

Friede Gard Prize 2025
Award Lecture Online
(40 minutes)

Public Money System

A Paradigm Shift in Economics as a Science



by Dr. Kaoru Yamaguchi
Japan Futures Research Center

Saturday, October 18, 2025
9 - 1030 am (German time)
4 - 530 pm (Japan time)



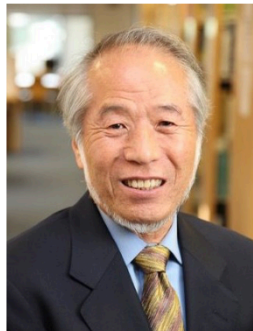
Friede-Gard-Stiftung
für Nachhaltige Ökonomik



Friede-Gard-Foundation
for Sustainable Economics

Aktuelle Seite: [Startseite](#) / [The Prizewinners](#) / Friede-Gard-Prize 2025 - Kaoru Yamaguchi

Friede-Gard-Prize 2025 - Kaoru Yamaguchi



Professor Kaoru Yamaguchi, PhD, was awarded the prestigious Friede-Gard-Prize for Sustainable Economics 2025 during the World Expo Osaka. The ceremonial handover of the prize certificate by Professor Klaus Helling from Umwelt-Campus Birkenfeld took place at a small ceremony in the German pavillon.

Professor Yamaguchi was honored for his outstanding scientific contributions to a sustainable economics, especially for his modeling of an alternative monetary system, the so--called ~~Public Money system~~. He is internationally renowned for his application of the System Dynamics approach towards various macroeconomic theories and their analysis with regard to stability and crisis resilience.

How Public Money is Born (part 1)

1. (1977-1985) Unifying Battles of Ideas in Economics

Striving

2. (1986-2002) Futures Studies, Sustainability and System Dynamics

Futures Studies

3. (2003-2009) Accounting System Dynamics

and Macroeconomic Modeling

ASD Macro Modeling

4. (2010-2014) Modeling American Monetary Act

and the Birth of Public Money

Public Money

followed by the Academic Assassination

Why We Need A Paradigm Shift in Economics (part 2)

5. (2015-) Academic Resurrection and Findings of “Money as Debt”

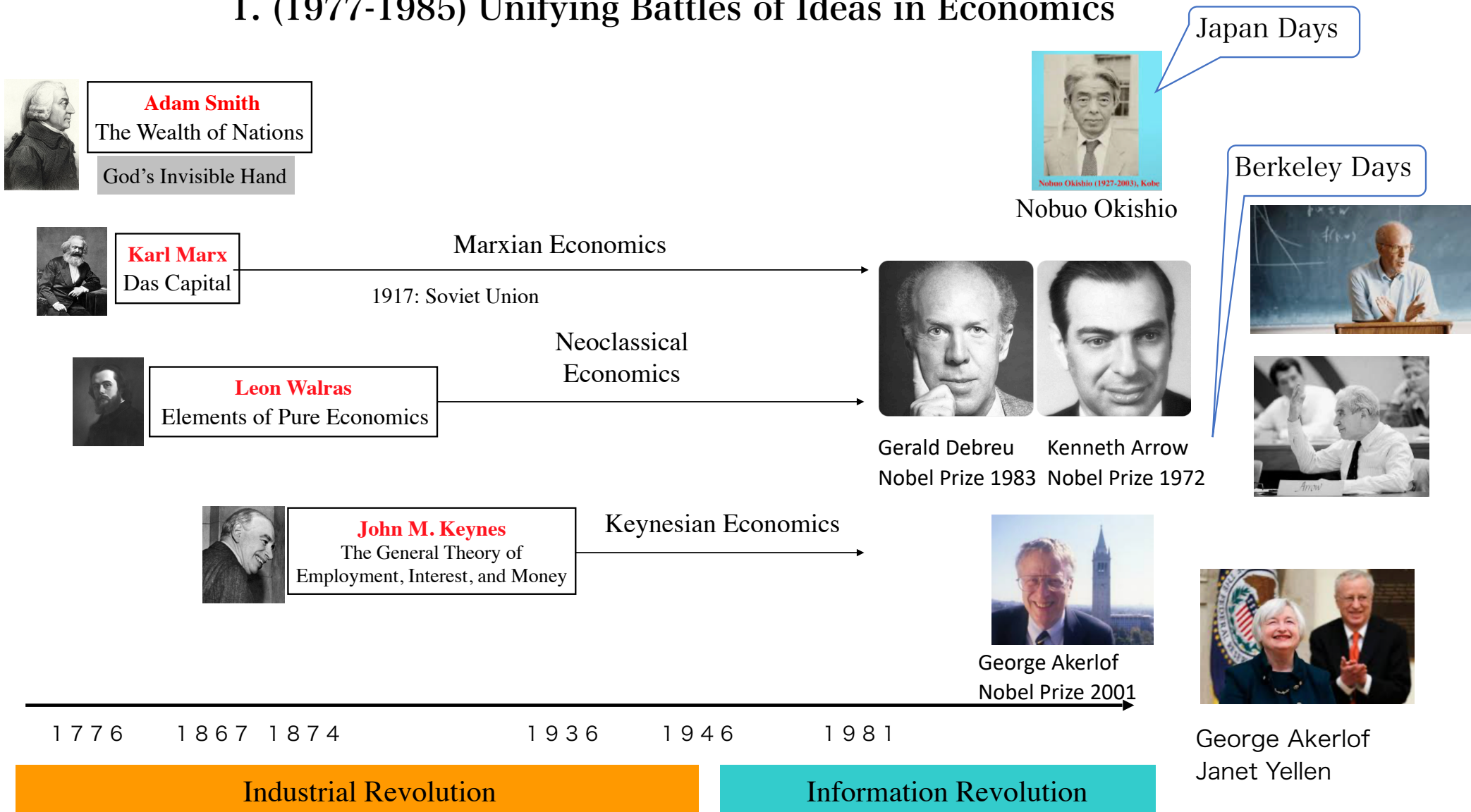
6. (2021-) Paradigm Shift in Economics as a Science

