«Note»

A C-D Production Function that Introduces (*rho*/*r*) into *alpha*: Results by Sector Using Data-Set Derived from IMF Data

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(Received on September 28, 2005)

A version of an endogenous Cobb-Douglas production function

This note presents a version of a Cobb-Douglas production function which introduces a function of consumption into the relative share of rental. This production function is an extension of Solow's [1956]. The base of this version is supported by Kamiryo [2005b and 2005c]. In equilibrium, a *GDP* of the supply-side is equal to the sum of consumption and saving as national disposable income of the demand-side. This is proved using equations. I denote a *GDP*=income as output, *Y*, where the sum of a modified compensation of employed persons/wages and a modified return/profit/rental equals the sum of consumption and saving: $Y=W+\Pi=C+S$. Hereafter, I omit a word of "modified" in this note.

Why can a Cobb-Douglas production function be endogenous under constant returns to scale? In a case of increasing returns to capital (IRC) at the current situation, IRC is offset by a "minus" growth rate of population/employed persons over time, where the parameter for the neutrality of diminishing returns, *delta*,[1)]

1) $\delta(t)$ gradually reduces to *alpha* under convergence, starting from $\delta(1)$. Decreasing returns to capital (DRC) or increasing returns to capital (IRC) is shown at $\delta(1)$: if $\delta(1)>\alpha$, the initial situation is under DRC and if $\delta(1)<\alpha$, the initial situation is under DRC. The initial value of $\delta(1)$ is calculated using the initial parameters, n, α, i, and β^* under convergence (see Kamiryo [Eq. 4-2, 2005c]. In short, *delta* is one of the initial parameters, n, α, i, and the capital-output ratio.

is less than the relative share of rental, *alpha*, at the current situation, but under convergence (in the balanced growth-state) *delta* becomes equal to *alpha*. In a case of decreasing returns to capital (DRC), *delta* is higher than *alpha* at the current situation, but under convergence *delta* becomes equal to *alpha*.

Why is the level of technology, A, not a factor unlike capital and labor in $Y=AK^{\alpha}L^{1-\alpha}$, even when the exogenous growth is renewed as an endogenous growth? I use saving or net investment for growth, similar to Solow (hereafter, I omit "net" for net investment in this note). But, some part of net investment is used for accumulating physical capital and the remainder is used for accumulating the improvement in technology. To express this division, I use a share parameter, *beta*, for investment in capital and "1-*beta*" for investment in technology. For example, the increase in (physical) capital is shown as $\Delta K=I_K=I\cdot\beta$. Capital increase in the Solow model corresponds with a capital increase of mine under *beta*=1 or under no (endogenous) technology.

This parameter, *beta*, shows the level of structural reform and called the structural reform parameter. Without structural reform, a part of investment cannot shift to technology. The value of *beta* at the current situation converges to *beta** under convergence. Both the current *beta* and the *beta** under convergence are derived (see Kamiryo [Eqs.3 and 1, 2005c]) using the several initial parameters, whose data are capital, labor and its growth rate, output, consumption, saving, and "wages and rental" modified/estimated using (*rho*/*r*)(*c*) (see Kamiryo [2005b]). Then, the value of *delta* is derived by using these initial parameters together with *beta** (see Kamiryo and Fujimoto [Eq.46, 2005a]). Furthermore,

$$\beta=\frac{\Omega^*\left(n(1-\alpha)k(0)^{0-\alpha}+i\,(1+n)\right)}{i(1-\alpha)k(0)^{0-\alpha}+\Omega^*\cdot i(1+n)} \text{ and } \beta^*_{\delta=\alpha}=\frac{\Omega^*\left(n(1-\alpha)+i\,(1+n)\right)}{i(1-\alpha)+\Omega^*\cdot i(1+n)}.$$

$$\delta=\frac{n+\alpha(g_A^*-n)}{g_A^*}=\frac{n+\alpha(i\,(1-\beta^*_{\alpha=\delta})-n)}{i\,(1-\beta^*_{\alpha=\delta})}.$$

Now let me express the transition of investment in capital and technology using time, *t*. First I will summarize how to introduce a convergence-process of *beta* and *delta* into my model. Second, I will formulate a Cobb-Douglas production function whose independent variable is the ratio of investment to output, where I introduce a function of consumption,[2] (*rho*/*r*)(*c*), together with the work of *beta* and *delta*.

First, the current values of *beta* and *delta* each converge to $beta^*$ and *alpha* under convergence. In particular, *delta* neutralizes diminishing or increasing returns to capital: the higher the *delta* than *alpha* the more diminishing and the faster the convergence. It takes much more times/years for my endogenous case to converge than the years for the exogenous case to converge, which was first measured by Barro and Sala-i-Martin [1995]. In my endogenous case, a full length of years needed for convergence is calculated by $1/((\delta-\alpha)n)$ and a half (of difference) length of years is calculated by $0.69/((\delta-\alpha)n)$, using 0.69 shown by Barro and Sala-i-Martin [1995].[3] Of course, both *beta* and *delta* fully converge to $beta^*$ and $delta^*$ at the same time. The method for calculating a discount rate to reach $beta^*$ or $delta^*$ is shown as follows: Let me show a case of *beta*. The difference of *beta* and $beta^*$ per year is obtained by dividing this difference with the above convergence years. A power shows "the discount rate of *beta*, r_{beta}, plus 1.0." This power is shown as natural logarithm multiplied by power exponent, which is the difference of *beta* per year: POWER (2.7182818, the exponent) is used in the Excel.

Second, I will show a Cobb-Douglas production function that introduces (*rho*/*r*)(*c*) and each transition of *beta* and *delta* for convergence, by using the ratio of

2) The function, (*rho*/*r*)(*c*), is, at the same time, replaced by(*rho*/*r*)(α). I use the discount rate of consumption (or for consumers) so that (*rho*/*r*) is called the utility coefficient.

3) I am much obliged to Dr. Toshimi Fujimoto for his advice and review of the framework. For the parameter of the speed of convergence, $(\delta-\alpha)n$, see Kamiryo and Fujimoto [Eq.33, 2005a] and for the above length, see Kamiryo [2005c]).

investment to output as a common independent variable, where variables are the rate of technological process, the growth rates of output and capital, and the ratio of rental to capital. The initial ratio of investment to output is defined as $i \equiv I_0 / Y_0$, where the ratio of saving to output, s, is connected with i: $i \equiv \theta \cdot s$.[4)] When time, t, is introduced, the ratio of investment to labor, $i_{I/L}(t)$, is formulated (simply abbreviated as $i(t)$; without using output): $i(t) \equiv I(t) / L(t)$. Yet, both i and $i(t)$ are divided into capital and technology: (1) Per output; $i = i_K + i_A$,[5)] where $i_K = i \cdot \beta^*$ and $i_A = i \cdot (1 - \beta^*)$. (2) Per capita; $i(t) = i_K(t) + i_A(t)$, where $i(t) = i \cdot y(t)$, $i_K(t) = i(t) \cdot \beta(t)$, and $i_A(t) = i(t) \cdot (1 - \beta(t))$.

Next, I will show the growth rate of capital at the initial/current situation and that under convergence, where this rate equals the growth rate of output. Before starting, I stress that the level of technology, $A(t)$, is expressed by "per capita" in both $y(t) = A(t)k(t)^\alpha$ and $Y(t) = A(t)K(t)^\alpha L(t)^{1-\alpha}$.[6)] Per capita technology, A, well matches the use of "per capita capital," k.

The relationship between capital and per capita capital is a starting point:

$$k(t+1) \equiv \frac{K(t+1)}{L(t+1)} = \frac{K(t) + \Delta K(t)}{(1+n) \cdot L(t)}.$$

$$k(t+1) = \frac{k(t) + i(t) \cdot \beta(t)}{1+n}$$ (here, note that $i(t) = i \cdot y(t)$).

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4) The parameter, $\theta = i/s$, presents important relationships as shown by (1) $\theta \equiv \frac{i}{s} = \frac{\alpha}{s} \cdot \frac{i}{\alpha} = \frac{\alpha}{s} / \frac{\alpha}{i}$ for the golden rule and (2) $s - i = s(1-\theta) = s\left(1 - \frac{\alpha}{s} / \frac{\alpha}{i}\right)$ for the current external balance.

5) If $\beta = 1$ and $\theta = 1$, $i = i_K + i_A$ in my model will reduce to $s = s_K + s_A$, similarly to Mankiw, Romer, and Weil [1992]. Nevertheless, I use net investment, instead of saving, for transitional paths.

6) In the case of $y(t) = A(t)k(t)^\alpha$, $y(t)/k(t) = A(t)k(t)^\alpha / k(t)$ holds. Thus, $A(t) = k(t)^{1-\alpha} / \Omega(t)$, where the capital-output is $\Omega(t)$ and the level of technology, $A(t)$, must be per capita, corresponding with $k(t)$. In the case of $Y(t) = A(t)K(t)^\alpha L(t)^{1-\alpha}$, similarly, $A(t) = (K(t)^{1-\alpha} / L(t)^{1-\alpha} / \Omega(t)$, where $A(t)$ must be per capita, corresponding with $k(t)$.

Thus, $\Delta k(t)=\dfrac{i(t)\cdot\beta(t)-n\cdot k(t)}{1+n}$ holds.[7] And, using $g_k(t)\equiv\Delta k(t)/k(t)$,

$g_k(t)=\dfrac{1}{1+n}\left(i(t)\cdot\beta(t)/k(t)-n\right)$.

Or, $\Delta K(t)=i\cdot\beta(t)\cdot Y(t)=i\cdot\beta(t)\cdot A(t)\cdot K(t)^{\alpha}\cdot L(t)^{1-\alpha}$ and

$g_K(t)\equiv\Delta K(t)/K(t)$. Thus, $g_K(t)=i\cdot\beta(t)\cdot A(t)\cdot k(t)^{\alpha-1}$ holds.

The rate of technological progress, $g_A(t)$, is expressed, similarly to $g_k(t)$ but with a neutralizing diminishing-returns, $\delta(t)$:

$\Delta A(t)=i(1-\beta(t))\cdot y(t)/k(t)^{\delta(t)}$ and $g_A(t)\equiv\Delta A(t)/A(t)$.

$g_A(t)=\dfrac{i(t)(1-\beta(t))}{A(t)\cdot k(t)^{\delta(t)}}$ (or, $g_A(t)=\dfrac{i\cdot y(t)(1-\beta(t))}{A(t)\cdot k(t)^{\delta(t)}}=i(1-\beta(t))k^{\alpha-\delta(t)}$).

This equation shows a technological progress function of the ratio of investment to labor, $i(t)$.[8]

Then, let me show the above equations under convergence. First, the rate of technological progress under convergence, g_A^*, is shown: $g_A^*=i(1-\beta^*)$, where $\alpha=\delta^*$ and $k(t)^{\alpha-\delta^*}=1$. Also, under convergence, $g_y^*=g_k^*=\dfrac{i_A^*}{1-\alpha}$ holds as shown in the literature. Inserting this equation into the above $g_k(t)$ and replacing $A(t)\cdot k(t)^{\alpha-1}$ by $1/\Omega^*$,[9] and returning i_A^* to $i_A^*/k(t)^{\delta*-\alpha}$, $g_k^*=\dfrac{1}{1+n}\left(\dfrac{i\cdot\beta^*}{\Omega^*}-n\right)$ is equal to $g_k^*=\dfrac{i_A^*}{(1-\alpha)k(0)^{\delta*-\alpha}}$. Therefore, $\Omega^*(i)=\dfrac{i\cdot\beta^*(1-\alpha)}{i(1-\beta^*)(1+n)+n(1-\alpha)}$ is derived.

Saving corresponds with net investment after depreciation. The above growth rate of capital or per capita capital under convergence is closely related to the

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7) In the continuous case of $\Delta k(t)$, starting with $k=K/L$, $\dfrac{dk}{dt}=\dfrac{1}{L}\dfrac{dK}{dt}-\dfrac{K}{L^2}\dfrac{dL}{dt}$ and thus, $\dfrac{dk}{dt}=\dfrac{1}{L}i\cdot\beta\cdot Y-k\dfrac{dL}{dt}/L$. Therefore, $\dot{k}=i\cdot\beta\cdot y-k\cdot n$. This was confirmed by Dr. Toshimi Fujimoto.

8) As shown below, I distinguish $i\equiv s\cdot\theta=S_0\cdot\theta/Y_0$ with $i(t)=I(t)/L(t)=i\cdot y(t)$.

9) $A(t)\cdot k(t)^{\alpha-1}=k(t)^{1-\alpha}\cdot k(t)^{\alpha-1}/\Omega^*(t)=1/\Omega^*(t)$.

depreciation rate with technology, where we may assume that both are equal.[10)]

Finally, let me show a Cobb-Douglas production function in discrete time. In my endogenous growth model, I use the values of (*rho*/*r*) that changes by the ratio of consumption to output, *c*, instead of using an exogenous rate of technological progress in an exogenous growth model. In a Cobb-Douglas production function, first I replace the relative share of rental, α, by $1-\frac{1-s}{(rho/r)}$:

$$Y = AK^{1-\frac{1-s}{(rho/r)}} L^{\frac{1-s}{(rho/r)}} \text{ or } y = Ak^{1-\frac{1-s}{(rho/r)}}. \tag{1}$$

The transition of each item, $A(t)$, $k(t)$, and $y(t)$ are shown as follows:

(1) For the level of technology, $A(t)$:

$$A(t) = (1/\Omega(t-1))\left(k(t-1)^{1-\alpha} + i \cdot k(t-1)^{1-\delta(t-1)}(1-\beta(t-1))\right).^{11)} \tag{2}$$

As a base, $A(t)=A(t-1) + i_A(t-1)$ and $A(t-1) = \frac{k(t-1)^{1-\alpha}}{\Omega(t-1)}$.

Here, $i(t-1)=i \cdot y(t-1)$ and $i(t-1) = i \cdot \frac{k(t-1)}{\Omega(t-1)} = i \cdot A(t-1)k(t-1)^{\alpha}$.

Also, $i_A(t-1) = \frac{i(t-1)(1-\beta(t-1))}{k(t-1)^{\delta(t-1)}}$ and $A(t) = \frac{k(t-1)^{1-\alpha}}{\Omega(t-1)} + \frac{i \cdot k(t-1)(1-\beta(t-1))}{\Omega(t-1)k(t-1)^{\delta(t-1)}}$.

$A(t) = (1/\Omega(t-1))\left(k(t-1)^{1-\alpha}(1+i\,(1-\beta(t-1))\right)$ by assuming $\alpha=\delta$.

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10) Let me assume that the minimum limit of gross investment is zero (setting aside of the disposal of physical assets). Then, net investment equals depreciation or the growth rate of investment to capital equals the depreciation rate under convergence. Since the rate of technological progress, is endogenous, the corresponding rate of depreciation is also endogenous and includes technology. This finding is important in estimating capital when capital is not available.

11) $A^* = (1/\Omega^*)\left(k^{*1-\alpha}(1+i\,(1-\beta^*)\right)$ will be derived under convergence. However, this is not completely equal to $A^*=k^{*1-\alpha}/\Omega^*$, whose difference is the rate of technological progress, $i\,(1-\beta^*)$. I interpret that when *delta* become equal to *alpha*, the rate of technological progress disappears. Note $\Omega^*=k^*/y^*$. Nevertheless, in discrete time, we cannot directly obtain the value of k^*.

(2) For the growth rate of per capita capital, $k(t)$:

As a base, $k(t)=\left(k(t-1)+i_K(t-1)\right)/(1+n)$ and $i_K(t-1)=i(t-1)\cdot\beta(t-1)$.

$i(t-1)=i\cdot\dfrac{k(t-1)}{\Omega(t-1)}=i\cdot A(t-1)k(t-1)^{\alpha}$ is used similarly to the case of $A(t)$.

Thus, $i_K(t-1)=i\cdot\beta(t-1)\dfrac{k(t-1)}{\Omega(t-1)}$.

Therefore, $k(t)=\left(k(t-1)(1+(i\cdot\beta(t-1)/\Omega(t-1))\right)/(1+n)$. (3)

(3) For the growth rate of output, $y(t)$:

$y(t)=A(t)\left[\left(k(t-1)(1+(i\cdot\beta(t-1)/\Omega(t-1))\right)/(1+n)\right]^{\alpha}$, (4)

where $A(t)=(1/\Omega(t-1))\left(k(t-1)^{1-\alpha}+i\cdot k(t-1)^{1-\delta(t-1)}(1-\beta(t-1))\right)$.

Besides the above four equations in transitional paths, I need to explain one more parameter, the utility coefficient to capital, $(rho/r)_{\Omega*}$, that is related to consumption to capital as in Tinbergen [1956]. This value is obtained from the utility coefficient, (*rho*/*r*). The relationship between $(rho/r)_{\Omega*}$ and (*rho*/*r*) is explained by the relationship between the function of consumption/compensation and the function of consumption to capital, using the following equations: $1-\alpha=(1-s)/(\rho/r)$ and $(1-\alpha)=\dfrac{i}{(rho/r)_{\Omega^*}\cdot\Omega^*}$. Why do I need the utility coefficient to capital, $(rho/r)_{\Omega*}$? This is because Ω^* (*i*) is only obtained using the above function of consumption to capital. As a result, the result of $\beta^*(i)$ consistently matches the result of $\beta^*(\Omega^*)$. Otherwise, we cannot obtain $\beta^*(\Omega^*)$. This idea comes from the above Tinbergen's $C/K=c/\Omega$.

In short, in my endogenous growth model, *rho*, rho_{Ω}, and *alpha* are calculated back, using the initial parameters, n, c (or s), θ, and Ω. And, as results, i, *beta*, *beta**, *delta*, k, y, r, the rate of technological progress, and the growth rates, in transitional paths and under convergence, are each measured. The staring point is that output equals income based on $S+C=Y=\Pi+W$, where rental and compensation/wages are modified. *rho* is the discount rate for consumers and r is the ratio of rental to capital for output and capital. And, national taste is well involved in a quadratic function of (*rho*/*r*)(*c*) by country.

At the end, I lease an interesting note in terms of discrete vs. continuous: my discrete model uses *beta*, starting with five parameters at the initial situation. This *beta* is called $beta_{EMBODIED}$, but differs from the *beta* ($beta_{DISMBODIED}$) disembodied in the level of technology at the initial situation and expressed as a weighted average of the past performances. As a preliminary discussion, I distinguish two capital stocks in the Cobb-Douglas production function: (1) before the division of qualitative and quantitative capital stock (each divided by β) and (2) after that division (each multiplied by $1-\beta$ and β). Capital stock, *k*, remains unchanged since $\frac{\beta}{\beta}k^a = k^a$ holds before and after the above division. Here I use $B \equiv \frac{(1-\beta)}{\beta}$ or $\beta \equiv \frac{1}{(1+\beta)}$. Then, the level of technology, *A*, is defined as $A \equiv (Bk)^{1-\delta}$. Its power reduces to $1-\alpha$ under convergence: from $1-\delta$ to $1-\alpha$. Only under convergence, a AK model appears: $y=Ak=(Bk)^{1-\alpha}\cdot k^{\alpha}$. Regardless of the situations, the product of *A* and *Ω* is $k^{1-\alpha}$, where $\Omega = \frac{k}{y} = \frac{k}{Ak^{\alpha}}$ and $A=k^{1-\alpha}/\Omega$ hold. As a result, the capital-output ratio is set as $\Omega = \frac{k^{\delta-\alpha}}{B^{1-\delta}} : k^{1-\alpha} = A\cdot\Omega = (Bk)^{1-\delta}\cdot\frac{k^{\delta-\alpha}}{B^{1-\delta}}$. Note that the $B_{DISEMBODIED}$ used for the initial *A* or *Ω* differs from the $B_{EMBODIED}$ used for investment after the initial situation. This is because $beta_{DISEMBODIED}$ (or simply β_{STOCK}) in the initial *A* is a weighted average in the past, and $beta_{EMBODIED}$ (or simply β_{FLOW}) calculated at the initial situation is newly determined by the initial parameters and used for the future. In this respect, the difference between embodied and disembodied are distinguished by the ratio of A_{FLOW}/A_{STOCK} or $\Omega_{STOCK}/\Omega_{FLOW}$:

$B_{FLOW} = B_{STOCK}\cdot(A_{FLOW}/A_{STOCK})$ or $B_{FLOW} = B_{STOCK}\cdot(\Omega_{STOCK}/\Omega_{FLOW})$.

