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(CGE)

(Hassanzadeh,

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.1993)

(1997) White

(1999) Greperud et al.

(1991) Morrisson

Löfgren &

(1999) El-Said

Amjad &

(1997) Kemal

(1999) Löfgren et al.

(2001) Thabet & Chemingui

Davies & Rattsø

(1999)

Dogruel et al.

(2003)

(2001) McDonald & Townsend

Boccanfuso

(2007) & Savard

(CGE: Computable General Equilibrium Model)

(1991) Tabatabaei zavareh

(1993) Toutouchi

Avazalipour

(1993)

(1995) Fatehi dabanlou

(1998) Heidari

Salami & Hormozi

(2002)

(SAM: Social Accounting Matrix)

(2009) Veeman et al.

SAM

SAM

(The Central Bank of the Islamic Republic of Iran, 2001)

(CGE)

SAM

CGE

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(Central Product :CPC

(International standard :ISIC Classification)

industrial classification)

Greperud et al. (1999) Löfgren & El-Said

(2004) Abimanyu (2003) Dogruel et al. (1999)

(2007) Boccanfuso & Savard

CGE

CGE

(CGE)

(Dervis et al.,

1982)

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(Constant elasticity of substitution) CES

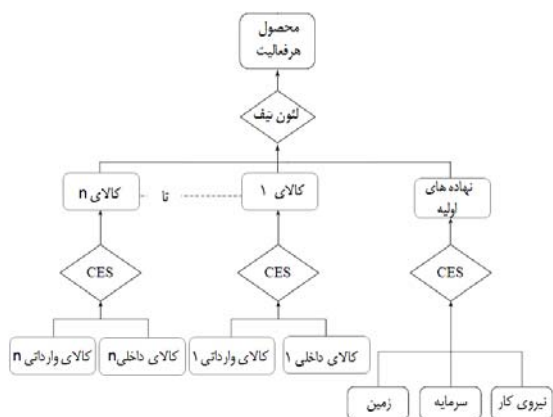
CGE

(1960) Johansen

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CGE

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(2000) Horridge

ORANI-G

(2000) Abimanyu (2000) Horridge

CGE

(1993) Peter (2006) Gelan

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CGE

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CES

(1969) Armington

CES

(Primary factor composite)

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:(Salami, 1998)

$$P_i = \sum_j P_{ji} + PL_i + PK_i + PA_i + T_i - S_i \quad ($$

$$i \quad P_i$$

$$i \quad j \quad P_{ji}$$

$$PL_i \quad PK_i \quad PA_i$$

$$S_i \quad T_i \quad i$$

i

(CET: Constant Elasticity of Transformation)

$$q(c, i) = QX_i \cdot \beta_c^{-1/(\rho+1)} \cdot \left(\frac{P(c)}{P_i}\right)^{1/(\rho+1)} \quad ($$

$$\text{Min} \quad TC_i = \sum_r PF_r \cdot QF_r + \sum_j P_j \cdot X_{ji} \quad ($$

$$\text{S.t.} \quad QX_i = \text{Min} [g(QINT_{ji}), \text{CES}(QF_r)] \quad ($$

$$i \quad TC_i$$

$$X_{ji} \quad QF \quad PF$$

$$QX_i \quad i \quad j \quad P_j$$

$$[g(QINT_{ji})] \quad i$$

$$)$$

CES(QF<sub>r</sub>) (Composite commodity)

CES

$$:$$

$$\text{S.t.} \quad QX_i = \text{CES}(QF_r) \quad ($$

$$\beta_c c \quad q(c,i) \\ P(c) \quad \rho$$

CES

$$\left( \frac{1}{\rho} \right) \left( \frac{1}{\rho} \right) \left( \frac{1}{\rho} \right)$$

(1969) Armington

CES

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(GDP)

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Salami

(2006)

“(1960) Johansen

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GEMPACK

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Veeman et

(2009) al.

