



# PJM RTO Load Forecast Model Accuracy

Load Analysis Subcommittee  
November 15, 2017

- Forecast model being evaluated is the current specification that went into effect beginning with the 2016 Load Forecast Report
- Forecast model is solved using up-to-date information, to help separate out the error attributable to forecast variables.
- Accuracy assessment is performed using the discrete forecast adjustments from Table B-9 for each forecast.

- Loads used in both the estimation and forecast period are loads reconstituted with PJM's hourly distributed solar generation estimates.
- The error calculation is the forecasted load less the back-casted solar estimate for the hour being examined versus the actual load in that hour.



# Forecast Parameter Summary

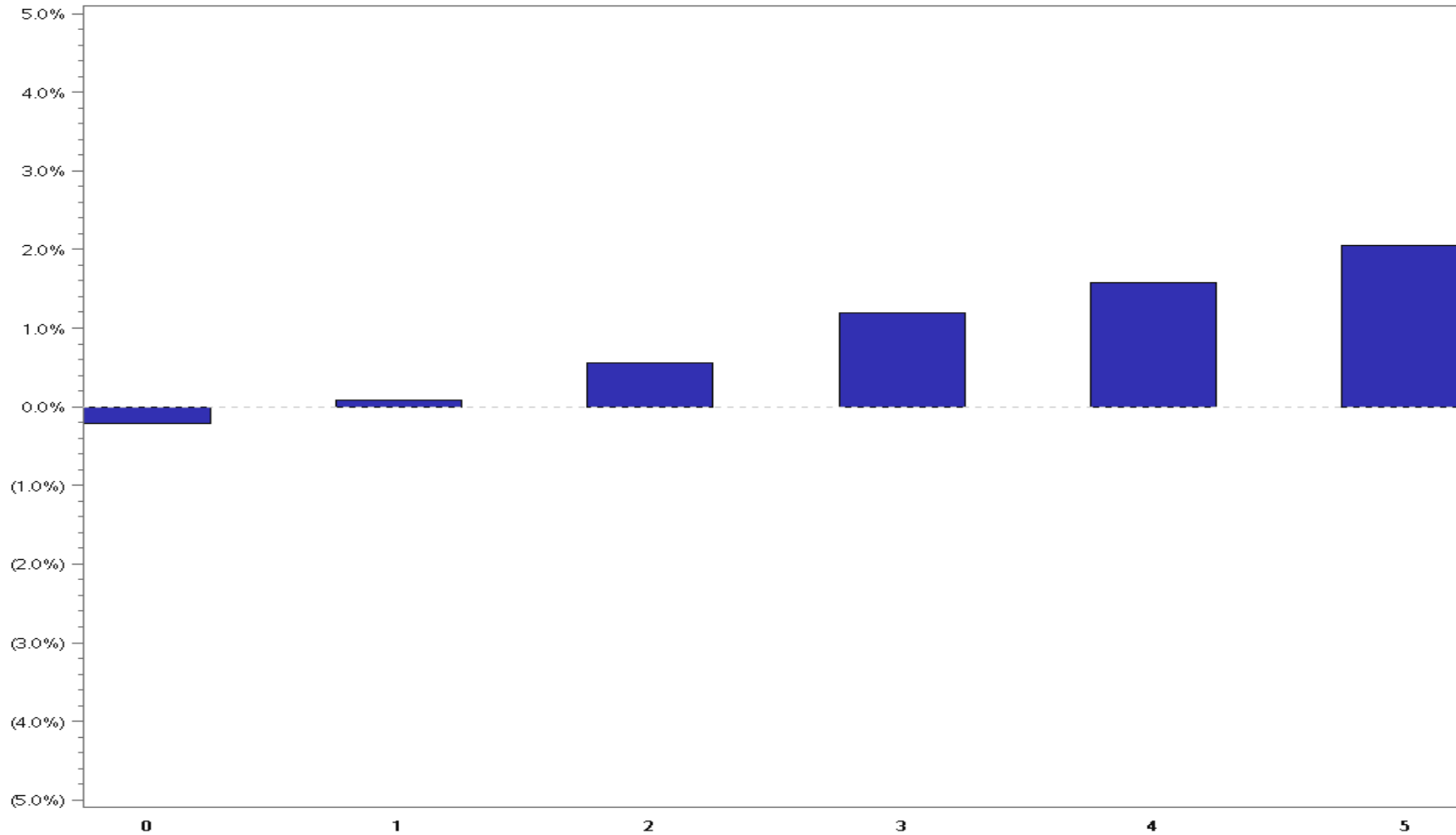
<i>Forecast Vintage</i>	<i>Estimation Through</i>	<i>Economics</i>	<i>Equipment Saturation/Efficiency</i>	<i>Forecast Adjustments</i>
2009	August 2008	September 2017	2017	2009
2010	August 2009	September 2017	2017	2010
2011	August 2010	September 2017	2017	2011
2012	August 2011	September 2017	2017	2012
2013	August 2012	September 2017	2017	2013
2014	August 2013	September 2017	2017	2014
2015	August 2014	September 2017	2017	2015
2016	August 2015	September 2017	2017	2016
2017	August 2016	September 2017	2017	2017

	Forecast Years Out					
	Zero	One	Two	Three	Four	Five
<b><i>2009 Forecast</i></b>	2009	2010	2011	2012	2013	2014
<b><i>2010 Forecast</i></b>	2010	2011	2012	2013	2014	2015
<b><i>2011 Forecast</i></b>	2011	2012	2013	2014	2015	2016
<b><i>2012 Forecast</i></b>	2012	2013	2014	2015	2016	2017
<b><i>2013 Forecast</i></b>	2013	2014	2015	2016	2017	
<b><i>2014 Forecast</i></b>	2014	2015	2016	2017		
<b><i>2015 Forecast</i></b>	2015	2016	2017			
<b><i>2016 Forecast</i></b>	2016	2017				
<b><i>2017 Forecast</i></b>	2017					