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Table 6-1 Simulation of the G sector by decreasing investment and government budget in Japan

Table 6-2 Simulation of the G sector by decreasing investment and government budget in Japan

Table A1 (Total) Basic data for the Two-Sector model: private versus public

Table A1 (G sector) Basic data for the Two-Sector model: private versus public

Table A1 (Private sector) Basic data for the Two-Sector model: private versus public

Table 1-0 Balance of payment (*S-I*)=budget surplus/deficit $(S\text{-}I)_{BUDGET}$+$(S\text{-}I)_{PRI}$ by country

	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
The balance of payment, (*S-I*)/*Y*										
1996	0.0182	(0.0405)	0.0246	(0.0134)	(0.0212)	0.1613	0.0149	(0.0066)	(0.0724)	(0.0963)
1997	0.0329	(0.0070)	0.0434	(0.0146)	(0.0263)	0.1394	0.0099	(0.0030)	0.0162	(0.1125)
1998	(0.0223)	0.1431	0.0429	(0.0193)	(0.0241)	0.2134	0.2387	0.0941	0.1737	(0.0704)
1999	0.0352	0.0779	0.0325	(0.0221)	(0.0170)	0.1886	0.2738	0.0779	0.1415	0.0017
2000	0.0310	0.0366	0.0271	(0.0085)	(0.0169)	0.1785	0.2210	0.0939	0.1006	0.0197
2001	0.0299	0.0267	0.0243	(0.0069)	(0.0110)	0.1988	0.1978	0.0745	0.0759	(0.0349)
2002	0.0338	0.0161	0.0321	(0.0043)	0.0229	0.2371	0.1923	0.0679	0.0842	(0.0056)
2003	0.0439	0.0294	0.0388	(0.0114)	0.0418	0.3167	0.2283	0.0000	0.0786	(0.0303)
AVERAGE	0.0253	0.0353	0.0332	(0.0125)	(0.0065)	0.2042	0.1721	0.0498	0.0748	(0.0411)
$(S\text{-}I)_G/Y$ in the government sector										
1996	(0.0572)	0.0011	(0.0146)	(0.0553)	(0.0640)	0.1530	0.0077	0.0124	0.0108	0.0032
1997	(0.0468)	(0.0136)	(0.0141)	(0.0565)	(0.0810)	0.1039	0.0255	(0.0073)	(0.0036)	0.0007
1998	(0.1470)	(0.0138)	(0.0176)	(0.0599)	(0.0856)	0.1702	(0.0192)	(0.0285)	(0.0305)	(0.0199)
1999	(0.0928)	0.0088	(0.0270)	(0.0618)	(0.0679)	0.1108	(0.0345)	(0.0111)	(0.0374)	(0.0386)
2000	(0.0810)	0.0161	(0.0335)	(0.0581)	(0.0405)	0.1267	(0.0355)	(0.0157)	(0.0256)	(0.0420)
2001	(0.0810)	0.0230	(0.0483)	(0.0485)	(0.0185)	(0.0031)	(0.0409)	(0.0120)	0.0297	(0.0436)
2002	(0.1007)	0.0251	(0.0301)	(0.0513)	0.0033	(0.0170)	(0.0725)	(0.0185)	(0.0271)	(0.0577)
2003	(0.0923)	0.0024	(0.0252)	(0.0546)	(0.0125)	0.0622	(0.0524)	(0.0263)	0.0245	(0.0554)
AVERAGE	(0.0873)	0.0061	(0.0263)	(0.0558)	(0.0458)	0.0883	(0.0277)	(0.0134)	(0.0074)	(0.0317)
$(S\text{-}I)_{PRI}/Y$ in the private sector										
1996	0.0754	(0.0416)	0.0392	0.0420	0.0428	0.0083	0.0072	(0.0189)	(0.0832)	(0.0994)
1997	0.0797	0.0066	0.0575	0.0419	0.0547	0.0355	(0.0156)	0.0043	0.0198	(0.1132)
1998	0.1247	0.1568	0.0605	0.0407	0.0616	0.0432	0.2579	0.1225	0.2041	(0.0505)
1999	0.1280	0.0691	0.0595	0.0397	0.0509	0.0778	0.3082	0.0890	0.1789	0.0402
2000	0.1120	0.0206	0.0606	0.0496	0.0236	0.0518	0.2565	0.1096	0.1262	0.0617
2001	0.1108	0.0037	0.0726	0.0417	0.0075	0.2019	0.2387	0.0866	0.0462	0.0087
2002	0.1345	(0.0090)	0.0622	0.0471	0.0196	0.2541	0.2648	0.0863	0.1113	0.0521
2003	0.1361	0.0270	0.0640	0.0432	0.0543	0.2545	0.2808	0.0263	0.0541	0.0252
AVERAGE	0.1127	0.0291	0.0595	0.0432	0.0394	0.1159	0.1998	0.0632	0.0822	(0.0094)

	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
The balance of payment, (*S-I*)/*Y*										
1996	(0.0137)	0.0451	0.0469	(0.0022)	0.0060	(0.0055)	0.0735	0.0123	0.0186	0.0550
1997	(0.0137)	0.0222	0.0245	0.0035	0.0038	(0.0050)	0.0810	0.0157	0.0329	0.0454
1998	(0.0205)	0.0210	0.0717	(0.0190)	0.0035	0.0015	0.0705	0.0165	0.0040	0.0382
1999	(0.0315)	0.0374	0.1824	(0.0300)	(0.0099)	(0.0111)	0.0685	0.0090	0.0155	0.0230
2000	(0.0432)	0.0587	0.2161	(0.0126)	0.0211	(0.0198)	0.0652	0.0041	0.0191	0.0109
2001	(0.0401)	0.0633	0.1413	0.0049	0.0333	(0.0219)	0.0701	0.0219	0.0220	0.0160
2002	(0.0451)	0.0487	0.1180	0.0002	0.0166	(0.0311)	0.0718	0.0474	0.0134	0.0109
2003	(0.0503)	0.0458	0.1280	(0.0320)	0.0035	(0.0337)	0.0772	0.0473	0.0000	0.0059
AVERAGE	(0.0323)	0.0428	0.1161	(0.0109)	0.0097	(0.0329)	0.0722	0.0218	0.0157	0.0257
$(S\text{-}I)_G/Y$ in the government sector										
1996	(0.0158)	(0.0208)	(0.0820)	(0.0102)	0.0565	(0.0402)	(0.0357)	(0.0232)	(0.0580)	(0.0798)
1997	(0.0003)	0.0068	(0.0710)	0.0041	0.0427	(0.0223)	(0.0099)	(0.0151)	(0.0388)	(0.0175)
1998	0.0070	0.0038	(0.0519)	0.0310	0.0052	0.0063	0.0039	(0.0107)	(0.0304)	(0.0259)
1999	0.0189	0.0105	(0.0126)	(0.0062)	0.0210	0.0004	0.0343	(0.0167)	(0.0203)	0.0003
2000	0.0290	0.0142	0.0258	0.0223	(0.0037)	0.0035	0.0642	0.0145	(0.0158)	(0.0140)
2001	(0.0426)	0.0056	0.0340	0.0066	0.0111	0.0089	0.0396	(0.0309)	(0.0168)	0.0276
2002	(0.0536)	0.0013	0.0183	(0.0121)	0.0209	(0.0185)	0.0490	(0.0386)	(0.0370)	(0.0172)
2003	(0.0676)	0.0051	0.0265	0.0000	0.0315	(0.0383)	(0.0029)	(0.0434)	(0.0456)	(0.0034)
AVERAGE	(0.0156)	0.0033	(0.0141)	0.0044	0.0231	(0.0125)	0.0178	(0.0205)	(0.0328)	(0.0162)
$(S\text{-}I)_{PRI}/Y$ in the private sector										
1996	0.0021	0.0659	0.1289	0.0080	(0.0505)	0.0351	0.1092	0.0355	0.0766	0.1348
1997	(0.0134)	0.0154	0.0955	(0.0006)	(0.0389)	0.0238	0.0909	0.0308	0.0717	0.0629
1998	(0.0275)	0.0172	0.1236	(0.0501)	(0.0016)	(0.0174)	0.0666	0.0272	0.0344	0.0641
1999	(0.0504)	0.0269	0.1950	(0.0239)	(0.0309)	(0.0201)	0.0342	0.0257	0.0357	0.0227
2000	(0.0722)	0.0445	0.1903	(0.0349)	0.0248	(0.0254)	0.0010	(0.0104)	0.0349	0.0249
2001	0.0025	0.0577	0.1073	(0.0017)	0.0222	(0.0400)	0.0305	0.0528	0.0388	(0.0116)
2002	0.0085	0.0474	0.0997	0.0122	(0.0042)	(0.0152)	0.0228	0.0860	0.0504	0.0281
2003	0.0173	0.0407	0.1015	(0.0320)	(0.0280)	0.0054	0.0801	0.0907	0.0456	0.0093
AVERAGE	(0.0166)	0.0394	0.1302	(0.0154)	(0.0134)	(0.0067)	0.0544	0.0423	0.0485	0.0419

Table 1-1 The current situation in transitional path: the differences between β-β^* and δ-δ^* = δ-α

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
$\beta_{\alpha(\delta\neq\alpha)}-\beta^*$	0.1048	0.2111	0.1175	0.0552	0.1674	0.2979	0.3229	0.2083	0.1043	0.0583
$\delta-\delta^*=\delta-\alpha$	0.1386	0.1119	0.0641	0.2038	0.1535	0.2235	0.2330	0.1135	0.1287	0.2577
$\beta_{\alpha(\delta\neq\alpha)G}-\beta^*_G$	(0.1416)	0.1318	0.0573	0.2287	(0.1007)	(0.0692)	0.1123	0.2990	0.0368	(0.0509)
$\delta_G-\delta^*_G=\delta_G-$	(0.3916)	(1.7689)	0.2872	(8.5924)	3.6718	11.3557	0.6999	(0.5081)	(0.5049)	0.9181
$\beta_{\alpha(\delta\neq\alpha)PRI}-\beta^*_G$	0.1041	0.2185	0.1308	0.0856	0.2567	0.4246	0.3770	0.1807	0.0497	0.0666
$\delta_{PRI}-\delta^*_{PRI}=\delta_{PRI}$	0.0721	0.0507	0.0335	0.1526	0.0979	0.1014	0.1640	0.2127	0.1505	0.5014

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
$\beta_{\alpha(\delta\neq\alpha)}-\beta^*$	0.0602	0.0744	0.0989	0.0853	0.1997	0.0633	0.1869	0.0800	0.0832	0.0771
$\delta-\delta^*=\delta-\alpha$	0.5194	0.3008	(0.0763)	0.1803	0.1714	0.1569	0.0239	0.0310	0.1252	0.0075
$\beta_{\alpha(\delta\neq\alpha)G}-\beta^*_G$	0.2465	0.0632	0.0084	0.0150	0.0147	(3.0434)	(0.8811)	(0.0674)	(0.0176)	0.0585
$\delta_G-\delta^*_G=\delta_G-$	(2.8729)	0.8381	0.4423	(2.4716)	2.7864	(1.7353)	(2.5573)	(1.0066)	0.6048	(0.3076)
$\beta_{\alpha(\delta\neq\alpha)PRI}-\beta^*_G$	0.0383	0.0748	0.1287	0.0952	0.1958	0.0568	0.1305	0.0960	0.1083	0.0980
$\delta_{PRI}-\delta^*_{PRI}=\delta_{PRI}$	0.1040	0.3499	0.0261	0.1809	0.2217	0.7957	(0.5296)	0.1256	0.0909	0.0263

Table 1-2 The values of *beta** and *delta* by country and by year for the total economy

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
β^*	0.8303	0.7293	0.7038	0.4686	0.4430	0.6860	0.6156	0.3969	0.4741	0.4310
δ	0.2551	0.3004	0.3621	0.3054	0.2449	0.5506	0.4898	0.2294	0.2440	0.3462
β^*_G	0.7587	0.7072	0.7963	2.7022	0.9937	0.7352	0.7113	0.6052	0.7287	0.2442
δ_G	(0.4381)	(1.7046)	0.4483	(9.0456)	3.4872	11.5325	0.7731	(0.3815)	(0.3736)	0.8322
β^*_{PRI}	0.8446	0.7354	0.6755	0.4798	0.4662	0.5253	0.5671	0.3266	0.6891	0.4448
δ_{PRI}	0.2157	0.2625	0.3598	0.3028	0.2379	0.4144	0.4571	0.3265	0.2609	0.6101

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
β^*	0.8199	0.7508	0.5509	0.6689	0.6252	0.7497	0.6173	0.6762	0.7024	0.6475
δ	0.6369	0.4169	0.0373	0.2958	0.2758	0.2677	0.1389	0.1329	0.2295	0.1070
β^*_G	0.5060	0.5989	0.2827	0.5167	0.5820	10.1132	7.0880	0.3288	0.5506	1.6452
δ_G	(2.6453)	0.9290	0.3780	(2.4324)	2.8599	(1.5420)	(2.5037)	(1.0545)	0.5809	(0.3312)
β^*_{PRI}	0.8616	0.7769	0.5859	0.6996	0.6608	0.7421	0.7179	0.7199	0.7323	0.6528
δ_{PRI}	0.2003	0.4735	0.1742	0.3156	0.3339	0.8852	(0.3891)	0.2635	0.2359	0.1529

Table 1-3 The values of beta and *i·beta** by country and by year for the total economy

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
□	0.9351	0.9404	0.8213	0.5238	0.6105	0.9839	0.9385	0.6053	0.5784	0.4893
□ GOLDEN □= i·□	0.0707	0.1479	0.2214	0.0667	0.0538	0.1713	0.1322	0.0727	0.0742	0.0545
□ G	0.6170	0.8390	0.8536	2.9308	0.8930	0.6660	0.8236	0.9042	0.7655	0.1933
□ GOLDEN(G) □= iG·□	0.1663	0.0651	0.2836	0.0103	0.0079	0.0607	0.3061	0.1888	0.1891	0.0341
□ PRI	0.9488	0.9539	0.8064	0.5654	0.7230	0.9499	0.9441	0.5073	0.7388	0.5114
□ GOLDEN(PRI) □= iP	0.0484	0.1661	0.2065	0.0746	0.0669	0.1549	0.1011	0.0541	0.0612	0.0557

AVERAGE 1996~2003	Th U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
□	0.8800	0.8252	0.6498	0.7542	0.8248	0.8130	0.8042	0.7562	0.7856	0.7247
□ GOLDEN □= i·□	0.0837	0.0799	0.0667	0.1102	0.0824	0.0566	0.0461	0.0753	0.0719	0.0657
□ G	0.7525	0.6621	0.2911	0.5317	0.5967	7.0698	6.2069	0.2614	0.5330	1.7038
□ GOLDEN(G) □= iG·□	0.0100	0.0430	0.0364	0.0218	0.0107	0.0188	0.0004	0.0112	0.0236	0.0207
□ PRI	0.8999	0.8517	0.7147	0.7948	0.8566	0.7989	0.8484	0.8159	0.8406	0.7507
□ GOLDEN(PRI) □= iP	0.0975	0.0908	0.0681	0.1379	0.1081	0.0714	0.0767	0.0949	0.0895	0.0772

Table 1-4 The value of θ_{OPEN}. *beta** and the coefficient of a modified golden rule, *c* (s-α)

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
$\theta_{BOP}\times\beta^*$	0.6428	0.6217	0.6301	0.5199	0.4676	0.3732	0.3346	0.3159	0.6788	0.6627
$c_{(s-\alpha)}=\alpha/\alpha_{GOLD}$	1.8670	1.3052	1.3519	1.5566	1.7210	1.9517	2.0518	1.6272	0.8255	1.6328
$\theta_{BUDGET}\times\beta^*_G$	(2.1260)	20.6655	1.5090	(0.0145)	0.1119	0.2191	2.1952	(0.2540)	0.0083	0.0763
$c_{(s-\alpha)G}=\alpha_G/\alpha_{GOL}$	0.0329	2.7748	0.5810	8.9374	(9.1618)	3.6504	0.4190	1.0137	0.2944	(0.1052)
$\theta_{PRI}\times\beta^*_{PRI}$	0.2551	0.6489	0.5407	0.3710	0.3576	0.3606	0.2404	0.2336	0.2689	0.5793
$c_{(s-\alpha)PRI}=\alpha_{PRI}/\alpha$	5.4719	1.3132	1.5871	2.0793	2.1709	2.1089	3.8310	2.1988	1.3672	1.9895

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
$\theta_{BOP}\times\beta^*$	1.2590	0.5578	0.2883	0.7242	0.5965	1.1169	0.3131	0.5677	0.5772	0.5309
$c_{(s-\alpha)}=\alpha/\alpha_{GOLD}$	1.4108	1.4575	1.7081	1.0543	1.2707	1.9649	2.5217	1.3779	1.4586	1.5263
$\theta_{BUDGET}\times\beta^*_G$	0.3833	0.1863	(0.9917)	2.8635	(0.5061)	0.1990	(2.0488)	(0.2707)	(0.3396)	0.6570
$c_{(s-\alpha)G}=\alpha_G/\alpha_{GOL}$	(31.096)	2.2689	(4.1717)	2.5074	6.7538	(3.5255)	(4.4826)	(1.6083)	(0.8488)	3.1208
$\theta_{PRI}\times\beta^*_{PRI}$	1.1601	0.5667	0.2478	0.7936	0.7784	0.9284	0.4296	0.5295	0.4629	0.4844
$c_{(s-\alpha)PRI}=\alpha_{PRI}/\alpha$	1.0130	1.3710	2.2941	0.9839	1.0458	1.3381	2.0150	1.5152	1.6657	1.7906

Table 1-5 The ratio of i to *s*, θ_{OPEN}, and the ratio of *s* to *alpha* by country: *i*/*s* and *s*/α

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
$\theta_{BOP}=i/s$	0.7743	0.8587	0.8952	1.1108	1.0848	0.5524	0.5713	0.7987	0.6788	1.6348
α/s	1.1141	0.7815	0.8498	0.7935	0.7938	0.7121	0.6437	0.4950	0.4862	1.0656
$\theta_{BUDGET}=i_G/s_G$	(2.5069)	16.4210	1.8859	0.0030	(0.0183)	0.3005	2.7749	(0.4329)	2.3590	(0.2991)
α_G/s_G	0.0791	(4.3298)	0.7823	0.6529	0.6857	1.1417	0.0030	0.3766	0.8297	0.4366
$\theta_{PRI}=i_{PRI}/s_{PRI}$	0.3114	0.8875	0.8007	0.7716	0.7639	0.7032	0.4522	0.7293	0.5611	1.5297
α_{PRI}/s_{PRI}	0.7516	0.8039	0.8557	0.7494	0.7356	0.7061	0.6827	0.4753	0.4961	1.0546

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
$\theta_{BOP}=i/s$	1.5351	0.7429	0.5454	1.0833	0.9576	1.4904	0.5069	0.8404	0.8214	0.8195
α/s	1.7833	0.8095	0.4662	0.7578	0.7547	2.1982	0.7830	0.7667	0.8382	0.7954
$\theta_{BUDGET}=i_G/s_G$	0.1115	0.2521	(3.5731)	4.5522	0.8661	(0.1362)	0.5517	(0.6609)	(0.6204)	0.5865
α_G/s_G	1.1476	0.4500	10.9544	(0.2525)	0.6698	3.6368	1.6472	0.7088	(0.0203)	0.6762
$\theta_{PRI}=i_{PRI}/s_{PRI}$	1.3982	0.7311	0.4267	1.1394	1.2083	1.2465	0.6114	0.7389	0.6299	0.7448
α_{PRI}/s_{PRI}	1.1138	0.7618	0.5181	0.7663	0.7953	1.1354	0.7535	0.7519	0.7460	0.7589

Table 1-6 Balance of payment as (*s*-*i*)=(S-I)/Y withY_G/Y, by country

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
(S-I)/Y	0.0253	0.0353	0.0332	(0.0125)	(0.0065)	0.2042	0.1721	0.0498	0.0748	(0.0411)
Y_G/Y	0.1474	0.1645	0.1726	0.0813	0.1685	0.2258	0.1679	0.0946	0.1789	0.1178
$(S-I)_G/Y_G$	(0.6462)	0.0315	(0.1531)	(0.6930)	(0.3223)	0.3069	(0.1682)	(0.1706)	(0.0470)	(0.3302)
$(S-I)_G/Y$	(0.0873)	0.0061	(0.0263)	(0.0558)	(0.0458)	0.0883	(0.0277)	(0.0134)	(0.0074)	(0.0317)
$(S-I)_{PRI}/Y_{PRI}$	0.1317	0.0343	0.0720	0.0471	0.0468	0.1393	0.2394	0.0686	0.1000	(0.0128)
$(S-I)_{PRI}/Y$	0.1127	0.0291	0.0595	0.0432	0.0394	0.1159	0.1998	0.0632	0.0822	(0.0094)

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
(S-I)/Y	(0.0323)	0.0428	0.1161	(0.0109)	0.0097	(0.0329)	0.0722	0.0218	0.0157	0.0257
Y_G/Y	0.1561	0.2348	0.2054	0.2103	0.2274	0.2036	0.3223	0.2014	0.2433	0.1993
$(S-I)_G/Y_G$	(0.1474)	0.0133	(0.1120)	0.0167	0.0958	(0.0662)	0.0469	(0.1099)	(0.1374)	(0.1006)
$(S-I)_G/Y$	(0.0156)	0.0033	(0.0141)	0.0044	0.0231	(0.0125)	0.0178	(0.0205)	(0.0328)	(0.0162)
$(S-I)_{PRI}/Y_{PRI}$	(0.0208)	0.0514	0.1631	(0.0199)	(0.0181)	(0.0088)	0.0782	0.0521	0.0639	0.0512
$(S-I)_{PRI}/Y$	(0.0166)	0.0394	0.1302	(0.0154)	(0.0134)	(0.0067)	0.0544	0.0423	0.0485	0.0419

Table1-7 The valuation ratio of capital with its vetical asymptote (and its curvature), by country

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
$\alpha/i=\alpha/s\div\theta$	1.5564	0.9595	0.9499	0.7174	0.7556	1.3537	1.2845	0.6381	0.8255	0.7092
$v_K=-(\alpha/i)/(b$	3.6253	4.6786	3.9261	3.1768	2.4977	2.1435	2.3810	2.9597	0.0055	2.7083
$\alpha_G/i_G=\alpha_G/s_G\div\theta$	(0.1538)	1.0614	0.4599	(92.5920)	(3.9557)	2.8535	0.2382	0.3411	0.4967	(0.6031)
$v_{K(G)}=-(\alpha_G/i_G)/($	0.8374	0.1566	(1.8089)	0.9780	1.0975	1.2727	8.9230	1.7726	(0.4239)	(27.8647)
α_{PRI}/i_{PRI}	2.8071	0.9715	1.0700	0.9730	0.9798	1.1362	2.2070	0.6924	2.0215	0.8811
$v_{K(PRI)}=-(\alpha_{PRI}/i_P$	1.6765	9.1749	2.7393	2.0374	2.0695	2.2722	1.9375	2.1002	1.8652	2.2760

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
$\alpha/i=\alpha/s\div\theta$	1.1572	1.0944	0.9628	0.7045	0.7954	1.4734	1.5546	0.9327	1.0241	0.9881
$v_K=-(\alpha/i)/(b$	3.6189	3.2738	3.8687	6.4848	5.0969	2.0472	1.6722	4.5230	3.2711	3.1778
$\alpha_G/i_G=\alpha_G/s_G\div\theta$	5.7504	1.2687	(0.8873)	1.0704	3.6934	(812.180)	64.0505	(1.3541)	(0.4672)	(6.2543)
$v_{K(G)}=-(\alpha_G/i_G)/($	1.1568	11.0784	0.2697	2.0725	1.1649	1.2382	1.0017	1.0742	1.1534	0.6687
α_{PRI}/i_{PRI}	0.8626	1.0648	1.2765	0.6883	0.6935	0.9813	1.3822	1.0890	1.2107	1.1553
$v_{K(PRI)}=-(\alpha_{PRI}/i_P$	0.7351	5.2302	2.1197	(4.9052)	2.8145	0.4091	3.9965	200.9796	2.8793	3.5874

Table 1-8 The rate of saving, *s*, and the relative share of rental/capital, *alpha*, by country

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
s	0.1109	0.2401	0.3505	0.1281	0.1155	0.4580	0.3979	0.2384	0.2378	0.0889
α	0.1166	0.1885	0.2980	0.1016	0.0914	0.3271	0.2568	0.1159	0.1153	0.0885
s_G	(0.3991)	0.1204	0.2022	(0.6947)	(0.3024)	0.3645	0.2428	0.1830	0.2765	(0.2021)
α_G	(0.0465)	0.0643	0.1611	(0.4532)	(0.1846)	0.1769	0.0732	0.1266	0.1313	(0.0859)
s_{PRI}	0.1911	0.2623	0.3811	0.2004	0.1901	0.4392	0.4285	0.2403	0.2244	0.1186
α_{PRI}	0.1436	0.2118	0.3263	0.1502	0.1401	0.3131	0.2931	0.1138	0.1103	0.1087

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
s	0.0700	0.1448	0.2381	0.1524	0.1383	0.0542	0.1468	0.1329	0.1245	0.1254
α	0.1175	0.1161	0.1136	0.1155	0.1044	0.1108	0.1150	0.1019	0.1043	0.0995
s_G	(0.1047)	0.0855	0.0136	0.0596	0.1170	(0.0503)	0.0532	(0.0777)	(0.0953)	(0.0605)
α_G	0.2276	0.0909	(0.0643)	0.0392	0.0735	0.1933	0.0536	(0.0479)	(0.0239)	(0.0236)
s_{PRI}	0.0932	0.1626	0.2819	0.1757	0.1423	0.0901	0.1865	0.1835	0.1943	0.1672
α_{PRI}	0.0963	0.1236	0.1481	0.1347	0.1122	0.0895	0.1406	0.1379	0.1450	0.1267

Table 1-9 The function of consumption, (*rho*/*r*), and (*r*/*w*) for capital by country

