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Motaz Khorshid and Osman M. Osman

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Motaz Khorshid* And Osman. M. Osman**

ABSTRACT

In this paper we formulate and implement an economywide model, based on the social accounting framework, for analyzing the performance of the Egyptian economy in the medium term. The model is used to asses the impact of alternative environmental conditions and policy measures on some policy targets such as, output growth and external balance. The model can be viewed as a fixed price general equilibrium demand model, with a supply determined oil sector and imports which are treated as a part of composite commodities. The basic finding of our work is that applied economy-wide models can provide fruitful insights to the process of development planning and policy analysis.

Key Words: Economy wide models-social accounting matrices -scenario simulation-policy analysis.

1. Introduction.

Till the begining of the 1970,s, applied general equilibrium analysis, using economywide models, was beyond the reach of researchers in developing countries. This can be explained basically by three points:

i) The unreliability and unconsistency of economic and social data in developing countries.

ii) The lack of a comprehensive framework to make the maximum use of the available economic data.

* Institute of Statistical Studies and Research (ISSR), Cairo University, Tharwat St., Orman, Giza, Egypt. Tel: 716084

** Institute of National Planning, Nasr City Cairo, Egypt.

iii) The cost and effort needed to build and implement an economy wide model.

During the last decade a considerable effort is undertaken on both data and modelling sides. This effort resulted in two major contributions.
First, the design of a comprehensive and consistent framework for organizing economic and social data. This framework is commonly known as "Social Accounting Matrix (SAM)"
Second, the development of a set of computerized techniques which improved and systematized the model building and data organization processes.

Since then, several well documented SAMs were compiled and used to describe the economies to which they were applied, [see, Chander 80, Mohi Eldin 78, and Pyatt 77]. Based on these data systems a set of economywide models were developed [see, Dervis 82, Drud 82, and Grais 81]. The implementation of these models proved that general equilibrium analysis can provide fruitfull insights to economic planner and policy maker.

In this paper we present an economywide model for studying the behavior of the Egyptian economy in the medium term. Our approach to model building begins generally with a SAM and then with a model structure. The SAM represents a static picture of the economic system and the major linkages within it. This is a basic requisite to any modelling effort.

Consequently, we begin by specifying the data system (or the SAM) of our model. Then a brief describtion of model structure and logic is presented. Finally, the model is used to simulate the effect of some policy measures on the performance of the economic system.

2. The data system

The macro-model, presented in this paper, is mainly designed to study the impact of alternative scenarios concerning external conditions and some policy measures on output growth and macro-economic balance. It can address a number of policy issues such as:

- How the performance of oil sector affects the behavior of the other parts of the economic system?
- What would be the impact of world prices and worker's remittances on the performance of exports, imports and the current account deficit?
- What are the effects of an increase (or decrease) in exports, investment, or government expenditure on the balance of payment and public sector saving gap?

In order to analyze these economic issues without entering in too many details, the model is kept at a highly aggregative level. It represents an economy with only one factor of production, four institutions, five activities, four commodities, and the rest of the world. Institutions are; households, private companies, public companies, and government, and each has a separate current account. The

capital account is, however, a consilidated one accross various institutions. The five activites are: agriculture, industry, construction, oil, and services. The activities deliver domestic commodities. Such commodities are either mixed with imports, resulting in composite commodities traded on the domestic market, or they are partly exported.

These economic informations are organized in the social accounting matrix shown in table (1). The SAM is a square matrix where each account (or economic actor) is represented by one row and one column. If we looked at the SAM column-wize, the expenditure pattern of various economic actors would be easily identifies. Inversely, the rows of the SAM show income receipt of different economic actors. It results then, that each non-empty cell of the SAM represents income flow from on actor to another.

Column 1 of the SAM shows how factors income is distributed to both domestic and foreign institutions. Institutions (columns 2 to 5) spend their total receipt of income on transfers between themselfs, saving to capital account, consumption on commodities, and transfers to the rest of the world. Column 5 shows the allocation of investment to various commodity groups. In columns 7 to 11 the distribution of the cost of production between value added and intermediate inputs is given. The decomposition of the aggregate demand of commodities into domestic and imported goods is shown in columns 12 to 16. In column 17 to 21 and 27 to 31, the total supply of commodities is divided between domestic

