COORDINATION BETWEEN THE MONETARY POLICY AND THE FISCAL POLICY BY MEANS OF A MODEL OF DYNAMIC SIMULATION

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ABSTRACT

Because the end of all economic model is to elevate the level of life. Each government tries to get appropriate measures to improve the national economy, without being able to make it because they refuse to understand that the whole economy is a system with subsystems that interactuan the one with the other one. The current government this promulgating laws after a superficial debate in the congress of the republic or by means of ordinances of urgency, such laws are experiments that use to the country like a laboratory. In the investigation work present is analyzed the fiscal politics and the monetary politics by means of a model of dynamic simulation and its effects that can cause in the multiple social variables and in the economic growth of the country. Demonstrating that the decisions adopted by the current administration don't favor to a real economic growth of the country.

INTRODUCTION

People that direct to the companies and organizations publish it has almost always considered that the engineering systems are very different from the social systems. When designing an engineering system, like a chemical plant for example, the engineers realize that the dynamic behavior is complicated. To simulate the behavior before building, they will be carried out extensive studies using computer models. If the chemical plant is of a new type, a small plant pilot will prove the design before building the real plant.

Although the social systems are much more complex that the engineering systems, the design of social systems has used much less consistent methods that the used ones for the technical systems. Limited to sense and to debate, the different systemic methodologies as the dynamics of systems, the methodology of the soft systems, the cybernetics of the organizations, etc. they are revolutionizing this form of thinking.

The investigation topic was chosen, motivated by the national present time that gave great importance to the government's economic politicians when beginning the work, on which opinions were formulated in all the circles. Of being continued with the fiscal policy and monetary adopted by the current government, like it will influence in the domestic economic growth?. Added this, to have the macroeconomics like working

central topic, it offered the opportunity to include in their modelamiento social factors that printed him a different shade.

IDENTIFICATION OF THE REAL PROBLEM

In spite of having alone 22 approval% the central government resists in recognizing his incompetence during the 11 months of government that he has. The most traditional form of to see the problems and to try to solve them is as it this making the current administration, to observe the symptoms and envelope the base of these to elaborate the solutions. Without knowing that their own measures underground are causing the problem.
Government's plans are designed being based at first sight on the symptoms that are appreciable, without taking into account the real problem in their group because they have not learned how to observe the problem in holistic form Fig. 1. This takes them to implant solutions that in fact are the cause of the same problem. For a bigger understanding of the problem sistémicamente Fig should be made. 2. Alone this way they will be been able to design much more effective economic plans to the short, medium and I release term.

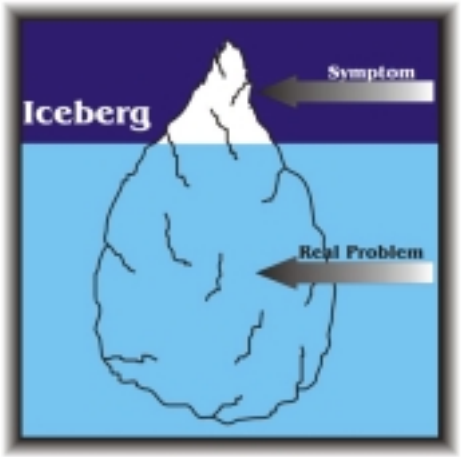


Fig. N° 1: Simple perception of the problem

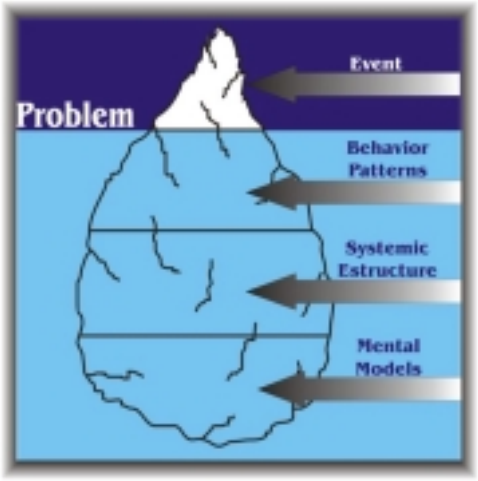


Fig. N° 2: holistic Perception (systemic) of the problem

There maybe is not form of solving the different problems that affect us today in day (Fig. 3), or it is that it lacks political will to solve them. In spite of the efforts that he/she comes carrying out the government to apply a monetary policy and disciplined district attorney has not obtained results as they waited him for it this because the alone high officials are met to design the politicians from a lineal perspective.

Fig. N° 3

MACROECONOMIC THEORY

To carry out and to sustain the investigation work we appeal the Theoretical Marco of the Macroeconomics that studies the added behavior of an economy, as long as the economic life of a country depends on millions of stocks singular carried out indistinctly by commercial enterprises, consumers, workers and government officials. Likewise the macroeconomics is nurtured of a data set that you/they gather most of the

countries to be able to explain the global tendencies of the economy, of these data the most important they are the National Bills that constitute the spine of the modern macroeconomic analysis.

We also sustain ourselves in the Keynesian Theory based on the central statement of Keynes that the market economies are not autoregulated in soft form, this is it doesn't guarantee first floor unemployment levels and high production levels in form to regulate. On the contrary the economies are at least partly subject to big fluctuations that owe you, to the overturns among optimism and pessimism that affect at the global levels of investment of the companies. An overturn toward the pessimism in the managerial community induces an abrupt fall in the investment that, in turn it can cause a global descent of the production and an increase of the unemployment.

Once such a deep economic decline arises as the great depression Keynes it sustained, the forces of the market for if same they cannot eliminate it quickly. This tastes Debit side like certain measure to that some key prices of the economy, particularly the half level of wages, they are not very flexible and they don't move with velocity when adverse shocks that impact appear. Keynes suggested that important adjustments are needed in the macroeconomic politicians, especially in the public expenditure and the tribute, as well as in the monetary policy, to counteract the economic declines and to stabilize the economy.

Keynes and their followers didn't only highlight the positive slope as characteristic of the offer curve but also the uncertainty of the added demand. That uncertainty of the demand came from the shocks of the private markets, mainly as a result of fluctuations in the trust of the investors that led to movements in the investment demand on the part of the companies. As it became so much emphasis in the shocks of the demand, keynes and their followers would outline that fiscal policies and monetary activists could be used to compensate these interferences of the private demand.

In the real Economy it is present the four types of economic institutions that are: Families, Companies, Government and the Exterior who conform the circular flow of the expense and of the entrance that provides a conceptual base to measure the Product Bruto Intern.

Families:

- They receive revenues in exchange for the offer to the companies of production factors.
- They carry out expenses in consumption goods and in services that you/they buy to the companies.
- They save part of their revenues.

Companies:

- They pay revenues to the families in exchange for the hired production factors (these payments include paid wages to the work, paid interest to the capital, produces paid by the earth and benefits).
- They carry out expenses of investment capital goods purchases to other companies and variations of their inventories.
- They receive revenues for the sale to the families of consumption goods and services.
- They receive revenues for the expenses of investment of other companies.
- They request borrowed to finance the investment expenses.

The Government:

- He/she carries out expenses in bought goods and services to the companies.
- It collects taxes of families, Companies and he/she makes transfer payments to these.
- He/she obtains loans to finance the difference between their entrance and expense.

The Rest of the World:

- He/she carries out expenses in bought goods and services to state-run enterprises and they receive revenues for the sale of goods and services to state-run enterprises.
- Ready (or he/she Requests borrowed) to the families and companies of the National economy.

FORMULATION AND ANALYSIS OF THE MODEL

Formulation of the Dynamic Model

For the formulation of the pattern the following scenarios were identified (Fig. 4), to understand as the politicians they affect the domestic economic behavior.

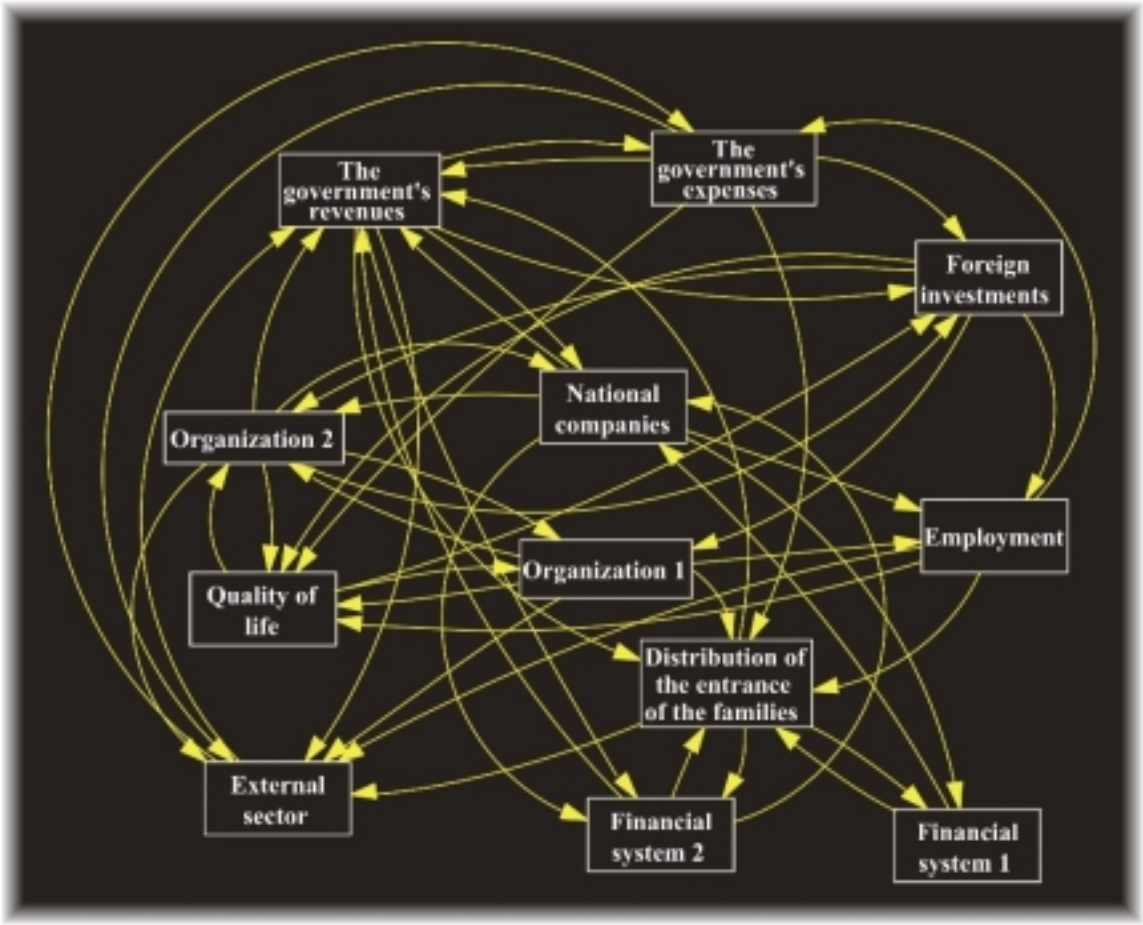


Fig. N° 4: Interrelation of sectors

QUALITATIVE VARIABLES OF THE MODEL

a) Quality of the environment

Information systematized on this topic doesn't exist, so that it is only possible to build charts of the quality from the relative environment to indexes that include diverse aspects.