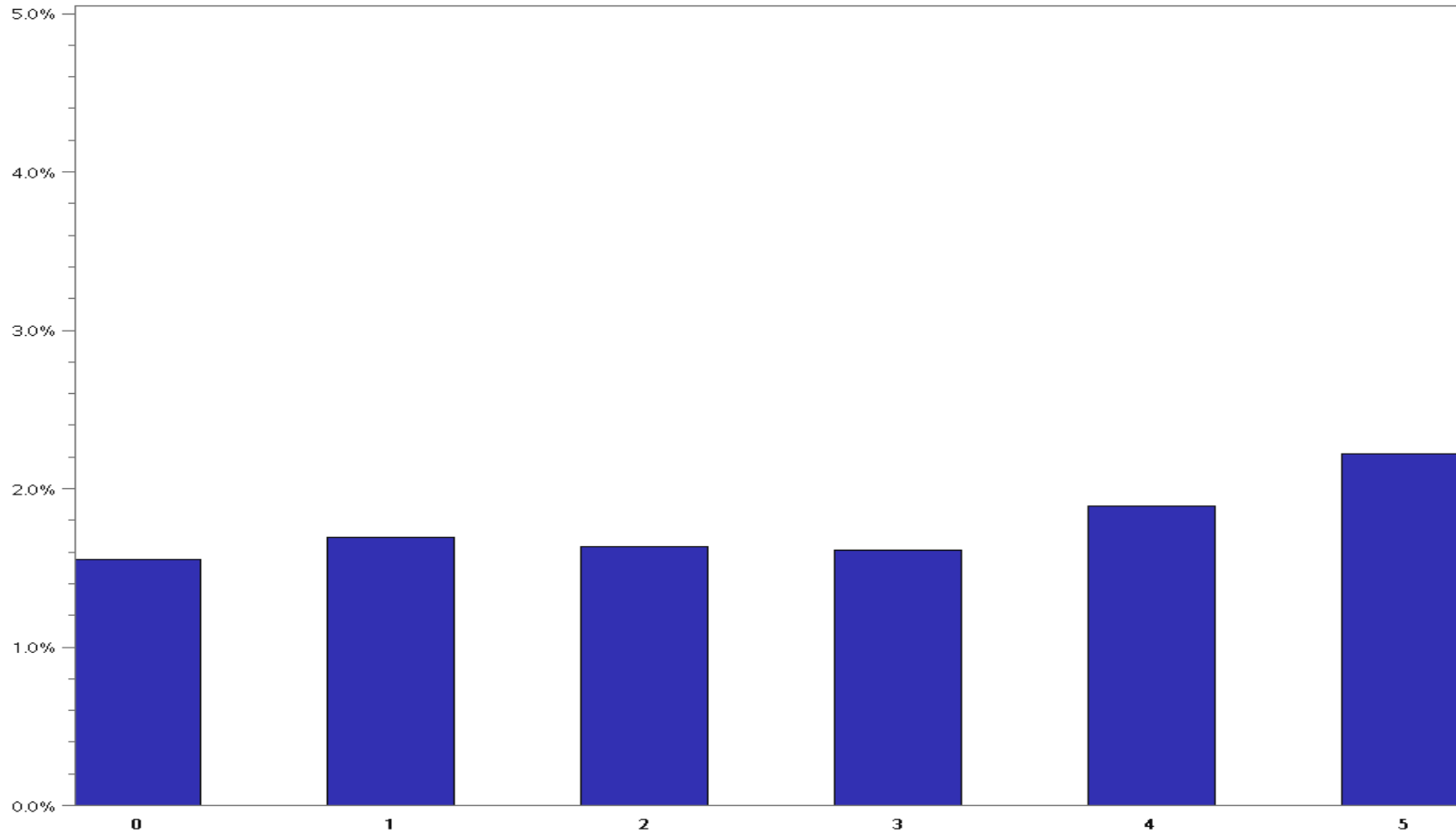
# Summer 10CP Model Error by Forecast Years Out

