Inforum Software: 2009 Developments

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Ronald L. Horst
Ronald.Horst@gmail.com
www.Inforum.umd.edu
Installing Software from CD

1. BACK UP YOUR WORK
   - C:\PDG
   - C:\AMI
   - C:\TINY

2. Run Setup.exe on the CD

3. To compile the models on the CD, you must install the BCC compiler.
   - Run C:\PDG\Compiler-Install\freecommandLinetools.exe
New Developments at Inforum

- The Inforum Web Site
- G7 Extensions and Improvements
- Running AMI and Tiny Models from the G7 Menu
- Compare Extensions
- Running Compare from the G7 Menu
- Demonstrations
Web Site Development

Inforum Software
Web Site Development: News and Research

INFORUM NEWS

Preparing the Workers of Today for the Jobs of Tomorrow - July 13, 2009

The President's Council of Economic Advisers (CEA) reported projections of U.S. labor market developments through 2016 and described education and training programs needed to develop a competitive workforce. The CEA used industry employment projections from the Inforum LIFT model to complement Bureau of Labor Statistics forecasts of industry and occupation growth. The CEA web site provides the full report.


Jeff Womack and Ron Horst published Macroeconomic and Industry Impacts of 9/11: An Interindustry Macroeconomic Approach in the journal Peace Economics, Peace Science, and Public Policy. Preliminary results of this study were presented in November 2008 at the 55th Annual North American Meetings of the Regional Science Association International in New York City (press release) and on March 17th, 2009, at the Third Annual DHS University Network Summit in Washington D.C. The study was organized by CREATE, a DHS-funded organization at USC dedicated to the study of terrorism.

Abstract: This paper is part of a collection organized by the Economic Impact Modeling Forum (EMF) that convened in 2008 to quantify the economic impacts of the terrorist attacks of September 11, 2001 (9/11). We consider the aggregate and industry-level impacts of the event. The general equilibrium model employed features both full industrial detail and a consistent, bottom-up representation of the macroeconomy. We employ a set of primary impacts on the Manhattan financial industry and the national travel industry as identified and estimated by EMF colleagues. These impacts are imposed on a historic baseline economy which includes the 9/11 event. The results provide an estimate of what the economy would have experienced by avoiding 9/11, including the impacts of direct business interruption to specific sectors, the secondary impacts on related industries, and the tertiary impacts across the economy. The results show that 9/11 did affect economic activity negatively over 2001 to 2003. As is typical for a macroeconomic neoclassical growth model, the aggregate impact of the conjectured shocks dissipates over time. Indeed, this model shows that historic economic activity in 2004 to 2006 may have been elevated over what would have occurred in those years had 9/11 not occurred. We argue, therefore, that the full impact on activity and income should be computed as the net impact over 2001 to 2006. We find that the net, six-year effect on real GDP is relatively minor, at about 0.3 percent of GDP of 2001. Effects on real national income and personal consumption, however, were more significant, at about 0.6 percent.


The Business Roundtable today released a major study identifying policies to reduce greenhouse gas emissions while minimizing economic costs. This study was a collaborative effort among member companies to develop, evaluate, and recommend technology-based solutions to meet the sustainable growth challenge. A key focus of the study was how technology adoption can be accelerated through informed policy and public-private partnership. The final study, The Balancing Act: Climate Change, Energy Security and the U.S. Economy, concludes that a successful policy for
Web Site Development: International Partners

Inforum Software
Web Site Development:
International Conferences

The Sixteenth INFORUM World Conference in Cyprus

The sixteenth Inforum World Conference was hosted by the European University of Lefko, North Cyprus, from August 31 to September 7, 2008. The conference was held at the Acapulco Beach Club & Resort Hotel in Kyrenia. Additional details and registration information are available.

Popular sites in Kyrenia include the Kyrenia Castle, Old Harbor, The Shipwreck Museum, and St. Hilarion Castle. Kyrenia Castle was built in the 7th Century to protect the town. A Byzantine church is located inside the castle, as well as the tomb of the Ottoman Admiral, Sadik Pasha. There are also the towers, dungeons, an arsenal, a cannon parapet, and the shipwreck museum. St. Hilarion Castle also provided protection to Cyprus from raiding Arabs. The castle was named after Saint Hilarion. Records indicate that the castle was built sometime before 1191.

Please see the site constructed by our hosts for more information.

Presentations

The Sixteenth World Inforum Conference
North Cyprus
2008 August 31 - September 7
Web Site Development: Outlook Conferences

The 2008 Inforum Outlook Conference was held on December 9, 2008, from 9:30 a.m. to 3:30 p.m. at the Clubhouse on the University of Maryland Golf Course. Please contact us for more information.