Quality of the Environment	Value
Mala	1-2
To regulate	4-5
Good	6-7
Very Good	7-8
Excellent	9-10

b) Quality of life

This variable is extremely important to be able to measure the grade of evolution of the population's well-being, but its mensuration presents difficulties because it is product of a heap of factors. With ends of learning how to perceive this variable is considered a chart of securities.

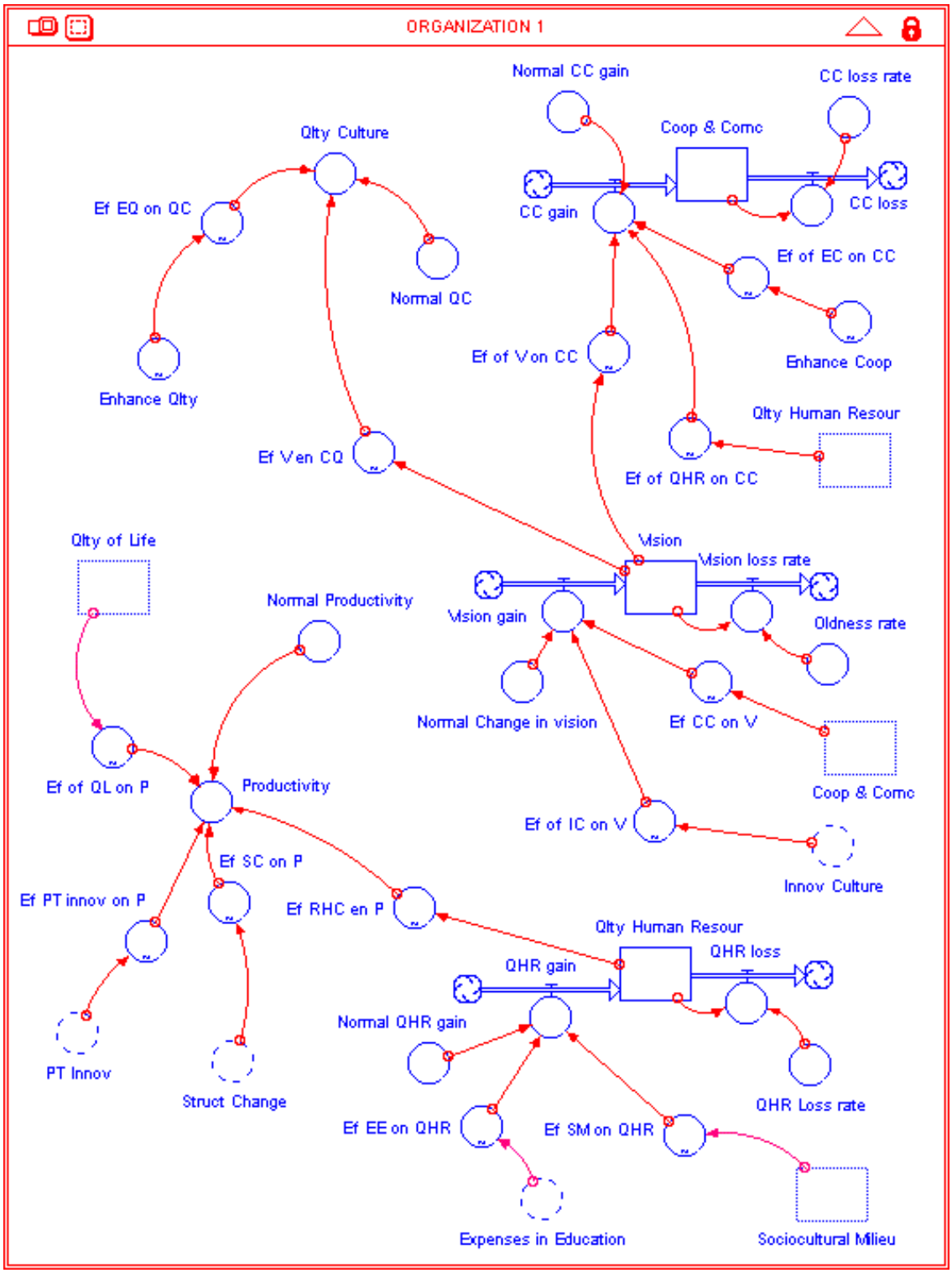
Quality of life	Value
Mala	1-2
To regulate	3-4
Good	5-6
Very Good	7-8
Excellent	9-10