SAM

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(2002) Salami & Hormoz

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$$\begin{aligned}
 & \vdots \\
 x_{fi} - a_{fi} &= x_{fi} - \sigma_i [p_{fi} + a_{fi} - pf_i] \\
 f=1,2,3. \quad & i=1,\dots,46 \\
 pf_i &= \sum_{f=1}^3 SH_{fi} \cdot p_{fi} \quad i=1,\dots,46
 \end{aligned}$$

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$$\begin{aligned}
 & \vdots \\
 x_{cin}^s - a_{cin}^s &= xc_{in} - \sigma_{cn} [p_{cin}^s + a_{cin}^s - pc_{in}] \\
 c=1,\dots,60. \quad & s=dom, imp. \quad i=1, \dots,46 \quad n=1 \\
 & \text{(intermediate), 2 (investment).} \\
 pc_{in} &= \sum_{s=1}^2 [SH_{cin}^s (p_{cin}^s + a_{cin}^s)] \\
 c=1,\dots,60. \quad & i=1,\dots,46
 \end{aligned}$$

(1995) Fatehi dabanlou

$$\begin{aligned}
 & \vdots \\
 xc_{ci1} - [ac_{ci1} + a_{i1}] &= z_i \\
 c=1,\dots,60. \quad & i=1,\dots,46 \\
 xf_i - [af_i + a_{i1}] &= z_i \quad i=1,\dots,46
 \end{aligned}$$

( )

(1993) Avazalipour

$$\begin{aligned}
 & \vdots \\
 pm_i &= \sum_{c=1}^{60} \sum_{s=1}^2 (SHM_{ci1}^s \cdot p_{ci1}^s) \quad i=1,\dots,46 \\
 pp_i &= \sum_{f=1}^3 SHF_{fi} \cdot p_{fi} + SHM_{i} \cdot pm_i + SHTX_{i} \cdot \tau_i - SHSB_{i} \cdot \phi_i \\
 & i=1,\dots,46
 \end{aligned}$$

$$\begin{aligned}
 & \vdots \\
 q_{ci} &= z_i + \eta_i [p_c - pp_i] \\
 c=1,\dots,60. \quad & i=1,\dots,46
 \end{aligned}$$

CGE

$$\begin{aligned}
 & \vdots \\
 xc_{ci2} - [ac_{ci2} + a_{i2}] &= x_{i1} \\
 c=1,\dots,60. \quad & i=1,\dots,46 \\
 pi_i &= \sum_{c=1}^{60} SHI_{ci} (pc_{i2} + ac_{i2} + a_{i2}) \\
 c=1,\dots,60. \quad & i=1,\dots,46
 \end{aligned}$$

$$xm_{cimm}^s = x_{cin}^s + am_{cimm}^s$$

c=1,...,60. s=dom, imp.  
i=1,...,46. m=1,2. n=1,2.

$$xm_{chm}^s = x_{ch}^s + am_{chm}^s$$

c=1,...,60. s=dom, imp.  
h= Urban, Rural. m=1,2.

$$Em_{cm} = E_c + aem_{cm}$$

c=1,...,60. m=1,2.

$$gm_{cm}^s = xg_c^s + agm_{cm}^s$$

$$PP_{dc} = SHBS_{dc} \cdot p0_c + SHPR_{dc} \cdot [pd_m + am_{dm}]$$

d= Producer, Investment, Households, Export, Government. m= 1,2.

$$100 \times delB = VEXP \cdot wexp - VCIFIMP \cdot w0cifimp$$

$$w0gdpinc = \sum_{f=1}^3 SFI_f \cdot wfi_f + STX \cdot tax - SSB \cdot sub$$

$$w0gdpexp = SH \cdot wh + SI \cdot wii + SG \cdot wg + SE \cdot wexp - SM \cdot wcifimp$$

totlab = (SHEMPLOY \cdot employ) + (SHUNEMPLOY \cdot unemploy)

$$p_{li} = CPI + fi_1 + f_{li}$$

l=labor. i=1,...,46

$$0.01 \times DOMSALES_c \cdot xdom_c = \sum_u delSALE_{cu}^{dom}$$

c=1,...,60.