## Mean Percent Error



# Summer 10CP Model Error by Forecast Years Out

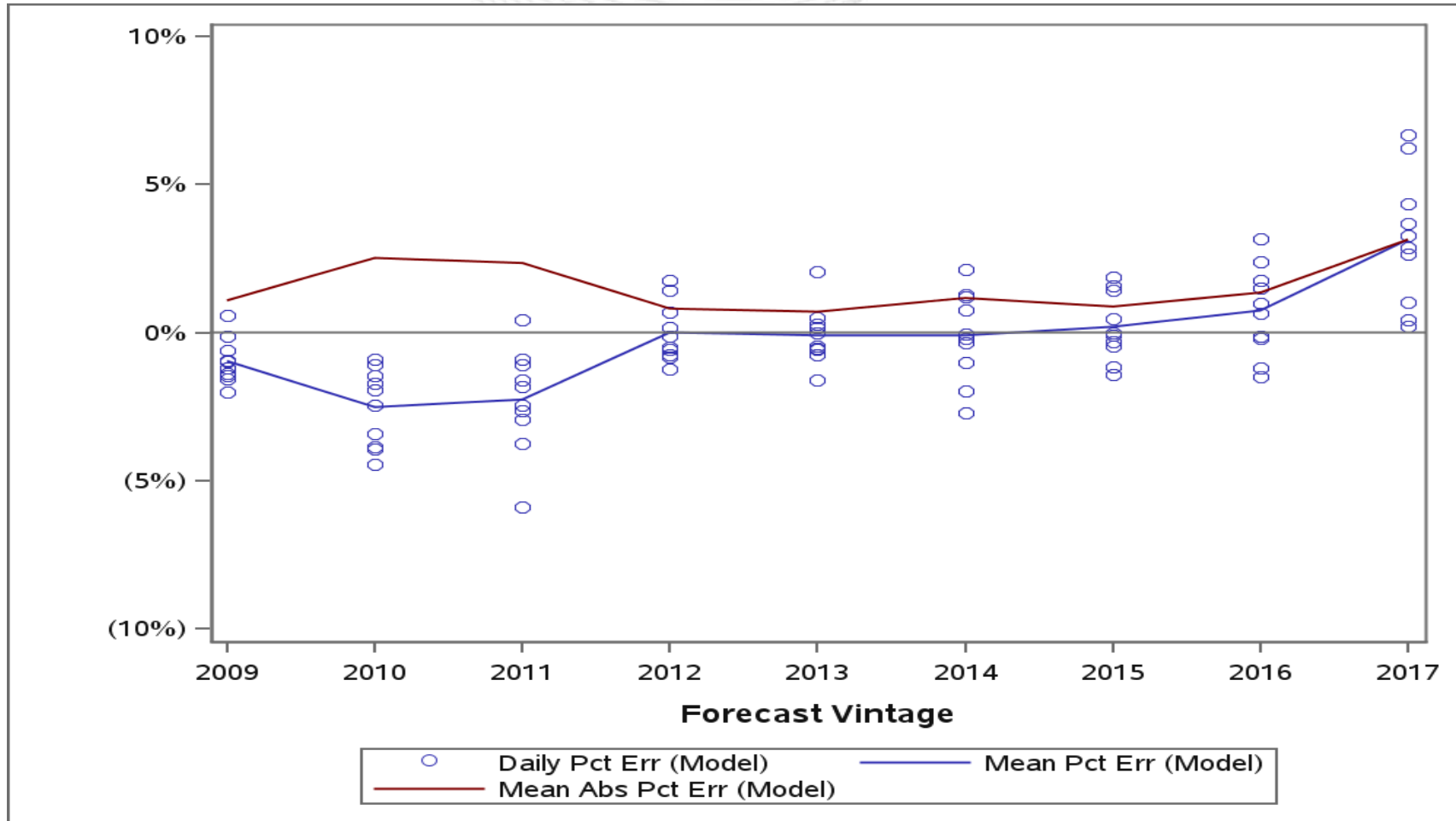
## Mean Absolute Percent Error





# Summer 10CP Model Error by Forecast Vintage

## 0 Year Out Forecast

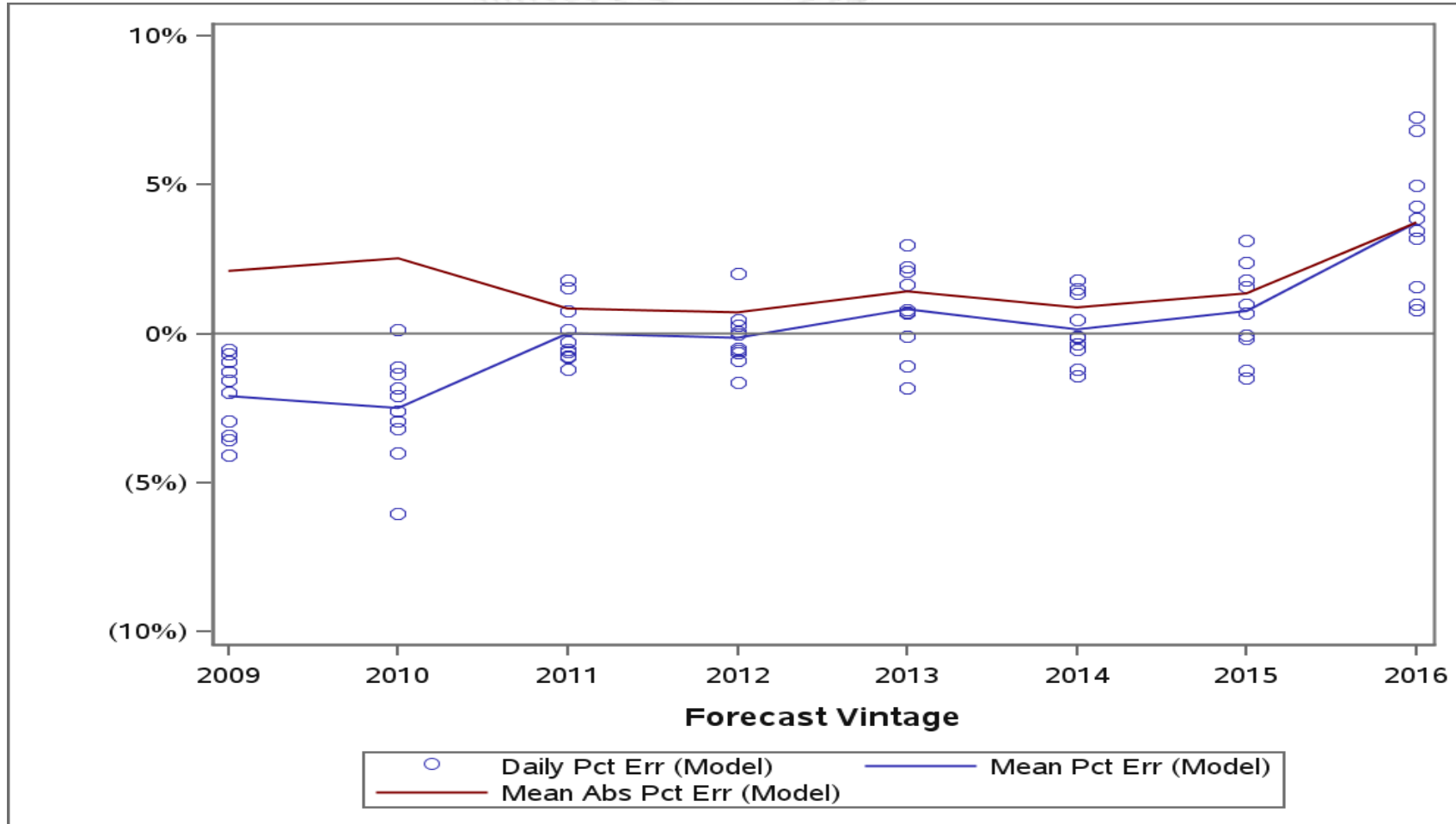






# Summer 10CP Model Error by Forecast Vintage

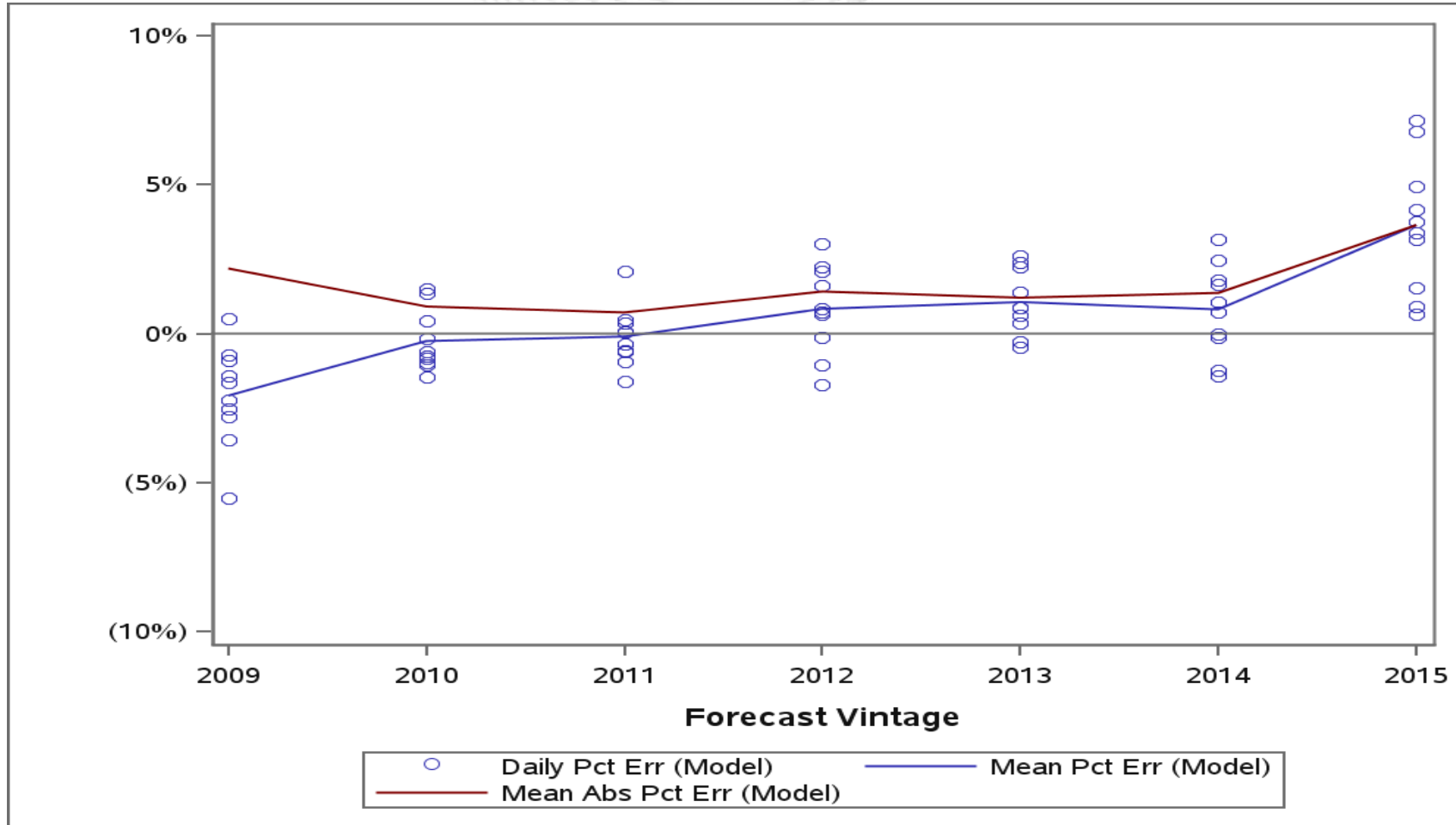
## 1 Year Out Forecast





# Summer 10CP Model Error by Forecast Vintage

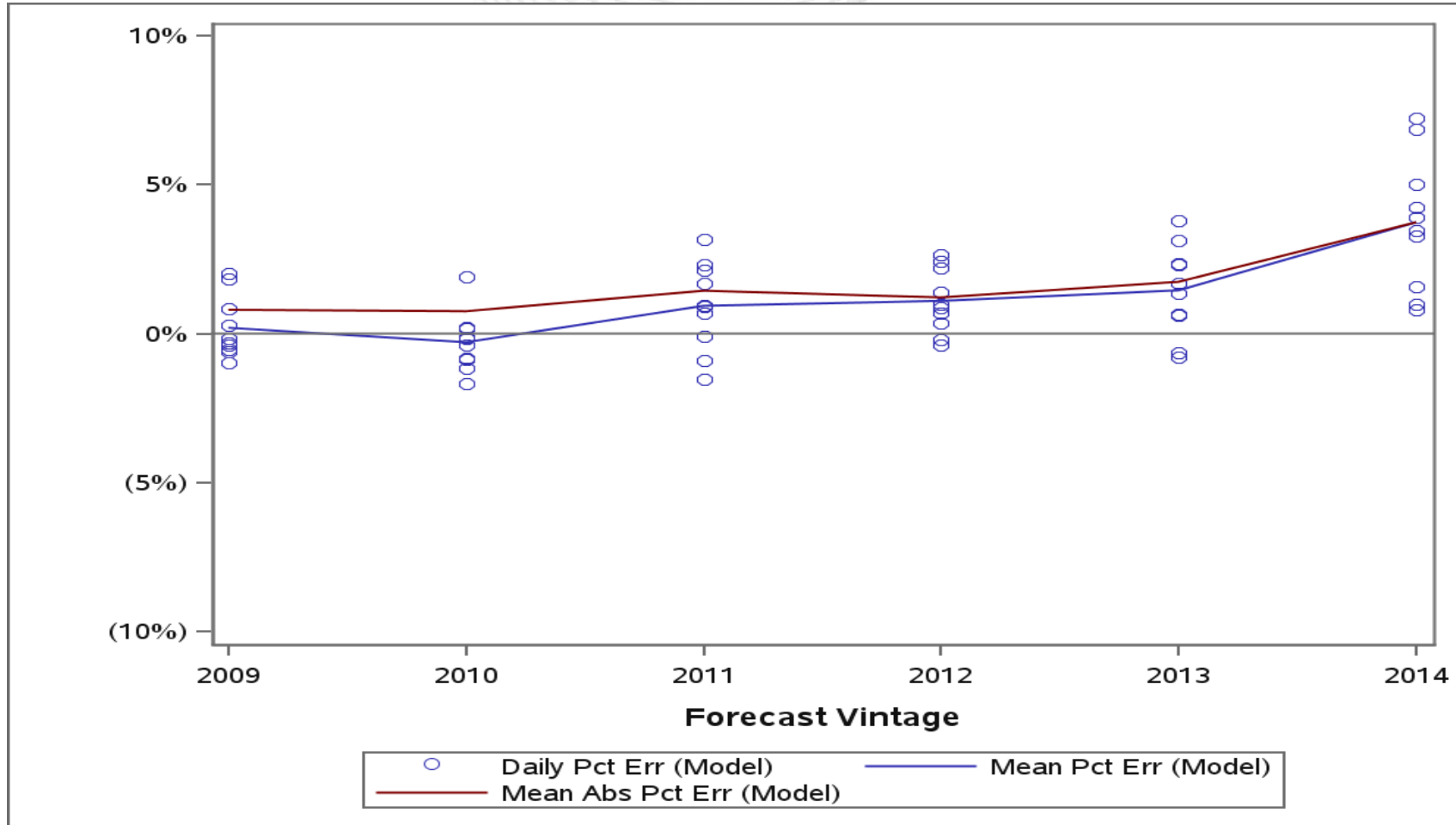