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
(rho/r)	1.0065	0.9363	0.9253	0.9704	0.9734	0.8054	0.8101	0.8614	0.8613	0.9995
(r/w)	0.000011	0.000012	0.043625	0.011000	0.000031	0.000012	0.000031	0.000064	0.002725	0.005075
$(rho/r)_G$	1.3321	0.9393	0.9510	1.1667	1.0936	0.7661	0.8151	0.9373	0.8276	1.1056
$(r/w)_G$	(0.000003)	0.000006	0.014485	(0.08815)	(0.00013)	0.000012	0.000007	0.000020	0.001233	(0.00152)
$(rho/r)_{PRI}$	0.9445	0.9355	0.9185	0.9410	0.9418	0.8163	0.8084	0.8571	0.8718	0.9883
$(r/w)_{PRI}$	0.000021	0.000012	0.055054	0.015960	0.000048	0.000012	0.000041	0.000101	0.008419	0.006667

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
(rho/r)	1.0538	0.9675	0.8586	0.9583	0.9621	1.0636	0.9640	0.9655	0.9775	0.9711
(r/w)	0.001716	0.002198	0.004138	0.002906	0.000003	0.003899	0.000443	0.002318	0.001966	0.003001
$(rho/r)_G$	1.4252	1.0065	0.9146	0.9782	0.9516	1.3007	0.9990	1.0270	1.0692	1.0338
$(r/w)_G$	0.005891	0.003604	(0.016180)	0.002427	0.000007	0.014405	0.000791	(0.001838)	(0.000407)	(0.000713)
$(rho/r)_{PRI}$	1.0033	0.9554	0.8423	0.9525	0.9659	1.0106	0.9463	0.9470	0.9423	0.9534
$(r/w)_{PRI}$	0.001302	0.002018	0.006465	0.002944	0.000003	0.002788	0.000419	0.002819	0.002285	0.003639

Table 1-10 The discount rate of consumption, *rho*, and the rate of rental, r^*, by country

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
rho	0.0309	0.0892	0.1766	0.1556	0.1480	0.2290	0.2276	0.2030	0.1460	0.1683
r^*	0.0307	0.0953	0.1908	0.1604	0.1518	0.2845	0.2813	0.2377	0.1703	0.1682
rho_G	(0.0107)	0.0504	0.0609	(1.6094)	(0.6594)	0.1945	0.0510	0.0601	0.0790	(0.0755)
r^*_G	(0.0077)	0.0543	0.0641	(1.3860)	(0.5838)	0.2588	0.0643	0.0667	0.1040	(0.0676)
rho_{PRI}	0.0559	0.0932	0.2211	0.2173	0.2115	0.3763	0.3051	0.3079	0.1509	0.2216
r^*_{PRI}	0.0592	0.0997	0.2407	0.2310	0.2248	0.4612	0.3773	0.3610	0.1730	0.2236

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
rho	0.0471	0.0552	0.0793	0.0739	0.0794	0.0513	0.0796	0.0541	0.0544	0.0589
r^*	0.0447	0.0570	0.0926	0.0771	0.0825	0.0483	0.0826	0.0560	0.0557	0.0607
rho_G	0.2080	0.0930	(0.1446)	0.0617	0.1655	0.2352	0.1554	(0.0452)	(0.0279)	(0.0255)
r^*_G	0.1526	0.0918	(0.1283)	0.0641	0.1778	0.1813	0.1594	(0.0427)	(0.0256)	(0.0227)
rho_{PRI}	0.0341	0.0502	0.0994	0.0744	0.0716	0.0347	0.0726	0.0643	0.0627	0.0703
r^*_{PRI}	0.0340	0.0525	0.1187	0.0781	0.0742	0.0344	0.0769	0.0680	0.0666	0.0739

Table 1-11 The growthrate of output under convergence, g_Y^*, and the cost of capital, $r^*-g_Y^*$, by country

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
g_Y^*	0.0190	0.0762	0.1410	0.1020	0.0880	0.1525	0.1517	0.1467	0.1120	0.1048
$r^*-g_Y^*$	0.0118	0.0191	0.0498	0.0584	0.0638	0.1320	0.1296	0.0910	0.0583	0.0634
$g_{Y\,G}^*$	0.0359	0.0505	0.1105	0.0286	0.0315	0.0738	0.1601	0.0896	0.1325	0.0450
$r^*_G-g_{Y\,G}^*$	(0.0436)	0.0038	(0.0464)	(1.4146)	(0.6152)	0.1849	(0.0958)	(0.0229)	(0.0285)	(0.1127)
$g_{Y\,PRI}^*$	0.0199	0.0804	0.1515	0.1095	0.0993	0.2318	0.1435	0.1643	0.0875	0.1171
$r^*_{PRI}-g_{Y\,PRI}^*$	0.0393	0.0193	0.0892	0.1215	0.1255	0.2294	0.2338	0.1966	0.0855	0.1065

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
g_Y^*	0.0318	0.0392	0.0576	0.0732	0.0652	0.0247	0.0329	0.0415	0.0383	0.0399
$r^*-g_Y^*$	0.0129	0.0178	0.0350	0.0039	0.0173	0.0236	0.0496	0.0145	0.0173	0.0208
$g_{Y\,G}^*$	0.0103	0.0433	0.0914	0.0338	0.0274	0.0146	0.0002	0.0121	0.0261	0.0240
$r^*_G-g_{Y\,G}^*$	0.1423	0.0485	(0.2197)	0.0303	0.1503	0.1668	0.1591	(0.0548)	(0.0517)	(0.0466)
$g_{Y\,PRI}^*$	0.0344	0.0385	0.0539	0.0799	0.0716	0.0259	0.0403	0.0467	0.0408	0.0449
$r^*_{PRI}-g_{Y\,PRI}^*$	(0.0003)	0.0140	0.0648	(0.0018)	0.0026	0.0085	0.0366	0.0213	0.0258	0.0290

Table 1-12 v_C/v_K and the valuation ratio of consumption, v_C, by country

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
v_C/v_K	1.0670	(2.4196)	1.3148	1.0703	1.0426	1.3924	1.9570	1.5053	0.5621	1.0014
v_C	4.2501	(51.3699)	5.1993	3.4450	2.6082	3.0166	6.0210	4.6341	(1.3362)	2.7054
$v_{C(G)}/v_{K(G)}$	1.1176	0.9673	0.8751	1.0034	1.0053	1.1000	1.0001	0.6570	0.9699	1.6474
$v_{C(G)}$	0.3452	0.3423	(1.5395)	0.9813	1.0944	1.4126	0.7866	(1.1265)	0.6045	11.8863
$v_{C(PRI)}/v_{K(PRI}$	1.0434	1.1201	1.1847	1.0692	1.0702	1.4480	1.6364	1.1980	1.3404	1.0072
$v_{C(PRI)}$	1.7754	2.5640	3.2569	2.1883	2.2325	3.4549	4.4142	2.5677	3.6991	2.2878

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
v_C/v_K	0.8869	1.0834	0.8126	4.4077	1.1964	0.9416	1.0259	1.1522	1.0555	1.0665
v_C	3.1953	3.5478	(1.3721)	80.9620	6.2078	1.9274	1.7159	5.4001	3.4580	3.4046
$v_{C(G)}/v_{K(G)}$	0.9805	0.8395	0.9713	1.0219	1.0200	0.9571	1.0009	0.9992	1.0109	1.0293
$v_{C(G)}$	1.1037	(1.111)	0.9311	2.2088	1.2011	1.1438	1.0010	1.0683	0.9110	0.6723
$v_{C(PRI)}/v_{K(PRI}$	1.1084	1.2569	1.2701	1.0681	1.4100	0.5790	1.2661	1.0344	1.1313	1.1380
$v_{C(PRI)}$	0.4179	7.7023	2.7827	1.7475	9.9419	11.6355	7.1593	0.9122	3.3135	4.2496

Table 1-13 r^*/r_{CB}, as the neutrality level of financial assets and r_{CB}, interest rate of the Central Bank

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
r^*/r_{CB}	95.2207	1.4982	4.9135	1.9878	0.6557	13.8659	6.8105	1.3867	5.9506	1.5725
r_{CB}	0.0020	0.0799	0.0466	0.0809	0.2322	0.0257	0.0466	0.2185	0.0570	0.1096
$r_{(G)}^*/r_{CB}$	(8.3968)	0.9745	1.6655	(18.7147)	(2.2544)	7.1116	1.1740	0.3830	2.1148	(0.8147)
r_{CB}	0.0020	0.0799	0.0466	0.0809	0.2322	0.0257	0.0466	0.2185	0.0570	0.1096
$r_{(PRI)}^*/r_{CB}$	183.4735	1.5566	6.2003	2.8343	0.9379	27.1381	9.5868	2.0373	7.3953	2.1144
r_{CB}	0.0020	0.0799	0.0466	0.0809	0.2322	0.0257	0.0466	0.2185	0.0570	0.1096

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
r^*/r_{CB}	1.4730	1.5219	0.8588	1.4598	1.3469	0.9324	2.1364	1.7467	1.7149	1.8617
r_{CB}	0.0425	0.0403	0.2040	0.0535	0.0632	0.0541	0.0403	0.0333	0.0336	0.0336
$r_{(G)}^*/r_{CB}$	4.3389	2.4273	1.0942	1.2176	2.7855	3.5638	4.5313	(1.4824)	(0.8902)	(0.5880)
r_{CB}	0.0425	0.0403	0.2040	0.0535	0.0632	0.0541	0.0403	0.0333	0.0336	0.0336
$r_{(PRI)}^*/r_{CB}$	1.1948	1.4046	0.8695	1.4761	1.2248	0.6642	1.9399	2.1402	2.0639	2.2575
r_{CB}	0.0425	0.0403	0.2040	0.0535	0.0632	0.0541	0.0403	0.0333	0.0336	0.0336

Table 1-14 The ratio of investment to output, *i*, and the capital-output ratio, *Ω*

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
i	0.0855	0.2036	0.3137	0.1418	0.1223	0.2538	0.2258	0.1885	0.1630	0.1306
Ω^*	3.8160	1.9986	1.5758	0.6690	0.6538	1.2265	1.0052	0.5358	0.7197	0.5566
i_G	0.2471	0.0890	0.3553	(0.0017)	0.0199	0.0576	0.4110	0.3536	0.3235	0.1281
Ω_G^*	5.3424	1.2537	2.5537	0.3502	0.2609	1.8374	1.9049	2.1195	2.1347	0.9734
i_{PRI}	0.0594	0.2265	0.3049	0.1546	0.1438	0.2999	0.1891	0.1717	0.1244	0.1322
$\Omega_{\Pi RI}^*$	2.4274	2.1443	1.3732	0.6994	0.7479	0.6840	0.8237	0.3776	0.6599	0.5075

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
i	0.1021	0.1065	0.1220	0.1646	0.1319	0.0755	0.0746	0.1114	0.1023	0.1014
Ω^*	2.6279	2.0361	1.2650	1.5170	1.2791	2.2965	1.3991	1.8198	1.8743	1.6435
i_G	0.0427	0.0722	0.1255	0.0428	0.0212	0.0159	0.0063	0.0323	0.0421	0.0401
Ω_G^*	1.5582	0.9992	0.4411	0.6616	0.4389	1.0857	0.3997	0.9870	0.9124	1.3332
i_{PRI}	0.1138	0.1171	0.1188	0.1972	0.1649	0.0979	0.1082	0.1318	0.1219	0.1180
$\Omega_{\Pi RI}^*$	2.8379	2.3548	1.5061	1.7438	1.5260	2.6072	1.8834	2.0322	2.1846	1.7205

Table 1-15 The growth rate of per capita output, g_y^*, and the growth rate of population, *n*

AVERAGE 1996~2003	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines
g_y^*	0.0168	0.0685	0.1314	0.0833	0.0752	0.1230	0.1250	0.1310	0.1004	0.0829
n	0.0022	0.0072	0.0084	0.0170	0.0118	0.0253	0.0230	0.0137	0.0104	0.0198
$g_{y(G)}^*$	0.0328	0.0236	0.0854	(0.0108)	0.0043	0.0141	0.1091	0.1504	0.1148	0.0738
n_G	(0.0027)	0.0246	0.0226	0.0372	0.0234	0.0520	0.0429	(0.0621)	0.0074	(0.0354)
$g_{y(PRI)}^*$	0.0114	0.0765	0.1459	0.0938	0.0890	0.2079	0.1217	0.1311	0.0850	0.0842
n_{PRI}	0.0080	0.0036	0.0049	0.0141	0.0090	0.0193	0.0181	0.0277	0.0074	0.0294

AVERAGE 1996~2003	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
g_y^*	0.0208	0.0300	0.0620	0.0614	0.0552	0.0213	0.0322	0.0402	0.0339	0.0397
n	0.0107	0.0089	(0.0042)	0.0110	0.0094	0.0033	0.0007	0.0013	0.0042	0.0003
$g_{y(G)}^*$	(0.0006)	0.0315	0.0814	0.0200	0.0060	(0.0072)	0.0026	0.0188	0.0178	0.0146
n_G	0.0107	0.0111	0.0042	0.0125	0.0181	0.0195	(0.0044)	(0.0071)	0.0079	0.0080
$g_{y(PRI)}^*$	0.0171	0.0299	0.0594	0.0681	0.0633	0.0255	0.0356	0.0425	0.0378	0.0463
n_{PRI}	0.0166	0.0083	(0.0056)	0.0109	0.0077	0.0004	0.0044	0.0040	0.0029	(0.0015)

Table 2-1 Opportunity cost of a minus government saving expressed by the growth rate of output in 2003

CLASSES C & SS: Low saving (s< 9 %) versus high saving countries (s> 16 %) Using Method A of $g_Y^*(i)=r\cdot i\cdot beta^*/alpha$

The weighted average of i by sector: 0.0432 — Using the weighted average of i by sector: (Method A)

1. Japan	$beta^*$	s	i	$alpha$	n	output share	r	(s-i)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.8412	0.0871	0.0432	0.1222	0.0013	1.0000	0.0308	0.0439	0.0092	0.0216
G sector	0.9579	(0.5233)	0.1266	0.00425	0.0160	0.1419	0.000752	(0.6499)	0.0215	(0.0207)
PRI sector	0.7063	0.1880	0.0294	0.1417	(0.0014)	0.8581	0.0587	0.1586	0.0086	0.0501

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y)$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y)$		Without crowding-out by using $-s_G$		
0.0215	0.1419	0.0887	0.1102	0.0086	0.1654	0.0866	0.0253	0.0743	0.0157	0.0249

A lost growth rate of g_Y^* 0.0157

The weighted average of i by sector: 0.0934 — Using the weighted average of i by sector: (Method A)

2. The US	$beta^*$	s	i	$alpha$	n	output share	r	(s-i)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.8234	0.0434	0.0934	0.1143	0.0103	1.0000	0.0433	(0.0500)	0.0291	0.0142
G sector	1.0332	(0.5461)	0.0572	0.1566	0.0322	0.1121	0.0792	(0.6033)	0.0299	0.0493
PRI sector	0.8078	0.1178	0.0979	0.1089	0.0078	0.8879	0.0400	0.0199	0.0290	0.0109

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y)$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y)$		Without crowding-out by using $-s_G$		
0.0299	0.1121	0.2853	0.3152	0.0290	0.1262	0.0689	0.0204	0.0612	0.0191	0.0482

A lost growth rate of g_Y^* 0.0191

The weighted average of i by sector: 0.0553 — Using the weighted average of i by sector: (Method A)

3. The UK	$beta^*$	s	i	$alpha$	n	output share	r	(s-i)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.7510	0.0337	0.0687	0.1052	0.0030	1.0000	0.0453	(0.0350)	0.0222	0.0231
G sector	(6.7260)	(0.2000)	(0.0032)	0.1489	0.0546	0.1947	0.1609	(0.1968)	0.0236	0.1373
PRI sector	0.6815	0.0728	0.0695	0.0947	(0.0080)	0.8053	0.0356	0.0033	0.0178	0.0178

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y)$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y)$		Without crowding-out by using $-s_G$		
0.0236	0.1947	(1.4531)	(1.4295)	0.0178	0.2417	0.0484	0.0124	0.0389	0.0126	0.0348

A lost growth rate of g_Y^* 0.0126

The weighted average of i by sector: 0.3506 — Using the weighted average of i by sector: (Method A)

4. China	$beta^*$	s	i	$alpha$	n	output share	r	(s-i)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.7614	0.3894	0.3506	0.3384	0.0072	1.0000	0.1706	0.0388	0.1345	0.0360
G sector	0.7856	0.2893	0.4205	0.2564	(0.0005)	0.1917	0.0937	(0.1312)	0.1207	(0.0270)
PRI sector	0.7526	0.4131	0.3340	0.3579	0.0093	0.8083	0.1982	0.0791	0.1392	0.0590

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y)$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y)$		Without crowding-out by using $-s_G$		
0.1207	0.1917	(0.0830)	0.0376	0.1392	0.2372	(0.0686)	(0.0286)	(0.0555)	(0.0213)	0.1132

A lost growth rate of g_Y^* (0.0213)

The weighted average of i by sector: 0.1144 — Using the weighted average of i by sector: (Method A)

5. Russia	$beta^*$	s	i	$alpha$	n	output share	r	(s-i)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.6424	0.2425	0.1144	0.1192	(0.0058)	1.0000	0.0655	0.1280	0.0404	0.0251
G sector	0.3295	0.2711	0.1692	0.1525	(0.0302)	0.2603	0.2726	0.1019	0.0997	0.1729
PRI sector	0.7355	0.2324	0.0952	0.1074	0.0027	0.7397	0.0475	0.1372	0.0310	0.0166

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y)$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y)$		Without crowding-out by using $-s_G$		
0.0997	0.2603	(0.1597)	(0.0600)	0.0310	0.3520	(0.0954)	(0.0310)	(0.0706)	(0.0249)	0.0155

A lost growth rate of g_Y^* (0.0249)

Note 1: An equation of $g_Y^*(i)=(i(1-beta^*)(1+n))/(1-alpha))+n$ is not fitted for the opportunity cost.

Note 2: The above oportunity cost assumes "taxes=expenditures, " which excludes government investment (or s_G=0)

Table 2-2 Opportunity cost of a minus government saving expressed by the growth rate of output in 2003

CLASS S: Middle saving countries (*s* =15-10 % to *Y*) Using Method A of $g_Y^*(i)=r\cdot i\cdot beta^*/alpha$

The weighted average of *i* by sector: 0.1069 Using the weighted average of *i* by sector: (Method A)

6. Canada	*beta**	*s*	*i*	*alpha*	*n*	output share	*r*	(*s-i*)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.7440	0.1500	0.1069	0.1192	0.0077	1.0000	0.0584	0.0432	0.0390	0.0194
G sector	0.5760	0.0947	0.0731	0.0971	0.0047	0.2356	0.0904	0.0216	0.0392	0.0512
PRI sector	0.7761	0.1671	0.1173	0.1260	0.0086	0.7644	0.0539	0.0498	0.0389	0.0150

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y))$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y))$		Without crowding-out by using $-s_G$		
0.0392	0.2356	(0.0508)	(0.0116)	0.0389	0.3083	(0.0292)	(0.0097)	(0.0223)	(0.0081)	0.0308

A lost growth rate of g_Y^* (0.0081)

The weighted average of *i* by sector: 0.1826 Using the weighted average of *i* by sector: (Method A)

7. Australia	*beta**	*s*	*i*	*alpha*	*n*	output share	*r*	(*s-i*)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.7008	0.1495	0.1826	0.1141	0.0097	1.0000	0.0642	(0.0331)	0.0720	(0.0078)
G sector	0.6319	0.0428	0.0428	0.0306	0.0231	0.2066	0.0449	0.0000	0.0397	0.0052
PRI sector	0.7223	0.1773	0.2190	0.1358	0.0059	0.7934	0.0658	(0.0417)	0.0767	(0.0108)

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y))$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y))$		Without crowding-out by using $-s_G$		
0.0397	0.2066	(0.0397)	0.0000	0.0767	0.2605	(0.0112)	(0.0039)	(0.0088)	(0.0035)	0.0685

A lost growth rate of g_Y^* (0.0035)

The weighted average of *i* by sector: 0.0668 Using the weighted average of *i* by sector: (Method A)

8. Sweden	*beta**	*s*	*i*	*alpha*	*n*	output share	*r*	(*s-i*)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.6392	0.1440	0.0668	0.1120	0.0011	1.0000	0.0743	0.0772	0.0283	0.0460
G sector	(2.9872)	0.0023	0.0126	0.0185	(0.1372)	0.2838	0.0457	(0.0103)	(0.0931)	0.1388
PRI sector	1.2220	0.2002	0.0883	0.1491	0.0803	0.7162	0.0766	0.1119	0.0554	0.0212

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y))$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y))$		Without crowding-out by using $-s_G$		
(0.0931)	0.2838	0.0168	(0.0763)	0.0554	0.3963	(0.0009)	(0.0006)	(0.0006)	(0.0003)	0.0280

A lost growth rate of g_Y^* (0.0003)

The weighted average of *i* by sector: 0.0861 Using the weighted average of *i* by sector: (Method A)

9. Germany	*beta**	*s*	*i*	*alpha*	*n*	output share	*r*	(*s-i*)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.6753	0.1336	0.0861	0.1022	0.0008	1.0000	0.0562	0.0475	0.0320	0.0242
G sector	0.7366	(0.2073)	0.0367	(0.1418)	0.0146	0.1779	(0.1218)	(0.2440)	0.0232	(0.1450)
PRI sector	0.6788	0.2073	0.0968	0.1549	(0.0031)	0.8221	0.0791	0.1105	0.0336	0.0456

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y))$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y))$		Without crowding-out by using $-s_G$		
0.0232	0.1779	0.1312	0.1544	0.0336	0.2163	0.0448	0.0155	0.0369	0.0137	0.0457

A lost growth rate of g_Y^* 0.0137

The weighted average of *i* by sector: 0.1571 Using the weighted average of *i* by sector: (Method A)

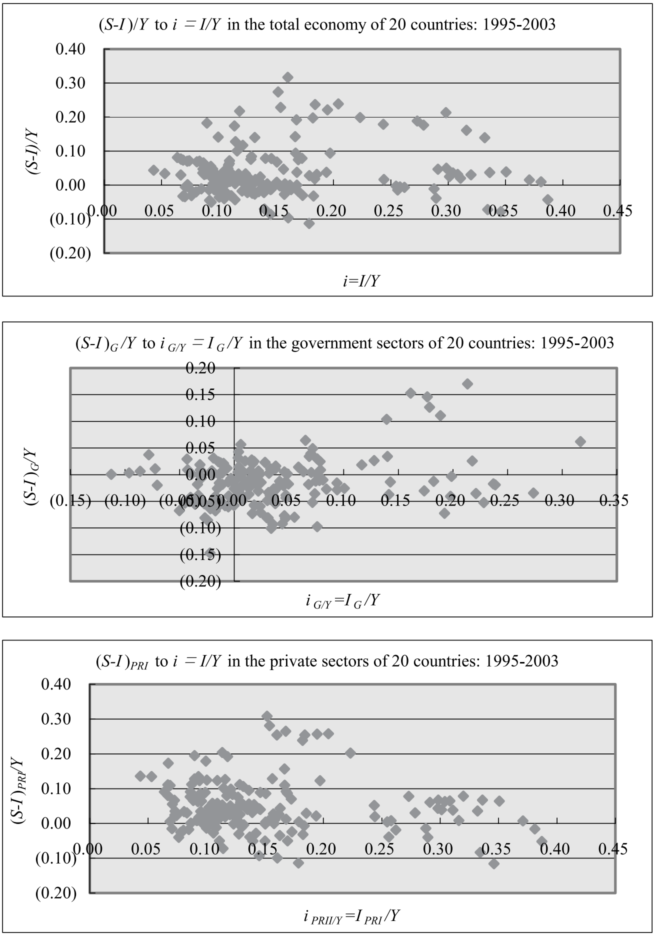
10. India	*beta**	*s*	*i*	*alpha*	*n*	output share	*r*	(*s-i*)	g_Y^*	$r\cdot g_Y^*$
Total econom	0.5663	0.1299	0.1571	0.1160	0.0152	1.0000	0.1105	(0.0272)	0.0848	0.0257
G sector	0.2101	(0.6681)	(0.0238)	(0.4564)	(0.0089)	0.0847	(1.9813)	(0.6444)	(0.0217)	(1.9597)
PRI sector	0.6051	0.2037	0.1739	0.1583	0.0191	0.9153	0.1538	0.0298	0.1022	0.0516

The government sector				The private sector				The total economy		
current average		opp. cost	opp.avera.		weighted average of Y		opp. cost		opp. cost	opp.avera.
$g_{Y(G)}^*(i_G)$	(Y_G/Y)	$\Delta g_{Y(G)}^*(s_G)$	$g_{Y(G)}^*(i_G)$	$g_{Y(P)}^*(i_P)$	$(Y_G/Y)/(1-(Y_G/Y))$		$\Delta g_{Y(P)}^*(i_P)$		$\Delta g_Y^*(i)$	$g_Y^*(i)$
		By changing the sign of s_G:				$-sG\cdot(Y_G/Y)/(1-(Y_G/Y))$		Without crowding-out by using $-s_G$		
(0.0217)	0.0847	0.6092	0.5876	0.1022	0.0925	0.0618	0.0363	0.0566	0.0305	0.1153

A lost growth rate of g_Y^* 0.0305

Note 1: An equation of $g_Y^*(i)=(i(1-beta^*)(1+n))/(1-alpha))+n$ is not fitted for the opportunity cost.