Table 1

SOCIAL ACCOUNTING MATRIX FOR THE EGYPTIAN ECONOMY (S.A.M.) 1980 / 1981

SAM

			Factors of Production	Institution Current Account: Household	Institution Current Account: Private Companies	Institution Current Account: Public Companies	Institution Current Account: Government	Consolidated Capital Account	ACTIVITIES: Agriculture	ACTIVITIES: Industry	ACTIVITIES: Construction	ACTIVITIES: Oil	ACTIVITIES: Services	COMMODITIES: Composite: Agriculture	COMMODITIES: Composite: Industry	COMMODITIES: Composite: Construction	COMMODITIES: Composite: Oil	COMMODITIES: Composite: Services	COMMODITIES: Domestic: Agriculture	COMMODITIES: Domestic: Industry	COMMODITIES: Domestic: Construction	COMMODITIES: Domestic: Oil	COMMODITIES: Domestic: Services	COMMODITIES: Imported: Agriculture	COMMODITIES: Imported: Industry	COMMODITIES: Imported: Construction	COMMODITIES: Imported: Oil	COMMODITIES: Imported: Services	COMMODITIES: Exported: Agriculture	COMMODITIES: Exported: Industry	COMMODITIES: Exported: Construction	COMMODITIES: Exported: Oil	COMMODITIES: Exported: Services	TAXES	Rest of the World	TOTAL
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	
Factors of Production		1					1493		3564	2319	733	2438	5741																					2 103	18 197
Institution Current Account	Household	2	12 839		19	117	376																										765	13 613
	Private Companies	3	939	3		1																												943
	Public Companies	4	5 239	28	4		653																										46	5 926
	Government	5	29	697	4	2249																										2 313	24	5 316
Consolidated Current Account		6		1 936	432	1 737	1 492																										1 533	6 144
ACTIVITIES	Agriculture	7																	4 486															5 155
	Industry	8																		7 231														7 760
	Construction	9																			1 503													1 503
	Oil	10																				1 464												3 283
	Services	11																	1 373	1 359		93	5 199												9 024
COMMODITIES: Composite	Agriculture	12		2 149			96	220	1 383	2 035			491																						6 341
	Industry	13		6 519			339	3 215	189	7 798	811	519	1 382																						17 372
	Construction	14					49	1 795	11	13	1	14	142																						1 923
	Oil	15		1 078			248	184	13	161	25	256	256																						2 21-
	Services	16		2 692			419	836	37	371	256	169	1 577																						6 706
COMMODITIES: Domestic	Agriculture	17												5 646																					5 646
	Industry	18													8 709																				8 709
	Construction	19														1 921																			1 921
	Oil	20															1 832																		1 832
	Services	21																5 350																	5 350
COMMODITIES: Imported	Agriculture	22												633																					633
	Industry	23													5 172																				5 172
	Construction	24																																	—
	Oil	25															324																		324
	Services	26																1 916																	1 916
COMMODITIES: Exported	Agriculture	27																																654	654
	Industry	28																																519	519
	Construction	29																																	—
	Oil	30																																1 819	1 819
	Services	31																																1 549	1 549
TAXES		32		193	30	1 416			49	73	20	31	91						-209	93	16	293	191	-404	339		99								2 313
Rest of the World		33	79	64		844	118																	1 037	4 723		331	1 816							8 227
TOTAL		34	18 519	17 613	533	5 226	5 396	6 144	5 139	7 758	1 305	3 283	9 658	5 941	13 878	1 923	2 816	6 366	5 646	8 789	1 921	1 972	7 350	699	5 122	—	334	1 816	654	519	—	1 819	1 549	2 313	8 227	

uses and demand for exports.Column 32 shows the total tax income recieved by government. Finally, in column 33 transfers from abroad to different institutions, and exports are given.

3. The model structure

Given the accounting framework, the model is completely determined by specifying agents behavior,and market adjustment process. In fact, an important part of this process can be done within the SAM framework by specifying, for each non-empty cell, the behavioral or allocation rule governing the flow of income in it. This procedure facilitates and controles the model building process, and makes the model more transparent. Applying this procedure to our model we get the following specifications:(1)

First, The allocation of the gross national product between different recipients of income (column 1 of the SAM) is done assuming a budget share dependent on the level of GNP. Institutions are assumed to allocate their total receipts on different outlays (columns 2 to 5) as fixed shares of their nominal income. The only exception to this rule is household concumption where a linear expenditure system (LES) is adopted.

