Appendices

12.11-2020

1 Appendices

1.1 Appendix A

Notes: This table includes summary statistics for main variables used in our research. Statistics include mean, standard deviation,, min, 1st quartile, median, 3rd quartile, max & number of valid data points. In Panel A, different YIV data is summarized. In Panel B, we have listed the main dependent variables which are used for predictions. GDP denotes the year-on-year growth rate(quarterly data), CON denotes YOY consumption growth(monthly data), EMP describes YOY growth rate for non-farm payroll and lastly IND stands for Industrial production YOY growth (monthly data). In Panel C, different control variables are listed: SVEN1F01 - 1 year treasury bond par yield.

Table 1.1: Summary Statistics

	Mean	Std.Dev	Min	Q1	Median	Q3	Max	N.Valid	
Panel A: YIV									
YIV	3.34	1.31	1.39	2.60	3.00	3.62	9.21	103	
Panel B: Dependent Variables									
GDP	2.50	1.78	-3.92	1.71	2.61	3.98	5.30	103	
CON	4.88	1.95	-3.03	3.92	5.11	6.22	9.02	312	
EMP	1.07	1.67	-5.00	0.20	1.60	2.20	3.50	312	
IND	2.00	4.05	-15.33	1.19	2.74	4.16	8.54	312	
Panel C: Control Variables									
SVEN1F01	3.89	2.40	0.21	1.38	4.35	5.88	9.29	6486	
VIX	19.83	7.64	10.82	14.20	17.76	23.54	62.64	312	
HOUSNG	1.01	18.36	-54.80	-7.25	2.80	12.70	50.00	312	

Note:

Additional control variables will be added upon construction. Furthermore, currently the frequency of the datasets differs for different variables but this will be addressed in the research process.

1.2 Appendix B.

Notes: This table includes regression using GDP & YIV. Controls will be added during research process. The equation for the regression is the following:

$$\sum_{j=1}^{j=H} log(1 + GDP_{i,t+j})/H = \alpha_H + \beta_H \sigma_{IV,t}^{INT} + Controls + \varepsilon_{t+H}$$
 (1)

Table 1.2: Regression output

	II10	TT10	1104				
	H12	H18	H24				
Panel A: YIV							
R-Squared	21.98	21.41	23.73				
Intercept	4.38	4.23	4.19				
Beta	-0.57	-0.52	-0.50				
t-	11.17	11.51	12.43				
statistic.(Intercept)							
t-statistic.YIV	-5.25	-5.11	-5.41				

Note:

Preliminary regression output. Initial data needs to be re-checked.

1.3 Appendix C

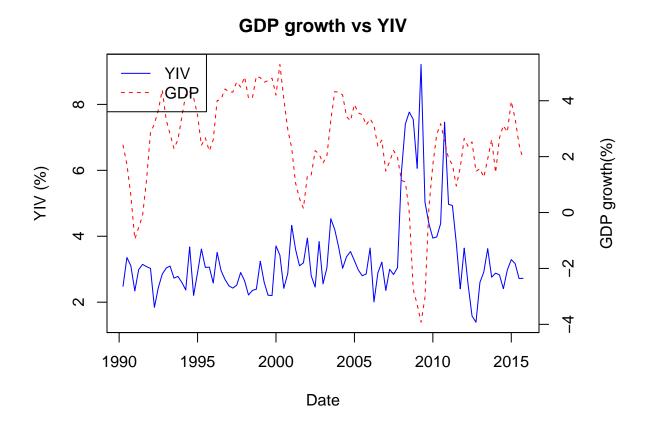


Figure 1.1: GDP Growth(%) vs 5-year Treasury Implied Volatility