(Debt Money → Public Money)

7. (2025-) Public Money and MuRatopia Economy

Paradigm Shift

1. (1977-1985) Unifying Battles of Ideas in Economics



1.(1977-1985) Unifying Battles of Ideas in Economics



Adam Smith
The Wealth of Nations
God's Invisible Hand



Karl Marx
Das Capital

Marxian Economics

1917: Soviet Union



Leon Walras
Elements of Pure Economics

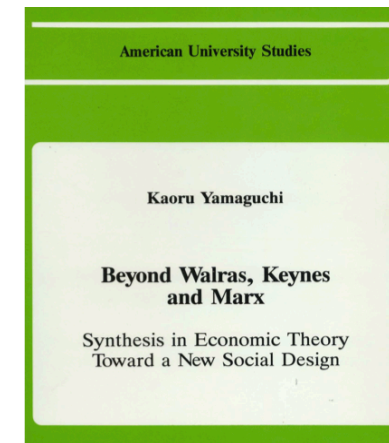
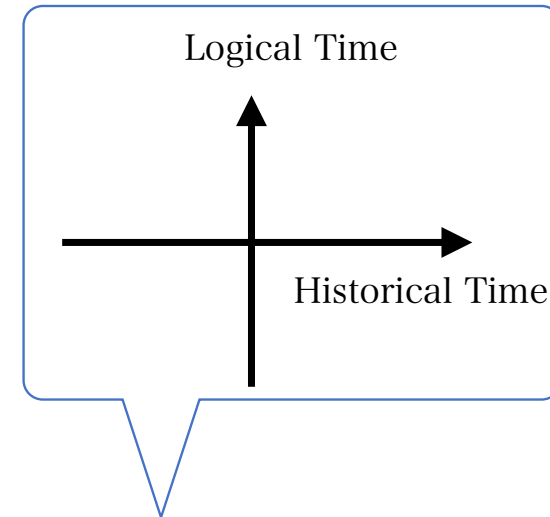
Neoclassical
Economics



John M. Keynes
The General Theory of
Employment, Interest, and Money

Keynesian Economics

Alvin Toffler
The Third Wave



MuRatopia Economy

1776

1867

1874

1936

1946

1981

1988

Industrial Revolution

Information Revolution

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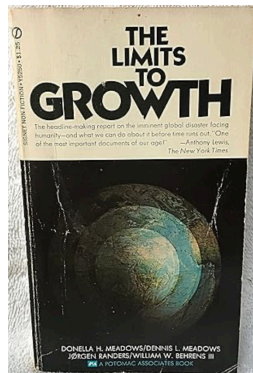
Paradigm Shift