u= Local users  
(Producer, Investment, Households, Government, Margins)

$$0.01 \times VIMP_c \cdot ximp_c = \sum_u delSALE_{cu}^{imp}$$

c=1,...,60.  
u= Local users  
(Producer, Investment, Households, Government)

$$\sum_{i=1}^{46} xi_i = \sum_{h=1}^2 hsav_h + gsav$$

$$ggro_i = xi_i - x_{ki} \quad k=\text{capital input.} \quad i=1,\dots,46$$

$$gret_i = p_{ki} - pi_i \quad k=\text{capital input.} \quad i=1,\dots,46$$

$$ggro_i = finvi_i + 0.33 \times [2.0 \times gret_i - invslack]$$

i=1,...,40

$$xi_j = gsav + finv2_j \quad j=1, 2$$

$$xi_1 = SHKG \cdot gsav + SHKH \cdot \{0.33 \times [2.0 \times gret_1 - invslack] + x_{k1}\} + finv_1$$

k=1,...,6

$$x_{ch}^s - a_{ch}^s = xc_{ch} - \theta_{ch} [p_{ch}^s + a_{ch}^s - pc_{ch}]$$

i=1,...,60. s=dom, imp. h= Urban, Rural

$$pc_{ch} = \sum_{s=1}^2 SH_{ch}^s [p_{ch}^s + a_{ch}^s]$$

c=1,...,60. h= Urban, Rural

$$xc_{ch} = HAPC_{ch} + yd_h - pc_{ch}$$

c=1,...,60. h= Urban, Rural

$$CPI = \sum_{c=1}^{60} \sum_{s=1}^2 \sum_{h=1}^2 (SH_{ch}^s \cdot p_{ch}^s)$$

$$y_h = SHS_h \cdot hsav_h + SHE_h \cdot hc_h$$

h= Urban, Rural

$$xg_{cs} = fg_{cs} + GAPC_{cs} + yg - pg_{cs}$$

c=1,...,60. s=dom, imp.

$$yg = SHSG \cdot gsav + SHEG \cdot cg$$

$$E_c - fq_c = \varepsilon_c [PP_{ec} - phi - fp_c]$$

c=1,...,60.

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xscin	(	)
xsch		
Ec		
xgcs		
p0cs		
zi		
xmscim		
xmschm		
Emcm		
xgmscm		
xfi		
pfi		
PPdc	(	)
pfi		
xfi		
xccin	(	)
pccin	(	)
pmi		
ppi		
qci		
pc		
pii		
xii		
xcch		
pcch		
ydh		
hch		
hsavh		
CPI	(	)
yg		
cg		
gsav		
delSALEcudom		
wfif		
tax	(	)
sub	(	)
w0gdpinc		
wii		
wh		
EXP		
wexp	(	)
wg		
wcifimp	(	)
w0gdpexp		
delB		
employ		
ggroi		
greti		
unemploy		

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pki		
xln i		
afi		
ascin	(	)
ain		
acin	(	)
phi		
asch		
HAPCch		
fpc		
fqc		
GAPCcs		
fgcs		
amscim	(	)
amschm		
aemcm		
agmscm		
finv1 i		
finv2j		
finv3l		
invslack		
fli		
fil		

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SHBSdc	(	)
SHPRdc	(	)
SHKG		
SHKH		
σi		
SHFi		
σcn	(	)
τ		
Φ		
SHMi		
SHTXi		
SHSBi		
ηi		
θch		
SHsch		
SHEh		
SHSh		
εc		
SHEG		
SHSG		
SHEMPLOY		
SHUNEMPLOY		
totlab		
VEXP		
VCIFIMP		
SFI		
STX		
SSB		
SH		
SG		
SI		
SE		
SM		

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