2008 Inforum Outlook Conference

Golf Course Clubhouse
University of Maryland
December 9, 2008
9:30 AM - 3:30 PM

Conference attendees included about 60 representatives from the U.S. Department of Defense, U.S. Department of Commerce, and other governmental and private organizations. The 2008 Inforum Outlook Conference agenda is available in PDF form.

1. Inforum’s U.S. Economic Outlook
   Jeff Werling, Inforum
   Outlook Summary Slides (PDF) and Slides with audio recording (WMV)
   Forecast Press Release (PDF), Press Release on U.S. Auto Industry (PDF)
2. Economic Challenges Facing the Obama Administration
   Robert Wescott, Keybridge Research LLC
3. Healthcare Spending and the U.S. Economy
   Doug Nyhus, Inforum
4. Applications of LIFT for Energy Policy
   Doug Meade, Inforum
   David Henry, Department of Commerce

Please contact us at (301) 405-4609, or visit our web site at www.inforum.umd.edu, for more information.
Web Site Development: EconData

This is the home page for the EconData service of Inforum, at the University of Maryland. Several thousand economic time series, produced by a number of U.S. Government agencies and distributed in a variety of formats and media, can be found here. Data has been put into a standard, highly efficient, easy-to-use form for personal computers and made publicly available through this site. These series include national income and product accounts (NIPA), labor statistics, price indices, current business indicators, and industrial production. The EconData Contents page contains a more complete list of the series covered. The EconData Archive page contains U.S., State and Local, and International databanks that have not been updated for several years. These series are all in the form of banks for the G regression and model building program.

A summary of G's features can be found here. A full G Manual, which is taken from Chapter 3 of Clopper Almon's Craft of Economic Modeling, can be used as an online reference.

Links to Other Economics Resources:
- Resources for Economists on the Internet
- Washington University Economics Working Paper Archives
- WebEC - WWW Resources in Economics
- National Trade Database - StatUSA
- Consensus Economics
Web Site Development: Software

Software Packages

- **G7** - G7 is an econometric regression and model-building program for Windows. It is designed for estimation of regression equations with annual, quarterly, or monthly data.

- **Macroeconomic Modeling Software** - The G7-Build package is used to define identities, estimate regression equations, and automatically generate a program in the C++ programming language to construct and run macroeconomic models.

- **Interindustry-Macro Modeling Software** - Inforum offers several programs and the Interdyme C++ library for building Dynamic Interindustry Macroeconomic models.

- **Other Software** - Additional software also is available.

Software Documentation

- **Documentation** for many of the software packages are available.

Downloads

- Many of the Inforum software packages are available for download.

Demonstrations

- A variety of demonstrations of G7 features and techniques are available.
G7 Development: An Introduction

• What is G7? A program to
  – Build and manage data banks
  – Estimate econometric equations
  – Build dynamic economic models
  – Run economic models
  – View data and economic forecasts with tables and graphs

• G7 on the Web:
  – Download program and documentation
  – Download companion software and documentation
  – Download the AMI macro model
  – Demonstration routines
**G7 Development: Summary**

**Minor Improvements**
- Many minor adjustments to the interface
  - To make G7 more pleasant to use
  - To speed common operations
  - Improved font specification
- Small extensions to existing tools
- Bug fixes

**Significant Extensions**
- Improved Excel interface: Create new documents
- If-Else Routines: Evaluate data bank values
- Improved interface for running models
- Improved interface for building tables
G7 Development: New Features

- xl create workbook [<filename>]
- xl save [<filename>]
- xl create worksheet [<name>]
- xl name worksheet <sheetname>
- xl column width <column> <width>
- if( eval( <series> , <date>) … ){ … } 
- listnames [-srgv] <w | a> [wildcard]
G7 Development: Improved Grouping

- Improved flexibility and reliability
  - Numerical groups: increasing, decreasing, repeating
  - Dynamic and named groups
  - Excel column letters

Examples

```
do{ f y%1=y%1+a.y%2 } (1 1 1 2 3 3 ) (1 4 5 2 3 6) m

group Almon
  1-75
```

```
do{ f iterate%1 = %1 } ( :Almon )
group 75-100
```

```
do{ f iterate%1 = %1 } ( : )
```

```
do{ xl read %1 2 down x%1 2000 2008 } ( A-AZ )
```
**G7 Development: Graphical Interface**

- Improvements to *G7* and Editor Menus
- Improved Font Selection: *G7*, Editor, and Graphs
- Improved Editor
- New Data Bank Assignment interface
G7 and Macro Modeling: Designing the Model

Inforum Software
G7 and Macro Modeling: Building the Model
G7 and Macro Modeling: Running the Model

