



Institute for Scientific Research on Economic Reforms
Ministry of Economic Development

AzMod Presentation, Baku, December 26, 2012

Policy Modeling

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We face vital and complex challenges.

We need a **new culture** of decision making.

Questions in the Right Order

1

What do we know?

What **evidence** do we have?

2

What do we think?

What do we do?

Evidence-based policy



Evidence-building takes time.

Evidence-building needs:

- receptive policy-making environment,
- good data,
- analytical tools,
- good people.

Data and models help us to understand **complex issues** and to take **better decisions**.

**What is a
model?**



A model is a **purposeful**
representation of a real system.

Since **real systems** are **too complex** or develop **too slowly** to be analyzed using experiments we formulate a **simplified** representation that we can then manipulate and experiment on.

Which model?



For whom?



To do what?



Models

Academic

Policy

Relevant

Up to date

Dynamic



Relevant



Up to date

Train Number	Departure Time	Destination
196	8:40A	C2F On-Time
65	8:40A	B...
752	6:50A	C11 On-Time
315	7:15A	A1 On-Time
712	8:00A	B10 On-Time
273	8:20A	C2J On-Time
549	7:00A	C2M On-Time
2291	7:30A	C2K On-Time
2061	8:00A	C2M On-Time
2429	8:30A	C2K On-Time
2159	9:00A	N12 On-Time
...



Dynamic

Transparent



Reliable



Models need to be regularly reviewed and updated.

Good **data** is a key component.

How to use
economic models?



Very carefully!

A model is not a number generator.

Models do not replace sound economic thinking.

Independence and social
responsibility are crucial.

Teamwork



Cooperation



Policy Support System

Databases

Models

User-Friendly Databases

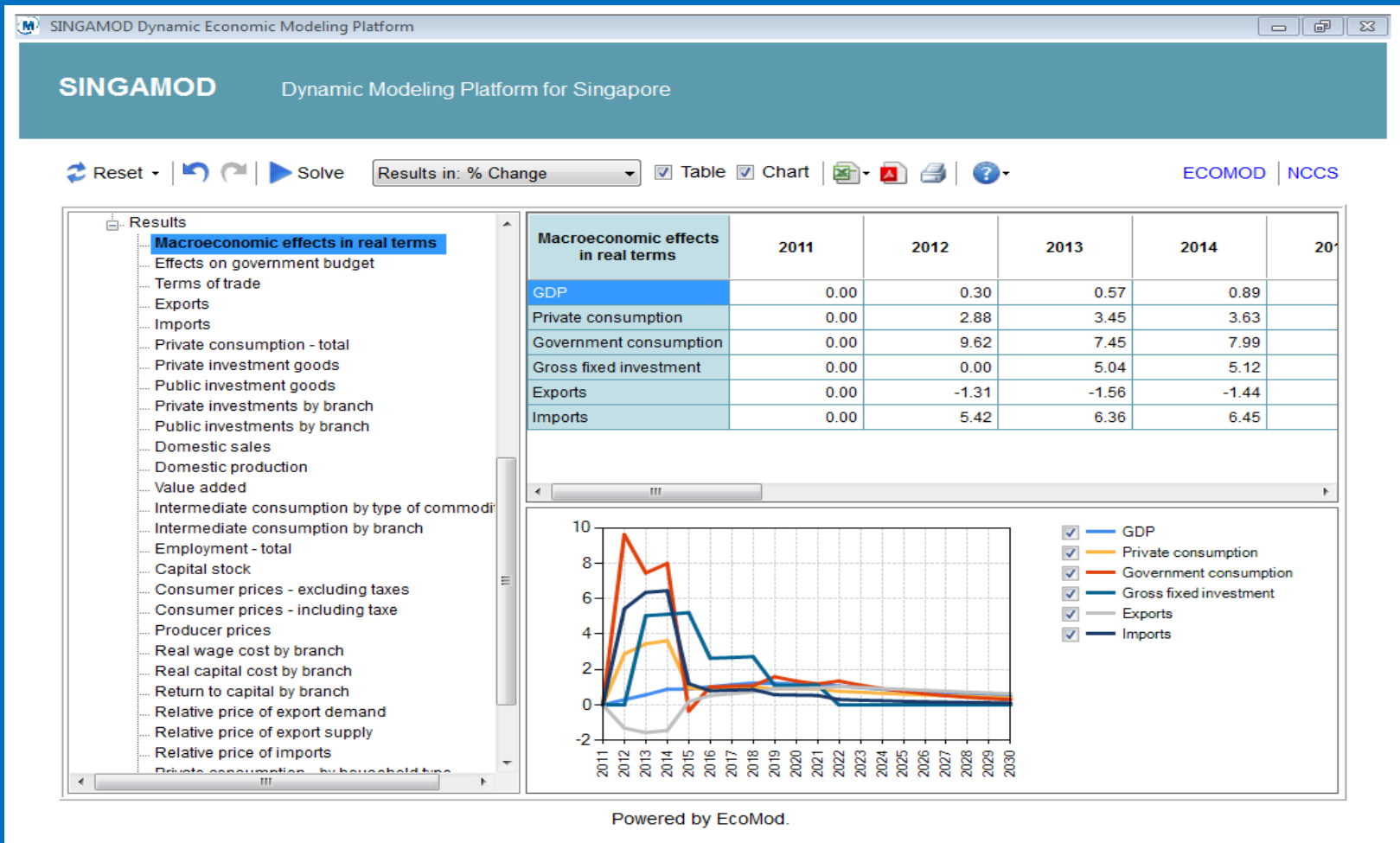
The screenshot displays the Nevis - ECO MOD/OECD Factbook - Workbook interface. The main window shows a data table with columns for years from 2004 to 2016 and rows for various indicators. A chart below the table visualizes the data, showing a fitted trend line and residuals. A 'Calculation results' panel on the right provides statistical analysis of the data.

