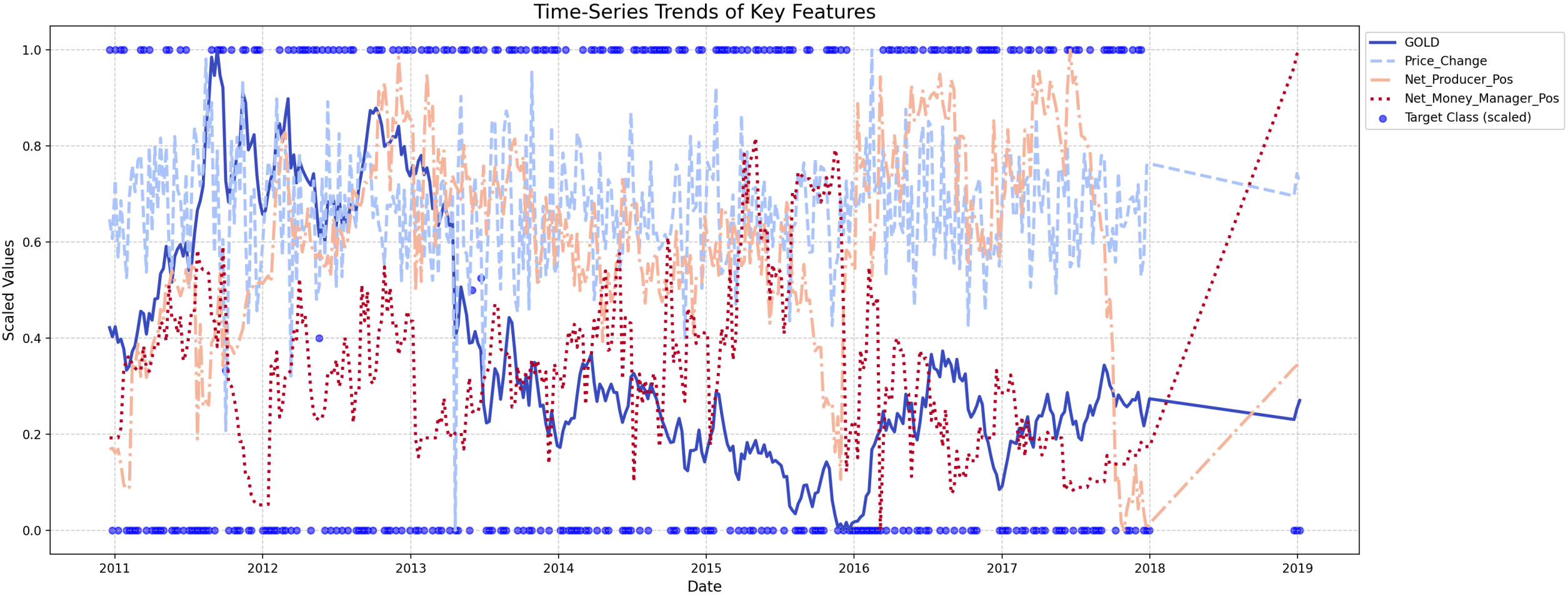## Anomaly Detection using Autoencoder

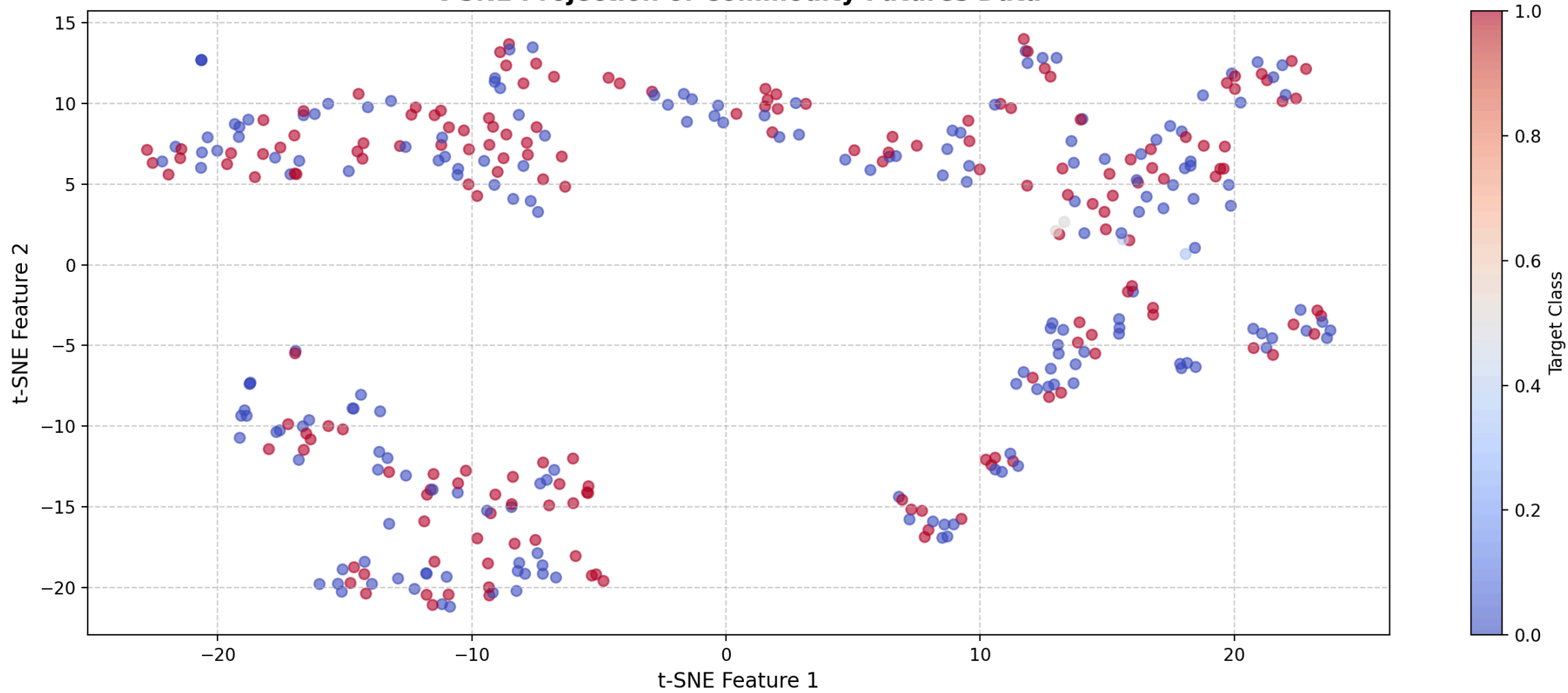| Label	Value
R² Score	0.29261973682218456
RMSE	0.014381624340262342

label	shape
Test shape	(69, 30, 25)
Train shape	(272, 30, 25)
X shape	(341, 30, 26)
Y shape	(341,)