## 2 Year Out Forecast





# Summer 10CP Model Error by Forecast Vintage

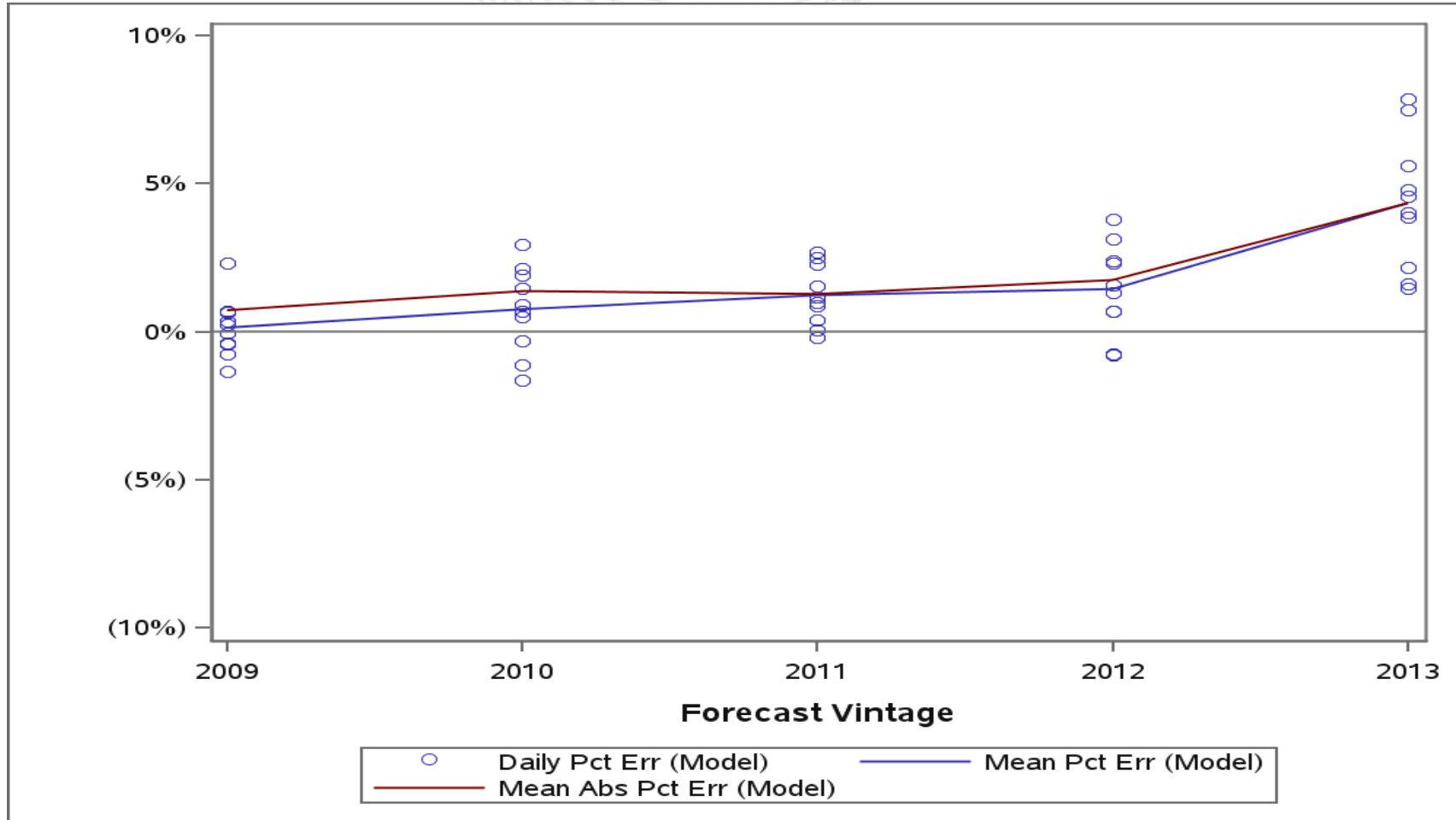
## 3 Year Out Forecast





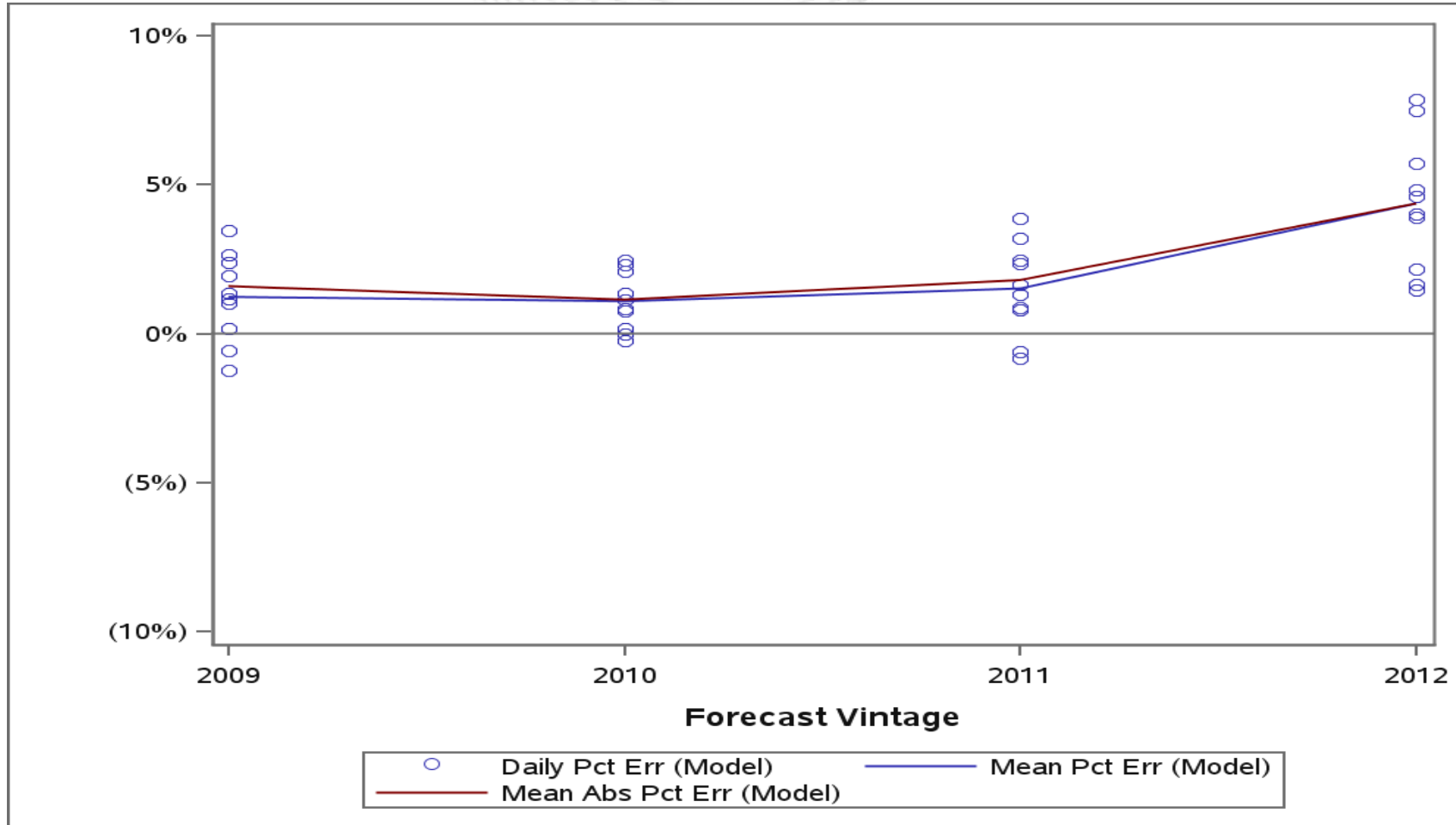
# Summer 10CP Model Error by Forecast Vintage

## 4 Year Out Forecast



# Summer 10CP Model Error by Forecast Vintage

## 5 Year Out Forecast

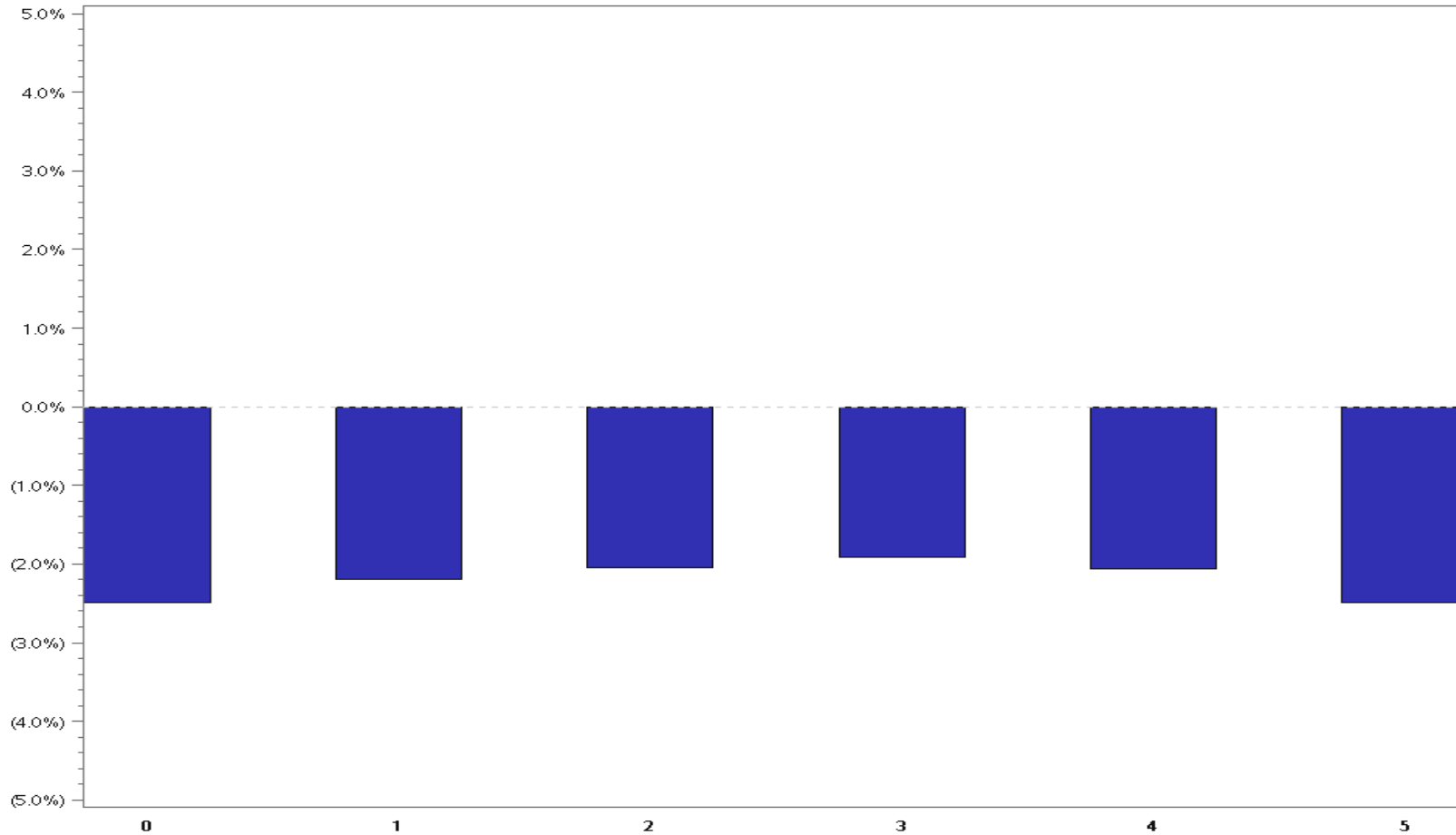


	Forecast Years Out					
	Zero	One	Two	Three	Four	Five
<b>2009 Forecast</b>	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014
<b>2010 Forecast</b>	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
<b>2011 Forecast</b>	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
<b>2012 Forecast</b>	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
<b>2013 Forecast</b>	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	
<b>2014 Forecast</b>	2013/2014	2014/2015	2015/2016	2016/2017		
<b>2015 Forecast</b>	2014/2015	2015/2016	2016/2017			
<b>2016 Forecast</b>	2015/2016	2016/2017				
<b>2017 Forecast</b>	2016/2017					