Series	Scale	Collapse	2004A1	2005A1	2006A1	2007A1	2008A1	2009A1	2010A1	2011A1	2012A1	2013A1	2014A1	2015A1
Belgium Population aged 25-64 with below upper secondary level of education (As a percentage of the population of that age group)A	Units	Interpolate				32.05								
Belgium Exports of goods (Billion US dollars)A	Billions		256.46	306.39	334.03	369.15	430.88	477.20						
ARIMA(Belgium Exports of goods (Billion US dollars)A)	Units		256,456,908,570.00	306,392,904,690.00	334,026,221,950.00	369,145,989,620.00	430,875,764,260.00	477,199,480,670.00	243,673,071,863.13	243,673,071,863.13	243,673,071,863.13	243,673,071,863.13	243,673,071,863.13	243,673,071,863.13
Belgium Exports of goods (Billion US dollars)A	Billions		256.46	306.39	334.03	369.15	430.88	477.20						
hp(Belgium Exports of goods (Billion US dollars)A)	Units		276,640,054,863.68	306,607,155,603.48	337,239,998,939.08	370,336,166,808.13	404,461,103,379.52	438,968,351,045.16						

Calculation results

Statistic name	Value
Performance criteria	
Number of observations	0
Diagnostic criteria	
R ²	-
Adjusted R ² (adj R ²)	-
Fisher statistics (F)	-
Fisher statistics probability (p-)	-
Likelihood function logarithm (LogL)	-
Akaike information criterion (AIC)	-
Schwarz information criterion (SC)	-
Standard error (SE)	-
Residuals analysis	
Durbin-Watson test statistic (DW)	0.37440
Average of residuals	-
Average of residuals absolute v	-
Statistics	
Average of sums of residuals squa	-0.00172
Square root of average residuals s	16,455,775.42
Residuals variance	434,733,069.2
Residuals standard deviation	20,850,253.45
Lower level probability	424,733,069.2

User-Friendly Models





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Thank you.