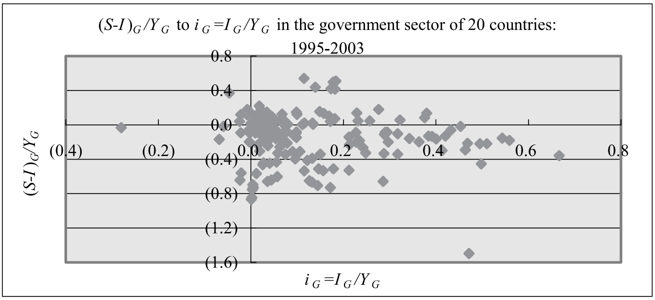
Note 2: The above oportunity cost assumes "taxes=expenditures, " which excludes government investment (or s_G=0)

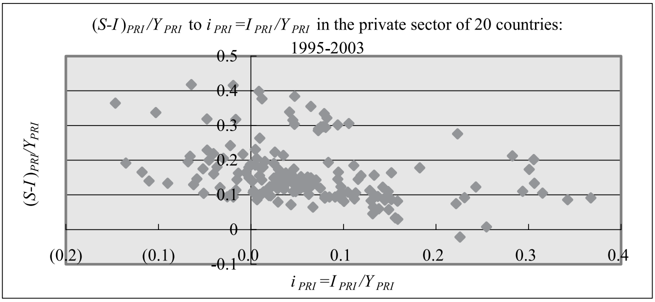


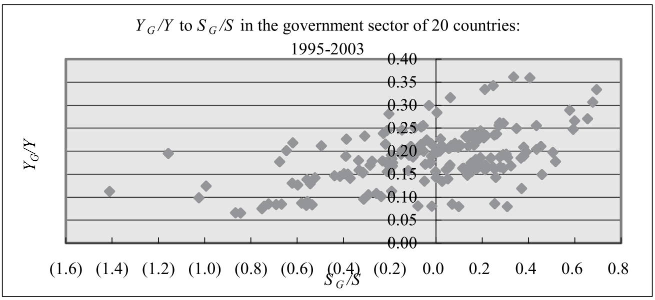
Note:

1. When total output is used for each denominator of deficit and $(S\text{-}I)_{PRI}$, the sum shows balance of payment.
2. The balance of payment was shown here after deducting capital transfers: current balance.
3. Saving conservatively shows domestic saving. A minus investment can work as a stopper of deficit.

Figure 1-1 The investment ratio and the balance of payment, budget deficit, and $(S\text{-}I)_{PRI}/Y$







Note:

1. Assuming that the ratio of net investment in the government sector is 0.1 and output share is 0.2, the ratio of net investment to output is 0.02. If government saving is zero, the EU rule shows 0.02.
2. The private sector must have a plus deifference between saving and invesstment.
3. Budget deficit is shown by a minus ratio of government saving to saving, which decreases output share.

Figure 1-2 Ratio of investment and budget deficit, $(S\text{-}I)_G/Y_G$, and $(S\text{-}I)_{PRI}/Y_{PRI}$: with each share of output and saving, Y_G/Y and S_G/S

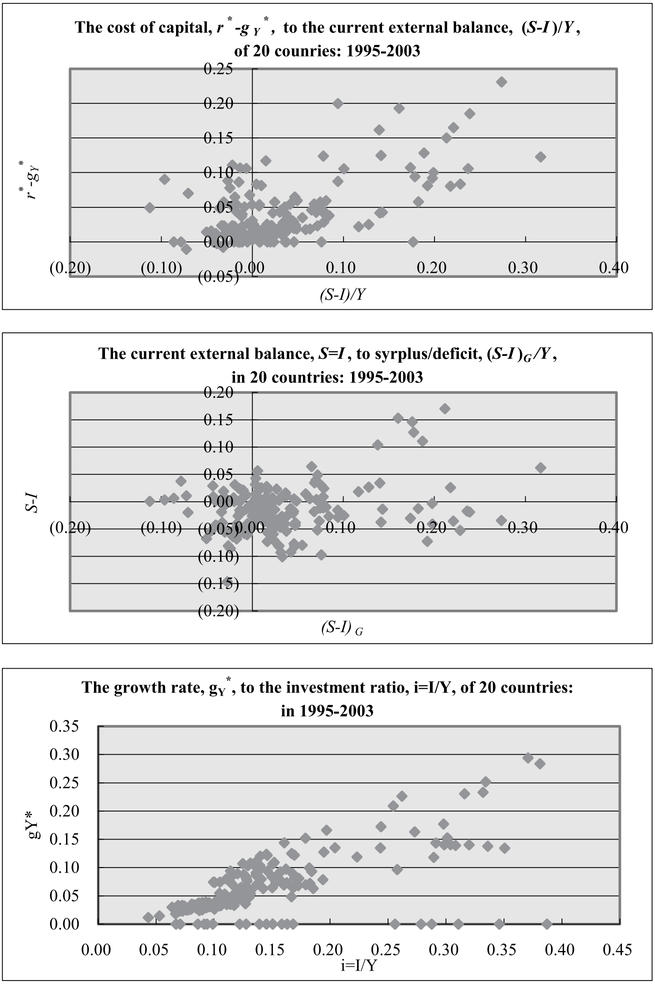


Figure 1-3 The cost of capital, the current external balance, budget surplus/deficit

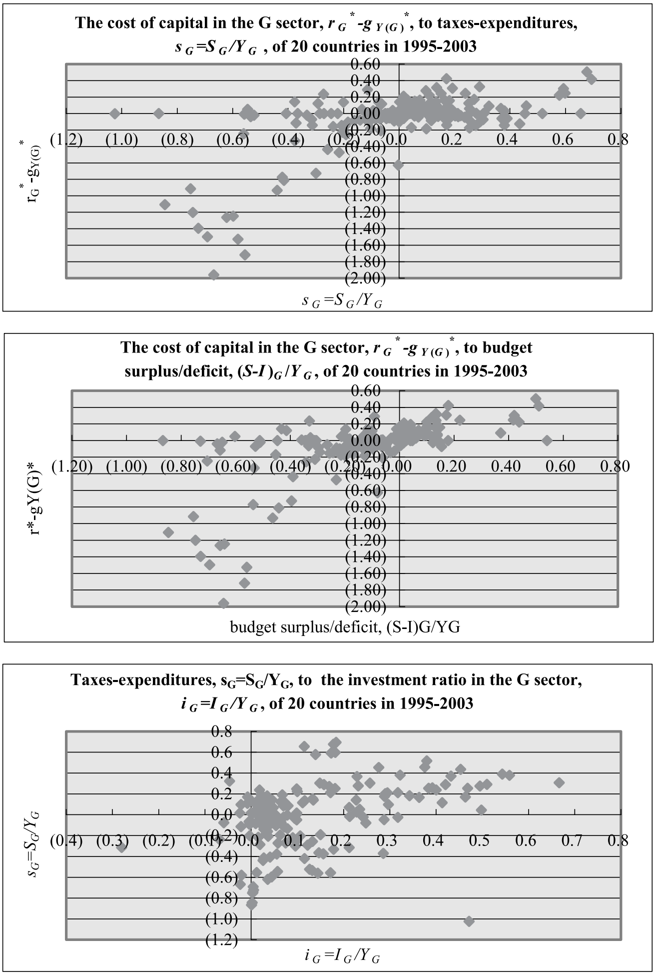
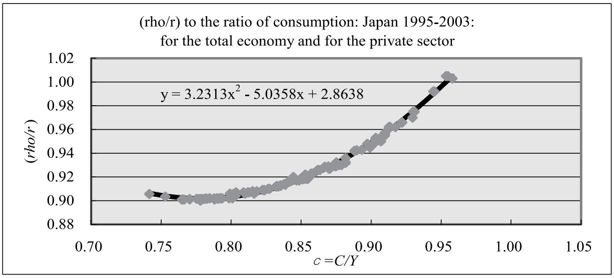


Figure 1-4 The cost of capital in the G sector, taxes less expenditures, and surplus/deficit



Note 1: The quadratic equation has a minimum point. Below this point, rental is unfavourbly estimated.

For example, if c=0.8, (*rho*/*r*)=0.9032 and α=0.1146, but if c=0.7, (*rho*/*r*)=0.9221 and α=0.2409.

If (*rho*/*r*)=0.88 under c=0.7, α will be 0.7/0.88=0.2045, which is less than 0.2409.

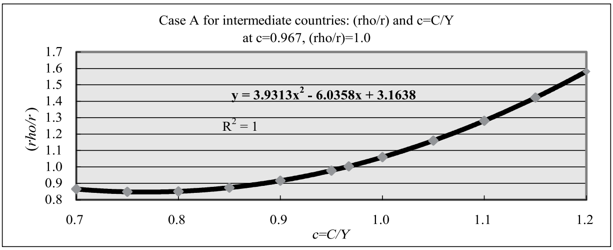
High saving countries such as Singapore and Malaysia cannot enjoy higher rental and α.

The quadratic equation differs by country but presents a hypothesis between saving and consumption:

Saving and consumption usually have an invisible hand not to fall into too extreme cases.

Note 2: The minimum of c and (*rho*/*r*) by equation:

	c_{MIN}	$(rho/r)_{MIN}$
y=3.2313c^2-5.0358c+2.8638	0.7792	0.9018
y=3.9313c^2-6.0358c+3.1638	0.7677	0.8471
y=5.0313c^2-7.0358c+3.2638	0.6992	0.8041



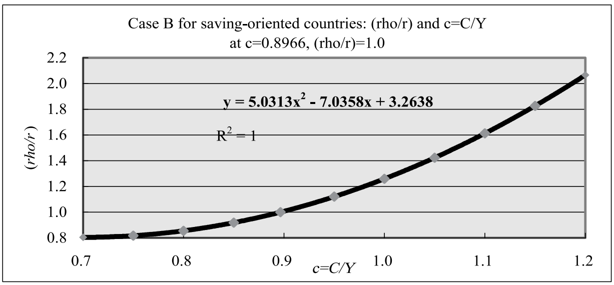


Figure 1-5 Quadratic equations of (*rho*/*r*) to the ratio of consumption to output, *c*

Table 3-1 Simulation of the G sector by decreasing investment and government budget (final C)

		Case 1	Case 2	Case 3	Case 4	Case 5
Simultion by using final (including pensions) consumption						
1. alpha $_{GOLD(G)}$ ***=ib**** **by case**	1994	0.2375	0.0601	0.0247	0.2379	0.0229
	1995	0.2513	0.0621	0.0242	0.2479	0.0252
	1996	0.2248	0.0554	0.0216	0.2210	0.0225
	1997	0.1913	0.0458	0.0167	0.1871	0.0192
	1998	0.2104	0.0493	0.0171	0.2094	0.0216
	1999	0.2166	0.0514	0.0184	0.2068	0.0214
	2000	0.1556	0.0325	0.0079	0.1486	0.0159
	2001	0.1366	0.0277	0.0060	0.1293	0.0140
	2002	0.1272	0.0241	0.0035	0.1203	0.0132
2. $r^*-g_Y{}^*$ **by case**	1994	(0.0582)	(0.0106)	(0.0011)	(0.0559)	0.0119
	1995	(0.0485)	0.0007	0.0106	(0.0586)	0.0113
	1996	(0.0420)	0.0011	0.0098	(0.0514)	0.0120
	1997	(0.0312)	0.0051	0.0123	(0.0423)	0.0129
	1998	(0.0765)	(0.0411)	(0.0340)	(0.0483)	0.0146
	1999	(0.0441)	(0.0106)	(0.0039)	(0.0476)	0.0170
	2000	(0.0241)	0.0022	0.0075	(0.0320)	0.0162
	2001	(0.0170)	0.0055	0.0100	(0.0268)	0.0167
	2002	(0.0282)	(0.0094)	(0.0057)	(0.0244)	0.0215
3. $\beta^*{}_G$ **by case**	1994	0.7957	0.8061	0.8270	0.7972	0.7662
	1995	0.8007	0.7911	0.7718	0.7900	0.8023
	1996	0.8030	0.7921	0.7703	0.7896	0.8026
	1997	0.7993	0.7661	0.6997	0.7816	0.8031
	1998	0.7826	0.7332	0.6343	0.7787	0.8042
	1999	0.8172	0.7762	0.6943	0.7801	0.8058
	2000	0.7856	0.6568	0.3993	0.7501	0.8052
	2001	0.7857	0.6381	0.3429	0.7438	0.8057
	2002	0.7785	0.5911	0.2163	0.7360	0.8089
4. ***delta*** $_G$ **by case**	1994	0.0421	0.1114	0.2750	0.0509	(0.1119)
	1995	0.0449	(0.0115)	(0.1100)	0.0097	0.0823
	1996	0.0370	(0.0268)	(0.1362)	0.0073	0.0842
	1997	(0.0017)	(0.1667)	(0.3873)	(0.0354)	0.0871
	1998	(0.2316)	(0.4448)	(0.6983)	(0.0497)	0.0937
	1999	(0.0906)	(0.2935)	(0.5363)	(0.0427)	0.1027
	2000	(0.1961)	(0.5545)	(0.8103)	(0.1786)	0.1001
	2001	(0.2176)	(0.5899)	(0.8327)	(0.2042)	0.1035
	2002	(0.3591)	(0.7459)	(0.9645)	(0.2332)	0.1225
5. $\theta_G=i_G/s_G$ **by case**	1994	15.2285	3.8071	1.5229	29.8433	0.9948
	1995	(23.9312)	(5.9828)	(2.3931)	31.3804	1.0460
	1996	(16.0266)	(4.0066)	(1.6027)	27.9874	0.9329
	1997	(26.5159)	(6.6290)	(2.6516)	23.9340	0.7978
	1998	(1.7397)	(0.4349)	(0.1740)	26.8916	0.8964
	1999	(0.9772)	(0.2443)	(0.0977)	26.5099	0.8837
	2000	(0.8694)	(0.2173)	(0.0869)	19.8052	0.6602
	2001	(0.5855)	(0.1464)	(0.0586)	17.3867	0.5796
	2002	(0.3378)	(0.0845)	(0.0338)	16.3377	0.5446

Case 1: under the current situation — $(S\text{-}I)_G$ shows budget surplus/defict.
Case 2: decrease investment (to 1/4) — Primary balance is $(S\text{-}I)_G$ +interest paid, net.
Case 3: further decrease investment (to 1/10) — For domestic saving, $(S\text{-}I)$–capital transfers
Case 4: decrease budget deficit (s=0.01), where $(S\text{-}I)_G$=Taxes-Expenditures.
Case 5: decrease both investment (to 1/10) and budget deficit (s=0.03)

Table 3-2 Simulation of the G sector by decreasing investment and government budget (actual C)

		Case 1	Case 2	Case 3	Case 4	Case 5
Simulation by using actual (excluding pensions) consumption						
1. $alpha_{GOLD(G)}=ib^*$ **by case**	1994	0.5838	0.1469	0.0595	0.5918	0.0582
	1995	0.6431	0.1598	0.0632	0.6444	0.0649
	1996	0.5880	0.1460	0.0576	0.5871	0.0592
	1997	0.4922	0.1207	0.0464	0.4881	0.0494
	1998	0.6672	0.1621	0.0611	0.6667	0.0676
	1999	0.8291	0.2037	0.0786	0.7953	0.0805
	2000	0.5913	0.1397	0.0494	0.5675	0.0581
	2001	0.5995	0.1413	0.0496	0.5710	0.0585
	2002	0.8931	0.2090	0.0722	0.8482	0.0866
2. $r^*-g_Y^*$ **by case**	1994	(0.0829)	(0.0300)	(0.0194)	(0.0682)	0.0011
	1995	(0.0792)	(0.0245)	(0.0136)	(0.0746)	0.0003
	1996	(0.0710)	(0.0232)	(0.0136)	(0.0676)	0.0010
	1997	(0.0530)	(0.0125)	(0.0045)	(0.0556)	0.0022
	1998	(0.0872)	(0.0474)	(0.0394)	(0.0773)	0.0010
	1999	(0.0609)	(0.0233)	(0.0158)	(0.0929)	0.0005
	2000	(0.0443)	(0.0146)	(0.0087)	(0.0652)	0.0022
	2001	(0.0402)	(0.0148)	(0.0097)	(0.0657)	0.0021
	2002	(0.0492)	(0.0281)	(0.0239)	(0.0993)	0.0008
3. β^*_G **by case**	1994	0.8844	0.8903	0.9022	0.8966	0.8812
	1995	0.8912	0.8860	0.8755	0.8930	0.8996
	1996	0.8942	0.8884	0.8766	0.8928	0.8997
	1997	0.8963	0.8791	0.8448	0.8889	0.8999
	1998	0.8893	0.8641	0.8138	0.8886	0.9004
	1999	0.9279	0.9117	0.8794	0.8901	0.9011
	2000	0.9162	0.8659	0.7652	0.8793	0.9006
	2001	0.9230	0.8700	0.7640	0.8792	0.9006
	2002	0.9297	0.8702	0.7512	0.8829	0.9018
4. $delta_G$ **by case**	1994	(0.0808)	(0.0186)	0.1282	0.0485	(0.0922)
	1995	(0.0746)	(0.1253)	(0.2140)	0.0126	0.0802
	1996	(0.0883)	(0.1457)	(0.2442)	0.0109	0.0814
	1997	(0.0556)	(0.2039)	(0.4020)	(0.0261)	0.0843
	1998	(0.5224)	(0.7122)	(0.9378)	(0.0269)	0.0886
	1999	(0.2644)	(0.4450)	(0.6611)	(0.0134)	0.0953
	2000	(0.2949)	(0.6132)	(0.8404)	(0.1027)	0.0906
	2001	(0.3674)	(0.6978)	(0.9134)	(0.1032)	0.0905
	2002	(0.9926)	(1.3351)	(1.5287)	(0.0713)	0.1031
5. $\theta_G=i_G/s_G$ **by case**	1994	15.2285	3.8071	1.5229	66.007	2.2002
	1995	(23.9312)	(5.9828)	(2.3931)	72.160	2.4053
	1996	(16.0266)	(4.0066)	(1.6027)	65.758	2.1919
	1997	(26.5159)	(6.6290)	(2.6516)	54.914	1.8305
	1998	(1.7397)	(0.4349)	(0.1740)	75.024	2.5008
	1999	(0.9772)	(0.2443)	(0.0977)	89.351	2.9784
	2000	(0.8694)	(0.2173)	(0.0869)	64.536	2.1512
	2001	(0.5855)	(0.1464)	(0.0586)	64.944	2.1648
	2002	(0.3378)	(0.0845)	(0.0338)	96.061	3.2020

Case 1: under the current situation — $(S\text{-}I)_G$ shows budget surplus/defict.
Case 2: decrease investment (to 1/4) — Primary balance is $(S\text{-}I)_G$ +interest paid, net.
Case 3: further decrease investment (to 1/10) — For domestic saving, $(S\text{-}I)$–capital transfers
Case 4: decrease budget deficit (s=0.01), where $(S\text{-}I)_G$ =Taxes-Expenditures.
Case 5: decrease both investment (to 1/10) and budget deficit (s=0.03)

Japan

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Japan	i_G	β^*_G	$delta_G$	$g_A{}^*_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.2877	0.8196	0.1220	0.0519	(0.0458)	(6.2853)	(0.0115)	0.0068
1997	0.2425	0.8560	0.4475	0.0349	(0.0225)	(10.7791)	0.0090	0.0155
1998	0.4716	(0.2658)	(0.8289)	0.5970	(1.0248)	(0.4602)	(0.1505)	(0.3520)
1999	0.2860	1.7917	(1.9526)	(0.2264)	(0.3715)	(0.7699)	(0.1039)	0.3792
2000	0.2122	1.1662	(2.7346)	(0.0353)	(0.3154)	(0.6727)	(0.1031)	0.0841
2001	0.1786	0.5519	(0.7018)	0.0800	(0.3321)	(0.5377)	(0.0071)	(0.0552)
2002	0.1718	0.1920	(0.8516)	0.1388	(0.5577)	(0.3080)	(0.0091)	(0.1159)
2003	0.1266	0.9579	2.9953	0.0053	(0.5233)	(0.2420)	0.0042	0.0160
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	0.9958	
	The difference bet. s_G and i_G will be determined by budget surplus/deficit						0.0042	

