Date & Calendar

The Date and Holiday Calendar functionality were introduced starting in version 1.56 (Zebra) to help you identify any holidays, trading days, and weekdays bias effects that often arise in time series analysis.

Why do we care about holidays?

A core assumption in econometric methods is that time series observations are equally spaced and present. This arises either because observations are made deliberately at even intervals (continuous process) or because the process only generates outputs at such interval in time (discrete process).

Furthermore, the time-unit of a sampling period (i.e. the step) between two consecutive observations can be either absolute (e.g. Daily, weekly, monthly, or annual) or based on a holiday calendar (i.e. adjusted for weekends and holidays).

For example, a daily financial time series of IBM stock closing prices is based on the NYSE holidays calendar, so each observation is taken on an NYSE trading day (open/close). For weekly or monthly time series, the number of trading days varies from one observation to another and we may have to adjust for their effect. A good overage for holidays and trading days effect adjustment can be found in X-12-ARIMA literature (see reference section).

Remarks

- NumXL 1.56 (Zebra) supports dates, holidays, Western and non-Western weekends functions.
- NumXL defines ~100 holidays for 10 countries (USA, CAN, CHE, GBR, AUS, NZL, JPN, SAU and ISR).
- NumXL defines public (government) and bank holidays calendars for 10 countries, with plans to support more in later releases.

References

- **Comparison of X-12-ARIMA Trading Day and Holiday Regressors With Country Specific Regressors**
- **Wikipedia - Workweek and weekend**
- **Wikipedia - Holidays**
- **Wikipedia - List of holidays by country**
- **Wikipedia - Long weekend**

Requirements

Header	SFDBM.H
Library	SFDBM.LIB
DLL	SFDBM.DLL

Examples

References

Hull, John C.; [Options, Futures and Other Derivatives](#)[Financial Times](#)/ Prentice Hall (2011), ISBN 978-0132777421

Hans-Peter Deutsch; [, Derivatives and Internal Models, Palgrave Macmillan (2002), ISBN 0333977068](#)

See Also

[template("related")]