



Research article

Economic policy uncertainty and stock returns—evidence from the Japanese market

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Supplementary

Appendix 1. Summary of notations of variables.

Variable	Description	Source
R_t	Stock market returns based on RI series. R_t is the natural log – difference of RI_t times 100.	Datastream
$R_{PI,t}$	Market stock returns based on stock price index (PI)	Datastream
$r_{10y,t}$	The 30-year bond yield	Datastream
$r_{1m,t}$	The 1-month bank deposit rate	Datastream
Vol_t	Variance of stock return based on previous month 22-daily stock returns calculated by the procedure of French et al (1987).	Datastream
σ_t^2	Stock market returns variance	Datastream
VIX_t	The 1-month stock options volatility for the U.S. market.	Datastream
VaR_t	Downside risk, which is measured by the minimum value of daily stock returns in the past 21 days (Bali et al. 2009). The original VaR_t are multiplied by -1 before running regressions	Datastream
EPU_t	Natural logarithm Economic policy uncertainty index from Baker et al (2016) or Davis (2016).	Baker et al. (2016)*
ΔEPU_t	Changes in log-EPU index times 100.	
FPU_t	Natural logarithm on Fiscal policy uncertainty index	Baker et al. (2016)***
MPU_t	Natural logarithm on monetary policy uncertainty index	
TPU_t	Natural logarithm on trade policy uncertainty index	
$GEPU_t^*$	Natural logarithm on global economic policy uncertainty index after neutralizing domestic EPU.	Davis (2016)**
DY_t	Dividend yield	
ε_t	Random error term	
$GED(.)$	Generalized error distribution	
$\chi^2(k)$	Chi-squared distribution with k degree of freedom	

* Source: Baker, Bloom and Davis (2016). <http://www.policyuncertainty.com>

The original uncertainty data file is obtained from the following link:

https://drexel0my.sharepoint.com/:x/g/personal/chiangtc_drexel_edu/EdRNM17ks_pCpxTR_dsGb5MBFoKPy2JIENInYAdJMZtZjA?email=chiangtc%40drexel.edu&e=ceGMt9

Appendix 2. Major term sets for categorical policy uncertainty indices.

Variable	Description	Source
EPU_t	Economic policy uncertainty index involves: “economic” or “economy”; “uncertain” or “uncertainty”; and one or more of “Congress,” “deficit,” “Federal Reserve,” “legislation,” “regulation,” or “White House” in 10 major newspapers.	Baker et al. (2016)*
$GEPU_t$	Global EPU calculated as the GDP-weighted average of monthly EPU index values for the U.S., Canada, Brazil, Chile, UK, Germany, Italy, Spain, France, Netherlands, Russia, India, China, South Korea, Japan, Ireland, Sweden, and Australia, using GDP data from the IMF’s World Economic Outlook Database. The terms involve articles containing the term “uncertainty” or “uncertain”, “economic”, “economy”, “business”, “tax”, “policy”, “regulation”, “spending”, “deficit”, “budget”, “Central Bank” (Bank of England), “war”, or “tariff”, “deficit”, “WTO”, “ministry of finance”, “Policymakers”, among others. The term may vary from country to country.	Davis (2016)**
FPU_t	Fiscal policy uncertainty index involves terms of “government budget” or “discretionary fiscal policy”, “primary balance”, “government revenue”, “tax” or “Taxation”, “government spending” or “government expenditure”, “social security expenditures”, “defense spending”, “military spending”, “public debt” or “government debt”, “Treasury,” among others.	Arbatli et al. (2017)***
MPU_t	Monetary policy uncertainty index involves terms of “monetary policy”, “Bank of Japan”, “monetary easing”, “quantitative easing”, “negative interest rate”, “official discount rate”, “monetary operation(s)”, “inflation target”, “The Fed,” among others.	Arbatli et al. (2017)
TPU_t	Trade policy uncertainty index involves terms of “trade policy”, “WTO”, “Trade friction(s)”, “trade negotiation”, “GATT”, “trade liberalization”, “import liberalization”, “trade agreement”, “cutting tariff(s)”, “partnership agreement”, among others.	Arbatli et al. (2017)

*Baker et al (2016). <http://www.policyuncertainty.com>

** Source: ‘Measuring Economic Policy Uncertainty’ by Scott Baker, Nicholas Bloom and Steven J. Davis.

** Davis, S.J., 2016 An Index of Global Economic Policy Uncertainty <https://www.nber.org/papers/w22740.pdf>

*** http://www.policyuncertainty.com/japan_monthly.html



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