![Run Options dialog box]

- **Start date**: 1995.1
- **Stop date**: 2000.4
- **Results bank name**: fore
- **Fix file name**: rhoadj
- **Optimization file name**: OptSpec.opt

**Type of Simulation**
- Deterministic
- Stochastic
- Optimizing

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G7 and Interindustry-Macro Modeling: Designing the Model

```
# Master File for TINY
# isvector pce
# iadd pce.sav
# isvector clear
iadd invtot.sav
iadd account.sav
iadd pseudo.sav
end
```
G7 and Interindustry-Macro Modeling: IdBuild
G7 and Interindustry-Macro Modeling: Running InterDyme Models
Compare Extensions

Minor Improvements
• Bug fixes and improved stability

Significant Extensions
• Create spreadsheets in Excel format
• Create spreadsheets with multiple pages
• Tighter integration with G7
Compare Extensions: Integration with G7

Specify Banks, Stub, and Output File for Tables

Stub file root name (without the .stb)  |  Name of output file
--------------------------------------|-------------------
compare                               | Compare

Show data from bank 2 and above as
- Actual Values
- Differences from bank 1
- Percent differences from bank 1

Fill in a line for each bank from which you wish to draw data

<table>
<thead>
<tr>
<th>Bank type</th>
<th>Root name of bank</th>
<th>Bank type</th>
<th>Root name of bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>workspace</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>workspace</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Load information from file  |  Cancel   |  OK

Using information from this form, the file Tables.in will be created. Clicking OK will cause TableX.bat to be run; if it does not exist, it will be created. You can use both files again with Model | Tables Express.
Software Demonstrations

• *G7* routines – Introduction to *G7*
• *G7* routines – Introduction to Vam files
• *G7* routines – Work with Excel spreadsheets
• *G7* and Compare – Building tables
• *G7* routines – Advanced graphing
• *G7* and Macro Modeling – Running AMI
• *G7* and Interindustry Modeling – Running Tiny
Software Demonstrations: Introduction

- C:\PDG\Demo\Intro
  - Load and assign a bank (the U.S. Monthly Retail Trade Survey)
  - Assign fdates, tdates, and gdates
  - Print data to the screen using the type command.
  - Graph data
  - Form unique variables
  - Add data to the workspace
  - View a stub file
  - Use add files
Software Demonstrations: Intro to Vam Files

- **C:\PDG\Demo\BasicVam**
  - Learn what is a Vam file
  - Create Vam configuration files
  - Build title files.
  - Create a Vam bank in G7
  - Add data to a Vam bank
  - Display data
Software Demonstrations: Reading Spreadsheets

- C:\PDG\Demo\xlRead
  - Open spreadsheets (Wholesale Trade, Ag Receipts, Annual IO)
  - Specify missing value codes
  - Read time series data from a spreadsheet
  - Read a vector of data across time
  - Read a data matrix, split across several worksheets
  - Create Vam and workspace data banks
Software Demonstrations: Writing Spreadsheets

- C:\PDG\Demo\xlWrite
  - Create new workbooks
  - Create new worksheets
  - Name worksheets
  - Write time series data (from Service Annual Survey data bank)
  - Write data in matrix form (from IO data in Vam file)
  - Adjust column widths
  - Save your work
Software Demonstrations: Using *Compare*

- **C:\PDG\Demo\Compare**
  - View GDP, Consumption, Investment data in NIPA bank
  - Construct alternative VAR models in Levels and Growth Rates
  - Make VAR forecast in *G7*
    - using iterative process to evaluate three equations
    - employ regression parameters stored in the *rcoefs* series
  - Store results in *G* data banks
  - Use *Compare* to view results
Software Demonstrations: Advanced Graphing

- C:\PDG\Demo\Graph
  - View the NIPA and FRED banks from EconData
  - Construct line graphs
  - Add text and arrows to a graph
  - Adjust the vertical range and labels
  - Construct a bar chart
  - Construct a stacked bar chart
  - Construct a scatter graph
Software Demonstrations: Running AMI

- C:\AMI
  - Re-estimate equations with “add runall.reg”
  - Review the master file
  - Build the model: Model | Build
  - Run the model: Model | Run Macro Model
  - Build tables: Model | Tables
Software Demonstrations: Running Tiny

- C:\Tiny
  - Review the master file
  - Build the model: Model | Build
  - Run the model: Model | Run Dyme Model
  - Build tables: Model | Tables
Software Demonstrations: Others

• Will improve demos with your suggestions
• Will expand the collection with your submissions and requests

• Other available demos:
  – Forecast-checking algorithm using if-else tools
  – Demonstration of Vam tools