2. (1986-2002) Futures Studies, Sustainability and System Dynamics

- Sustainability and MuRatopia Economy, Chap 5
(with mathematical analysis)

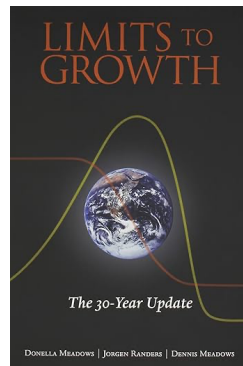
- System Dynamics modeling

Prof. Jay Forrester, MIT
World Model by
the Club of Rome



1972

Jorgen Randers
Friede-Gard Prize
2023

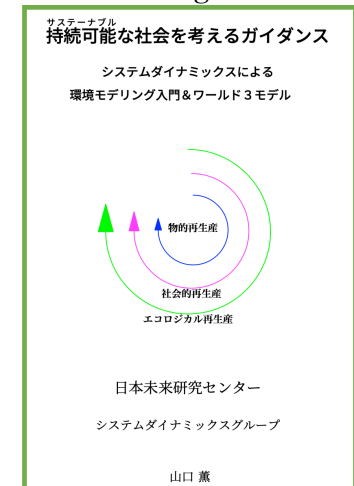


2004



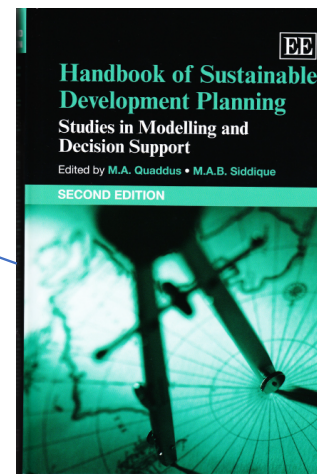
1997

Sustainability
Modeling Guide







Japan Futures Research Center

- Modeling long-term sustainability, Chap 4
sustainability with SD modeling:
 - Physical Reproducibility
 - Social Reproducibility
 - Ecological Reproducibility

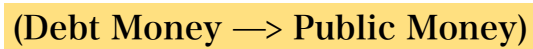



2004
2013

How Public Money is Born (part 1)

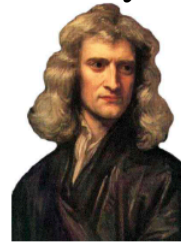
1. (1977-1985) Unifying Battles of Ideas in Economics  Striving
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3. **(2003-2009) Accounting System Dynamics
and Macroeconomic Modeling**  ASD Macro Modeling
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and the Birth of Public Money  Public Money
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Why We Need A Paradigm Shift in Economics (part 2)

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7. (2025-) Public Money and MuRatopia Economy  Paradigm Shift

3. (2003-2009) Accounting System Dynamics and Macroeconomic Modeling

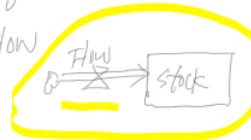
What is ASD ?
(Accounting System Dynamics)



Master of Definit
1717
de facto B/W Standard

How to capture moving objects?
Differential Equations

Stock-Flow



Birth of ASD
(Accounting System Dynamics)



"Renaissance man"

- Such transfer of insights from one setting to another helps to break down the barriers between disciplines. It means that learning in one field becomes applicable to another.

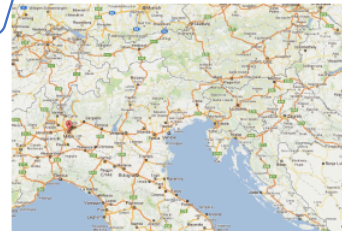
There is now a promise of reversing the trend of the last century that has been moving away from the "Renaissance man" toward fragmented specialization. We can now work toward an integrated, systemic, educational process that is more efficient, more applicable to a world of increasing complexity, and more compatible with a unity in life.

— The Beginning of System Dynamics, p.15
Jay Wright Forester —

System Dynamics
(Differential Equation)
Foundation of
Natural Science



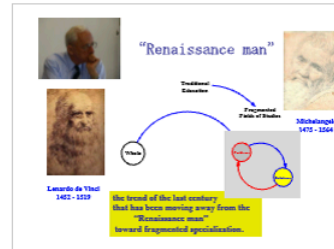
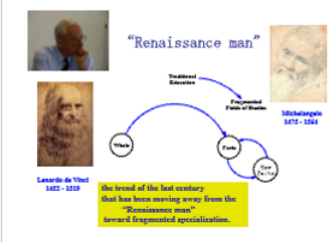
1445 - 1517



meets
in
?