G sector

	$\beta_{a(d \neq a)} - \beta^*$	$\beta_{actual(\delta \neq \alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	(0.0161)	0.8036	0.0164	0.1715	(0.0572)	0.1335	0.00091	(0.0000010)
1997	0.0096	0.8656	0.0420	0.1764	(0.0468)	0.4385	0.00678	0.0000007
1998	(2.1770)	(2.4428)	(0.4835)	0.0982	(0.1470)	(0.6784)	0.23878	(0.0000068)
1999	0.9565	2.7482	0.518	0.1411	(0.0928)	(1.8488)	(0.70111)	(0.0000067)
2000	0.1791	1.3454	0.0868	0.1535	(0.0810)	(2.6316)	(0.22142)	(0.0000070)
2001	(0.0257)	0.5262	0.0117	0.1586	(0.0810)	(0.6947)	0.03835	(0.0000005)
2002	(0.0611)	0.1309	(0.1394)	0.1381	(0.1007)	(0.8425)	0.09763	(0.0000006)
2003	0.0015	0.9593	0.0280	0.1419	(0.0923)	2.9910	0.04792	0.0000003
2004	#DIV/0!	#DIV/0!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	(0.0028)	0.0047	(0.606)	0.0464	(0.3334)	(0.0613)	11904	4.0303
1997	0.0022	0.0048	0.463	(0.0454)	(0.2650)	(0.0490)	12283	4.0528
1998	(0.0189)	0.0037	(5.111)	5.9887	(1.4963)	(0.0032)	19223	7.9580
1999	(0.0195)	0.0006	(32.538)	0.1685	(0.6575)	(0.1158)	14144	5.3204
2000	(0.0206)	0.0011	(18.732)	0.2940	(0.5276)	(0.0701)	13329	5.0014
2001	(0.0014)	0.0006	(2.395)	0.0674	(0.5107)	(0.0213)	14155	4.9601
2002	(0.0016)	0.0001	(15.771)	0.2161	(0.7294)	(0.0073)	16014	5.7648
2003	0.0008	0.0001	7.515	(0.0363)	(0.6499)	(0.0207)	15884	5.6513
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$		$\alpha_G/(i \cdot \beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.2358	(0.0487)	0.0585	(5.1516)	0.2358	(0.1941)	1.0458	1.0339
1997	0.2076	0.0434	0.0512	(9.2273)	0.2076	(0.1084)	1.0225	1.0318
1998	(0.1254)	1.2005	(0.0158)	0.1223	(0.1254)	8.1737	2.0248	1.7599
1999	0.5124	(0.2027)	0.0963	(1.3794)	0.5124	(0.7250)	1.3715	1.2424
2000	0.2475	(0.4165)	0.0495	(0.7845)	0.2475	(1.2747)	1.3154	1.1925
2001	0.0986	(0.0723)	0.0199	(0.2968)	0.0986	(3.3694)	1.3321	1.3227
2002	0.0330	(0.2757)	0.0057	(0.0591)	0.0330	(16.9087)	1.5577	1.5436
2003	0.1213	0.0350	0.0215	(0.2318)	0.1213	(4.3145)	1.5233	1.5298
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Korea

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Korea	i_G	β^*_G	$delta_G$	$g_A{}^*{}_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.1345	0.7886	1.8461	0.0284	0.1416	0.9499	0.0819	0.0546
1997	0.2275	0.5907	0.0683	0.0931	0.1405	1.6196	0.0852	(0.0017)
1998	0.0975	1.2811	(4.2087)	(0.0274)	0.0008	126.6520	(0.0294)	0.1113
1999	0.0655	0.3164	(0.5814)	0.0447	0.1195	0.5478	0.0668	(0.0311)
2000	0.0451	0.1856	(0.7138)	0.0368	0.1430	0.3158	0.0897	(0.0324)
2001	0.0676	1.0568	(15.7068)	(0.0038)	0.1914	0.3531	0.1203	0.0691
2002	0.0330	0.5549	0.1538	0.0147	0.1711	0.1928	0.0981	0.0009
2003	0.0411	0.8833	5.5057	0.0048	0.0557	0.7369	0.0020	0.0264
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)} - \beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	0.0829	0.8715	0.1755	0.1579	0.0011	1.7642	0.09638	0.0000099
1997	0.1710	0.7617	0.0877	0.1565	(0.0136)	(0.0169)	0.00003	0.0000086
1998	0.0490	1.3301	(0.0606)	0.1424	(0.0138)	(4.1792)	(0.46502)	(0.0000027)
1999	0.2292	0.5457	0.1943	0.1629	0.0088	(0.6482)	0.02015	0.0000063
2000	0.3514	0.5369	0.1055	0.1643	0.0161	(0.8034)	0.02607	0.0000081
2001	(0.0310)	1.0258	0.2148	0.1858	0.0230	(15.8271)	(1.09312)	0.0000113
2002	0.2011	0.7560	0.0756	0.1816	0.0251	0.0557	0.00005	0.0000088
2003	0.0012	0.8845	(0.0462)	0.1646	0.0024	5.5037	0.14543	0.0000002
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s\text{-}\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.0674	0.1240	0.544	(3.3900)	0.0071	(0.0199)	8980	1.2148
1997	0.0633	0.1320	0.480	(1.7326)	(0.0870)	(0.0366)	10827	1.3451
1998	(0.0193)	0.1500	(0.128)	0.1908	(0.0967)	(0.1009)	10406	1.5292
1999	0.0496	0.0500	0.992	1.4494	0.0540	0.0342	11288	1.3469
2000	0.0709	0.0520	1.364	1.1030	0.0978	0.0643	12099	1.2641
2001	0.1085	0.0470	2.308	2.4610	0.1238	0.0441	12052	1.1088
2002	0.0922	0.0420	2.196	1.2294	0.1381	0.0750	12426	1.0641
2003	0.0017	0.0420	0.041	(0.0578)	0.0147	(0.0296)	12552	1.1566
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_Y{}^*{}_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.1060	0.7722	0.0873	0.7490	0.1060	1.3350	0.8584	0.9350
1997	0.1344	0.6340	0.0999	0.9567	0.1344	1.0453	0.8595	0.9396
1998	0.1249	(0.2357)	0.0817	162.2552	0.1249	0.0062	0.9992	0.9707
1999	0.0207	3.2250	0.0154	0.1734	0.0207	5.7686	0.8805	0.9435
2000	0.0084	10.7049	0.0066	0.0586	0.0084	17.0637	0.8570	0.9415
2001	0.0714	1.6845	0.0644	0.3731	0.0714	2.6799	0.8086	0.9192
2002	0.0183	5.3590	0.0172	0.1070	0.0183	9.3456	0.8289	0.9191
2003	0.0363	0.0547	0.0314	0.6509	0.0363	1.5364	0.9443	0.9462
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

China

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

China	i_G	β^*_G	$delta_G$	$g_{A\ G}^{*}$	s_G	$\theta_G=i_G/s_G$	α_G	n_G
1996	0.2904	0.7404	0.2605	0.0754	0.2024	1.4352	0.1548	0.0094
1997	0.2947	0.7739	0.4294	0.0666	0.2108	1.3978	0.1699	0.0208
1998	0.3172	0.8079	0.6211	0.0609	0.2131	1.4890	0.1695	0.0331
1999	0.3426	0.8132	0.5645	0.0640	0.1825	1.8769	0.1367	0.0317
2000	0.3634	0.8222	0.5962	0.0646	0.1660	2.1891	0.1186	0.0350
2001	0.4135	0.8079	0.3554	0.0794	0.1162	3.5587	0.0800	0.0238
2002	0.4002	0.8191	0.5072	0.0724	0.2373	1.6867	0.2026	0.0277
2003	0.4205	0.7856	0.2519	0.0902	0.2893	1.4535	0.2564	(0.0005)
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)}-\beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S-I)_G/Y$	$\delta_G-\alpha_G$	CRC speed ζ_G	$(r/w)_G$
1996	0.0586	0.7990	0.2116	0.1659	(0.0146)	0.1057	0.00100	0.02043
1997	0.0590	0.8329	0.1231	0.1680	(0.0141)	0.2595	0.00540	0.02022
1998	0.0528	0.8608	0.0902	0.1694	(0.0176)	0.4516	0.01496	0.01801
1999	0.0446	0.8577	0.0543	0.1687	(0.0270)	0.4278	0.01357	0.01250
2000	0.0390	0.8611	0.1045	0.1697	(0.0335)	0.4776	0.01672	0.00951
2001	0.0308	0.8387	0.0504	0.1625	(0.0483)	0.2754	0.00655	0.00542
2002	0.0695	0.8886	0.2896	0.1848	(0.0301)	0.3046	0.00842	0.01387
2003	0.1041	0.8897	0.1694	0.1917	(0.0252)	(0.0045)	0.00000	0.01592
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G=r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G=\alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G=$ **(s-i)** $_G$	$(r^*-g_Y^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.0716	0.0900	0.796	(2.5709)	(0.0881)	(0.0279)	8.966	2.1618
1997	0.0766	0.0855	0.896	(2.9251)	(0.0838)	(0.0262)	10.127	2.2195
1998	0.0720	0.0459	1.569	(1.9525)	(0.1042)	(0.0369)	11.330	2.3531
1999	0.0531	0.0324	1.639	(0.9636)	(0.1601)	(0.0551)	12.667	2.5745
2000	0.0440	0.0324	1.359	(0.6584)	(0.1974)	(0.0669)	14.147	2.6944
2001	0.0268	0.0324	0.829	(0.3147)	(0.2973)	(0.0853)	16.046	2.9787
2002	0.0747	0.0270	2.768	(1.6169)	(0.1629)	(0.0462)	18.320	2.7100
2003	0.0937	0.0270	3.469	(3.4688)	(0.1312)	(0.0270)	21.656	2.7379
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)}=i_G\cdot\beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_{Y\ G}^{*}$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G=1-s_G$	$(rho/r)_G$
1996	0.2150	0.7200	0.0995	1.0627	0.2150	0.9410	0.7976	0.9437
1997	0.2280	0.7452	0.1027	1.0818	0.2280	0.9244	0.7892	0.9508
1998	0.2563	0.6613	0.1089	1.2030	0.2563	0.8312	0.7869	0.9476
1999	0.2786	0.4907	0.1082	1.5263	0.2786	0.6552	0.8175	0.9469
2000	0.2988	0.3970	0.1109	1.7998	0.2988	0.5556	0.8340	0.9462
2001	0.3341	0.2393	0.1122	2.8751	0.3341	0.3478	0.8838	0.9606
2002	0.3278	0.6179	0.1210	1.3815	0.3278	0.7238	0.7627	0.9564
2003	0.3303	0.7762	0.1207	1.1418	0.3303	0.8758	0.7107	0.9558
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

India

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

India	i_G	β^*_G	$delta_G$	$g_{A}{}^*_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0021	4.8832	(5.1753)	(0.0081)	(0.8444)	(0.0025)	(0.6390)	0.0223
1997	0.0030	2.1495	(7.0703)	(0.0034)	(0.7518)	(0.0040)	(0.4277)	0.0160
1998	0.0039	7.0953	(5.8717)	(0.0236)	(0.7431)	(0.0052)	(0.4334)	0.0895
1999	0.0052	4.2559	(7.2292)	(0.0168)	(0.7233)	(0.0071)	(0.4359)	0.0794
2000	0.0047	1.7212	(12.6680)	(0.0034)	(0.6910)	(0.0067)	(0.4571)	0.0282
2001	(0.0209)	0.0797	(0.9092)	(0.0193)	(0.5806)	0.0361	(0.3821)	0.0074
2002	0.0121	1.2224	(33.6746)	(0.0027)	(0.5554)	(0.0218)	(0.3939)	0.0642
2003	(0.0238)	0.2101	0.2336	(0.0188)	(0.6681)	0.0355	(0.4564)	(0.0089)
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d \neq a)} - \beta^*$	$\beta_{actual(\delta \neq \alpha)}$	$g_{Y(a)G}$	Y_G/Y	**$(S\text{-}I)_G/Y$**	$\delta_G - \alpha_G$	speed ζ_G	$(r/w)_G$
1996	0.7363	5.6195	0.1447	0.0654	(0.0553)	(4.5363)	(0.10121)	(0.094737)
1997	0.1479	2.2974	0.2440	0.0749	(0.0565)	(6.6427)	(0.10618)	(0.073491)
1998	0.6690	7.7643	0.2492	0.0802	(0.0599)	(5.4382)	(0.48648)	(0.080004)
1999	0.2991	4.5550	0.1867	0.0848	(0.0618)	(6.7933)	(0.53912)	(0.085335)
2000	0.0615	1.7828	0.0724	0.0836	(0.0581)	(12.2109)	(0.34401)	(0.089310)
2001	(0.0539)	0.0258	0.1511	0.0867	(0.0485)	(0.5271)	(0.00388)	(0.085947)
2002	0.0133	1.2356	0.1039	0.0905	(0.0513)	(33.2807)	(2.13768)	(0.088743)
2003	(0.0436)	0.1664	(0.0640)	0.0847	(0.0546)	0.6901	(0.00613)	(0.107596)
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s\text{-}\alpha/\beta^*)_G =$ **$(s\text{-}i)_G$**	$(r^* \text{-} g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	(1.0894)	0.1200	(9.079)	0.9844	(0.8464)	(1.1067)	4.115	0.5865
1997	(0.9014)	0.0900	(10.015)	0.9852	(0.7548)	(0.9149)	4.076	0.4745
1998	(1.1296)	0.0900	(12.552)	0.9404	(0.7470)	(1.2012)	3.780	0.3837
1999	(1.3270)	0.0800	(16.588)	0.9521	(0.7285)	(1.3938)	3.557	0.3285
2000	(1.4700)	0.0800	(18.375)	0.9828	(0.6957)	(1.4958)	3.513	0.3110
2001	(1.5333)	0.0650	(23.589)	1.0044	(0.5597)	(1.5266)	3.217	0.2492
2002	(1.6562)	0.0625	(26.499)	0.9638	(0.5675)	(1.7183)	3.184	0.2379
2003	(1.9813)	0.0600	(33.022)	1.0111	(0.6444)	(1.9597)	2.913	0.2304
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i \cdot \beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1\text{-}s_G$	$(rho/r)_G$
1996	0.0101	(63.0362)	0.0173	(0.0120)	0.0101	(83.2978)	1.8444	1.1253
1997	0.0064	(66.5714)	0.0135	(0.0085)	0.0064	(117.0231)	1.7518	1.2270
1998	0.0274	(15.7916)	0.0715	(0.0369)	0.0274	(27.0743)	1.7431	1.2160
1999	0.0219	(19.8803)	0.0668	(0.0303)	0.0219	(32.9897)	1.7233	1.2002
2000	0.0080	(56.9758)	0.0258	(0.0116)	0.0080	(86.1330)	1.6910	1.1605
2001	(0.0017)	228.9047	(0.0067)	0.0029	(0.0017)	347.8380	1.5806	1.1436
2002	0.0148	(26.6359)	0.0622	(0.0266)	0.0148	(37.5553)	1.5554	1.1159
2003	(0.0050)	91.4860	(0.0217)	0.0075	(0.0050)	133.9144	1.6681	1.1453
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Brazil

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Brazil	i_G	β^*_G	$delta_G$	$g_A{}^*_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0274	(0.5967)	(2.7905)	0.0437	(0.4147)	(0.0660)	(0.2489)	(0.0889)
1997	0.0442	0.2001	(0.3677)	0.0353	(0.5975)	(0.0740)	(0.4123)	0.0011
1998	0.0361	0.5899	4.4087	0.0148	(0.6211)	(0.0581)	(0.4167)	0.0504
1999	0.0256	0.4673	2.2587	0.0136	(0.4391)	(0.0583)	(0.2825)	0.0270
2000	0.0156	0.8427	22.4091	0.0025	(0.2161)	(0.0721)	(0.1057)	0.0499
2001	0.0099	0.9356	67.2227	0.0006	(0.0841)	(0.1176)	(0.0047)	0.0426
2002	0.0045	4.3847	(8.5018)	(0.0152)	0.0192	0.2349	0.0333	0.1346
2003	(0.0043)	1.1262	(56.7417)	0.0005	(0.0658)	0.0649	(0.0394)	(0.0294)
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d \neq a)} - \beta^*$	$\beta_{actual(\delta \neq \alpha)}$	$g_{Y(a)G}$	Y_G/Y	**$(S-I)_G/Y$**	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	(0.2621)	-0.8588	0.0328	0.1448	(0.0640)	(2.5416)	0.22606	(0.0002195)
1997	(0.1782)	0.0219	(0.0252)	0.1262	(0.0810)	0.0446	0.00005	(0.0002798)
1998	(0.0984)	0.4915	0.0870	0.1303	(0.0856)	4.8255	0.24304	(0.0002653)
1999	(0.1124)	0.3549	0.1973	0.1462	(0.0679)	2.5413	0.06863	(0.0001875)
2000	(0.0178)	0.8249	0.3370	0.1747	(0.0405)	22.5148	1.12427	(0.0000802)
2001	(0.0004)	0.9352	0.2329	0.1967	(0.0185)	67.2273	2.86378	(0.0000039)
2002	(0.1409)	4.2438	0.2979	0.2262	0.0033	(8.5351)	(1.14867)	0.0000317
2003	0.0042	1.1304	(0.0086)	0.2026	(0.0125)	(56.7023)	1.66656	(0.0000348)
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ **$(s-i)_G$**	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	(0.8695)	0.2745	(3.168)	1.0702	(0.4421)	(0.8124)	907.9	0.2862
1997	(1.2205)	0.2500	(4.882)	0.9790	(0.6416)	(1.2467)	1043.3	0.3378
1998	(1.2016)	0.2950	(4.073)	0.9514	(0.6572)	(1.2630)	1108.5	0.3468
1999	(0.8962)	0.2626	(3.413)	0.9594	(0.4646)	(0.9341)	1174.7	0.3153
2000	(0.4206)	0.1759	(2.391)	0.8895	(0.2317)	(0.4728)	1192.8	0.2514
2001	(0.0218)	0.1747	(0.125)	0.3354	(0.0940)	(0.0651)	1199.6	0.2138
2002	0.1968	0.1911	1.030	2.4561	0.0147	0.0801	1086.2	0.1692
2003	(0.2369)	0.2337	(1.014)	1.1389	(0.0615)	(0.2080)	1091.1	0.1664
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$_G/(i \cdot \beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	(0.0163)	15.2378	(0.0571)	0.0394	(0.0163)	25.3939	1.4147	1.1328
1997	0.0088	(46.6404)	0.0262	(0.0148)	0.0088	(67.5900)	1.5975	1.1311
1998	0.0213	(19.5932)	0.0613	(0.0342)	0.0213	(29.2029)	1.6211	1.1443
1999	0.0120	(23.6338)	0.0379	(0.0272)	0.0120	(36.7267)	1.4391	1.1220
2000	0.0131	(8.0471)	0.0523	(0.0608)	0.0131	(16.4480)	1.2161	1.0998
2001	0.0092	(0.5047)	0.0433	(0.1100)	0.0092	(9.0913)	1.0841	1.0790
2002	0.0197	1.6868	0.1167	1.0298	0.0197	0.9710	0.9808	1.0146
2003	(0.0048)	8.2005	(0.0289)	0.0730	(0.0048)	13.6895	1.0658	1.0254
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Singapore

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Singapore	i_G	β^*_G	$delta_G$	$g_{A\ G}^{*}$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.1781	0.8869	3.5377	0.0201	0.6771	0.2630	0.5709	0.1392
1997	0.1730	0.7254	0.6928	0.0475	0.5932	0.2916	0.4673	0.0201
1998	0.1840	0.9570	8.6993	0.0079	0.6942	0.2650	0.5876	0.1557
1999	0.1819	0.6226	0.1123	0.0686	0.5991	0.3036	0.4754	(0.0475)
2000	0.1392	0.9951	81.5050	0.0007	0.5779	0.2409	0.4459	0.0989
2001	(0.2800)	0.5663	(1.1328)	(0.1214)	(0.3128)	0.8951	(0.6951)	0.0314
2002	(0.0686)	0.6489	(0.7159)	(0.0241)	(0.2370)	0.2892	(0.5774)	0.0021
2003	(0.0468)	0.4789	(0.4380)	(0.0244)	0.3240	(0.1445)	0.1402	0.0164
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)} - \beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	IRC *speed* $_G$	$(r/w)_G$
1996	0.1127	0.9996	0.2872	0.3066	0.1530	2.9668	0.41305	0.0000313
1997	0.2721	0.9974	(0.1432)	0.2473	0.1039	0.2255	0.00453	0.0000178
1998	0.0429	0.9999	0.4013	0.3336	0.1702	8.1117	1.26262	0.0000272
1999	0.3747	0.9973	(0.2304)	0.2656	0.1108	(0.3631)	0.01725	0.0000144
2000	0.0048	1.0000	0.1806	0.2889	0.1267	81.0590	8.01276	0.0000127
2001	(0.9822)	(0.4159)	(0.6550)	0.0955	(0.0031)	(0.4377)	(0.01372)	(0.0000072)
2002	(0.7488)	(0.0998)	0.0821	0.1010	(0.0170)	(0.1386)	(0.00029)	(0.0000065)
2003	0.3703	0.8492	0.8247	0.1677	0.0622	(0.5783)	(0.00949)	0.0000030
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.6965	0.0293	23.770	1.3825	0.4990	0.5038	42568	0.8197
1997	0.4137	0.0435	9.509	1.3671	0.4202	0.3026	49274	1.1296
1998	0.5935	0.0500	11.870	1.4278	0.5102	0.4157	52369	0.9901
1999	0.3238	0.0204	15.871	1.3126	0.4172	0.2467	62753	1.4684
2000	0.3225	0.0257	12.547	1.4508	0.4387	0.2223	63501	1.3830
2001	(0.1865)	0.0199	(9.369)	1.2955	(0.0328)	(0.1439)	57269	3.7281
2002	(0.1710)	0.0096	(17.812)	1.0835	(0.1685)	(0.1578)	56011	3.3766
2003	0.0778	0.0074	10.507	0.8621	0.3709	0.0902	53713	1.8037
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_{Y\ G}^{*}$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.1579	3.6146	0.1927	0.2332	0.1579	4.2873	0.3229	0.7524
1997	0.1255	3.7239	0.1111	0.2115	0.1255	4.7271	0.4068	0.7637
1998	0.1761	3.3375	0.1778	0.2536	0.1761	3.9429	0.3058	0.7415
1999	0.1132	4.1989	0.0771	0.1890	0.1132	5.2912	0.4009	0.7643
2000	0.1386	3.2184	0.1002	0.2398	0.1386	4.1708	0.4221	0.7618
2001	(0.1586)	4.3841	(0.0425)	0.5069	(0.1586)	1.9728	1.3128	0.7745
2002	(0.0445)	12.9787	(0.0132)	0.1877	(0.0445)	5.3284	1.2370	0.7842
2003	(0.0224)	(6.2531)	(0.0124)	(0.0692)	(0.0224)	(14.4478)	0.6760	0.7862
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Malaysia