Second, Intermediate demand is determined using an input-output coefficients (the intersection of rows 12 to 16 and

(1) For more details, see the complete set of equations in the appendix.

column 7 to 11). By exogenously specifying investments (column 6), total aggregate demand is completely determined, it is the sum of firms intermediate demand, households and government consumption, and investment. These demands are for composite commodities composed of both imports and domestic goods.

Third, aggregate demand for composite goods is then allocated between demand for imports and domestically produced components, (columns 12 to 16), through a cost minimization subjected to a CES constraints [see, Drud 82].

Fourth Production of Oil sector is assumed to be exogenous to the model. Oil exports are determined as an excess of oil production over the domestic demand for petroleum products. Exports of agriculture, industry, and services are assumed to be sensitive to the ratio of world price of exports to the supply price of Egyptian exports.

Now we turn to the assumptions concerning market adjustment. First, factor markets are not modelled. Net prices are all assumpted exogenous. Second, on the product market, production is demand determined for all sectors, except oil and petroleum products. In this sector, production is assumed exogenous and then the model is supply determined.

The model is a fixed price one. The prices do not adjust in response to changes in demand, they are cost determined. Nevertheless, in the model, prices influence aggregate demand for commodities, decomposition of this demand, and exports.

At this stage, prices, investment, exports, and production of oil sector are known, the rest of the variables are determined simultaneously in order to find the level of activity which equalizes injections and leakages.
The comprehensive list of variables and model relations are provided in the appendix.

4. Scenario Simulation

In the present section an attempt is made to combine a selected set of economic changes and policy actions in order to evaluate their simultaneous effect on the behavior and performance of the economic system. The effect of changes in these issues will be tested against the results of the model reference path which represent the most probable scenario of medium term growth of the Egyptian economy. Then, beside the most likely scenario, we combined some policy areas to form an optimistic and a pessimistic scenario.

The optimistic scenario consists of 5% increase in growth rates of remittances, oil output,and exports, plus a 3% increase in growth of investment compared to the reference path assumptions. A recovery in world markets coupled with an exports promotion policy would allow non-oil exports to grow rapidly. This world recovery with new discoveries of oil may lead to increasing petroleum out put and then investments. The pessimistic scenario is obtained by reversing the signs or directions of the growth rates in

the optimistic scenario.

Table (2) compares optimistic and pessimistic scenarios with the results of the reference path. In general the impact on most policy targets are quite impressive.
If the optimistic scenario holds, GDP will grow rapidly attaining 9.4% on the average, with a relative change from the reference path results reaching 61%. The possitive effect of higher growth of aggregate demand (investment and exports) and of oil production on sectoral growth is obvious. Growth in private consumption accelerates reaching 8.17%. Of course, the high performance of the economy induces a higher growth of imports (9.2%). The optimistic scenario, leads also to an improvement in the external balance (15% reduction in the current account deficit as a percentage of GDP). In case of the pessimistic scenario, reversed effects are observed on all policy targets.

To sum up, favorable development in exports, investment, and the performance of oil sector, would substantially push up words the growth rate of the economy. The effect on both the external and public components of the macro-economic balance is also quite significant. Neverthless, the current account deficit would still be at 17% of GDP which is relatively a high proportion. On the other hand, a bad performance of oil sector,coupled with low investment, exports, and remittances growth rates, would result in a sizable drop in both output growth and external balance.

Table (2)

The Impact of Varying Economic Conditions On The Performance of The Economic System.

	Reference path. averages 82/83-86/87	Optimistic Scenario		Pessimistic Scenario	
		Indicator	Relative change %	Indicat. or	Relative change %
A. Annual growth rate (Constant prices)					
Output (at factor Cost)					
Agriculture	3.88	6.86	76.8	0.51	-86.6
Industry	6.89	10.28	49.2	2.76	-59.9
Construction	6.00	8.92	48.8	1.71	-71.4
Services	6.35	9.86	55.2	2.40	-62.2
GDP	5.81	9.41	61.9	1.76	-69.6
Components of final demand vector					
Private Consumption	4.94	8.17	65.3	1.42	-71.2
Public Consumption	5.06	5.06	0.0	5.06	0.0
Imports	6.07	9.29	25.9	2.16	-64.3
Exports	5.08	10.65	109.6	0.37	-107.5
B. Balance of payments indicators (value terms)					
Resource Gap(%of GDP)	34	31	-8.8	36	5.9
Current account deficit (% of GDP)	20	17	-15.0	23	15.0

Finally, the previous scenario simulations point out the sensitivity of the Egyptian economy to its environmental conditions which affect significantly remittances, exports, and demand for petroleum products.