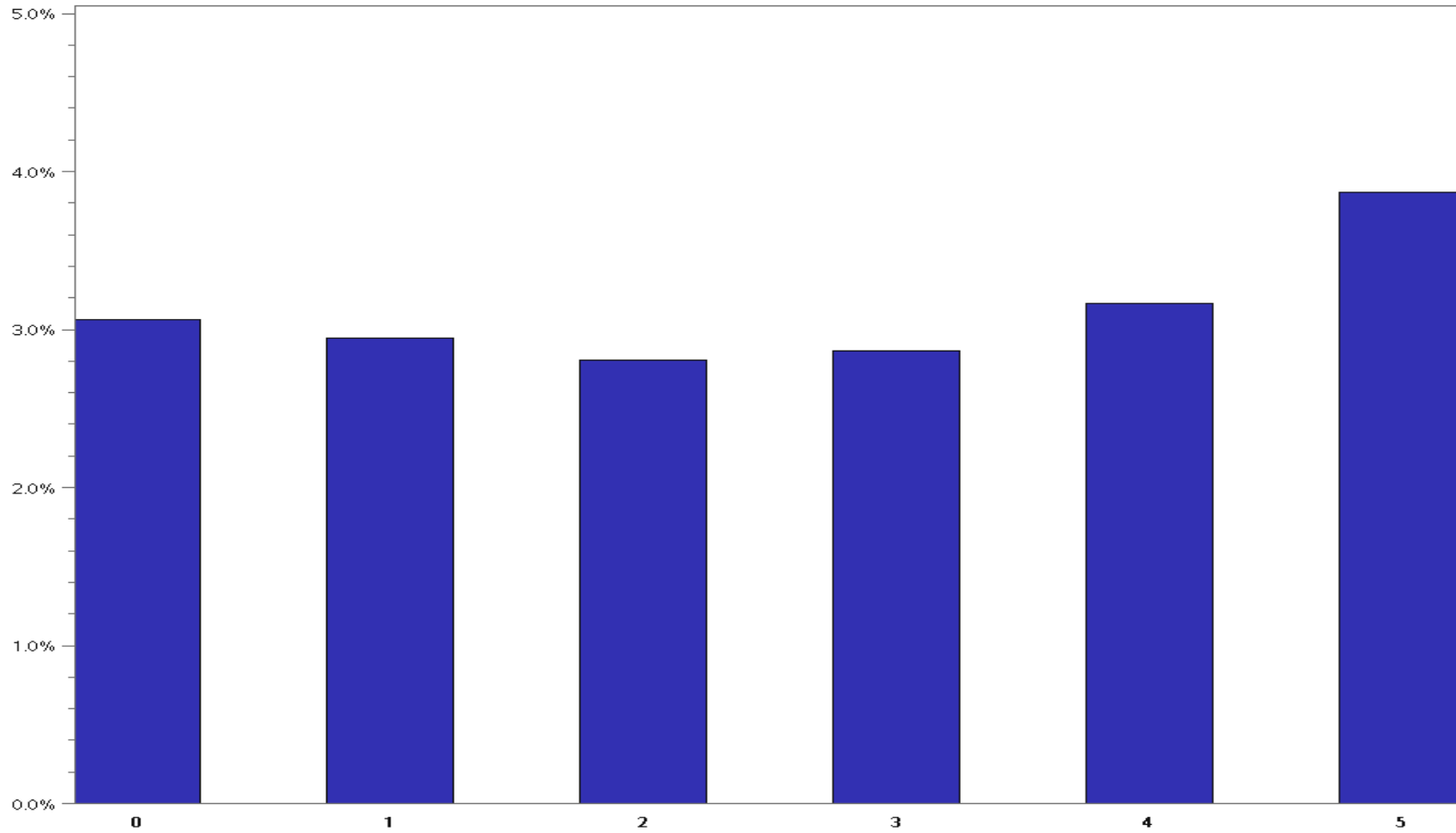
# Winter 10CP Model Error by Forecast Years Out