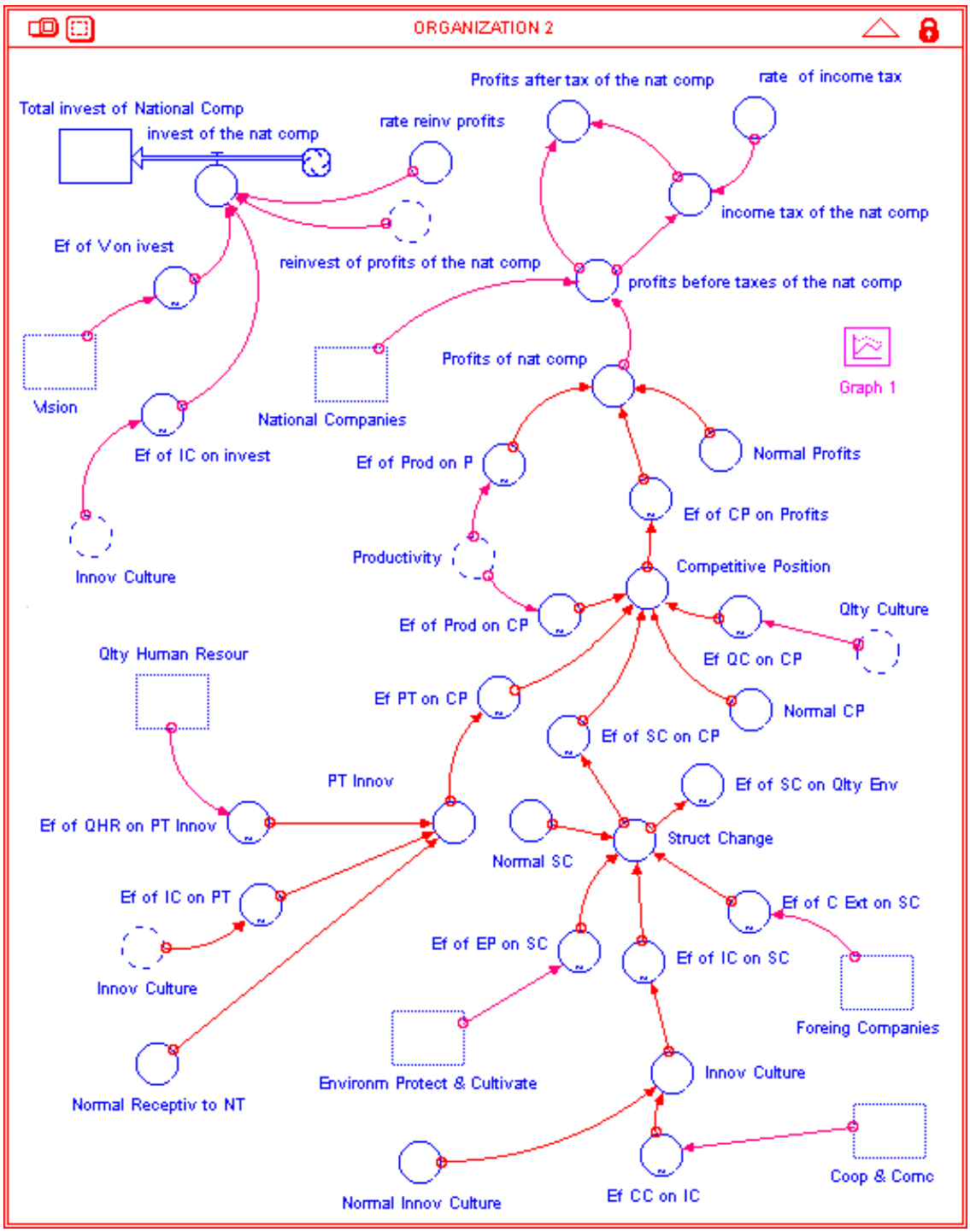
b) Economic prosperity

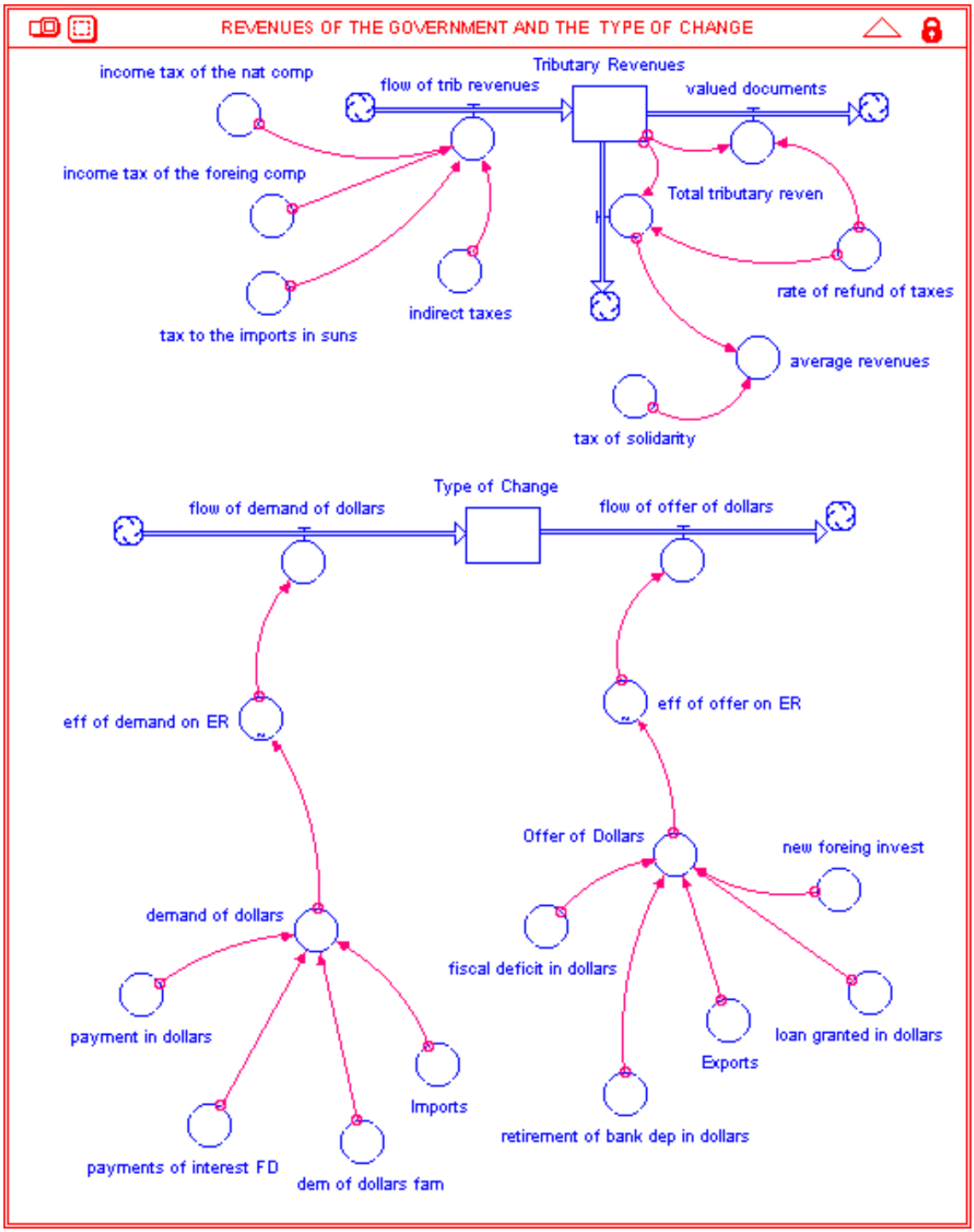
This variable is extremely important to be able to measure the grade of evolution of the quality of the population's life, but its mensuration presents difficulties because it is product of a heap of factors. With ends of learning how to perceive this variable is also considered a chart of securities, the same one that should activate a value determined in function of the behavior of the causal variables.

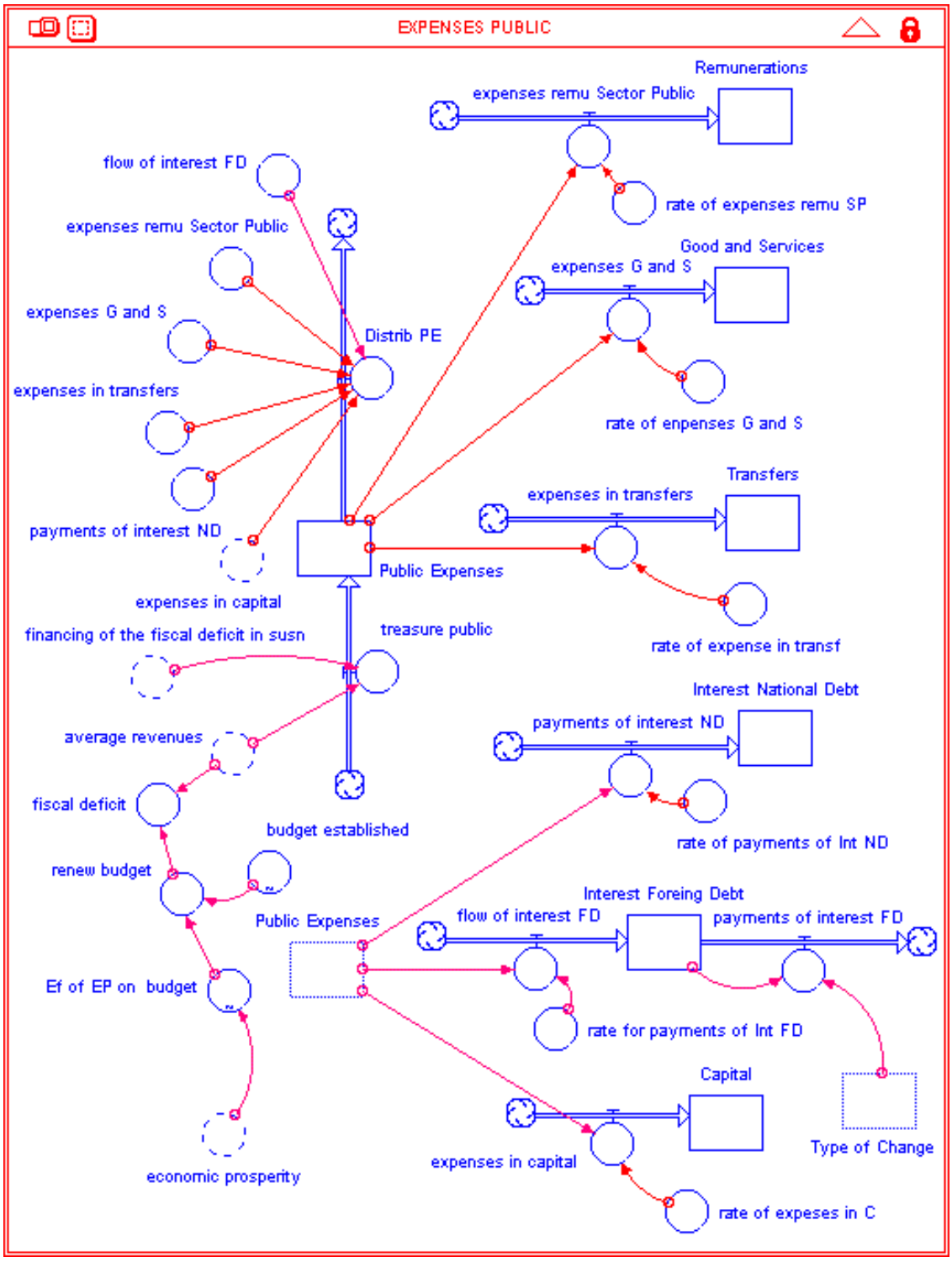
Economic prosperity	Value
Mala	1-2
To regulate	3-4
Good	5-6
Very Good	7-8
Excellent	9-10