5. Conclusion

In this paper an applied economy wide model is formulated, implemented, and used to study the impact of some policy issues on the performance of the Egyptian economy in the medium term. It illustrates the approach to model building which starts with a social accounting matrix (SAM) and hense with the structure of the economy in the base year. This approach simplifies and systematizes the formulation process and makes the model more transperent.

Economically, the model can be viewed as a special case of the standard multisector keynsian model. The main difference is due to the treatement of oil sector (supply driven production) and the treatement of imports (the concept of composite commodity.

In fact, the model presented here can serve as a useful experimental tool for policy analysis, if it is used to address questions embodied in its structure and by keeping always in mind its limitations. The model can be used efficiently to study mechanisms and responses of the economy to external shocks. Its structure is simple and flexible. Nevertheless, the model has a number of limitations which call for further improvements. One abvious

limitation is the fixity of prices. In the model prices do not adjust in response to change in demand, they are cost determined. Another limitation is that the supply of production is assumed to be completely elastic. Finally, the model does not address explicitely issues of income distribution, Indeed, policy measures and external changes contributing to the adjustment of the economy are usually not distributionally neutral.

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Appendix

A- Model Relations

Bloc 1: Price Relations (*)

1) $PD_i = \bar{V}_i + \sum_{i=1}^{5} \bar{\alpha}_{ij} P_i$; $i=1,2,\ldots,5$

2) $\tilde{PD}_i = PD_i \ (1+\bar{\tau}_i)$; $i=1,2,\ldots,5$

3) $PM_i = \bar{e} \ \bar{\pi}_i^m \ (1+\bar{\tau}m_i)$; $i=1,2,4,5$

4) $P_i = \frac{1}{\bar{z}_i} \{\bar{\delta}_i \ {}^{\bar{\sigma}_i}_{PM_i} \ {}^{(1-\bar{\sigma}_i)} + (1-\bar{\delta}_i) \ {}^{\bar{\sigma}i}_{PD_i} \ {}^{(1-\bar{\sigma}_i)}\}^{1/(1-\bar{\sigma}_i)}$

; $i=1,2,\ldots,5$

5) $PE_i = PD_i \ (1+\bar{\tau}e_i)$; $i=1,2,5$

6) $\bar{e}\bar{\pi}_4^e = PD_4 \ (1+\tau e_4)$

Bloc 2: Income and Expenditure Relations

Allocation of GNP.

1) $R_i = \{\bar{\rho}_i^o + \bar{\rho}_i^1 \exp[-\bar{\beta}_r/Z]\} \ Z$; $i=1,2,\ldots,5$

, $\sum_{i=1}^{5} \rho_i^o = 1$ and $\sum_{i=1}^{5} \bar{\rho}_i^1 = o$

Allocation of households, companies, and government incomes.

2) $H_i = \bar{h}_i \ . \ THR$; $i=1,2,\ldots,6$

3) $HC_i = P_i \ \bar{\gamma}_i + \bar{\Delta}_i \ \{H_5 - \sum_j P_j \ \bar{\gamma}_j\}$; $i=1,2,4,5$

; $\sum_i \bar{\Delta}_i = 1$, and $0 \leq \bar{\Delta}_i \leq 1$

4) $CP_i = c\bar{p}_i \ . \ TPR$; $i=1,2,3,4$

5) $CU_i = c\bar{u}_i \ . \ TPU$; $i=1,2,3,4,5$

(*) All variables with a bar are exogenous to the model. All variables pertain to the same time period.

Aggregate demand for commodities:

6) $U_1 P_1 = HC_1 + \bar{\bar{GC}}_1 + P_1 \bar{\theta}_1 \bar{I} + \sum_{j=1}^{5} \bar{\alpha}_{1j} P_1 X_j^d$

7) $U_2 P_2 = HC_2 + \bar{\bar{GC}}_2 + P_2 \bar{\theta}_2 \bar{I} + \sum_{j=1}^{5} \bar{\alpha}_{2j} P_2 X_j^d$

8) $U_3 P_3 = P_3 \bar{\theta}_3 \bar{I} + \sum_{j=1}^{5} \bar{\alpha}_{3j} P_3 X_j^d$

9) $U_4 P_4 = HC_4 + \bar{\bar{GC}}_4 + P_4 \bar{\theta}_4 \bar{I} + \sum_{j=1}^{5} \bar{\alpha}_{4j} P_4 X_j^d$

