Chapter building companion

Quick time line

- took over oct 2021
- start ref: January 2022
- started a structured quarto book: june 2022
- june 2023: ? obj newsletter june 16th

Mind management insights

- starting the day with editing previous work ?! tto long ?

HF pb create two chapters

- methods
- practical methods

What you will find in this chapter

(force this format even if provisional) What could be useful here ? In which cases look further here ? Links to other chapters Q&A format

Tables development

- synthetic vision
- Tab1: frequencies (TS) by algo by (R ro GUI)

Methodo questions

starting with old chapters

- spectral
- tests
- seats

NEW pbs

- specify scope: example cruncher doesn't work with stl: obvious ?
- are revision policies available for HF data ?
- can we generate calendar regressors for weekly data
- specify (+ more variety in examples) for which data frequency a function is available

ADD (to each chapter)

- scope by data type
- contrast differences R vs GUI

Harmonization of names

- revision policies: fixed autoregressive parameters

Next steps

…and time line for loop 1 (= showable)

- 1 R packages (loop 1 ok : 29/05 next loop 2…)

lacks for 2nd loop: cf chapter's details

- 1 Rev policies: easy
- 1b production cruncher (loop 1: 30/05, loop 2: cf below)
- 2 HF with GUI (includes testing)
- polish HF
- outliers
- 3 GUI ?: tough as maj all links.. maybe much less description and more links (video for v3) keep a copy of this chapter in AUX and completely refactor it ?
- calendar chap + vignette
- outliers chap + vignette
- SA chap: finish up + vignette
  - enhance R code

  - add and test rdj3 code (aux file rjd3_tests_for_doc.R in 00_rjd3_dev repo/Code R) obj : set up a system for efficient OTG testing
  - finish up seats part

- sA HF with KW

Above = essentials (loop 1 spirit) Below: just brush up optional

- idea= maximum brush up clean up and structure setting (always easier to fill in than to start from scratch)
- STL with KW

Chunks for mind management

Structure

next

Writing, filling in (easy, no editing)

- R version 3 chunks in SA chapter
- outlier detection functions in rjd3x13 and tramoseats (quick)

Filling in small gaps (20' time slots ok)

Editing and testing

For all menu, graphical references:

- check validity in version 3 (step1) change if necessary
- update visuals (screen shots to version 3), not urgent if no functional incidence

apply in

-T plug-ins chapter

Finishing up

low hanging fruit

Journal

Technical choices

- links to R packages doc and vignettes

Principles

policy: - what is displayed in GUI should be explained, even if shortly, adding links to relevant method chapter from GUI: all panels have to be described

- the same does not apply to R packages as they have a documentation on their own any output any param setting possibility

Difference with training

- rationale for params
- diagnostics
- what can be changed, but not why !

Template for algo (parts) description

default params (quick launch) INPUT (?) Output1: series Output2: Final Params Output3: Diagnostics User-defined parameters

Overview at the beginning of each chapter

SIMILAR Head of chapter and structure (allowing to easily move around)

Split info into 3 categories

Preface (Starting chapter by chapter notes)

G-what-is-jd.qmd

resources for description can be widely used

- R tools Doc
- JD+ esp pdf

G-jd-history.qmd

to be organized

resources - small publi 4p insee/eurostat

web explo stack

A-sa.qmd

(Any) table display

What can be done with this table (expandable note ?)

- charts container (link) - single series contextual menu (link)

questions and meth holes

Questions:

- allocation to sa: done at the very end ?
- allocated to undefined ?

global tasks

- R version 3 code to be added
- remove theory related parts
- much less text than current doc (too long)
- method details: to method chapters
- tools details in tools: GUI or R

For second release, according to this template rationale: - why and when use this ? - default params (quick launch): some settings ? - INPUT (?) - Output1: series - Output2: Final Params - Output3: Diagnostics - fine tuning User-defined parameters

when describing parameters

- 1 common description
- 2 setting in GUI
- 3 setting in R

2 categories of work

- missing parts
- parts to revamp or hone

Steps (loop : structure, flesh out, re-structure…)