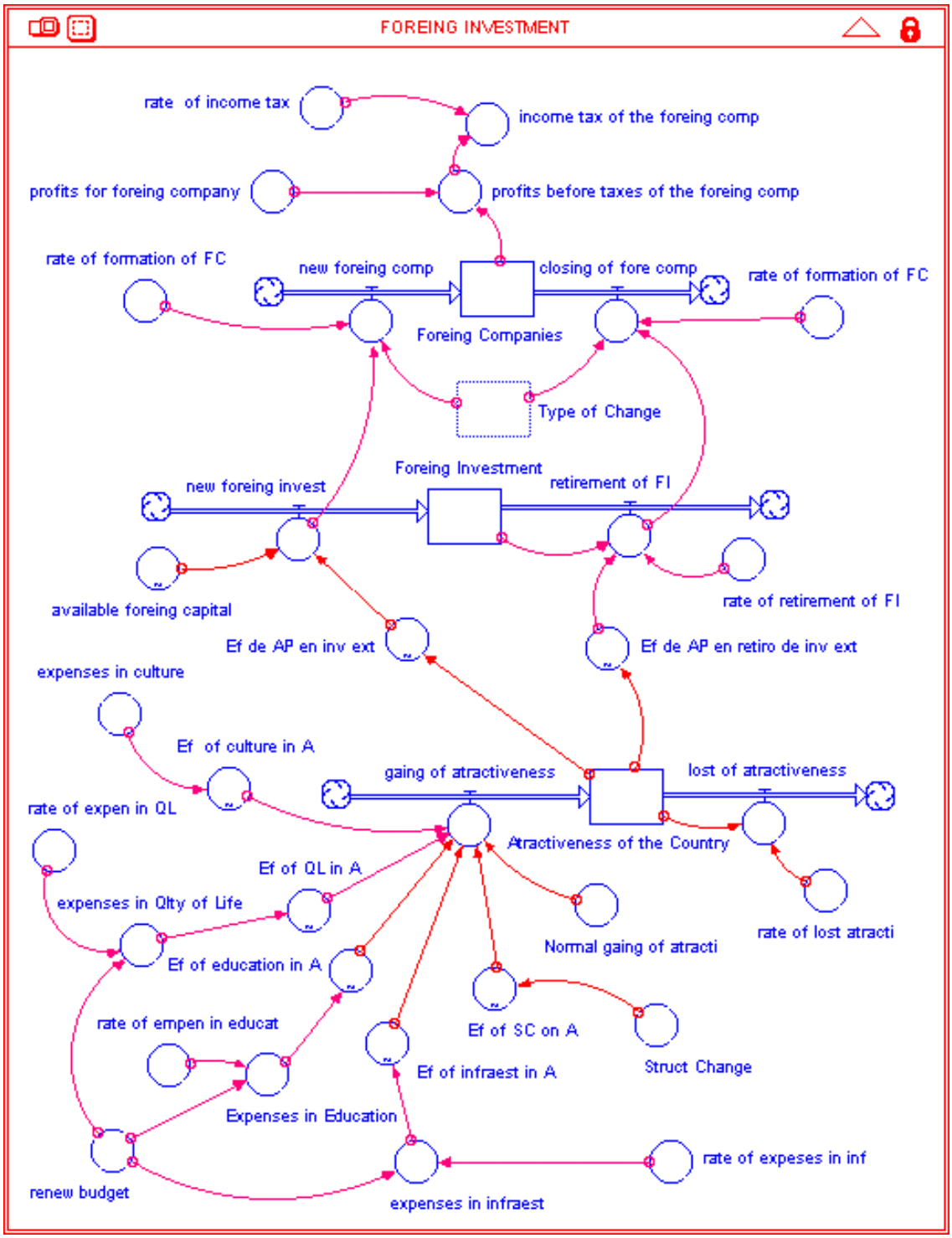
THE MODEL

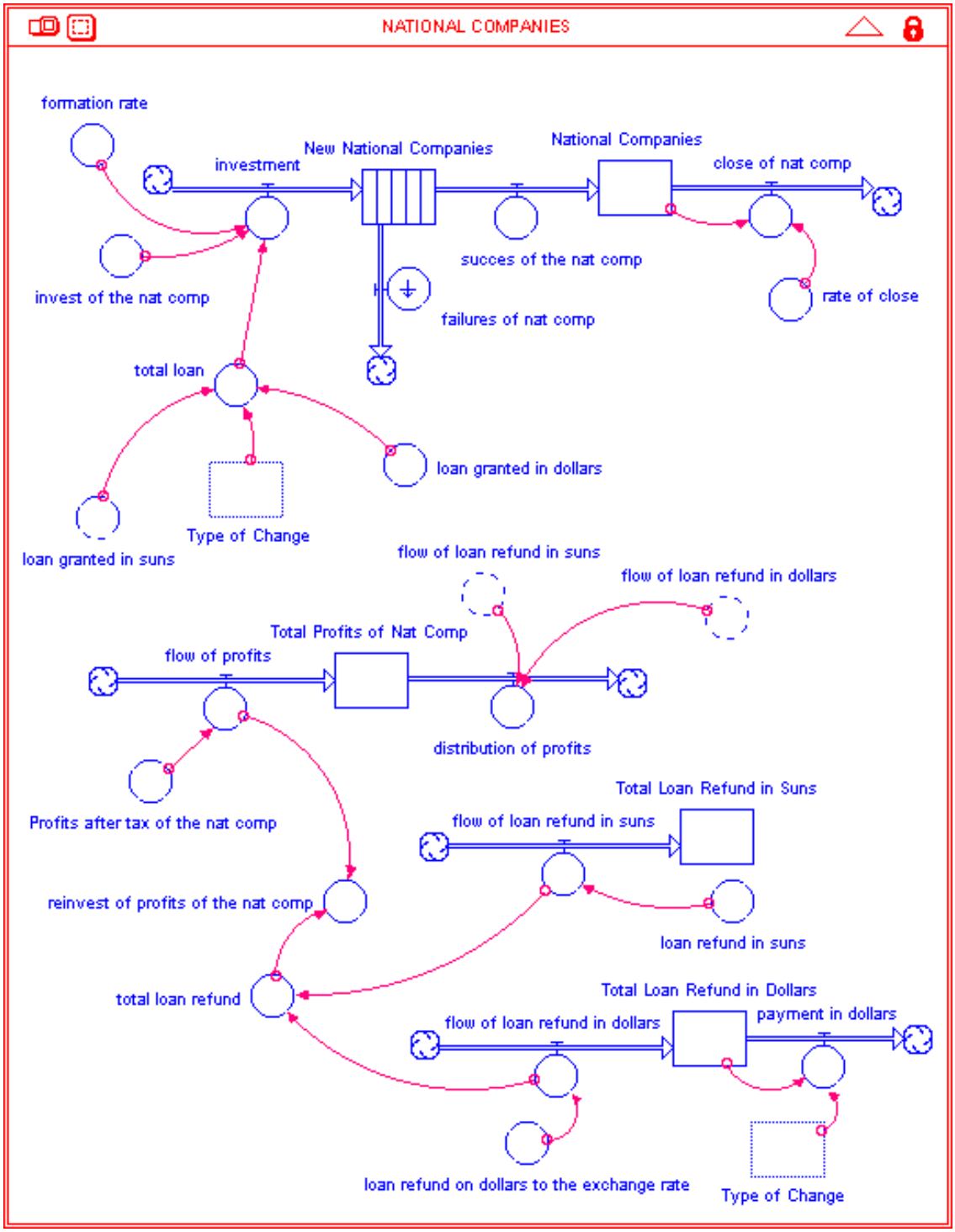

ORGANIZATION 1
Normal CC gain
CC loss rate
Coop & Comc
Qlty Culture
Ef EQ on QC
CC gain
CC loss
Normal QC
Ef of EC on CC
Enhance Coop
Ef of Von CC
Enhance Qlty
Qlty Human Resour
Ef Ven CQ
Ef of QHR on CC
Qlty of Life
Vision
Vision loss rate
Normal Productivity
Vision gain
Oldness rate
Normal Change in vision
Ef CC on V
Coop & Comc
Ef of QL on P
Productivity
Ef of IC on V
Innov Culture
Ef SC on P
Ef PT innov on P
Ef RHC en P
Qlty Human Resour
QHR loss
QHR gain
Normal QHR gain
PT Innov
Struct Change
QHR Loss rate
Ef EE on QHR
Ef SM on QHR
Expenses in Education
Sociocultural Milieu

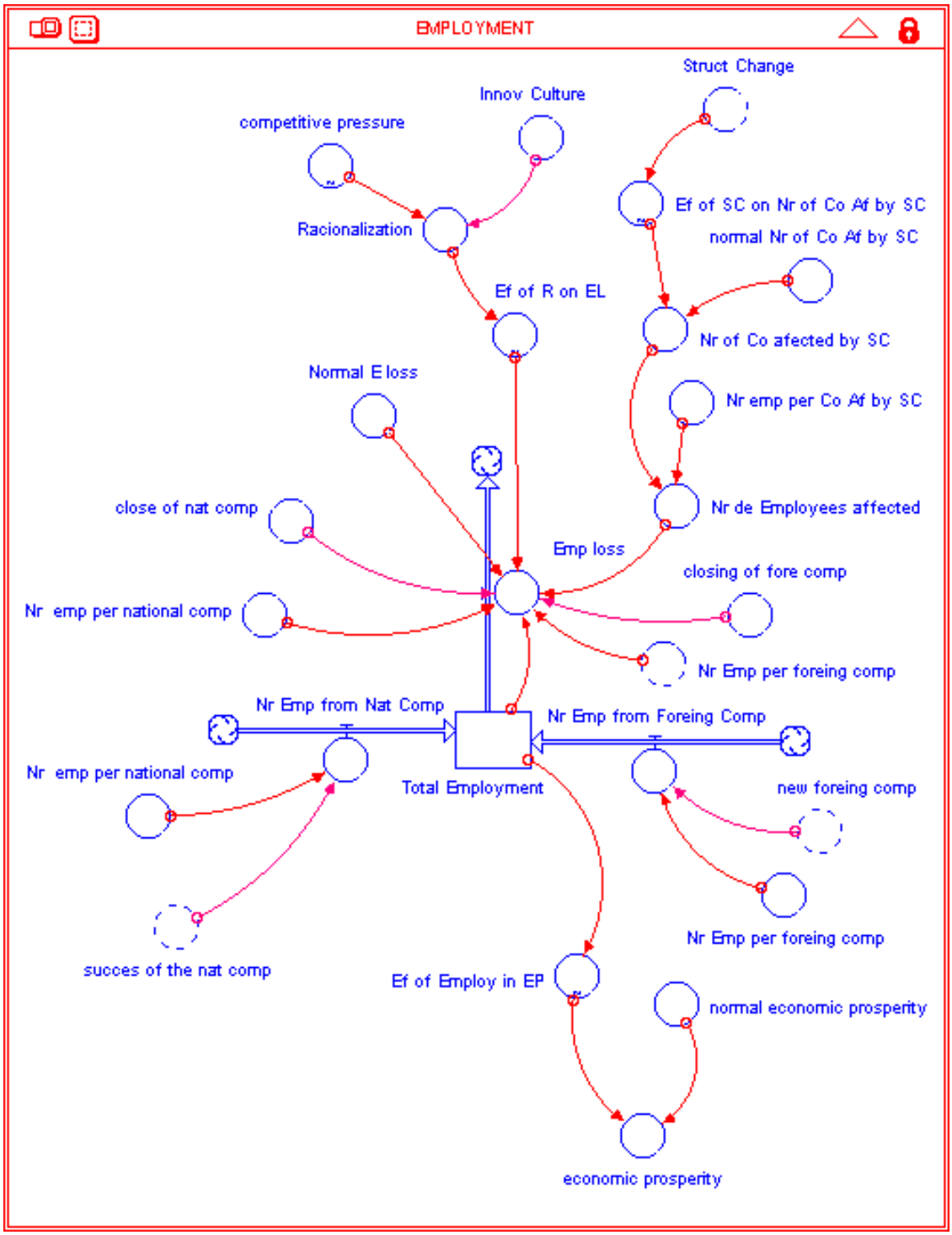

ORGANIZATION 2
Profits after tax of the nat comp
rate of income tax
Total invest of National Comp
invest of the nat comp
rate reinv profits
income tax of the nat comp
Ef of Von ivest
reinvest of profits of the nat comp
profits before taxes of the nat comp
Graph 1
Profits of nat comp
Vision
National Companies
Normal Profits
Ef of IC on invest
Ef of Prod on P
Ef of CP on Profits
Innov Culture
Productivity
Competitive Position
Qlty Culture
Ef of Prod on CP
Ef QC on CP
Qlty Human Resour
Ef PT on CP
Normal CP
Ef of SC on CP
PT Innov
Ef of SC on Qlty Env
Ef of QHR on PT Innov
Normal SC
Struct Change
Ef of IC on PT
Ef of C Ext on SC
Innov Culture
Ef of EP on SC
Ef of IC on SC
Foreing Companies
Environm Protect & Cultivate
Innov Culture
Normal Receptiv to NT
Normal Innov Culture
Ef CC on IC
Coop & Comc

