Chapter 7. Eigenvalue Elasticity Analysis Electronic Supplement
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This archive contains the Mathematica® packages and utilities to perform Eigenvalue Elasticity Analysis, as well as all the files (models, runs, etc.) and instructions to replicate the examples and proposed exercises in chapter 7. Details on how to install and used the utilities are on the Appendix.pdf file in this archive as well as in the main text of the chapter.

Contents

READ Me.pdf
> This file.

Appendix.pdf
> Document describing the use of the Mathematica® utilities to perform the EEA analysis as well as instructions on how to access the utility to translate Vensim® *.mdl files into documents readable by the Mathematica® utilities.

Challenge.pdf
> Document providing answers to the questions posed in the challenge section of the chapter and how the EEA tools could be use to address them.

Mathematica Tools (folder)
> This folder contains the functions and utilities to perform the EEA. The folder contains three files.

> FeedbackLoops.m
>> Mathematica® package with the core functions called by the LEEA and DDWA notebooks. It needs to be installed in a directory that is accessible to Mathematica®.

> LEEA.nb
>> Mathematica® notebook to perform the Loop Eigenvalue Elasticity Analysis.

> DDWA.nb
>> Mathematica® notebook to perform the Dynamic Decomposition Weight Analysis.

Base model (folder)
> This folder contains the files to replicate (assess) the LEEA of the base model as described in the chapter's main text. The folder contains five files.

> NF_model.mdl & nf_model.nb
>> Vensim® and Mathematica® readable version of the base model.

> Base.vdf & Base.tab
>> Vensim® data file and tab delimited version (readable by Mathematica®) with the values for the simulation of the base model.

> nf_base_LEEA.nb
>> Mathematica® notebooks with the results of the base model's LEEA.

Full model (folder)
> This folder contains the files to replicate (assess) the LEEA and DDWA of the full model as described in the chapter's main text. The folder contains eight files.

> NF_model_full.mdl & nf_model_full.nb
>> Vensim® and Mathematica® readable version of the full model.

> Full.vdf & Full.tab
>> Vensim® data file and tab delimited version (readable by Mathematica®) with the values for the simulation of the full model.

Policy.vdf & Policy (tai).vdf

 Vensim® data files with the values for the Policy and Policy (tai) simulations of the full
 model.

nf_full_LEEA.nb

 Mathematica® notebooks with the results of the full model's LEEA.

nf_full_DDWA.nb

 Mathematica® notebooks with the results of the full model's DDWA.