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Malaysia	i_G	β^*_G	$delta_G$	$g_A{}^*_G$	s_G	$\theta_G = i_G / s_G$	α_G	n_G
1996	0.2318	0.4246	(0.0545)	0.1333	0.2782	0.8329	0.0998	(0.0229)
1997	0.2290	0.5972	0.5082	0.0922	0.3672	0.6236	0.1910	0.0362
1998	0.3921	0.5887	(0.0386)	0.1612	0.2579	1.5201	0.0831	(0.0214)
1999	0.4684	0.8311	1.5323	0.0791	0.2543	1.8421	0.0791	0.1249
2000	0.5100	0.6497	(0.0497)	0.1787	0.2916	1.7491	0.1266	(0.0361)
2001	0.4950	0.9002	2.4910	0.0494	0.2765	1.7901	0.1151	0.1326
2002	0.4980	0.8381	0.7234	0.0806	0.0447	11.1405	(0.1028)	0.0604
2003	0.4635	0.8608	1.0725	0.0645	0.1716	2.7009	(0.0067)	0.0691
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d \neq a)} - \beta^*$	$\beta_{actual(\delta \neq \alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	0.2317	0.6563	(0.0128)	0.1654	0.0077	(0.1543)	0.00353	0.0000144
1997	0.2896	0.8868	0.2282	0.1847	0.0255	0.3171	0.01147	0.0000236
1998	0.1761	0.7648	(0.2223)	0.1429	(0.0192)	(0.1217)	0.00260	0.0000066
1999	0.0745	0.9056	0.1883	0.1610	(0.0345)	1.4532	0.18144	0.0000052
2000	0.2244	0.8740	0.1365	0.1625	(0.0355)	(0.1763)	0.00636	0.0000063
2001	0.0622	0.9624	0.1554	0.1872	(0.0409)	2.3758	0.31515	0.0000050
2002	(0.1529)	0.6852	(0.1002)	0.1599	(0.0725)	0.8262	0.04990	(0.0000032)
2003	(0.0075)	0.8534	0.2426	0.1797	(0.0524)	1.0792	0.07462	(0.0000002)
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = {}_G/({}_G$	$(s\text{-}\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.1237	0.0692	1.787	69.4342	0.0465	0.0018	7684	0.8073
1997	0.2155	0.0761	2.832	3.5197	0.1382	0.0612	9999	0.8864
1998	0.0542	0.0846	0.641	(0.5621)	(0.1341)	(0.0965)	13733	1.5318
1999	0.0450	0.0338	1.332	(0.2551)	(0.2141)	(0.1765)	16645	1.7574
2000	0.0616	0.0266	2.315	(0.6184)	(0.2184)	(0.0996)	22964	2.0563
2001	0.0506	0.0279	1.814	(0.3483)	(0.2185)	(0.1453)	25913	2.2748
2002	(0.0340)	0.0273	(1.244)	0.1976	(0.4533)	(0.1719)	29251	3.0262
2003	(0.0023)	0.0274	(0.085)	0.0166	(0.2919)	(0.1400)	32566	2.8989
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i \cdot \beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G (i/s)_G \beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0984	1.0146	0.1219	0.3537	0.0984	2.8275	0.7218	0.8018
1997	0.1368	1.3969	0.1543	0.3724	0.1368	2.6850	0.6328	0.7822
1998	0.2308	0.3598	0.1507	0.8949	0.2308	1.1174	0.7421	0.8093
1999	0.3893	0.2033	0.2215	1.5309	0.3893	0.6532	0.7457	0.8098
2000	0.3313	0.3821	0.1611	1.1363	0.3313	0.8800	0.7084	0.8111
2001	0.4456	0.2584	0.1959	1.6114	0.4456	0.6206	0.7235	0.8176
2002	0.4174	(0.2463)	0.1379	9.3369	0.4174	0.1071	0.9553	0.8662
2003	0.3990	(0.0169)	0.1376	2.3251	0.3990	0.4301	0.8284	0.8229
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Indonesia

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Indonesia	i_G	β^*_G	$delta_G$	$g_A{}^*{}_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.3756	0.2450	(0.3763)	0.2836	0.4586	0.8190	0.2079	(0.2092)
1997	0.4324	0.5072	(0.2827)	0.2131	0.3707	1.1665	0.1116	(0.0946)
1998	0.6665	0.2358	(0.3721)	0.5093	0.3080	2.1638	0.1752	(0.3380)
1999	0.3841	0.4947	(0.2206)	0.1941	0.2542	1.5107	0.3192	(0.1539)
2000	0.2971	1.5107	(2.6227)	(0.1518)	0.0985	3.0155	0.0042	0.4003
2001	0.2120	0.7343	0.2327	0.0563	0.0698	3.0385	0.0614	0.0103
2002	0.2132	0.8308	1.1510	0.0361	(0.0178)	(12.0001)	(0.0280)	0.0414
2003	0.2481	0.2829	(0.5608)	0.1779	(0.0781)	(3.1774)	0.1614	(0.1532)
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)}-\beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$\mathbf{(S\text{-}I)_G/Y}$	$\delta_G-\alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	0.5371	0.7821	0.0105	0.1488	0.0124	(0.5842)	0.12221	0.0000755
1997	0.2496	0.7569	(0.0831)	0.1188	(0.0073)	(0.3943)	0.03728	0.0000248
1998	0.5535	0.7894	0.1522	0.0794	(0.0285)	(0.5473)	0.18498	0.0000194
1999	0.4742	0.9688	0.2384	0.0853	(0.0111)	(0.5398)	0.08307	0.0000299
2000	(0.0154)	1.4953	0.0340	0.0791	(0.0157)	(2.6269)	(1.05159)	0.0000003
2001	0.0955	0.8298	0.2107	0.0847	(0.0120)	0.1712	0.00176	0.0000047
2002	(0.0333)	0.7975	0.0655	0.0799	(0.0185)	1.1790	0.04876	(0.0000018)
2003	0.5311	0.8140	(0.0559)	0.0807	(0.0263)	(0.7223)	0.11066	0.0000099
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^*-g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.1672	0.1396	1.197	1.7936	0.0830	0.0932	3479	1.2440
1997	0.0624	0.2782	0.224	(1.0352)	(0.0617)	(0.0602)	5066	1.7891
1998	0.0790	0.6279	0.126	9.7073	(0.3585)	0.0081	10938	2.2192
1999	0.1467	0.2358	0.622	2.4706	(0.1298)	0.0594	15698	2.1760
2000	0.0017	0.1032	0.017	(0.0094)	(0.1986)	(0.1852)	12793	2.4016
2001	0.0280	0.1503	0.186	(0.6522)	(0.1422)	(0.0429)	14017	2.1956
2002	(0.0123)	0.1354	(0.091)	0.1367	(0.2309)	(0.0902)	14852	2.2737
2003	0.0608	0.0776	0.783	1.7693	(0.3261)	0.0343	19346	2.6566
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G\cdot\beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_Y{}^*{}_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1-s_G$	$(rho/r)_G$
1996	0.0920	2.2601	0.0740	0.2006	0.0920	4.9846	0.5414	0.6835
1997	0.2193	0.5087	0.1226	0.5917	0.2193	1.6902	0.6293	0.7084
1998	0.1572	1.1148	0.0708	0.5103	0.1572	1.9596	0.6920	0.8390
1999	0.1900	1.6800	0.0873	0.7473	0.1900	1.3381	0.7458	1.0954
2000	0.4489	0.0093	0.1869	4.5556	0.4489	0.2195	0.9015	0.9052
2001	0.1557	0.3947	0.0709	2.2312	0.1557	0.4482	0.9302	0.9911
2002	0.1771	(0.1583)	0.0779	(9.9699)	0.1771	(0.1003)	1.0178	0.9900
2003	0.0702	2.2999	0.0264	(0.8989)	0.0702	(1.1125)	1.0781	1.2856
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Thailand

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Thailand	i_G	β^*_G	$delta_G$	$g_{A}{}^*_G$	s_G	$\theta_G=i_G/s_G$	α_G	n_G
1996	0.3224	0.3293	(0.0729)	0.2163	0.3797	0.8493	0.1641	(0.0613)
1997	0.4531	0.6204	0.5809	0.1720	0.4353	1.0410	0.1646	0.0857
1998	0.5434	0.5439	0.0197	0.2479	0.3895	1.3949	0.2259	(0.0660)
1999	0.5590	0.8251	1.2142	0.0978	0.3795	1.4730	0.1601	0.1227
2000	0.2348	(0.1397)	(0.7925)	0.2676	0.0517	4.5412	0.0310	(0.2274)
2001	0.1488	2.0410	(1.7057)	(0.1549)	0.3028	0.4914	0.0910	0.3061
2002	0.2281	(0.4637)	(0.7206)	0.3339	0.0263	8.6834	0.0899	(0.2974)
2003	0.0984	2.0731	(1.5121)	(0.1055)	0.2472	0.3979	0.1241	0.1972
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)}-\beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S-I)_G/Y$	$\delta_G-\alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	0.1660	0.4953	(0.0028)	0.1894	0.0108	(0.2370)	0.01454	0.002999
1997	0.1325	0.7530	0.1153	0.2038	(0.0036)	0.4163	0.03568	0.002100
1998	0.2371	0.7809	(0.0070)	0.1980	(0.0305)	(0.2062)	0.01361	0.002037
1999	0.0809	0.9060	0.0248	0.2085	(0.0374)	1.0542	0.12934	0.001136
2000	0.1148	-0.0250	(0.3128)	0.1397	(0.0256)	(0.8235)	0.18725	0.000138
2001	(0.3643)	1.6766	0.4400	0.1930	0.0297	(1.7967)	(0.54996)	0.000532
2002	0.4220	-0.0416	(0.2633)	0.1341	(0.0271)	(0.8105)	0.24102	0.000347
2003	(0.4942)	1.5788	0.3359	0.1646	0.0245	(1.6362)	(0.32257)	0.000576
2004	#DIV/0!	#DIV/0!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G=r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G=\alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G=$ **(s-i)** $_G$	$(r^*-g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.2806	0.0923	3.040	2.8321	0.0572	0.0991	39.66	0.5850
1997	0.1811	0.1459	1.241	(1.4132)	(0.0178)	(0.1281)	65.48	0.9091
1998	0.1781	0.1302	1.368	(3.2429)	(0.1538)	(0.0549)	93.83	1.2682
1999	0.0879	0.0177	4.967	(0.5314)	(0.1795)	(0.1654)	143.21	1.8205
2000	0.0133	0.0195	0.681	0.4858	(0.1831)	0.0273	167.69	2.3355
2001	0.0250	0.0200	1.252	(0.4280)	0.1540	(0.0585)	232.04	3.6331
2002	0.0337	0.0176	1.913	0.4596	(0.2018)	0.0732	188.14	2.6717
2003	0.0322	0.0131	2.457	(1.5535)	0.1488	(0.0207)	284.60	3.8547
2004	0.0000	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!	245.83	2.9839

G sector

	$\alpha_{GOLDEN(G)}=i_G\cdot\beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G=1-s_G$	$(rho/r)_G$
1996	0.1062	1.5458	0.1815	0.2797	0.1062	3.5754	0.6203	0.7422
1997	0.2811	0.5856	0.3092	0.6459	0.2811	1.5483	0.5647	0.6760
1998	0.2955	0.7643	0.2330	0.7586	0.2955	1.3181	0.6105	0.7886
1999	0.4612	0.3470	0.2534	1.2154	0.4612	0.8228	0.6205	0.7388
2000	(0.0328)	(0.9449)	(0.0140)	(0.6346)	(0.0328)	(1.5758)	0.9483	0.9786
2001	0.3036	0.2997	0.0836	1.0029	0.3036	0.9971	0.6972	0.7670
2002	(0.1058)	(0.8503)	(0.0396)	(4.0261)	(0.1058)	(0.2484)	0.9737	1.0700
2003	0.2039	0.6084	0.0529	0.8249	0.2039	1.2122	0.7528	0.8594
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Philippines

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Philippines	i_G	β^*_G	$delta_G$	$g_{A}{}^*_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.1333	0.3833	0.1087	0.0822	0.1537	0.8672	0.0578	0.0044
1997	0.1112	0.6727	2.3417	0.0364	0.1156	0.9626	0.0415	0.0874
1998	0.0987	(0.1023)	(1.0301)	0.1088	(0.0493)	(2.0007)	(0.0100)	(0.1098)
1999	0.1502	0.4338	(0.1689)	0.0850	(0.1917)	(0.7833)	(0.1647)	(0.0003)
2000	0.1326	0.8631	7.0840	0.0182	(0.2573)	(0.5152)	(0.3086)	0.1025
2001	0.1221	(0.8424)	(1.1049)	0.2249	(0.2922)	(0.4179)	0.0313	(0.2639)
2002	0.1445	0.6654	0.4478	0.0483	(0.5602)	(0.2579)	(0.2594)	0.0271
2003	0.1324	(0.1202)	(1.0207)	0.1483	(0.5350)	(0.2475)	(0.0749)	(0.1305)
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d \neq a)} - \beta^*$	$\beta_{actual(\delta \neq \alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	0.0368	0.4201	0.1135	0.1547	0.0032	0.0509	0.00023	0.004002
1997	0.0156	0.6883	0.1796	0.1622	0.0007	2.3003	0.20097	0.002482
1998	(0.0134)	-0.1157	(0.0662)	0.1347	(0.0199)	(1.0201)	0.11204	(0.000439)
1999	(0.1264)	0.3074	(0.0330)	0.1129	(0.0386)	(0.0043)	0.00000	(0.005188)
2000	(0.0560)	0.8071	0.0689	0.1077	(0.0420)	7.3926	0.75802	(0.008239)
2001	0.1001	-0.7423	(0.0139)	0.1053	(0.0436)	(1.1362)	0.29980	0.000740
2002	(0.1739)	0.4915	(0.1482)	0.0818	(0.0577)	0.7072	0.01920	(0.004357)
2003	(0.1900)	-0.3102	0.0473	0.0830	(0.0554)	(0.9458)	0.12344	(0.001169)
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.1042	0.1277	0.816	8.6092	0.0204	0.0121	15.326	0.5549
1997	0.0713	0.1616	0.441	(1.2431)	0.0043	(0.0574)	17.428	0.5816
1998	(0.0139)	0.1390	(0.100)	(233.9631)	(0.1480)	0.0001	22.680	0.7215
1999	(0.1837)	0.1017	(1.807)	0.7166	(0.3419)	(0.2564)	27.253	0.8963
2000	(0.3178)	0.1084	(2.933)	0.7295	(0.3899)	(0.4356)	28.627	0.9712
2001	0.0283	0.0975	0.290	0.2336	(0.4143)	0.1212	43.708	1.1070
2002	(0.1797)	0.0715	(2.513)	0.7297	(0.7047)	(0.2462)	47.283	1.4439
2003	(0.0496)	0.0697	(0.711)	1.2698	(0.6675)	(0.0390)	59.603	1.5111
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i \cdot \beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0511	1.1314	0.0921	0.3324	0.0511	3.0086	0.8463	0.8982
1997	0.0748	0.5542	0.1287	0.6476	0.0748	1.5443	0.8844	0.9227
1998	(0.0101)	0.9957	(0.0140)	0.2046	(0.0101)	4.8867	1.0493	1.0389
1999	0.0651	(2.5280)	0.0727	(0.3398)	0.0651	(2.9432)	1.1917	1.0232
2000	0.1144	(2.6972)	0.1178	(0.4447)	0.1144	(2.2487)	1.2573	0.9608
2001	(0.1028)	(0.3048)	(0.0929)	0.3520	(0.1028)	2.8409	1.2922	1.3340
2002	0.0961	(2.6993)	0.0666	(0.1716)	0.0961	(5.8285)	1.5602	1.2388
2003	(0.0159)	4.7064	(0.0105)	0.0297	(0.0159)	33.6287	1.5350	1.4281
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

The U S

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

The US	i_G	β^*_G	$delta_G$	$g_{A}{}^*{}_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0376	0.4345	(0.4028)	0.0213	(0.0630)	(0.5969)	0.2096	(0.0165)
1997	0.0327	1.4897	(2.3954)	(0.0160)	0.0308	1.0621	0.2380	0.0553
1998	0.0345	0.8328	1.9062	0.0058	0.0746	0.4625	0.2552	0.0128
1999	0.0318	1.9218	(2.0985)	(0.0293)	0.1336	0.2380	0.2438	0.0908
2000	0.0347	1.6225	(2.5603)	(0.0216)	0.1817	0.1911	0.2384	0.0795
2001	0.0580	(3.2703)	(0.7930)	0.2476	(0.2723)	(0.2130)	0.2230	(0.3237)
2002	0.0555	(0.0162)	(0.6792)	0.0564	(0.3768)	(0.1472)	0.2564	(0.0709)
2003	0.0572	1.0332	(14.1391)	(0.0019)	(0.5461)	(0.1047)	0.1566	0.0322
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)} - \beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	0.2568	0.6912	0.0717	0.1573	(0.0158)	(0.6124)	0.01009	0.0056574
1997	(0.2439)	1.2458	0.1393	0.1696	(0.0003)	(2.6335)	(0.14568)	0.0068757
1998	0.0870	0.9198	0.0812	0.1740	0.0070	1.6509	0.02110	0.0074501
1999	(0.4542)	1.4677	0.1344	0.1860	0.0189	(2.3424)	(0.21263)	0.0074532
2000	(0.2926)	1.3299	0.1248	0.1973	0.0290	(2.7987)	(0.22237)	0.0075771
2001	2.0441	-1.2262	(0.3185)	0.1290	(0.0426)	(1.0159)	0.32888	0.0045405
2002	0.5878	0.5716	(0.0097)	0.1240	(0.0536)	(0.9356)	0.06636	0.0049161
2003	(0.0133)	1.0199	(0.0498)	0.1121	(0.0676)	(14.2957)	(0.46023)	0.0026539
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s\text{-}\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.1281	0.0530	2.417	1.0845	(0.1006)	0.1181	46.879	1.6361
1997	0.1621	0.0546	2.968	1.2572	(0.0019)	0.1289	45.433	1.4687
1998	0.1832	0.0535	3.425	1.1268	0.0401	0.1626	45.998	1.3928
1999	0.1936	0.0497	3.895	1.3344	0.1018	0.1451	43.262	1.2596
2000	0.2065	0.0624	3.310	1.3095	0.1470	0.1577	41.321	1.1545
2001	0.1273	0.0389	3.271	0.5404	(0.3302)	0.2355	63.191	1.7520
2002	0.1405	0.0167	8.415	0.9965	(0.4322)	0.1410	70.148	1.8247
2003	0.0792	0.0113	7.010	1.6054	(0.6033)	0.0493	69.983	1.9775
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_Y{}^*{}_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0163	12.8353	0.0100	(0.2593)	0.0163	(3.8564)	1.0630	1.3449
1997	0.0487	4.8887	0.0332	1.5823	0.0487	0.6320	0.9692	1.2720
1998	0.0287	8.8865	0.0206	0.3852	0.0287	2.5963	0.9254	1.2426
1999	0.0611	3.9909	0.0485	0.4574	0.0611	2.1862	0.8664	1.1458
2000	0.0564	4.2312	0.0488	0.3101	0.0564	3.2251	0.8183	1.0744
2001	(0.1896)	(1.1758)	(0.1082)	0.6964	(0.1896)	1.4359	1.2723	1.6373
2002	(0.0009)	(285.0726)	(0.0005)	0.0024	(0.0009)	418.8437	1.3768	1.8515
2003	0.0591	2.6518	0.0299	(0.1082)	0.0591	(9.2456)	1.5461	1.8333
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Canada

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Canada	i_G	β^*_G	$delta_G$	$g_{A\ G}^*$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0703	0.4943	0.0121	0.0355	(0.0225)	(3.1229)	0.0696	(0.0022)
1997	0.0715	0.7006	1.3152	0.0214	0.0994	0.7190	0.1279	0.0291
1998	0.0695	0.4079	(0.2401)	0.0411	0.0855	0.8125	0.1297	(0.0175)
1999	0.0730	0.8394	3.8321	0.0117	0.1170	0.6237	0.0996	0.0486
2000	0.0646	0.7626	2.0752	0.0153	0.1244	0.5191	0.0783	0.0332
2001	0.0758	0.6200	0.5491	0.0288	0.1000	0.7581	0.0477	0.0152
2002	0.0801	0.3906	(0.3459)	0.0488	0.0857	0.9351	0.0776	(0.0224)
2003	0.0731	0.5760	0.2341	0.0310	0.0947	0.7718	0.0971	0.0047
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)} - \beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	0.0560	0.5504	0.0842	0.2241	(0.0208)	(0.0575)	0.00013	0.0032149
1997	0.0624	0.7630	0.1389	0.2437	0.0068	1.1873	0.03459	0.0059828
1998	0.1293	0.5372	0.0132	0.2372	0.0038	(0.3698)	0.00647	0.0055523
1999	0.0278	0.8672	0.0734	0.2387	0.0105	3.7325	0.18131	0.0039986
2000	0.0322	0.7949	0.0784	0.2370	0.0142	1.9969	0.06631	0.0029642
2001	0.0321	0.6522	0.0301	0.2307	0.0056	0.5015	0.00761	0.0016412
2002	0.0870	0.4776	0.0383	0.2316	0.0013	(0.4236)	0.00949	0.0024953
2003	0.0783	0.6543	0.0658	0.2356	0.0051	0.1371	0.00064	0.0029853
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s\text{-}\alpha/\beta^*)_G =$ $(s\text{-}i)_G$	$(r^* - g_Y^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.0719	0.0432	1.665	1.9972	(0.0928)	0.0360	23.263	0.9673
1997	0.1389	0.0326	4.260	1.6437	0.0279	0.0845	24.507	0.9208
1998	0.1326	0.0487	2.723	1.2795	0.0160	0.1036	26.850	0.9783
1999	0.1012	0.0474	2.134	2.5981	0.0440	0.0389	27.657	0.9843
2000	0.0801	0.0552	1.451	2.6946	0.0598	0.0297	28.661	0.9774
2001	0.0465	0.0411	1.132	74.9734	0.0242	0.0006	30.490	1.0247
2002	0.0727	0.0245	2.969	1.6753	0.0056	0.0434	33.720	1.0670
2003	0.0904	0.0293	3.084	1.7651	0.0216	0.0512	36.011	1.0742
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_{Y\ G}^*$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0347	2.0028	0.0359	(1.5438)	0.0347	(0.6478)	1.0225	1.0990
1997	0.0501	2.5536	0.0544	0.5038	0.0501	1.9850	0.9006	1.0326
1998	0.0283	4.5777	0.0290	0.3314	0.0283	3.0175	0.9145	1.0508
1999	0.0612	1.6257	0.0622	0.5235	0.0612	1.9102	0.8830	0.9806
2000	0.0492	1.5901	0.0504	0.3959	0.0492	2.5259	0.8756	0.9500
2001	0.0470	1.0135	0.0459	0.4700	0.0470	2.1275	0.9000	0.9450
2002	0.0313	2.4808	0.0293	0.3652	0.0313	2.7379	0.9143	0.9913
2003	0.0421	2.3069	0.0392	0.4446	0.0421	2.2494	0.9053	1.0027
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Russia