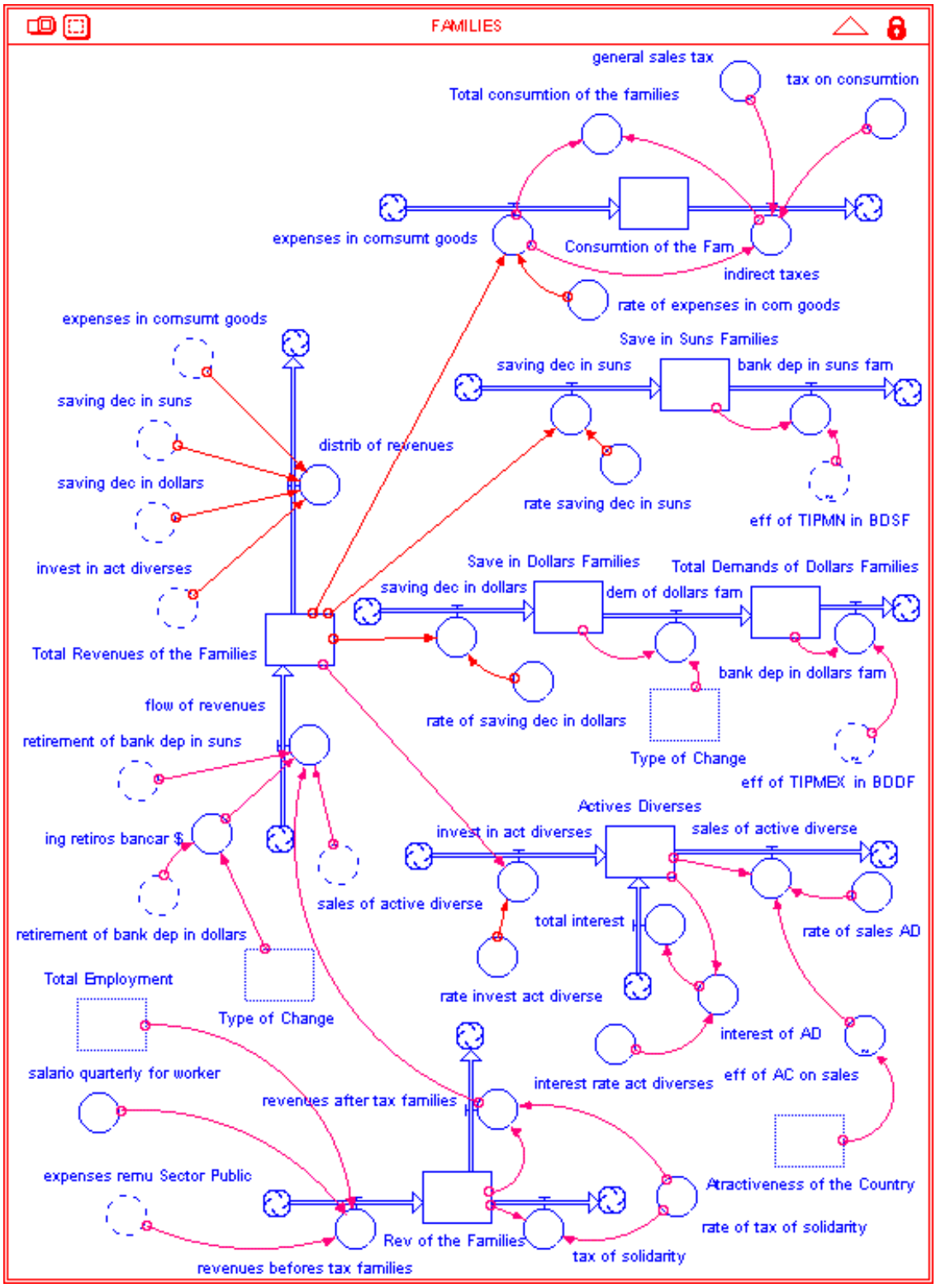

REVENUES OF THE GOVERNMENT AND THE TYPE OF CHANGE
income tax of the nat comp
flow of trib revenues
Tributary Revenues
valued documents
income tax of the foreing comp
Total tributary reven
rate of refund of taxes
indirect taxes
tax to the imports in suns
average revenues
tax of solidarity
Type of Change
flow of demand of dollars
flow of offer of dollars
eff of demand on ER
eff of offer on ER
Offer of Dollars
new foreing invest
demand of dollars
fiscal deficit in dollars
payment in dollars
loan granted in dollars
Exports
Imports
retirement of bank dep in dollars
payments of interest FD
dem of dollars fam

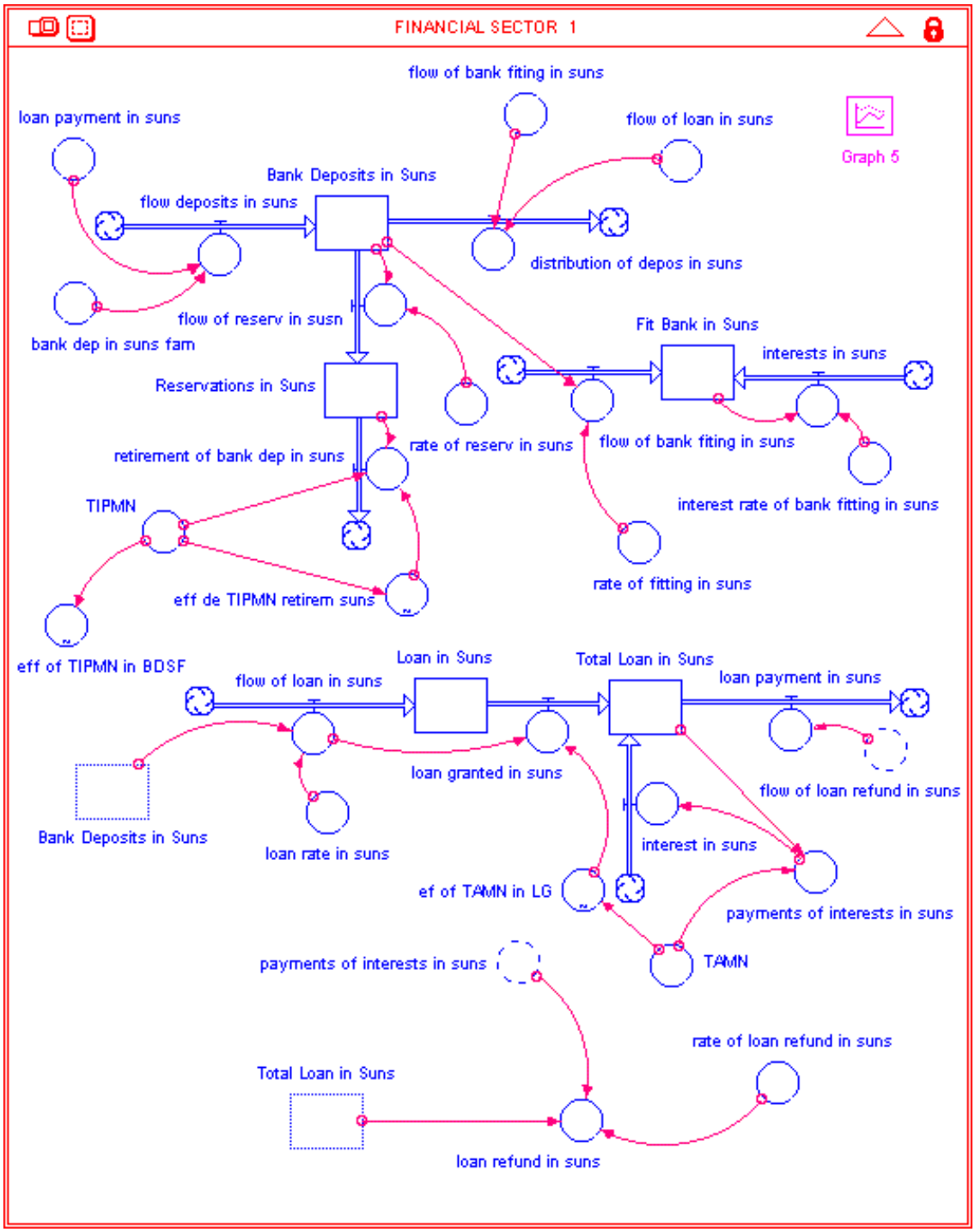

EXPENSES PUBLIC
Remunerations
expenses remu Sector Public
rate of expenses remu SP
flow of interest FD
expenses remu Sector Public
Good and Services
expenses G and S
expenses G and S
Distrib PE
expenses in transfers
rate of enpenses G and S
Transfers
expenses in transfers
payments of interest ND
Public Expenses
rate of expense in transf
expenses in capital
financing of the fiscal deficit in susn
treasure public
Interest National Debt
payments of interest ND
average revenues
fiscal deficit
budget established
rate of payments of Int ND
renew budget
Interest Foreing Debt
Public Expenses
flow of interest FD
payments of interest FD
Ef of EP on budget
rate for payments of Int FD
Capital
Type of Change
economic prosperity
expenses in capital
rate of expeses in C