- immediate steps
- further steps

add

in unobserved components In the Reg-Arima (link) or Tramo(link) modelling the the multiplicative model is estimated in logs; $log(X_t) = log(T_t) + log(S_t) + log(I_t)$; Seats decomposition also relies on logs where X-11 decomp operates…

ramps part

test: several

see if here: ? The graph and formula are available in Linearisation with the TRAMO and RegARIMA models.

explain params - differentiation orders D1DS: if ticked: 1 1 automatically (pb differentiation before the real differentiation ??)

in reg arima results

- seasonality tests on residuals (Highlight differences: - in gui - in R v2: retrieve object in output, v3 run test)

Allocation to components

allocation when intervention or ramps ? in test allocated to trend ? (reg)

impossible (?) to create several intervention variables

Remaining topics

A-sa-hf.qmd

add back and flesh out

In outlier detection

user defined outliers, variables ?

In calendar

explain problems and mixing with seasonality …

Spectral analysis

Seasonality tests

A-outlier-detection.qmd

data type

contrasting GUI and R packages

small chunks on regressors to be added

more info on detection

A-calendar-correction.qmd

remarks:

- less dense content, less text more tables, bullet points
- check and add documents new v3 features
- cjo frequency explained by K they simulate calendar pattern…empirically fall here (cf refs papers)

frequency 41 et 41 survival of 1/60 discrete step in X12 (cf sokup findley)

To do

On theory part:

- manque effet de paques (cf regressor and ICA: hole)
- length of period
- stock

On practical part:

- HF in GUI ?
- add in R
- generating regressors from customized calendar : GUI and R
- Length of Period

adjust param

- stcok series

cf book x12 and SH

The regressor will have the value -1 if the w-th day is a Sunday, 1 if it is a Monday as 0 otherwise.

example lacking in the package

A-benchmarking.qmd

clean up

add rjd3 bench and link help pages

resources

- corentin, beamer rome
- maria, ine, beamer ocde

A-trend-cycle-estimation.qmd

see alain

see karsten paper on HF

A-nowcasting.qmd

T-graphical-user-interface.qmd

why use the graphical user interface ? what is not directly available in R yet?

objective: describe the general features (independent of algorithms)

- general layout
- options !: like stats tools/ modifs good bad / look and feel
- import data
- documents
- workspaces
- specifications
- output

Add

List of Output items

T-Production-tools-cruncher-QR.qmd

add - List of exportable series (tramo / x13 with names)

- link to option change for adjusting “good”, “bad”…

T-r-packages.qmd

- add a global descpription of rjd3toolkit cf aux txt file
- include details in rjdemetra3 (when ready)

T-plug-ins.qmd

ok for now, visuals to be checked

T-rev-policies-production.qmd

add - v3 visuals (progressive) - fixed auto reg param - inter chapter links : r packs, cruncher

obj here: general explanations + examples ? here : explain voc discrepancies vs guidelines bbk controlled current link to plug in illustration links on covid

Revision Policies

general concepts - identified vs estimated - linearization phase - X11 - seats

here concepts of domain spec, point spec

concurrent = first estimation or redo everything (never overrides user defined parameters)

Implemententing revision policies in R

M-spectral-analysis.qmd

add: - R code or references to - rjd3sa (?) references to tests - more explanations on spectral analysis rationale

Vocabulary precision and concise definitions - spectral density - periodogram - spectral density estimator - “spectrum” is used too ubiquitously

M-reg-arima-modelling.qmd

In the chapter on SA, in the pre-adjustment section, we tackle: - purpose, principles and results of reg-arima models (tramo or reg-arima)

Here we tackle : - more in depth presentation - details on model estimation (not your typical box and Jenkins)

M-X11-decomposition.qmd

- add more computation details ?

Edit content goal of the chapter: details on X-11 which won’t be in the SA chapter

see - my notes on X-11 - formulas from training yc estp - formulas from HF paper or beamer

M-STL-decomposition.qmd

goal of the chapter : details on STL which are not in the SA chapter

res: - papier HF - papier Daniel on dsa

M-SEATS-decomposition.qmd

M-Trend-Estimation-Local-Polynomials.qmd

M-tests.qmd

check NBB aux doc for any missing formulas

M-state-space-framework.qmd

beamer - dms moi - koopman

books - durbin - shumway stoffer

edit - change notations to shumway style

references.qmd