Actual vs Predicted Price Change

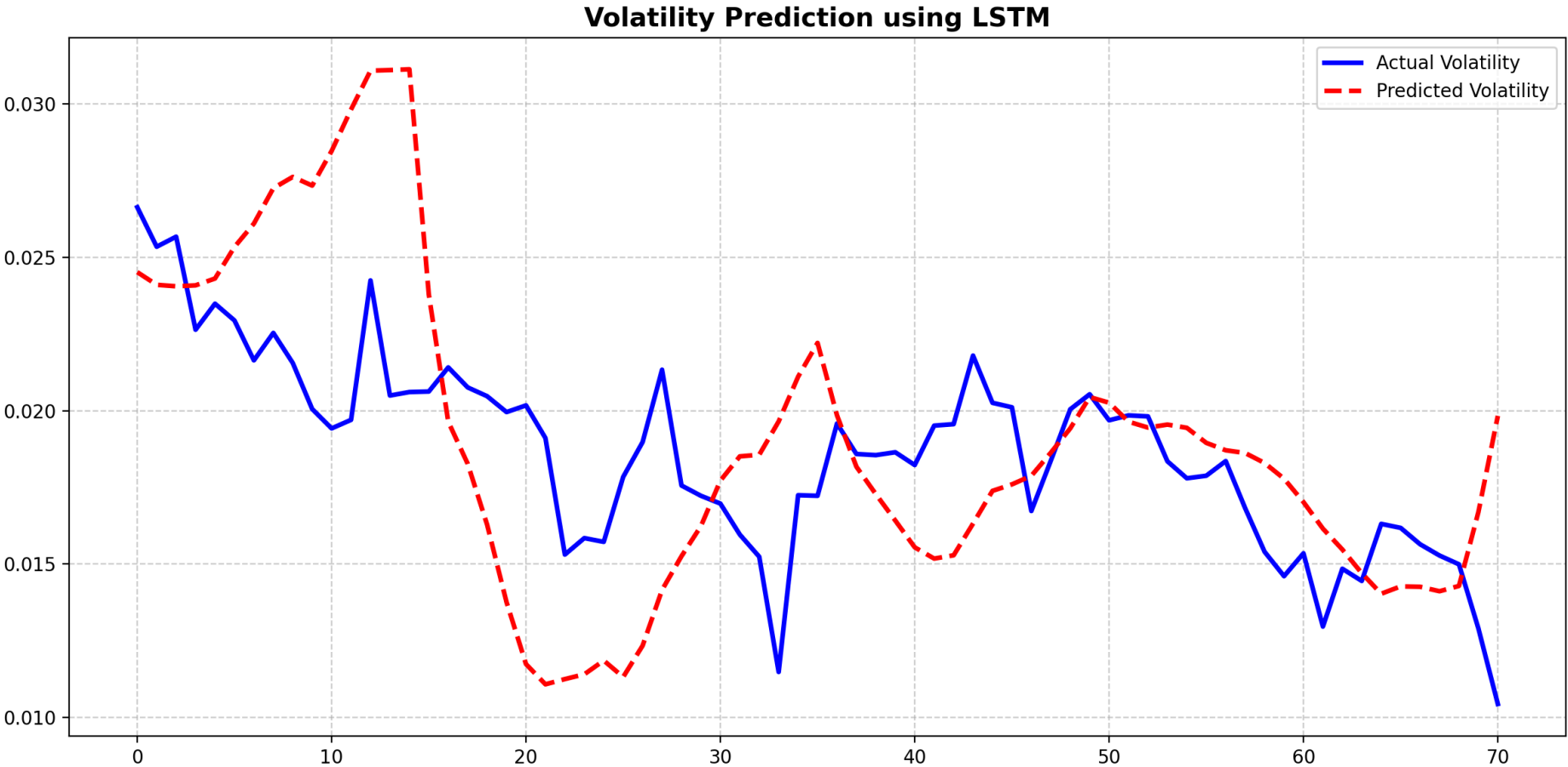| label	shape
Test shape	(55, 10, 24)
Train shape	(252, 10, 24)
Validation shape	(54, 10, 24)
X shape	(361, 10, 24)
Y shape	(361,)

Time-Series Trends of Key Features

t-SNE Projection of Commodity Futures Data

index	0	1	accuracy	macro avg	weighted avg
f1-score	0.9784172661870504	0.0	0.9577464788732394	0.4892086330935252	0.9370756915594285
precision	0.9577464788732394	0.0	0.9577464788732394	0.4788732394366197	0.9172783177940883
recall	1.0	0.0	0.9577464788732394	0.5	0.9577464788732394
support	68.0	3.0	0.9577464788732394	71.0	71.0

Type
bool
datetime64[ns]
float64
int32
int64

Label	Shape
X	(362, 21)
X Sequence	(362, 21)
X Test	(71, 10, 21)
X Train	(281, 10, 21)
Y	(362, 21)
Y Sequence	(362, 21)
Y Test	(71,)
Y Train	(281,)

Volatility Prediction using LSTM

Reconstruction Error Distribution - Anomalous Traders