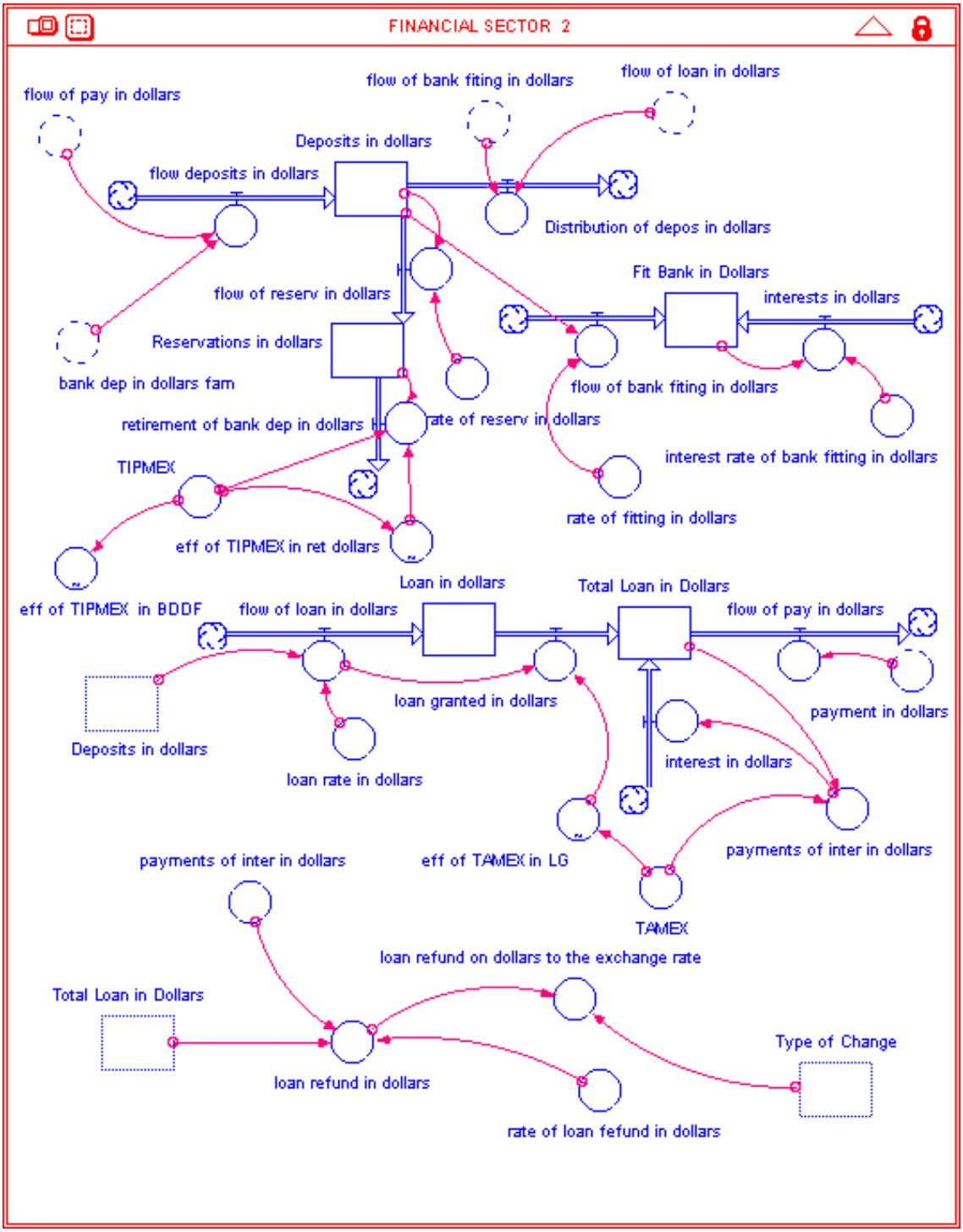

FOREING INVESTMENT
rate of income tax
income tax of the foreing comp
profits for foreing company
profits before taxes of the foreing comp
rate of formation of FC
new foreing comp
closing of fore comp
rate of formation of FC
Foreing Companies
Type of Change
Foreing Investment
new foreing invest
retirement of FI
available foreing capital
rate of retirement of FI
Ef de AP en inv ext
Ef de AP en retiro de inv ext
expenses in culture
Ef of culture in A
gaing of atractiveness
lost of atractiveness
rate of expen in QL
Atractiveness of the Country
Ef of QL in A
expenses in Qlty of Life
Normal gaing of atracti
rate of lost atracti
Ef of education in A
rate of empen in educat
Ef of SC on A
Struct Change
Ef of infraest in A
Expenses in Education
renew budget
rate of expeses in inf
expenses in infraest

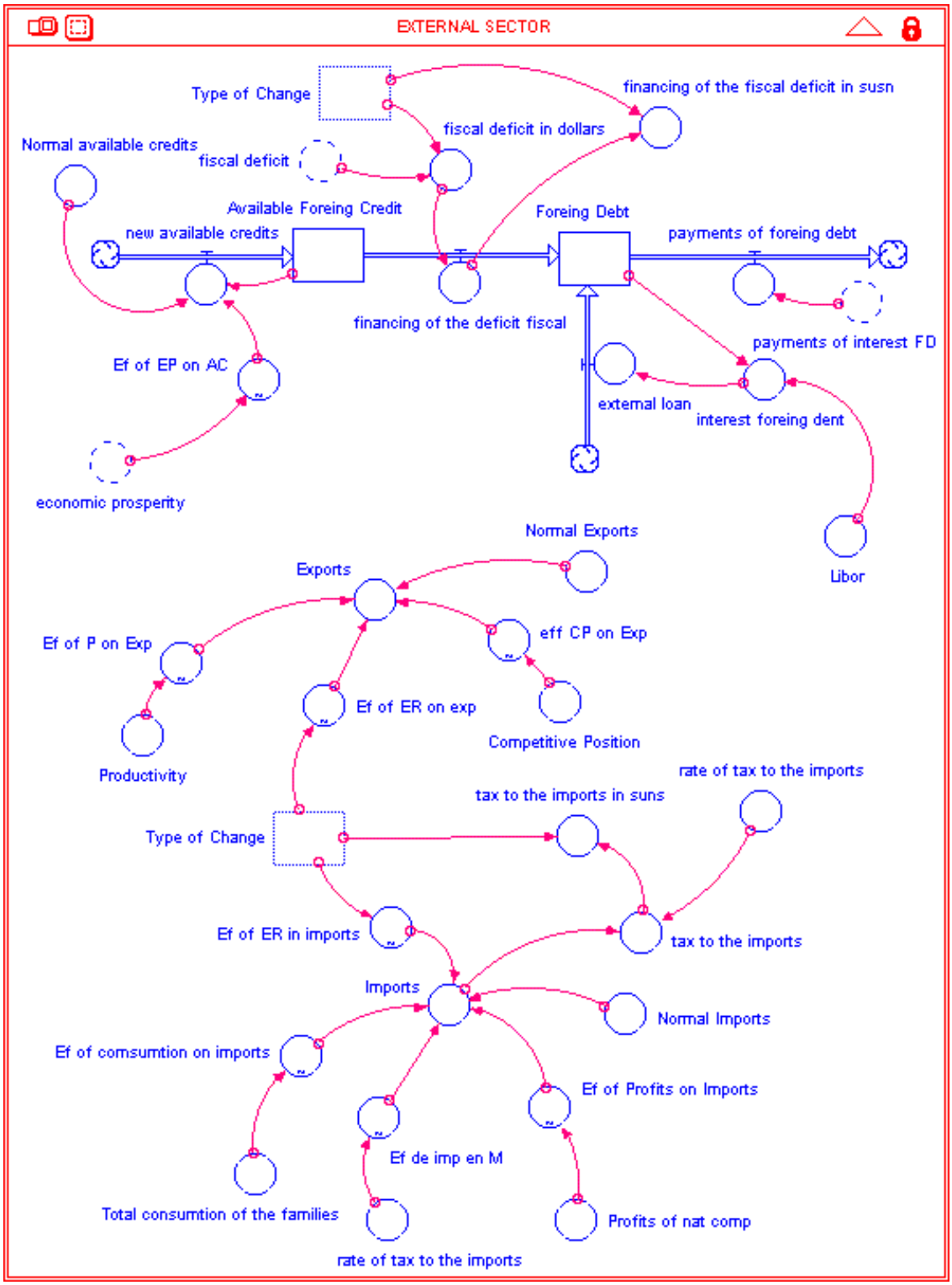

NATIONAL COMPANIES
formation rate
investment
New National Companies
National Companies
close of nat comp
succes of the nat comp
invest of the nat comp
failures of nat comp
rate of close
total loan
loan granted in dollars
loan granted in suns
Type of Change
flow of loan refund in suns
flow of loan refund in dollars
Total Profits of Nat Comp
flow of profits
distribution of profits
Profits after tax of the nat comp
Total Loan Refund in Suns
flow of loan refund in suns
reinvest of profits of the nat comp
loan refund in suns
total loan refund
Total Loan Refund in Dollars
flow of loan refund in dollars
payment in dollars
loan refund on dollars to the exchange rate
Type of Change

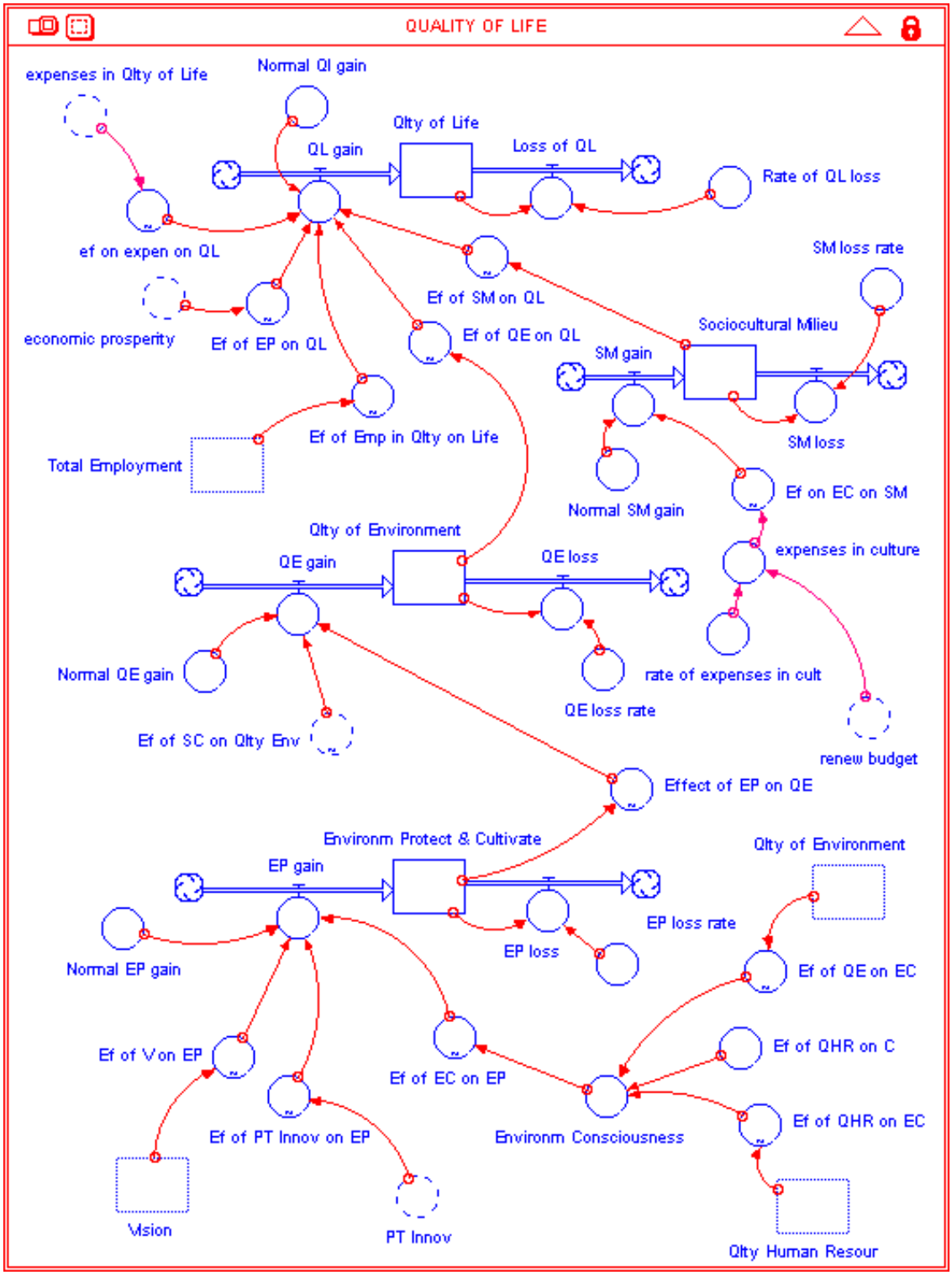

EMPLOYMENT
Struct Change
Innov Culture
competitive pressure
Racionalization
Ef of SC on Nr of Co Af by SC
normal Nr of Co Af by SC
Ef of R on EL
Nr of Co afected by SC
Normal E loss
Nr emp per Co Af by SC
close of nat comp
Nr de Employees affected
Emp loss
closing of fore comp
Nr emp per national comp
Nr Emp per foreing comp
Nr Emp from Nat Comp
Nr Emp from Foreing Comp
Nr emp per national comp
Total Employment
new foreing comp
Nr Emp per foreing comp
succes of the nat comp
Ef of Employ in EP
normal economic prosperity
economic prosperity