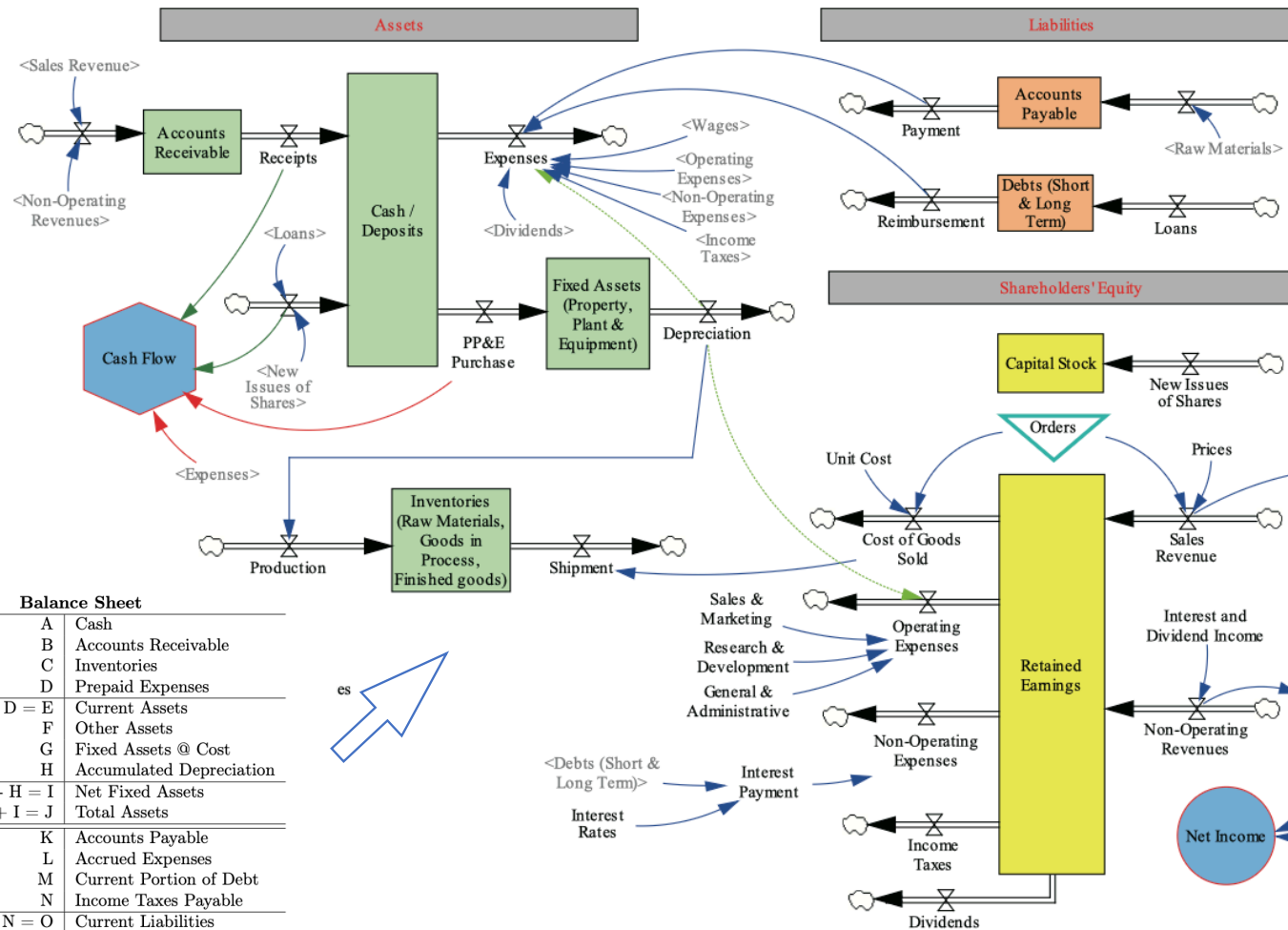


1494 in Venice
(27 pages)