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Russia	i_G	β^*_G	$delta_G$	$g_{A\ G}^*$	s_G	$\theta_G = i_G / s_G$	α_G	n_G
1996	0.1155	0.0990	(1.0129)	0.1040	(0.4210)	(0.2743)	(0.3680)	(0.0490)
1997	0.0961	0.4817	1.2952	0.0498	(0.2996)	(0.3207)	(0.2818)	0.0613
1998	0.1062	(0.2429)	(1.4238)	0.1320	(0.2038)	(0.5213)	(0.1451)	(0.1474)
1999	0.0782	0.2954	0.0942	0.0551	(0.0026)	(29.8057)	(0.2183)	0.0141
2000	0.0999	0.5900	3.5984	0.0410	0.2223	0.4493	0.0516	0.1532
2001	0.1577	0.3155	0.2360	0.1079	0.2905	0.5427	0.1653	0.0091
2002	0.1814	0.3937	0.3096	0.1100	0.2515	0.7215	0.1296	0.0228
2003	0.1692	0.3295	(0.0728)	0.1134	0.2711	0.6240	0.1525	(0.0302)
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)} - \beta^*$	$\beta_{actual(\delta \neq \alpha)}$	$g_{Y(a)G}$	Y_G/Y	$\mathbf{(S\text{-}I)_G/Y}$	$\delta_G - \alpha_G$	strong IRC speed ζ_G	$(r/w)_G$
1996	(0.1018)	-0.0028	0.2306	0.1528	(0.0820)	(0.6449)	0.03163	(0.06746)
1997	(0.0556)	0.4260	0.3814	0.1795	(0.0710)	1.5769	0.09662	(0.04606)
1998	(0.0925)	-0.3354	0.0775	0.1674	(0.0519)	(1.2787)	0.18852	(0.01806)
1999	(0.0708)	0.2246	0.7120	0.1554	(0.0126)	0.3125	0.00441	(0.02063)
2000	0.0139	0.6039	1.0209	0.2108	0.0258	3.5469	0.54321	0.00474
2001	0.1115	0.4270	0.4622	0.2560	0.0340	0.0706	0.00065	0.00971
2002	0.1022	0.4959	0.2353	0.2611	0.0183	0.1800	0.00410	0.00458
2003	0.1602	0.4897	0.2044	0.2603	0.0265	(0.2253)	0.00679	0.00374
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G / (\alpha_G$	$(s-\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	(0.7495)	0.4765	(1.573)	0.9699	(0.5364)	(0.7728)	3.988	0.4910
1997	(0.6241)	0.2097	(2.976)	0.8589	(0.3957)	(0.7266)	4.773	0.4515
1998	(0.2763)	0.5056	(0.546)	1.2163	(0.3100)	(0.2272)	7.018	0.5253
1999	(0.5669)	0.1479	(3.833)	0.9043	(0.0808)	(0.6269)	8.683	0.3850
2000	0.1777	0.0714	2.488	(7.0257)	0.1224	(0.0253)	11.478	0.2904
2001	0.4641	0.1010	4.595	1.4303	0.1329	0.3245	20.404	0.3563
2002	0.2758	0.0819	3.368	2.2277	0.0700	0.1238	32.502	0.4698
2003	0.2726	0.0377	7.231	1.5762	0.1019	0.1729	48.046	0.5593
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G / (i \cdot \beta^*)_G$	$g_{Y\ G}^*$	$(i/s)\beta^*_G$	$s_G (i/s)_G \beta^*_G$	$s_G / \alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0114	(32.2050)	0.0233	(0.0271)	0.0114	(36.8415)	1.4210	1.0387
1997	0.0463	(6.0885)	0.1025	(0.1545)	0.0463	(6.4741)	1.2996	1.0139
1998	(0.0258)	5.6239	(0.0491)	0.1267	(0.0258)	7.8956	1.2038	1.0512
1999	0.0231	(9.4534)	0.0600	(8.8042)	0.0231	(0.1136)	1.0026	0.8230
2000	0.0589	0.8754	0.2029	0.2651	0.0589	3.7722	0.7777	0.8200
2001	0.0497	3.3242	0.1396	0.1712	0.0497	5.8412	0.7095	0.8500
2002	0.0714	1.8145	0.1520	0.2840	0.0714	3.5206	0.7485	0.8600
2003	0.0557	2.7354	0.0997	0.2056	0.0557	4.8643	0.7289	0.8600
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Australia

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Australia	i_G	β^*_G	$delta_G$	$g_A{}^*_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0522	0.7062	2.5954	0.0153	0.0016	32.8870	(0.0139)	0.0394
1997	0.0477	0.4701	0.3445	0.0253	0.0671	0.7111	0.0400	0.0080
1998	0.0340	0.7833	4.5176	0.0074	0.1647	0.2062	0.1209	0.0368
1999	0.0430	(0.1147)	(1.0735)	0.0479	0.0122	3.5128	0.0166	(0.0531)
2000	0.0370	1.0604	(26.9355)	(0.0022)	0.1345	0.2751	0.0985	0.0670
2001	0.0392	0.0894	(0.7760)	0.0357	0.0709	0.5531	0.0532	(0.0313)
2002	0.0468	0.5072	0.4184	0.0231	(0.0172)	(2.7274)	(0.0323)	0.0101
2003	0.0428	0.6319	1.4499	0.0158	0.0428	1.0000	0.0306	0.0231
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d \neq a)} - \beta^*$	$\beta_{actual(\delta \neq \alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	(0.0045)	0.7017	0.1482	0.2021	(0.0102)	2.6094	0.10292	(0.0009078)
1997	0.0242	0.4943	0.1111	0.2106	0.0041	0.3045	0.00244	0.0025707
1998	0.0307	0.8141	0.1778	0.2373	0.0310	4.3967	0.16176	0.0082850
1999	0.0220	-0.0926	(0.1180)	0.2000	(0.0062)	(1.0901)	0.05793	0.0009049
2000	(0.0074)	1.0530	0.2333	0.2288	0.0223	(27.0340)	(1.81162)	0.0058619
2001	0.0601	0.1494	(0.0277)	0.2083	0.0066	(0.8293)	0.02592	0.0027509
2002	(0.0202)	0.4870	(0.0211)	0.1886	(0.0121)	0.4507	0.00454	(0.0014476)
2003	0.0148	0.6467	0.1392	0.2066	0.0000	1.4193	0.03275	0.0013990
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s - \alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	(0.0209)	0.0720	(0.290)	0.2745	(0.0506)	(0.0760)	15.144	0.6680
1997	0.0617	0.0550	1.121	2.2763	0.0194	0.0271	16.217	0.6489
1998	0.2068	0.0499	4.143	1.2819	0.1307	0.1613	16.605	0.5849
1999	0.0235	0.0478	0.492	0.7712	(0.0308)	0.0305	18.674	0.7062
2000	0.1615	0.0590	2.738	1.6625	0.0975	0.0972	18.633	0.6096
2001	0.0799	0.0506	1.579	1.0704	0.0317	0.0746	20.436	0.6662
2002	(0.0444)	0.0455	(0.976)	0.5763	(0.0640)	(0.0771)	21.624	0.7274
2003	0.0449	0.0481	0.933	8.6665	0.0000	0.0052	22.554	0.6814
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i \cdot \beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0368	(0.3783)	0.0552	23.2256	0.0368	0.0431	0.9984	0.9847
1997	0.0224	1.7835	0.0346	0.3343	0.0224	2.9914	0.9329	0.9718
1998	0.0266	4.5474	0.0455	0.1615	0.0266	6.1917	0.8353	0.9503
1999	(0.0049)	(3.3700)	(0.0070)	(0.4027)	(0.0049)	(2.4830)	0.9878	1.0044
2000	0.0392	2.5093	0.0644	0.2917	0.0392	3.4283	0.8655	0.9600
2001	0.0035	15.1974	0.0053	0.0494	0.0035	20.2322	0.9291	0.9814
2002	0.0238	(1.3604)	0.0327	(1.3834)	0.0238	(0.7229)	1.0172	0.9853
2003	0.0271	1.1304	0.0397	0.6319	0.0271	1.5825	0.9572	0.9874
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

New Zealand

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

New Zealan	i_G	β^*_G	$delta_G$	$g_{A\ G}^{*}$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0181	2.1924	(5.2166)	(0.0216)	0.2391	0.0757	0.1326	0.1332
1997	0.0216	0.1815	(0.369)	0.0176	0.1928	0.1118	0.1242	(0.0099)
1998	0.0258	(0.4926)	(1.5791)	0.0385	0.0504	0.5114	0.0263	(0.0634)
1999	0.0215	1.4224	(8.3175)	(0.0091)	0.1114	0.1933	0.0566	0.0807
2000	0.0229	(0.8658)	(1.8302)	0.0428	0.0042	5.4534	0.0039	(0.0788)
2001	0.0197	0.9444	33.81	0.0011	0.0715	0.2750	0.0575	0.0392
2002	0.0220	0.7316	4.7871	0.0059	0.1148	0.1914	0.0757	0.0301
2003	0.0177	0.5421	1.5963	0.0081	0.1516	0.1168	0.1111	0.0135
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)} - \beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S-I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	(0.5226)	1.6698	0.3100	0.2556	0.0565	(5.3491)	(0.71228)	0.0000164
1997	0.3242	0.5057	0.0236	0.2493	0.0427	(0.4934)	0.00491	0.0000142
1998	0.1207	-0.3718	(0.1397)	0.2094	0.0052	(1.6054)	0.10182	0.0000024
1999	(0.0792)	1.3433	0.1604	0.2335	0.0210	(8.3742)	(0.67614)	0.0000055
2000	0.0221	-0.8437	(0.0990)	0.1982	(0.0037)	(1.8341)	0.14455	0.0000003
2001	0.0109	0.9552	0.1505	0.2136	0.0111	33.7511	1.32292	0.0000049
2002	0.0687	0.8003	0.1028	0.2247	0.0209	4.7114	0.14168	0.0000064
2003	0.1728	0.7149	0.0878	0.2350	0.0315	1.4852	0.02012	0.0000095
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.3504	0.0938	3.736	1.4276	0.2210	0.2455	9319	0.3783
1997	0.3176	0.0738	4.304	1.0325	0.1713	0.3076	9962	0.3912
1998	0.0548	0.0686	0.799	0.6747	0.0246	0.0812	11240	0.4804
1999	0.1300	0.0433	3.002	2.1786	0.0898	0.0597	10941	0.4355
2000	0.0077	0.0612	0.127	0.1649	(0.0187)	0.0470	12440	0.5063
2001	0.1251	0.0576	2.173	1.4768	0.0519	0.0847	12506	0.4597
2002	0.1726	0.0540	3.196	1.2696	0.0929	0.1359	12781	0.4389
2003	0.2638	0.0533	4.949	1.0946	0.1339	0.2410	13164	0.4212
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i \cdot \beta^*)_G$	$g_{Y\ G}^{*}$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0397	3.3389	0.1050	0.1661	0.0397	6.0218	0.7609	0.8772
1997	0.0039	31.7365	0.0100	0.0203	0.0039	49.2593	0.8072	0.9217
1998	(0.0127)	(2.0744)	(0.0264)	(0.2519)	(0.0127)	(3.9701)	0.9496	0.9753
1999	0.0306	1.8484	0.0703	0.2750	0.0306	3.6362	0.8886	0.9420
2000	(0.0199)	(0.1974)	(0.0392)	(4.7216)	(0.0199)	(0.2118)	0.9958	0.9997
2001	0.0186	3.0974	0.0404	0.2597	0.0186	3.8504	0.9285	0.9852
2002	0.0161	4.7090	0.0366	0.1401	0.0161	7.1398	0.8852	0.9577
2003	0.0096	11.5720	0.0228	0.0633	0.0096	15.7900	0.8484	0.9544
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

The U K

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

The UK	i_G	β^*_G	$delta_G$	$g_A{}^*_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0788	1.1710	(5.2557)	(0.0135)	(0.1341)	(0.5877)	0.1584	0.0867
1997	0.0440	0.3430	(0.4566)	0.0289	(0.0729)	(0.6035)	0.1925	(0.0232)
1998	0.0264	1.9408	(2.3071)	(0.0248)	0.0561	0.4698	0.2182	0.0801
1999	0.0279	0.7959	2.0242	0.0057	0.0296	0.9416	0.2050	0.0130
2000	(0.0000)	81.0597	(1.5459)	0.0027	0.0166	(0.0020)	0.2147	(0.0060)
2001	(0.0246)	(0.3847)	(1.1002)	(0.0340)	0.0162	(1.5140)	0.1920	0.0544
2002	(0.0216)	2.7063	(1.9888)	0.0369	(0.1137)	0.1903	0.2165	(0.1039)
2003	(0.0032)	(6.7260)	(1.7059)	(0.0251)	(0.2000)	0.0162	0.1489	0.0546
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)} - \beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S-I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	(0.0447)	1.1263	0.1376	0.1887	(0.0402)	(5.4141)	(0.46932)	0.0113650
1997	0.2033	0.5464	0.0714	0.1909	(0.0223)	(0.6492)	0.01508	0.0135780
1998	(0.3193)	1.6215	0.1810	0.2125	0.0063	(2.5253)	(0.20234)	0.0167614
1999	0.0640	0.8599	0.0465	0.2119	0.0004	1.8191	0.02368	0.0152918
2000	(25.7755)	55.2842	0.0550	0.2121	0.0035	(1.7606)	0.01051	0.0161141
2001	0.3844	-0.0003	0.0709	0.2172	0.0089	(1.2922)	(0.07025)	0.0151497
2002	(0.5232)	2.1831	(0.0275)	0.2008	(0.0185)	(2.2053)	0.22917	0.0161527
2003	1.6638	-5.0622	0.0215	0.1947	(0.0383)	(1.8548)	(0.10136)	0.0108242
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	0.1190	0.0596	1.996	2.3945	(0.2129)	0.0497	16.565	1.3317
1997	0.1496	0.0661	2.263	1.0850	(0.1168)	0.1379	17.559	1.2869
1998	0.1955	0.0721	2.712	1.3064	0.0298	0.1496	16.650	1.1160
1999	0.1873	0.0520	3.603	1.1213	0.0017	0.1671	16.865	1.0944
2000	0.2070	0.0577	3.587	0.9876	0.0167	0.2096	16.966	1.0372
2001	0.2034	0.0508	4.003	1.0517	0.0408	0.1934	15.683	0.9440
2002	0.2282	0.0389	5.865	0.7872	(0.0921)	0.2899	17.112	0.9491
2003	0.1609	0.0359	4.481	1.1717	(0.1968)	0.1373	16.169	0.9259
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0923	1.7171	0.0693	(0.6882)	0.0923	(1.4531)	1.1341	1.3476
1997	0.0151	12.7635	0.0117	(0.2070)	0.0151	(4.8303)	1.0729	1.3286
1998	0.0512	4.2635	0.0459	0.9119	0.0512	1.0966	0.9439	1.2073
1999	0.0222	9.2442	0.0203	0.7494	0.0222	1.3344	0.9704	1.2207
2000	(0.0027)	(79.6418)	(0.0026)	(0.1621)	(0.0027)	(6.1673)	0.9834	1.2522
2001	0.0094	20.3246	0.0100	0.5825	0.0094	1.7168	0.9838	1.2175
2002	(0.0586)	(3.6984)	(0.0617)	0.5149	(0.0586)	1.9420	1.1137	1.4215
2003	0.0218	6.8232	0.0236	(0.1091)	0.0218	(9.1640)	1.2000	1.4101
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Sweden

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Sweden	i_G	β^*_G	$delta_G$	$g_{A}{}^*_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0240	0.7164	4.3474	0.0068	(0.1028)	(0.2339)	(0.0736)	0.0281
1997	0.0184	0.1182	(0.6965)	0.0162	(0.0145)	(1.2636)	0.0078	(0.0115)
1998	0.0158	0.6733	3.4997	0.0052	0.0281	0.5630	0.0408	0.0187
1999	0.0086	1.1222	(22.0130)	(0.0011)	0.1088	0.0792	0.0972	0.0258
2000	(0.0075)	0.4193	0.9165	(0.0043)	0.1713	(0.0435)	0.1444	(0.0039)
2001	(0.0216)	0.3475	0.5211	(0.0141)	0.0968	(0.2226)	0.0871	(0.0067)
2002	0.0002	56.2943	(3.9381)	(0.0113)	0.1359	0.0015	0.1069	0.0511
2003	0.0126	(2.9872)	(2.6669)	0.0501	0.0023	5.5339	0.0185	(0.1372)
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)} - \beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S-I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	(0.0274)	0.6890	0.3365	0.2812	(0.0357)	4.4210	0.12417	(0.0009056)
1997	0.0096	0.1278	0.1069	0.2995	(0.0099)	(0.7043)	0.00810	0.0000981
1998	0.0193	0.6925	0.0996	0.3165	0.0039	3.4590	0.06453	0.0005236
1999	(0.0173)	1.1050	0.1479	0.3424	0.0343	(22.1102)	(0.57008)	0.0013301
2000	0.1179	0.5372	0.1019	0.3594	0.0642	0.7721	(0.00302)	0.0021221
2001	0.0718	0.4193	(0.0354)	0.3341	0.0396	0.4339	(0.00290)	0.0012678
2002	(7.3100)	48.9843	0.1222	0.3611	0.0490	(4.0450)	(0.20690)	0.0016690
2003	0.0874	-2.8998	(0.2230)	0.2838	(0.0029)	(2.6854)	0.36834	0.0002193
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ $(s-i)_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	(0.1479)	0.0628	(2.355)	0.8103	(0.1269)	(0.1825)	75.710	0.4976
1997	0.0166	0.0421	0.394	1.3887	(0.0329)	0.0119	79.721	0.4680
1998	0.0924	0.0424	2.178	1.3541	0.0123	0.0682	81.173	0.4414
1999	0.2471	0.0314	7.870	1.1105	0.1002	0.2225	80.905	0.3932
2000	0.4133	0.0381	10.848	0.9788	0.1787	0.4223	79.525	0.3493
2001	0.2558	0.0408	6.270	0.9208	0.1184	0.2778	75.296	0.3406
2002	0.3518	0.0375	9.381	1.1206	0.1357	0.3139	71.680	0.3037
2003	0.0457	0.0275	1.664	0.3295	(0.0103)	0.1388	85.747	0.4035
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0172	(4.2725)	0.0346	(0.1675)	0.0172	(5.9685)	1.1028	1.0272
1997	0.0022	3.5725	0.0046	(0.1494)	0.0022	(6.6949)	1.0145	1.0225
1998	0.0107	3.8241	0.0241	0.3791	0.0107	2.6381	0.9719	1.0132
1999	0.0097	10.0500	0.0246	0.0888	0.0097	11.2550	0.8912	0.9871
2000	(0.0031)	(46.2025)	(0.0089)	(0.0182)	(0.0031)	(54.8006)	0.8287	0.9686
2001	(0.0075)	(11.6341)	(0.0220)	(0.0773)	(0.0075)	(12.9286)	0.9032	0.9894
2002	0.0115	9.2929	0.0379	0.0846	0.0115	11.8179	0.8641	0.9675
2003	(0.0376)	(0.4914)	(0.0931)	(16.5308)	(0.0376)	(0.0605)	0.9977	1.0165
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Germany

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Germany	i_G	β^*_G	$delta_G$	$g_A{}^*_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0422	0.5078	0.1666	0.0208	(0.0682)	(0.6187)	(0.0399)	0.0041
1997	0.0299	0.2180	(0.6895)	0.0234	(0.0417)	(0.7179)	(0.0211)	(0.0153)
1998	0.0373	0.6943	1.5329	0.0114	(0.0119)	(3.1298)	(0.0159)	0.0174
1999	0.0292	(0.3935)	(1.2645)	0.0407	(0.0535)	(0.5459)	(0.0211)	(0.0495)
2000	0.0234	1.1940	(7.6067)	(0.0045)	0.0859	0.2722	0.0712	0.0375
2001	0.0274	(0.5988)	(1.4342)	0.0438	(0.1406)	(0.1950)	(0.1038)	(0.0528)
2002	0.0322	0.2720	(0.7282)	0.0235	(0.1840)	(0.1753)	(0.1107)	(0.0131)
2003	0.0367	0.7366	1.5876	0.0097	(0.2073)	(0.1771)	(0.1418)	0.0146
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d \neq a)} - \beta^*$	$\beta_{actual(\delta \neq \alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	(0.0305)	0.4773	0.0024	0.2101	(0.0232)	0.2065	0.00085	(0.001282)
1997	(0.0263)	0.1917	0.0189	0.2111	(0.0151)	(0.6684)	0.01023	(0.000657)
1998	(0.0080)	0.6864	0.0437	0.2167	(0.0107)	1.5488	0.02689	(0.000486)
1999	(0.0410)	-0.4345	(0.4974)	0.2018	(0.0167)	(1.2435)	0.06160	(0.001107)
2000	(0.0197)	1.1743	0.1751	0.2318	0.0145	(7.6779)	(0.28805)	0.004151
2001	(0.2355)	-0.8343	(0.1810)	0.1836	(0.0309)	(1.3305)	0.07030	(0.004699)
2002	(0.1212)	0.1509	(0.0115)	0.1786	(0.0386)	(0.6174)	0.00806	(0.004777)
2003	(0.0573)	0.6793	(0.0035)	0.1779	(0.0434)	1.7294	0.02532	(0.005847)
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	(0.0450)	0.0327	(1.376)	0.6503	(0.1105)	(0.0692)	29.898	0.8862
1997	(0.0234)	0.0318	(0.736)	0.7637	(0.0716)	(0.0307)	31.407	0.8997
1998	(0.0177)	0.0341	(0.518)	0.3806	(0.0492)	(0.0464)	32.205	0.8993
1999	(0.0214)	0.0273	(0.784)	2.1992	(0.0827)	(0.0097)	18.636	0.9841
2000	0.0827	0.0411	2.012	1.6458	0.0626	0.0502	18.464	0.8608
2001	(0.0962)	0.0437	(2.201)	1.1880	(0.1681)	(0.0810)	20.003	1.0785
2002	(0.0986)	0.0328	(3.005)	0.9266	(0.2163)	(0.1064)	20.866	1.1232
2003	(0.1218)	0.0232	(5.250)	0.8398	(0.2440)	(0.1450)	21.235	1.1639
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i \cdot \beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0214	(1.8595)	0.0242	(0.3142)	0.0214	(3.1827)	1.0682	1.0273
1997	0.0065	(3.2314)	0.0072	(0.1565)	0.0065	(6.3908)	1.0417	1.0202
1998	0.0259	(0.6143)	0.0288	(2.1731)	0.0259	(0.4602)	1.0119	0.9961
1999	(0.0115)	1.8339	(0.0117)	0.2148	(0.0115)	4.6553	1.0535	1.0317
2000	0.0279	2.5484	0.0324	0.3250	0.0279	3.0772	0.9141	0.9841
2001	(0.0164)	6.3196	(0.0152)	0.1167	(0.0164)	8.5657	1.1406	1.0334
2002	0.0088	(12.6211)	0.0078	(0.0477)	0.0088	(20.9755)	1.1840	1.0660
2003	0.0270	(5.2422)	0.0232	(0.1305)	0.0270	(7.6646)	1.2073	1.0574
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

France

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

France	i_G	β^*_G	$delta_G$	$g_A{}^*_G$	s_G	$\theta_G = i_G/s_G$	α_G	n_G
1996	0.0626	0.6422	1.0483	0.0224	(0.1942)	(0.3222)	(0.0970)	0.0234
1997	0.0538	0.7593	2.7018	0.0129	(0.1044)	(0.5150)	(0.0361)	0.0342
1998	0.0489	0.3240	(0.4483)	0.0331	(0.0750)	(0.6527)	(0.0112)	(0.0143)
1999	0.0338	0.5220	0.1878	0.0162	(0.0470)	(0.7196)	0.0128	0.0029
2000	0.0344	0.6135	0.7456	0.0133	(0.0276)	(1.2462)	0.0281	0.0098
2001	0.0334	0.4993	0.1063	0.0167	(0.0333)	(1.0021)	0.0211	0.0015
2002	0.0342	0.5646	0.3721	0.0149	(0.1210)	(0.2828)	(0.0421)	0.0059
2003	0.0357	0.4797	(0.0667)	0.0186	(0.1602)	(0.2226)	(0.0672)	0.0000
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d \neq a)} - \beta^*$	$\beta_{actual(\delta \neq \alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S\text{-}I)_G/Y$	$\delta_G - \alpha_G$	speed ζ_G	$(r/w)_G$
1996	(0.0695)	0.5727	0.1043	0.2260	(0.0580)	1.1453	0.02677	(0.000968)
1997	(0.0182)	0.7412	0.1168	0.2450	(0.0388)	2.7378	0.09363	(0.000370)
1998	(0.0162)	0.3078	0.0386	0.2456	(0.0304)	(0.4370)	0.00625	(0.000110)
1999	0.0083	0.5303	(0.8385)	0.2506	(0.0203)	0.1751	0.00050	0.000766
2000	0.0149	0.6284	0.0657	0.2555	(0.0158)	0.7175	0.00704	0.001665
2001	0.0147	0.5140	0.0324	0.2525	(0.0168)	0.0852	0.00012	0.001197
2002	(0.0255)	0.5390	(0.0204)	0.2385	(0.0370)	0.4142	0.00245	(0.002174)
2003	(0.0492)	0.4305	0.0038	0.2326	(0.0456)	0.0005	0.00000	(0.003264)
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G = r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G = \alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G =$ **(s-i)** $_G$	$(r^* - g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	(0.1068)	0.0373	(2.864)	0.7071	(0.2567)	(0.1511)	91.345	0.9078
1997	(0.0416)	0.0324	(1.285)	0.4691	(0.1582)	(0.0887)	94.168	0.8666
1998	(0.0127)	0.0339	(0.376)	0.4149	(0.1239)	(0.0307)	101.136	0.8834
1999	0.0139	0.0272	0.512	(2.5990)	(0.0808)	(0.0054)	16.870	0.9151
2000	0.0315	0.0423	0.744	3.9977	(0.0619)	0.0079	17.375	0.8931
2001	0.0235	0.0426	0.552	4.7552	(0.0667)	0.0049	18.020	0.8985
2002	(0.0443)	0.0300	(1.475)	0.6855	(0.1552)	(0.0646)	18.582	0.9513
2003	(0.0683)	0.0233	(2.931)	0.7970	(0.1959)	(0.0857)	19.281	0.9834
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)} = i_G \cdot \beta^*_G$	$\alpha_G/(i \cdot \beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G = 1 - s_G$	$(rho/r)_G$
1996	0.0402	(2.4138)	0.0443	(0.2069)	0.0402	(4.8335)	1.1942	1.0886
1997	0.0408	(0.8834)	0.0471	(0.3911)	0.0408	(2.5571)	1.1044	1.0660
1998	0.0159	(0.7092)	0.0179	(0.2115)	0.0159	(4.7284)	1.0750	1.0630
1999	0.0177	0.7221	0.0193	(0.3756)	0.0177	(2.6622)	1.0470	1.0605
2000	0.0211	1.3336	0.0236	(0.7645)	0.0211	(1.3080)	1.0276	1.0573
2001	0.0167	1.2663	0.0186	(0.5004)	0.0167	(1.9984)	1.0333	1.0556
2002	0.0193	(2.1799)	0.0203	(0.1596)	0.0193	(6.2639)	1.1210	1.0757
2003	0.0171	(3.9261)	0.0174	(0.1068)	0.0171	(9.3660)	1.1602	1.0872
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Italy

Data 1-2 Parameters & variables bet. the current and optimum convergence situations: G sector

G sector

Italy	i_G	β^*_G	$delta_G$	$g_A{}^*_G$	s_G	$\theta_G=i_G/s_G$	α_G	n_G
1996	0.1561	0.5259	0.0379	0.0740	(0.3758)	(0.4154)	(0.2701)	0.0179
1997	0.0986	0.7843	3.2624	0.0213	0.0162	6.0913	0.0267	0.0707
1998	0.0945	0.3615	(0.3765)	0.0603	(0.0353)	(2.6777)	(0.0149)	(0.0215)
1999	0.0406	0.5353	(0.3007)	0.0189	0.0420	0.9657	0.0370	(0.0066)
2000	0.0015	(1.6497)	(1.4260)	0.0041	(0.0718)	(0.0215)	(0.0591)	(0.0053)
2001	(0.0079)	(3.5563)	(1.4867)	(0.0362)	0.1094	(0.0726)	0.0955	0.0633
2002	(0.0038)	15.8914	(1.5846)	0.0560	(0.0929)	0.0405	(0.0035)	(0.0883)
2003	(0.0592)	0.2695	(0.7750)	(0.0433)	(0.0758)	0.7815	(0.0003)	0.0335
2004		#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!		