FAMILIES
general sales tax
tax on consumtion
Total consumtion of the families
expenses in comsumt goods
Consumtion of the Fam
indirect taxes
rate of expenses in com goods
expenses in comsumt goods
Save in Suns Families
saving dec in suns
bank dep in suns fam
saving dec in suns
distrib of revenues
saving dec in dollars
rate saving dec in suns
eff of TIPMN in BDSF
invest in act diverses
Save in Dollars Families
Total Demands of Dollars Families
saving dec in dollars
dem of dollars fam
Total Revenues of the Families
bank dep in dollars fam
rate of saving dec in dollars
Type of Change
eff of TIPMEX in BDDF
flow of revenues
retirement of bank dep in suns
Actives Diverses
invest in act diverses
sales of active diverse
ing retiros bancar $
sales of active diverse
total interest
rate of sales AD
retirement of bank dep in dollars
rate invest act diverse
Total Employment
Type of Change
interest of AD
salario quarterly for worker
interest rate act diverses
eff of AC on sales
revenues after tax families
Atractiveness of the Country
expenses remu Sector Public
rate of tax of solidarity
Rev of the Families
tax of solidarity
revenues befores tax families


FINANCIAL SECTOR 1
flow of bank fiting in suns
loan payment in suns
flow of loan in suns
Graph 5
Bank Deposits in Suns
flow deposits in suns
distribution of depos in suns
bank dep in suns fam
flow of reserv in susn
Fit Bank in Suns
interests in suns
Reservations in Suns
rate of reserv in suns
flow of bank fiting in suns
retirement of bank dep in suns
interest rate of bank fitting in suns
TIPMN
rate of fitting in suns
eff de TIPMN retirem suns
eff of TIPMN in BDSF
Loan in Suns
Total Loan in Suns
flow of loan in suns
loan payment in suns
loan granted in suns
flow of loan refund in suns
Bank Deposits in Suns
loan rate in suns
interest in suns
ef of TAMN in LG
payments of interests in suns
TAMN
payments of interests in suns
rate of loan refund in suns
Total Loan in Suns
loan refund in suns


FINANCIAL SECTOR 2
flow of pay in dollars
flow of bank fiting in dollars
flow of loan in dollars
Deposits in dollars
flow deposits in dollars
Distribution of depos in dollars
flow of reserv in dollars
Fit Bank in Dollars
interests in dollars
Reservations in dollars
bank dep in dollars fam
flow of bank fiting in dollars
retirement of bank dep in dollars
rate of reserv in dollars
interest rate of bank fitting in dollars
TIPMEX
rate of fitting in dollars
eff of TIPMEX in ret dollars
Loan in dollars
eff of TIPMEX in BDDF
flow of loan in dollars
Total Loan in Dollars
flow of pay in dollars
loan granted in dollars
payment in dollars
Deposits in dollars
loan rate in dollars
interest in dollars
payments of inter in dollars
eff of TAMEX in LG
payments of inter in dollars
TAMEX
loan refund on dollars to the exchange rate
Total Loan in Dollars
Type of Change
loan refund in dollars
rate of loan refund in dollars


EXTERNAL SECTOR
Type of Change
financing of the fiscal deficit in susn
fiscal deficit in dollars
Normal available credits
fiscal deficit
Available Foreing Credit
Foreing Debt
new available credits
payments of foreing debt
financing of the deficit fiscal
payments of interest FD
Ef of EP on AC
external loan
interest foreing dent
economic prosperity
Libor
Normal Exports
Exports
Ef of P on Exp
eff CP on Exp
Ef of ER on exp
Competitive Position
Productivity
rate of tax to the imports
tax to the imports in suns
Type of Change
Ef of ER in imports
tax to the imports
Imports
Normal Imports
Ef of comsumtion on imports
Ef of Profits on Imports
Ef de imp en M
Total consumtion of the families
Profits of nat comp
rate of tax to the imports


QUALITY OF LIFE
expenses in Qlty of Life
Normal Ql gain
Qlty of Life
QL gain
Loss of QL
Rate of QL loss
ef on expen on QL
Ef of SM on QL
SM loss rate
economic prosperity
Ef of EP on QL
Ef of QE on QL
Sociocultural Milieu
SM gain
SM loss
Ef of Emp in Qlty on Life
Total Employment
Normal SM gain
Ef on EC on SM
Qlty of Environment
QE gain
QE loss
expenses in culture
Normal QE gain
rate of expenses in cult
QE loss rate
Ef of SC on Qlty Env
renew budget
Effect of EP on QE
Environm Protect & Cultivate
Qlty of Environment
EP gain
EP loss rate
Normal EP gain
EP loss
Ef of QE on EC
Ef of V on EP
Ef of EC on EP
Ef of QHR on C
Ef of PT Innov on EP
Environm Consciousness
Ef of QHR on EC
Vision
PT Innov
Qlty Human Resour

ANALYSIS OF RESULTS OF THE MODEL

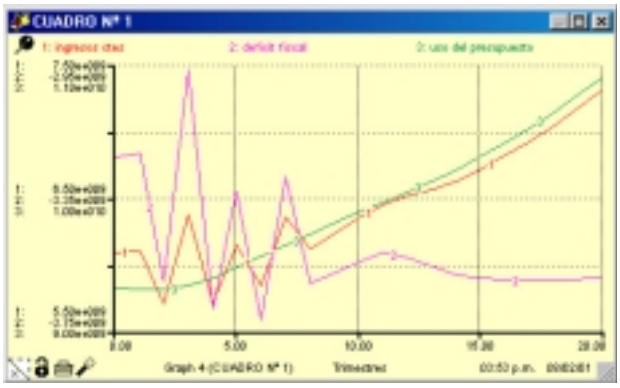
Suppositions of the Model

- Free mobility of capitals exists.
- The exchange rate is determined by the offer and the demand of dollars.

Variables of Politics of the Government

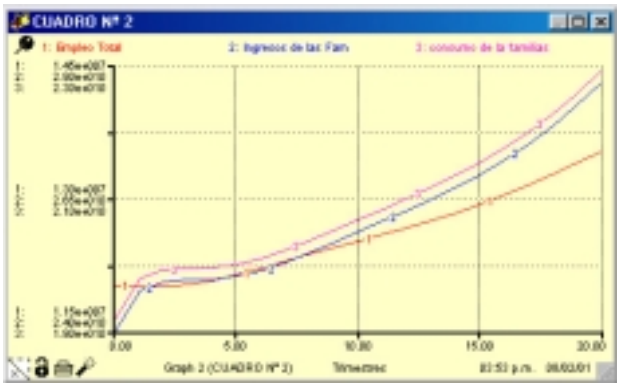
- General tax to the Sales (IGV)
- Selective tax to the Consumption (ISC)
- Income tax
- Tax of Solidarity (IES)
- Tax to the Imports
- Expenses of the Government
- The Rate of Bank Fitting in Suns
- The Rate of Bank Fitting in Dollars
- The Active Rate in Domestic currency (TAMN)
- The Active Rate in Foreign currency (TAMEX)
- The Passive Interest rate in Domestic currency (TIPMN)
- The Passive Interest rate in Foreign currency (TIPMEX)

RESULTS OF THE SIMULATION OF THE MODEL

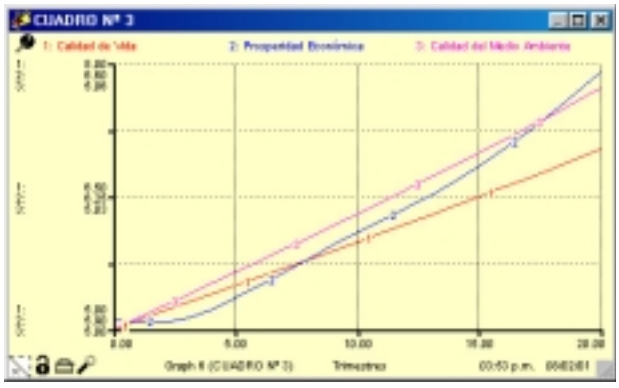


In the square Nº 1, it is appreciated the obtained results of the simulation pattern for a period of 20 trimesters, these results are given in thousands of millions of suns. This first square shows us the behavior of the government's average revenues, current expenses of the government and the tax deficit. Initially the average revenues and current expenses of the government are respectively of 6360 and 9286 million suns.

The average revenues the same as the government's current expenses during the first eight trimesters have a recurrent behavior, the average revenues overcome the 7166 thousand million suns for the last trimester and the current expenses it reaches to overcome the 10764 million suns. While the tax deficit initially reached to the 3365 million suns, it is able to increase for the last trimester to 3589 million suns.



The square Nº 2, it shows us the behavior of the employment, revenues of the families and the consumption of the families. Initially he/she leaves of an used population of twelve million people, revenues of the families of 24000 million suns and consumption of the families of 19180 million suns.
The employment for the last trimester reaches a population of 13 millions 517 thousand people, the entrance of the families it showed an increase for the last trimester reaching to 28661 million suns, in the same way the consumption of the families for the last trimester of the simulation reaches to 22906 million suns.



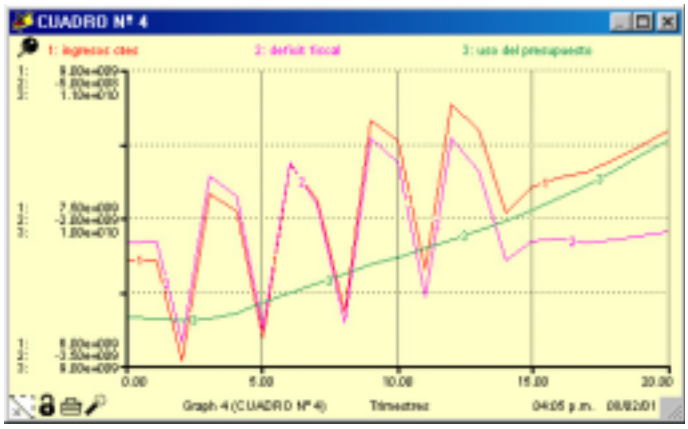
The square Nº 3, it shows us the behavior of the qualitative variables: quality of the population's life, economic prosperity and quality of the environment. Initially he/she leaves of a quality of life 5 (good), economic prosperity 5.92 (good) and quality of the environment 5 (good).
The quality of the population's life for the last trimester reaches at 7.03 (staying in quality of good life), the population's economic prosperity reaches at 6.58 (staying in good) and the quality of the environment reaches at 5.05 being able to stay almost constant during the 20 trimesters taken period for the simulation.