3. (2003-2009) Accounting System Dynamics and Macroeconomic Modeling

Figure 3.10: Accounting System Dy

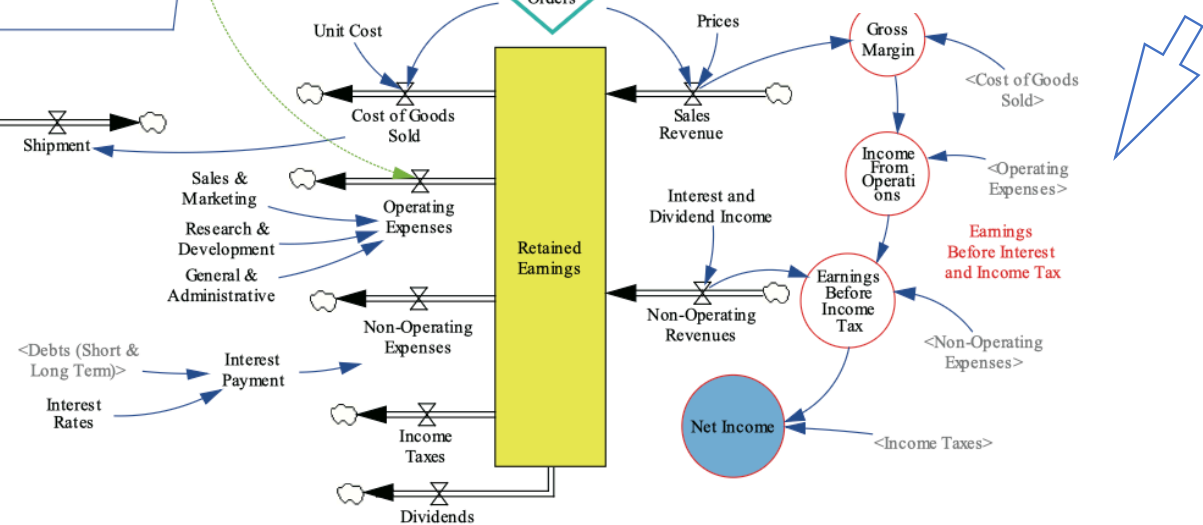


Income Statement	
1	Net Sales
2	Cost of Goods Sold
1 - 2 = 3	Gross Margin
4	Sales & Marketing
5	Research & Development
6	General & Administrative
4+5+6=7	Operating Expenses
3-7=8	Income From Operations
9	Net Interest Income
10	Income Taxes
8+9-10=11	Net Income

Table 3.2: Income Statement in Ittelson (1998)

Balance Sheet	
A	Cash
B	Accounts Receivable
C	Inventories
D	Prepaid Expenses
A + B + C + D = E	Current Assets
F	Other Assets
G	Fixed Assets @ Cost
H	Accumulated Depreciation
G - H = I	Net Fixed Assets
E + F + I = J	Total Assets
K	Accounts Payable
L	Accrued Expenses
M	Current Portion of Debt
N	Income Taxes Payable
K + L + M + N = O	Current Liabilities
P	Long-Term Debt
Q	Capital Stock
R	Retained Earnings
Q + R = S	Shareholders' Equity
O + P + S = T	Total Liabilities & Equity

Table 3.1: Balance Sheet in Ittelson (1998)



3. (2003-2009) Accounting System Dynamics and Macroeconomic Modeling

ASD Macroeconomic Modeling Series

- ① Principle of Accounting System Dynamics
- Modeling Corporate Financial Statements -
New York City, July 20-24, 2003
- ② Money Supply and Creation of Deposits (SD modeling 1)
University of Oxford, England, July 25 - 29, 2004
- ③ Aggregate Demand Equilibria and Price Flexibility (SD modeling 2)
Boston, USA, July 17-21, 2005 -> Visit Prof. Jay Forrester (Sept. 14)
- ④ Integration of Real and Monetary Sector with Labor Market (SD modeling 3)
Nijmegen, The Netherlands, July 23 - 27, 2006
- ⑤ Balance of Payments and Foreign Exchange Dynamics (SD modeling 4)
Boston, USA, July 29 – August 2, 2007
- ⑥ Open Macroeconomies as a Closed Economic System (SD modeling 5)
Athens, Greece, July 20 – July 24, 2008



Prof. Jay Forrester confirmed
my macro models are different
from his National Models

This modeling series of
5 years is done in 2008