## Mean Percent Error



# Winter 10CP Model Error by Forecast Years Out

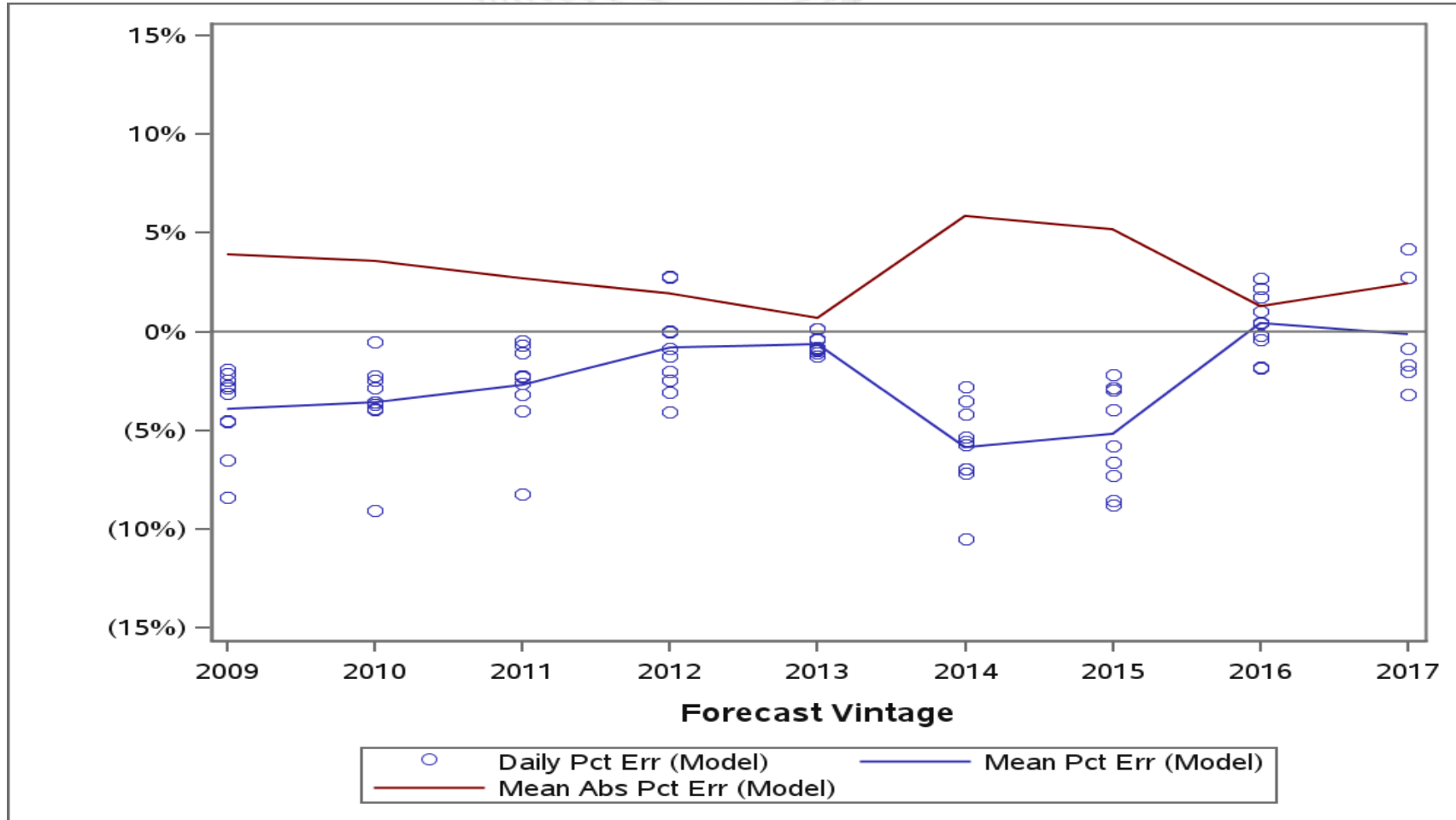
## Mean Absolute Percent Error





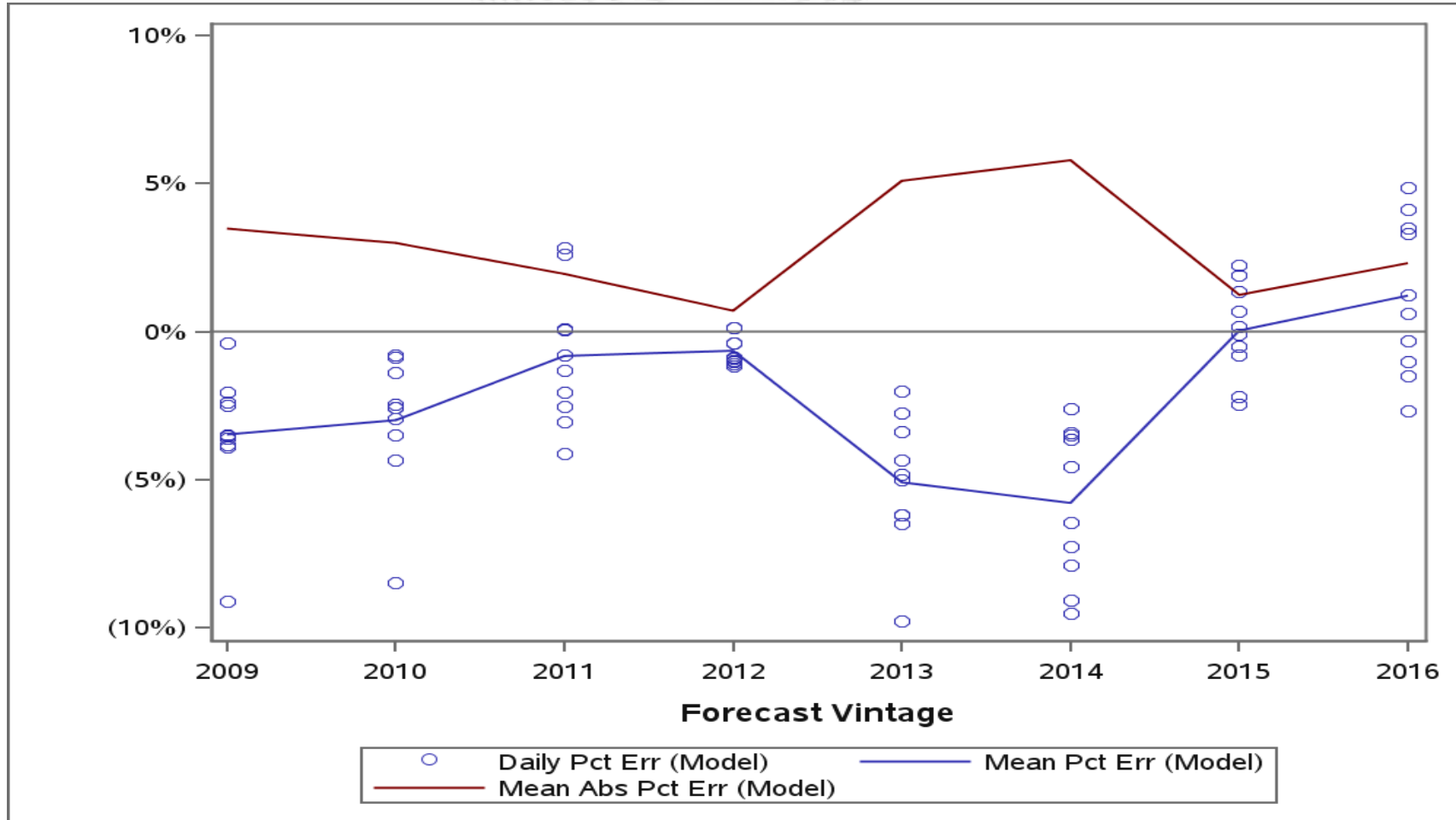
# Winter 10CP Model Error by Forecast Vintage

## 0 Year Out Forecast



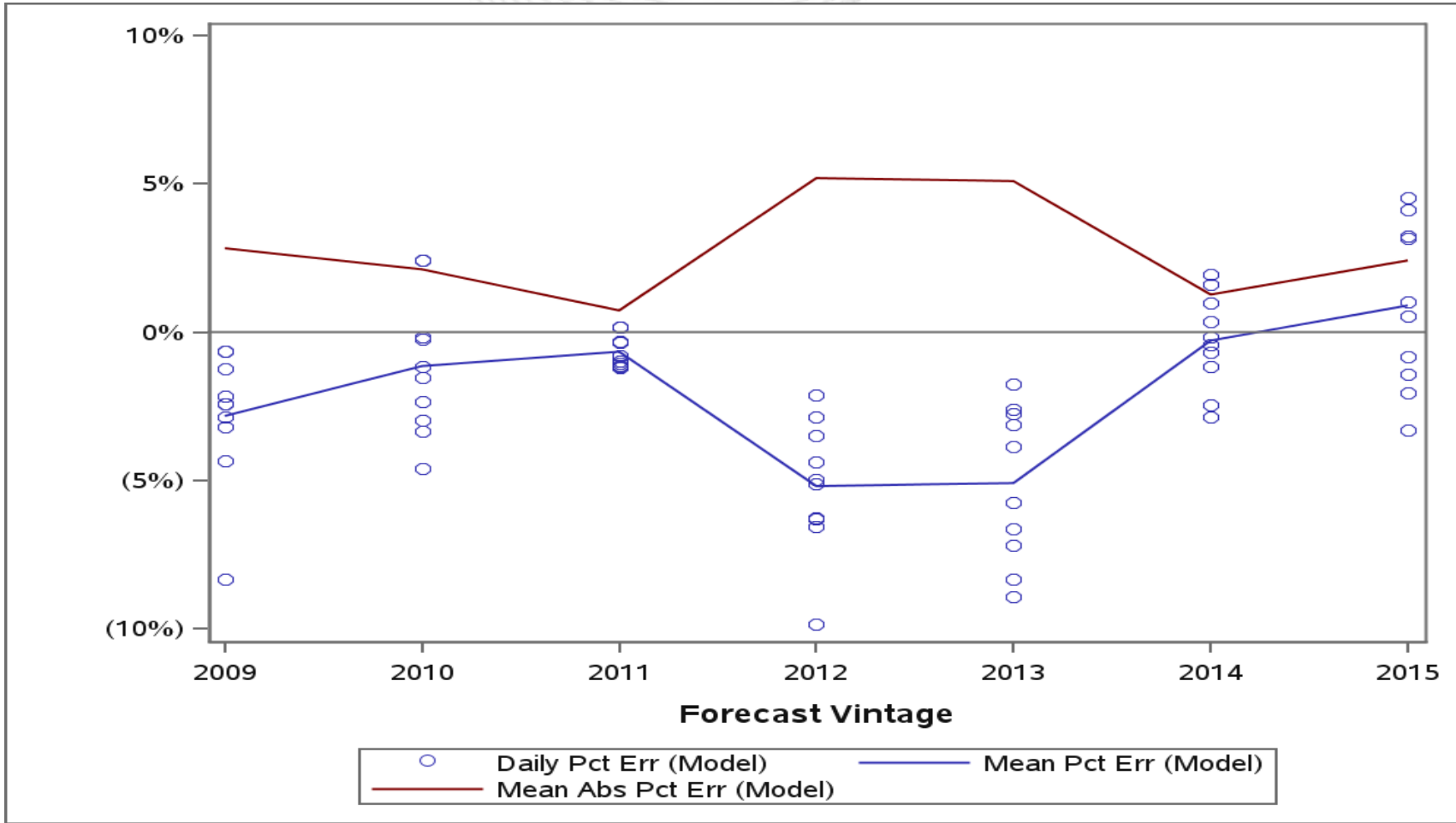
# Winter 10CP Model Error by Forecast Vintage