Scenario I

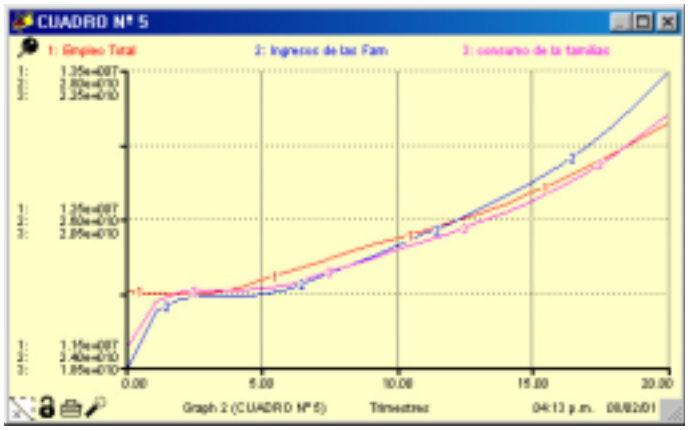
For the analysis of this scenario, the government takes the following fiscal policy measures and monetary policy:

Initial situation	New fiscal and monetary measures
IGV = 0.087 ISC = 0.025 The Tax rate to the rent = 0.2	IGV = 0.1 ISC = 0.03 The Rate of Income tax = 0.3

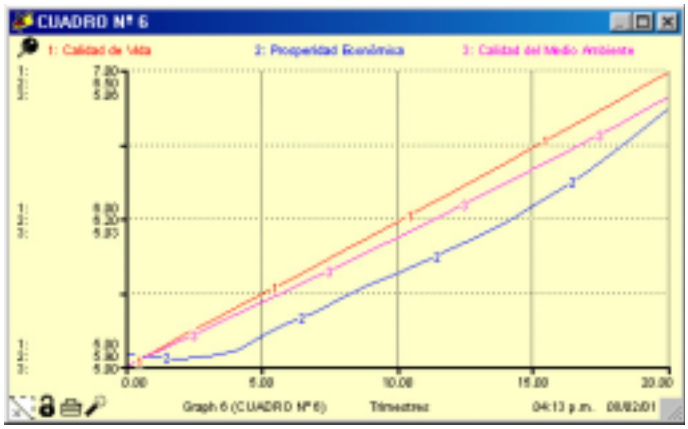
TAMN = 0.075 (For trimester) TAMEX = 0.026 (For trimester)	TAMN = 0.08 (For trimester) TAMEX = 0.03 (For trimester)



In the square Nº 4, it is observed the behavior of the government's average revenues, current expenses of the government and the tax deficit. Initially the average revenues and current expenses of the government are respectively of 6360 and 9286 million suns.
The average revenues the same as the government's current expenses during the first fourteen trimesters have a recurrent behavior, the average revenues overcome the 8225 million suns for the last trimester and the current expenses it reaches to overcome the 10414 million suns. While the tax deficit initially reached to the 3339 million suns, it is able to decrease for the last trimester to 2142 million suns.



The square Nº 5, it shows us the behavior of the employment, revenues of the families and the consumption of the families. Initially he/she leaves of an used population of twelve million people, revenues of the families of 24000 million suns and consumption of the families of 19180 million suns.
The employment for the last trimester reaches a population of 13 millions 143 thousand people, the entrance of the families sample an increase for the last trimester reaching to 27965 million suns, in the same way the consumption of the families for the last trimester of the simulation reaches to 21896 million suns.



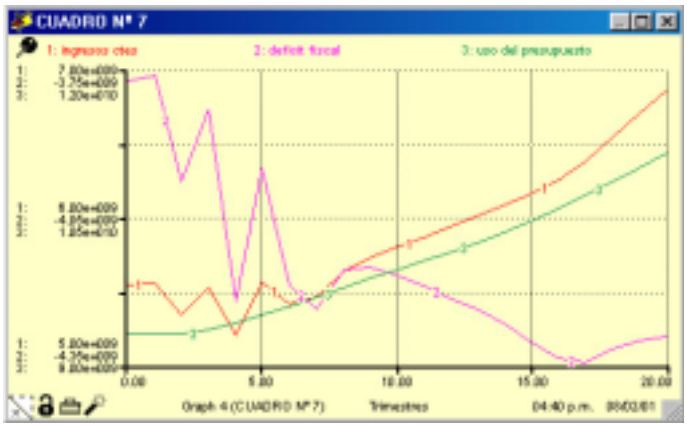
The square Nº 6, it shows us the behavior of the qualitative variables: quality of the population's life, economic prosperity and quality of the environment. Initially he/she leaves of a quality of life 5 (good), economic prosperity 5.92 (good) and quality of the environment 5 (good).

The quality of the population's life for the last trimester reaches at 6.98 (staying in quality of good life), the population's economic prosperity reaches at 6.42 (staying in good) and the quality of the environment reaches at 5.05 being able to stay almost constant during the 20 trimesters taken period for the simulation.

Scenario II

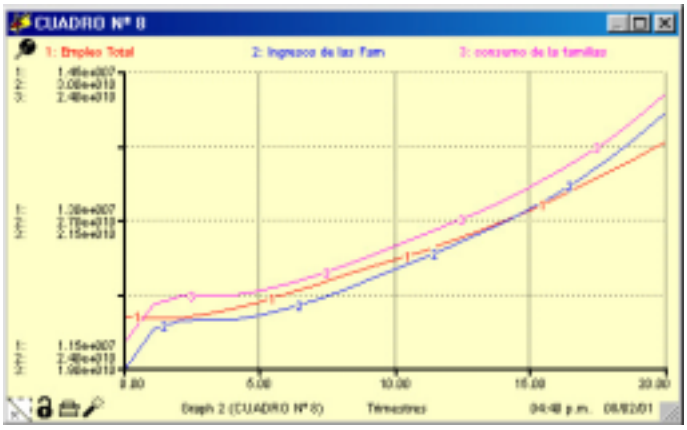
For the analysis of this scenario, the government takes the following fiscal policy measures and monetary policy:

Initial situation	New fiscal and monetary measures
IGV = 0.087 ISC = 0.025 The Tax rate to the rent = 0.2 TAMN = 0.075 (For trimester) TAMEX = 0.026 (For trimester)	IGV = 0.08 ISC = 0.02 The Rate of Income tax = 0.15 TAMN = 0.07 (For trimester) TAMEX = 0.02 (For trimester)

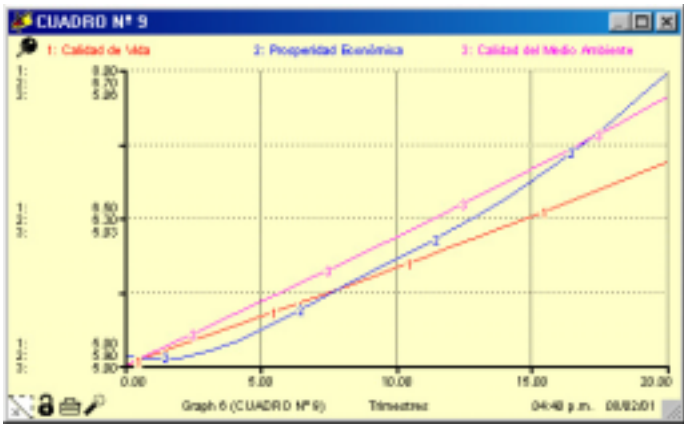


In the square Nº 7, one can observe the behavior of the government's average revenues, current expenses of the government and the tax deficit. Initially the average revenues and current expenses of the government are respectively of 6360 and 9286 million suns.

The government's average revenues for the period of the simulation (20 trimesters) they have a falling tendency, the average revenues descend to 6705 million suns for the last trimester and the current expenses it reaches to overcome the 11006 million suns. While the tax deficit initially reached to the 3339 million suns, it is able to increase for the last trimester to 4294 million suns.



The square Nº 8, it shows us the behavior of the employment, revenues of the families and the consumption of the families. Initially he/she leaves of an used population of twelve million people, revenues of the families of 24000 million suns and consumption of the families of 19180 million suns.
The employment for the last trimester reaches a population of 13 millions 780 thousand people, the entrance of the families sample an increase for the last trimester reaching to 29135 million suns, in the same way the consumption of the families for the last trimester of the simulation reaches to 23599 million suns.



The square Nº 9, it shows us the behavior of the qualitative variables: quality of the population's life, economic prosperity and quality of the environment. Initially he/she leaves of a quality of life 5 (good), economic prosperity 5.92 (good) and quality of the environment 5 (good). The quality of the population's life for the last trimester reaches at 7.06 (quality of very good life), the population's economic prosperity reaches at 6.69 (staying in good) and the quality of the environment reaches at 5.05 being able to stay almost constant during the 20 trimesters taken period for the simulation.

C0NCLUSIONES

If the government decides to increase the rate of the IGV, ISC, income tax, TAMN and the TAMEX, you arrives to the following summations:

1. The government when increasing the rate of the IGV, ISC and the income tax, is able to increase the average revenues so that this way it reduces the tax deficit. This measure also reduces the consumption of the families and the reinvestment of benefits of the companies, causing that the employment shows a smaller growth to the initial results of the simulation.
2. With an increase in the active interest rates as much in domestic currency as in foreign currency, the cost of the money is increased which reduces the negotiated credits to the companies, causing in this way that the national investments diminish.
3. As consequence of these measures the economic growth (measured by the variable quality of life, economic prosperity and quality of the environment), they show a descent in front of the initial results of the simulation.

If the government decides to diminish the rate of the IGV, ISC, income tax, TAMN and the TAMEX, you arrives to the following summations:

4. If the government diminishes the rate of the IGV, ISC and of the income tax, it is able to reduce the average revenues achieving an increment of the tax deficit. This measure also increases the consumption of the families and the reinvestment of benefits of the companies, causing that the employment shows a bigger growth to the initial results of the simulation.
5. With a reduction of the active interest rates as much in domestic currency as in foreign currency, it is possible to diminish the cost of the money which increases the negotiated credits to the companies causing in this way that the national investments increase.
6. As consequence of these measures the economic growth (measured by the variable quality of life, economic prosperity and quality of the environment), they show an increase in front of the initial results of the simulation.
7. The developed simulation pattern allows us to experience under different scenarios, which you can use real data, hypothetical data and qualitative data.
8. The data used in the simulation pattern consist of real data (year 2000) and hypothetical data, for the reason of having scarce information toasted in the BCRP, INEI and others.

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