10) $U_5 P_5 = HC_5 + \bar{\bar{GC}}_5 + P_5 \bar{\theta}_5 \bar{I} + \sum_{j=1}^{5} \bar{\alpha}_{5j} P_5 X_j^d$

Demand for domestic and imported goods

11) $D_i = \bar{z}_i^{(\bar{\sigma}_i - 1)} (1-\bar{\delta}_i) (P_i / \tilde{PD}_i)^{\bar{\sigma}_i} U_i \quad ; \quad i=1,2,\ldots,5$

12) $M_i = \bar{z}_i^{(\bar{\sigma}_i - 1)} (1-\bar{\delta}_i) (P_i / PM_i)^{\bar{\sigma}_i} U_i \quad ; \quad i=1,2,4,5$

Exports:

13) $E_i = \bar{\bar{EB}}_i \, (\bar{e}\bar{\pi}_i^e / PE_i)^{\bar{\eta}_i} \quad ; \quad i=1,2,5$

$E_4 = \bar{X}_4^d - D_4$

Production:

14) $X_i^d = E_i + D_i \quad ; \quad i=1,2,5$

$X_3^d = D_3$

Accounting relations:

15) $THR = R_1 + CP_1 + CU_1 + \bar{G}_1 + \bar{e}\bar{\bar{F}}_h$

16) $TPR = R_2 + H_1 + \bar{G}_2 + CU_2$

17) $TPU = R_3 + H_2 + \bar{G}_3 + CP_2 + \bar{e}\bar{\bar{F}}_c$

18) $GREV = R_4 + H_3 + CP_3 + CU_3 + NIT + \bar{e}\bar{\bar{F}}_c$

Bloc 2 (Continued)

19) $$NIT = \sum_{\substack{i=1 \\ i\neq 3,4}}^{5} \bar{\tau}_i \, PD_i \, D_i + \sum_{\substack{i=1 \\ i\neq 3}}^{5} \bar{\tau}m_i \, \bar{\pi}_i^m \, M_i + \sum_{\substack{i=1 \\ i\neq 3,4}}^{5} PD_i \, \bar{\tau}e_i \, E_i + PD_4 \, \tau e_4 \, E_4$$

20) $$Z = \bar{V}_4 \, \bar{X}_4^d + \sum_{\substack{i=1 \\ i\neq 4}}^{5} \bar{V}_i \, X_i^d + \bar{e}\bar{F}_r + \bar{G}_7$$

21) $$SG = \sum_{i=1}^{5} P_i \, \bar{\theta}_i \, I - (H_4 + \bar{G}_4 + CP_4 + CU_4)$$

22) $$TG = \{H_6 + \bar{G}_6 + CU_6 + \sum_{\substack{i=1 \\ i\neq 3}}^{5} \bar{e} \, \bar{\pi}_i^m \, M_i\} - .\{\bar{e}(\bar{F}_r + \bar{F}_h + \bar{F}_g + \bar{F}_e + \bar{\pi}_4^e \, E_4) + \sum_{i\neq 3,4} PE_i \, E_i\}$$

23) $$SG = TG.$$

B- List of Variables

Variables		Equation number
Endogenous:		
a) Price module		
P_i	Price of composite good i, i=1,2,...,5	(4)
PD_i	Producer price of domestic good i, i=1,2,...,5	(1)
$\tilde{PD}_i$	Market price of domestic good i, i=1,2,...,5	(2)
PE_i	Domestic supplier pirce of exported good i, i=1,2,4,5	(5)
PM_i	Landed price of imported good i, i=1,2,4,5	(3)
τe_4	Export tax rate for oil sector	(6)
b) Income and expenditure module.		
CP_i	Allocation of private companies income to different institutions , i=1,2,...,4	(4)
CU_i	Allocation of total public companies income to different institution i=1,2,...,5	(5)
D_i	Demand for domestic commodity i; i=1,2,...,5	(11)
E_i	Demand for exports of commodity i, i=1,2,4,5	(13)
GREV	Total government income	(18)
H_i	Allocation of total household resources to different recipient of income, i=1,2,...,6	(2)
HC_i	Households expenditure on commodity i, i=1,2,4,5	(3)
M_i	Demand for imported good i, i=1,2,4,5	(12)
NIT	Net indirect taxes	(19)
R_i	Allocation of gross national product between different recipient of income, i=1,2,...,5	