## 1 Year Out Forecast



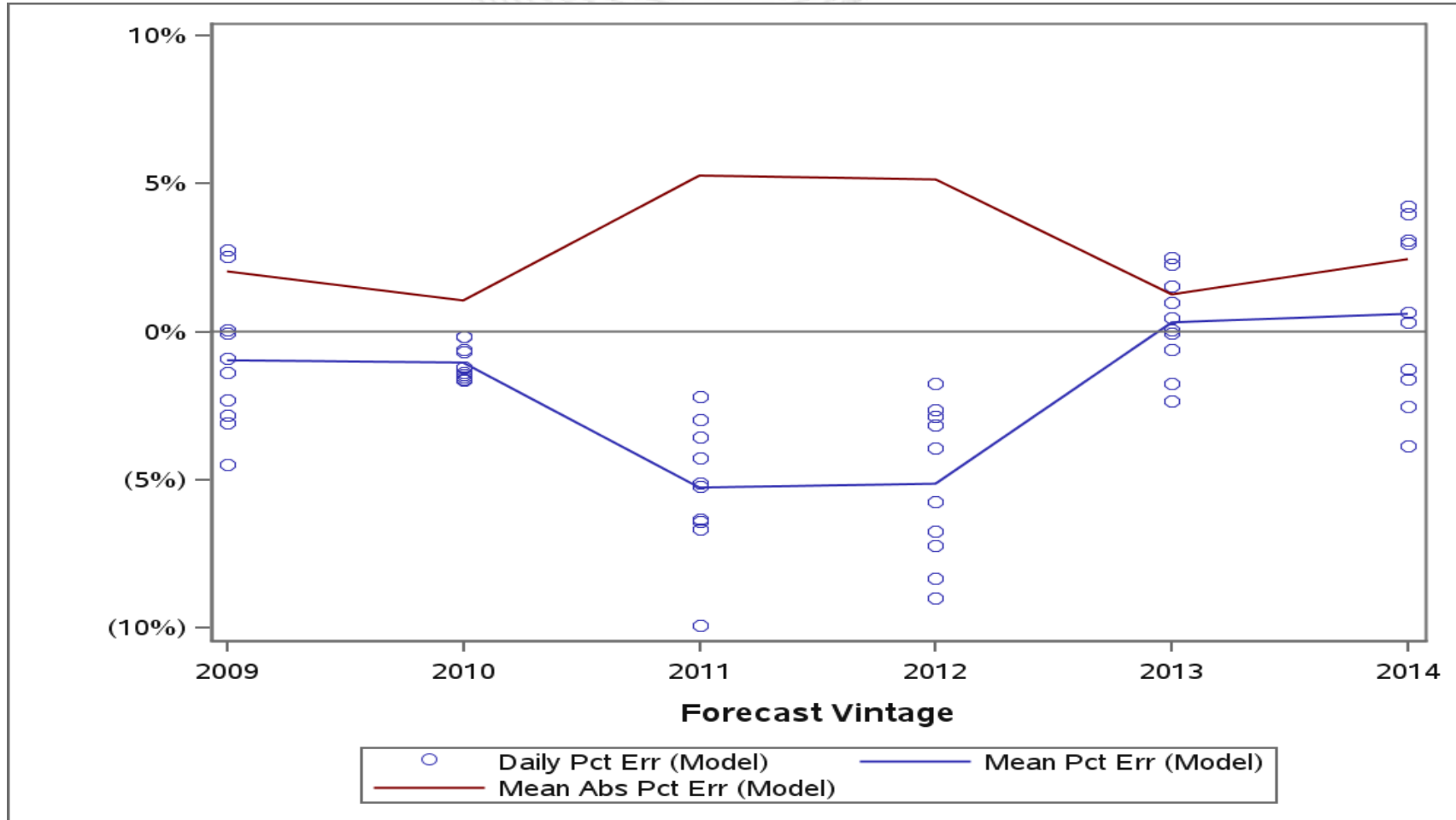
# Winter 10CP Model Error by Forecast Vintage

## 2 Year Out Forecast



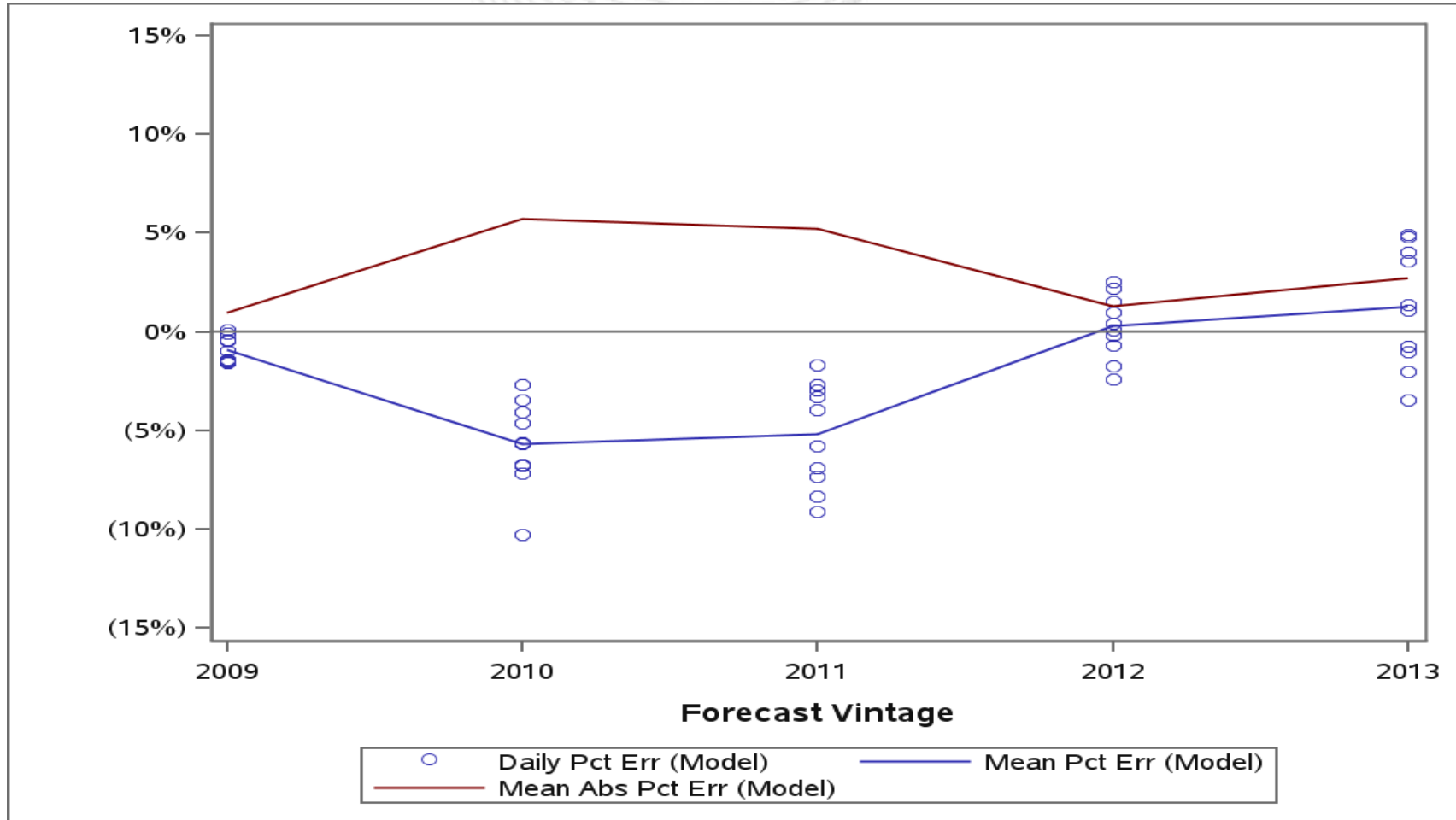
# Winter 10CP Model Error by Forecast Vintage

## 3 Year Out Forecast



# Winter 10CP Model Error by Forecast Vintage

## 4 Year Out Forecast



# Winter 10CP Model Error by Forecast Vintage

## 5 Year Out Forecast