Variables		Equation number
SG	Saving Gap	(21)
TG	Current account deficit	(22)
THR	Total household resources	(15)
TPR	" private companies income	(16)
TPU	" public companies income	(17)
U_i,	Aggregate demand for commodity sector i, i=1,2,...,5	(6) to (10)
X_i	Production of sector i at constant prices, i=1,2,...,5	(14)
Z	Gross natational product of factor prices	(20)
Exogenous		
$\bar{cP}_i$	Percentage of private companies income allocated to institution i, i=1,2,...,5	
$\bar{cU}_i$	Percentage of public companies income allocated to different recipient of income.	
$\bar{EB}_i$	Exports of commodity i when domestic supplier price equal world price of exports	
$\bar{e}$	Exchange rate	
$\bar{F}_c$	transfers to public companies from abroad	
$\bar{F}_g$	transfers to government from abroad	
$\bar{F}_h$	transfers to households from abroad	
$\bar{F}_r$	Worker's remittances	
$\bar{G}_i$	Allocation of government income to different institution , i=1,2,...,7	

Variables		equation number
Exogenous (Continued)		
$\bar{GC}_i$	government consumption of commodity i, i=1,2,4,5	
$\bar{h}_i$	percentage of total household resources (THR) allocated to institution i, i=1,2,...,6	
$\bar{I}$	Total investment demand	
$\bar{V}_i$	Net price of commodity i, i=1,2,...,5	
$\bar{X}_4^d$	Gross output of oil sector	
$\bar{\pi}_i^m$	World price of imported commodity i, i=1,2,4,5	
$\bar{\tau}m_i$	Import tariffs on commodity i, i=1,2,4,5	
$\bar{\pi}_i^e$	World price of exported commodity i, i=1,2,4,5	
$\bar{\tau}e_i$	Export tax rate for commodity i, i=1,2,5	
$\bar{\tau}_i$	Rate of indirect taxes on commodity i, i=1,2,...,5	
$\bar{\eta}_i$	Trade elasticity of exported commodity i,i=1,2,4,5	
$\bar{\sigma}_i$	Elasticity of substitution between domestic and imported good i, i=1,2,...,5	
$\bar{\theta}_i$	Investment allocation share by sector of origin i, i=1,2,...,5	
$\bar{\gamma}_i$	committed expenditure on commodity i,i=1,2,4,5	
$\bar{\Delta}_i$	Marginal budget share (LES)	
$\bar{z}_i$	A scale parameter (used in equation 4)	
$\bar{\delta}_i$	A distribution Parameter (used in equation 4)	
$\bar{\alpha}_{ij}$	Input-Output coefficients.	

نموذج كلى لدراسة تطور الاقتصاد المصرى

(د . عثمان محمد عثمان ، د . معتز خورشيد)

تبحث هذه الورقة فى اتجاهات تطور الاقتصاد المصرى فى المدى المتوسط باستخدام نموذج كلى — على المستوى القومى للاقتصاد — يستند الى اطار شامل لمصفوفة الحسابات التخطيطية . ويوفر هذا الاطار — بطبيعة تركيبه — صورة للتشابكات المختلفة فى الاقتصاد سواء على مستوى القطاعات الانتاجية ، أو أطراف المتعاملين ، أو عوامل الانتاج بما يمكن من دراسة مشاكل النمو والتوازن وتوزيع الدخل ... الخ . فى آن واحد ، . والنموذج الذى تم بناؤه يتصف بمجموعة من الخصائص العامة ، فهو نموذج جمعى من ناحية ، ونموذج توازنى أيضا ، فضلا عن استناده الى عوامل تغيرات الطلب والأسعار ، مع السماح بتغيير الانتاج (العرض) من قطاع البترول فقط .

وقد قمنا فى هذه الورقة باختبار أثر التغير فى بعض السياسات الاقتصادية على مسار الاقتصاد القومى بافتراض مجموعتين من السيناريوهات ، حيث يتمثل السيناريو المتفائل فى زيادة تحويلات المصريين بمعدل سنوى يبلغ ٥٪ وزيادة الاستثمار بنسبة ٣٪ سنويا . وعلى العكس من ذلك يكون السيناريو " المتشائم " .

وكما أظهرت نتائج تطبيق النموذج فان الاقتصاد المصرى يتسم بحساسية شديدة للتغيرات الخارجية ، فانخفاض التحويلات الى جانب تقييد انتاج وصادرات البترول ينعكس فى تباطؤ النمو الاقتصادى عموما (وكافة المتغيرات الكلية) وزيادة الاختلال الخارجى .