The difference bet. s_G and i_G will be determined by budget surplus/deficit

G sector

	$\beta_{a(d\neq a)}-\beta^*$	$\beta_{actual(\delta\neq\alpha)}$	$g_{Y(a)G}$	Y_G/Y	$(S-I)_G/Y$	$\delta_G-\alpha_G$	IRC speed ζ_G	$(r/w)_G$
1996	(0.1669)	0.3591	0.0687	0.1500	(0.0798)	0.3080	0.00553	(0.009666)
1997	0.0086	0.7929	0.4696	0.2121	(0.0175)	3.2357	0.22888	0.001175
1998	(0.0148)	0.3467	(0.0181)	0.1994	(0.0259)	(0.3616)	0.00777	(0.000554)
1999	0.0355	0.5708	(0.4359)	0.2110	0.0003	(0.3377)	0.00223	0.001403
2000	(0.3317)	-1.9813	(0.0444)	0.1909	(0.0140)	(1.3669)	0.00723	(0.002026)
2001	0.8336	-2.7227	0.2948	0.2351	0.0276	(1.5822)	(0.10018)	0.004098
2002	0.1042	15.9956	(0.1517)	0.1933	(0.0172)	(1.5810)	0.13960	(0.000125)
2003	(0.0004)	0.2690	0.0775	0.2027	(0.0034)	(0.7747)	(0.02596)	(0.000011)
2004	#NUM!	#NUM!			0.0000	#DIV/0!	#DIV/0!	

G sector

	$r^*_G=r(0)_G$	r_{CB}	$c_{CB(G)}$	$v_G=\alpha_G/(\alpha_G$	$(s-\alpha/\beta^*)_G=$ **(s-i)** $_G$	$(r^*-g_Y{}^*)_G$	$k(0)_G$	$\Omega(0)_G$
1996	(0.2542)	0.0882	(2.882)	0.7669	(0.5320)	(0.3314)	22.001	1.0627
1997	0.0325	0.0688	0.472	(0.5270)	(0.0824)	(0.0617)	23.351	0.8218
1998	(0.0160)	0.0499	(0.321)	0.3041	(0.1297)	(0.0527)	26.557	0.9314
1999	0.0219	0.0295	0.741	2.4221	0.0014	0.0090	27.391	1.6917
2000	(0.0334)	0.0439	(0.760)	1.0451	(0.0734)	(0.0319)	27.560	1.7719
2001	0.0702	0.0426	1.648	1.4200	0.1173	0.0494	25.769	1.3605
2002	(0.0022)	0.0332	(0.067)	(0.0628)	(0.0891)	0.0352	28.198	1.6000
2003	(0.0002)	0.0233	(0.009)	(0.0191)	(0.0166)	0.0110	26.196	1.4256
2004	#DIV/0!	0.0000	#DIV/0!	#DIV/0!	0.0000	#DIV/0!		

G sector

	$\alpha_{GOLDEN(G)}=i_G\cdot\beta^*_G$	$\alpha_G/(i\cdot\beta^*)_G$	$g_Y{}^*_G$	$(i/s)\beta^*_G$	$s_G(i/s)_G\beta^*_G$	$s_G/\alpha_{GOLDEN(G)}$	$c_G=1-s_G$	$(rho/r)_G$
1996	0.0821	(3.2896)	0.0773	(0.2185)	0.0821	(4.5773)	1.3758	1.0832
1997	0.0774	0.3451	0.0941	4.7774	0.0774	0.2093	0.9838	1.0108
1998	0.0341	(0.4371)	0.0367	(0.9679)	0.0341	(1.0331)	1.0353	1.0201
1999	0.0217	1.7032	0.0128	0.5169	0.0217	1.9345	0.9580	0.9948
2000	(0.0026)	23.1856	(0.0014)	0.0355	(0.0026)	28.1550	1.0718	1.0120
2001	0.0283	3.3811	0.0208	0.2583	0.0283	3.8715	0.8906	0.9847
2002	(0.0598)	0.0591	(0.0374)	0.6440	(0.0598)	1.5529	1.0929	1.0890
2003	(0.0160)	0.0188	(0.0112)	0.2106	(0.0160)	4.7485	1.0758	1.0755
2004	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0000	

Table 4-1 Saving, investment, and budget deficit in the total economy, with the cost of capital, by country

Classes of saving level in the total economy: **SS: saving oriented country** S: Semi-saving oriented country ***C: Consumptionoriented country***

To Y	**2003**	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
Saving to Y	s =S/Y	0.0871	0.2171	0.3894	0.1299	0.1462	0.4769	0.3822	0.1620	0.2193	0.0644	0.0434	0.1500	0.2425	0.1495	0.1415	0.0337	0.1440	0.1336	0.1208	0.1054
Invest. to Y	i =I/Y	0.0432	0.1854	0.3506	0.1571	0.1047	0.1602	0.1539	0.1620	0.1407	0.1004	0.0934	0.1069	0.1144	0.1826	0.1422	0.0687	0.0668	0.0861	0.1020	0.1022
	(s−i)/Y	0.0439	0.0294	0.0388	(0.0114)	0.0418	0.3167	0.2283	0.0000	0.0786	(0.0303)	(0.0503)	0.0458	0.1280	(0.0320)	0.0035	(0.0337)	0.0772	0.0473	0.0000	0.0059
	Y/Y	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Deficit by ( )	(s−i)/Y	0.0439	0.0294	0.0388	(0.0114)	0.0418	0.3167	0.2283	0.0000	0.0786	(0.0303)	(0.0503)	0.0458	0.1280	(0.0320)	0.0035	(0.0337)	0.0772	0.0473	**0.0000**	0.0059
Classes of saving level		*17*	**6**	**2**	14	10	**1**	**3**	7	**5**	*18*	*19*	8	**4**	9	12	*20*	11	13	15	16
α=Π/Y	α	0.1222	0.1653	0.3384	0.1062	0.1115	0.3506	0.2373	0.1160	0.1077	0.0828	0.1143	0.1192	0.1192	0.1141	0.1067	0.1052	0.1120	0.1022	0.1029	0.0918
r=Π/K	r	0.0308	0.0758	0.1706	0.1105	0.1090	0.1920	0.1583	0.1282	0.1082	0.1229	0.0433	0.0584	0.0655	0.0642	0.0722	0.0453	0.0743	0.0562	0.0523	0.0533
Growth rate*	g_Y^*	0.0092	0.0632	0.1345	0.0926	0.0548	0.0693	0.0747	0.0973	0.0797	0.0741	0.0291	0.0390	0.0404	0.0720	0.0631	0.0222	0.0283	0.0320	0.0372	0.0385
Capital cost	$(r-g_Y^*)$	0.0216	0.0127	0.0360	0.0179	0.0543	0.1227	0.0836	0.0309	0.0285	0.0488	0.0142	0.0194	0.0251	(0.0078)	0.0091	0.0231	0.0460	0.0242	0.0151	0.0148
Sign of each value:		**A: + +**	**B: + −**	**C: − +**	**D: − −**	**between two values**															
	(s−i)/Y and s	A	A	A	C	A	A	A	A	A	C	C	A	A	C	A	C	A	A	A'	A
	(s−i)/Y and g_Y^*	A	A	A	C	A	A	A	A	A	C	C	A	A	C	A	C	A	A	A'	A
	(s−i)/Y and i	A	A	A	C	A	A	A	A	A	C	C	A	A	C	A	C	A	A	A'	A
	θ=i/s and α/s	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A
	s and α	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A
	s and r	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A
In the same direction	α and r	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A
	g_Y^* and r	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A
	g_Y^* and $(r-g_Y^*)$	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A
	i and g_Y^*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A

Table Saving, investment, and the difference of saving and investment in the government sector, with the cost of capital, by country

Classes of saving level in the total economy: **SS: saving oriented country** S: Semi-saving oriented country ***C: Consumptionoriented country***

To Y_G	**2003**	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
Saving to Y_G	$s_G=S_G/Y_G$	(0.5233)	0.0557	0.2893	(0.6681)	(0.0658)	0.3240	0.1716	(0.0781)	0.2472	(0.5350)	(0.5461)	0.0947	0.2711	0.0428	0.1516	(0.2000)	0.0023	(0.2073)	(0.1602)	(0.0758)
Invest. to Y_G	$i_G=I_G/Y_G$	0.1266	0.0411	0.4205	(0.0238)	(0.0043)	(0.0468)	0.4635	0.2481	0.0984	0.1324	0.0572	0.0731	0.1692	0.0428	0.0177	(0.0032)	0.0126	0.0367	0.0357	(0.0592)
	$(s_G-i_G)/Y_G$	(0.6499)	0.0147	(0.1312)	(0.6444)	(0.0615)	0.3709	(0.2919)	(0.3261)	0.1488	(0.6675)	(0.6033)	0.0216	0.1019	0.0000	0.1339	(0.1968)	(0.0103)	(0.2440)	(0.1959)	(0.0166)
	Y_G/Y	0.1419	0.1646	0.1917	0.0847	0.2026	0.1677	0.1797	0.0807	0.1646	0.0830	0.1121	0.2356	0.2603	#DIV/0!	0.2350	0.1947	0.2838	0.1779	0.2326	0.2027
Deficit by ( )	$(s_G-i_G)/Y$	(0.0923)	0.0024	(0.0252)	(0.0546)	(0.0125)	0.0622	(0.0524)	(0.0263)	0.0245	(0.0554)	(0.0676)	0.0051	0.0265	0.0000	0.0315	(0.0383)	(0.0029)	(0.0434)	(0.0456)	(0.0034)
Classes of saving level		*17*	**6**	**2**	14	10	**1**	**3**	7	**5**	*18*	*19*	8	**4**	9	12	*20*	11	13	15	16
$\alpha_G=\Pi_G/Y_G$	α_G	0.0042	0.0020	0.2564	(0.4564)	(0.0394)	0.1402	(0.0067)	0.1614	0.1241	(0.0749)	0.1566	0.0971	0.1525	0.0306	0.1111	0.1489	0.0185	(0.1418)	(0.0672)	(0.0003)
$r_G=\Pi_G/K_G$	r_G	0.0008	0.0017	0.0937	(1.9813)	(0.2369)	0.0778	(0.0023)	0.0608	0.0322	(0.0496)	0.0792	0.0904	0.2726	0.0449	0.2638	0.1609	0.0457	(0.1218)	(0.0683)	(0.0002)
Growth rate*	$g_{Y(G)}^*$	0.0215	0.0314	0.1207	(0.0217)	(0.0289)	(0.0124)	0.1376	0.0264	0.0529	(0.0105)	0.0299	0.0392	0.0997	0.0397	0.0228	0.0236	(0.0931)	0.0232	0.0174	(0.0112)
Capital cost	$(r_G-g_{Y(G)}^*)$	(0.0207)	(0.0296)	(0.0270)	(1.9597)	(0.2080)	0.0902	(0.1400)	0.0343	(0.0207)	(0.0390)	0.0493	0.0512	0.1729	0.0052	0.2410	0.1373	0.1388	(0.1450)	(0.0857)	0.0110
Sign of each value:		**A: + +**	**B: + −**	**C: − +**	**D: − −**	**between two values**															
	$(s_G-i_G)/Y$ and s_G	D	A	**C**	D	D	A	**C**	D	A	D	D	A	A	A'	A	D	**C**	D	D	D
	$(s_G-i_G)/Y$ and g_Y^*	C	A	C	D	D	B	C	C	A	D	C	A	A	A'	A	C	D	C	C	D
	$(s_G-i_G)/Y$ and i_G	C	A	C	D	D	B	C	C	A	C	C	A	A	A'	A	D	C	C	C	D
	$\theta_G=i_G/s_G$ and α_G/s_G	D	A	A	A	A	C	B	D	A	C	D	A	A	A	A	B	A	C	C	A
	s_G and α_G	C	A	A	D	D	A	B	C	A	D	C	A	A	A	A	C	A'	D	D	D
	s_G and r_G	C	A	A	D	D	A	B	C	A	D	**C**	A	A	A	A	**C**	A'	D	D	D
In the same direction	α_G and r_G	A	A	A'	D	D	A	D	A	A	D	A	A	A	A	A	A	A	D	D	D
	$g_{Y(G)}^*$ and r_G	A	A	A	D	D	C	B	A	A	D	A	A	A	A	A	A	C	B	B	D
	$g_{Y(G)}^*$ and $(r_G-g_{Y(G)}^*)$	B	B	B	D	D	C	B	A	B	D	A	A	A	A'	A	A	C	B	B	C
	i_G and $g_{Y(G)}^*$	A	A	A	D	D	D	A	A	A	**B**	**A**	A	A	A	A	**C**	**B**	A	A	D

Table 4-2 Saving, investment, and budget deficit in the total economy, with the cost of capital, by class of saving level

Classes of saving level in t		SS: saving oriented country						S: Semi-saving oriented country										*C: Consumptionoriented country*			
To Y	**2003**	Singapore	China	Malaysia	Russia	Thailand	Korea	Indonesia	Canada	Australia	Brazil	Sweden	New Zealand	Germany	India	France	Italy	Japan	Philippines	The U S	The U K
Saving to Y	$s=S/Y$	0.4769	0.3894	0.3822	0.2425	0.2193	0.2171	0.1620	0.1500	0.1495	0.1462	0.1440	0.1415	0.1336	0.1299	0.1208	0.1054	0.0871	0.0644	0.0434	0.0337
Invest. to Y	$i=I/Y$	0.1602	0.3506	0.1539	0.1144	0.1407	0.1854	0.1620	0.1069	0.1826	0.1047	0.0668	0.1422	0.0861	0.1571	0.1020	0.1022	0.0432	0.1004	0.0934	0.0687
	$(s-i)/Y$	0.3167	0.0388	0.2283	0.1280	0.0786	0.0294	0.0000	0.0458	(0.0320)	0.0418	0.0772	0.0035	0.0473	(0.0114)	0.0000	0.0059	0.0439	(0.0303)	(0.0503)	(0.0337)
	Y/Y	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Deficit by ( )	$(s-i)/Y$	0.3167	0.0388	0.2283	0.1280	0.0786	0.0294	0.0000	0.0458	(0.0320)	0.0418	0.0772	0.0035	0.0473	(0.0114)	**0.0000**	0.0059	0.0439	(0.0303)	(0.0503)	(0.0337)
Classes of saving level		**1**	**2**	**3**	**4**	**5**	**6**	7	8	9	10	11	12	13	14	15	16	***17***	***18***	***19***	***20***
$\alpha=\Pi/Y$	α	0.3506	0.3384	0.2373	0.1192	0.1077	0.1653	0.1160	0.1192	0.1141	0.1115	0.1120	0.1067	0.1022	0.1062	0.1029	0.0918	0.1222	0.0828	0.1143	0.1052
$r=\Pi/K$	r	0.1920	0.1706	0.1583	0.0655	0.1082	0.0758	0.1282	0.0584	0.0642	0.1090	0.0743	0.0722	0.0562	0.1105	0.0523	0.0533	0.0308	0.1229	0.0433	0.0453
Growth rate*	g_Y^*	0.0693	0.1345	0.0747	0.0404	0.0797	0.0632	0.0973	0.0390	0.0720	0.0548	0.0283	0.0631	0.0320	0.0926	0.0372	0.0385	0.0092	0.0741	0.0291	0.0222
Capital cost	$(r-g_Y^*)$	0.1227	0.0360	0.0836	0.0251	0.0285	0.0127	0.0309	0.0194	(0.0078)	0.0543	0.0460	0.0091	0.0242	0.0179	0.0151	0.0148	0.0216	0.0488	0.0142	0.0231
Sign of each value:		**A: + +**	**B: + −**	**C: − +**	**D: − −**	**between two values**															
	$(s-i)/Y$ and s	A	A	A	A	A	A	A	A	C	A	A	A	A	C	A'	A	A	C	C	C
	$(s-i)/Y$ and g_Y^*	A	A	A	A	A	A	A	A	C	A	A	A	A	C	A'	A	A	C	C	C
	$(s-i)/Y$ and i	A	A	A	A	A	A	A	A	C	A	A	A	A	C	A'	A	A	C	C	C
	$\theta=i/s$ and α/s	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A	A	A	A	A
	s and α	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A	A	A	A	A
	s and r	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A	A	A	A	A
In the same direction	α and r	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A	A	A	A	A
	g_Y^* and r	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A	A	A	A	A
	g_Y^* and $(r-g_Y^*)$	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A	A	A	A	A
	i and g_Y^*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A'	A	A	A	A	A

Table Saving, investment, and the difference of saving and investment in the government sector, with the cost of capital, by class of saving

Classes of saving level in t		SS: saving oriented country						S: Semi-saving oriented country										*C: Consumptionoriented country*			
To Y_G	**2003**	Singapore	China	Malaysia	Russia	Thailand	Korea	Indonesia	Canada	Australia	Brazil	Sweden	New Zealand	Germany	India	France	Italy	Japan	Philippines	The U S	The U K
Saving to Y_G	$s_G=S_G/Y_G$	0.3240	0.2893	0.1716	0.2711	0.2472	0.0557	(0.0781)	0.0947	0.0428	(0.0658)	0.0023	0.1516	(0.2073)	(0.6681)	(0.1602)	(0.0758)	(0.5233)	(0.5350)	(0.5461)	(0.2000)
Invest. to Y_G	$i_G=I_G/Y_G$	(0.0468)	0.4205	0.4635	0.1692	0.0984	0.0411	0.2481	0.0731	0.0428	(0.0043)	0.0126	0.0177	0.0367	(0.0238)	0.0357	(0.0592)	0.1266	0.1324	0.0572	(0.0032)
	$(s_G-i_G)/Y_G$	0.3709	(0.1312)	(0.2919)	0.1019	0.1488	0.0147	(0.3261)	0.0216	0.0000	(0.0615)	(0.0103)	0.1339	(0.2440)	(0.6444)	(0.1959)	(0.0166)	(0.6499)	(0.6675)	(0.6033)	(0.1968)
	Y_G/Y	0.1677	0.1917	0.1797	0.2603	0.1646	0.1646	0.0807	0.2356	#DIV/0!	0.2026	0.2838	0.2350	0.1779	0.0847	0.2326	0.2027	0.1419	0.0830	0.1121	0.1947
Deficit by ( )	$(s_G-i_G)/Y$	0.0622	(0.0252)	(0.0524)	0.0265	0.0245	0.0024	(0.0263)	0.0051	0.0000	(0.0125)	(0.0029)	0.0315	(0.0434)	(0.0546)	(0.0456)	(0.0034)	(0.0923)	(0.0554)	(0.0676)	(0.0383)
Classes of saving level		**1**	**2**	**3**	**4**	**5**	**6**	7	8	9	10	11	12	13	14	15	16	***17***	***18***	***19***	***20***
$\alpha_G=\Pi_G/Y_G$	α_G	0.1402	0.2564	(0.0067)	0.1525	0.1241	0.0020	0.1614	0.0971	0.0306	(0.0394)	0.0185	0.1111	(0.1418)	(0.4564)	(0.0672)	(0.0003)	0.0042	(0.0749)	0.1566	0.1489
$r_G=\Pi_G/K_G$	r_G	0.0778	0.0937	(0.0023)	0.2726	0.0322	0.0017	0.0608	0.0904	0.0449	(0.2369)	0.0457	0.2638	(0.1218)	(1.9813)	(0.0683)	(0.0002)	0.0008	(0.0496)	0.0792	0.1609
Growth rate*	$g_{Y(G)}^*$	(0.0124)	0.1207	0.1376	0.0997	0.0529	0.0314	0.0264	0.0392	0.0397	(0.0289)	(0.0931)	0.0228	0.0232	(0.0217)	0.0174	(0.0112)	0.0215	(0.0105)	0.0299	0.0236
Capital cost	$(r_G-g_{Y(G)}^*)$	0.0902	(0.0270)	(0.1400)	0.1729	(0.0207)	(0.0296)	0.0343	0.0512	0.0052	(0.2080)	0.1388	0.2410	(0.1450)	(1.9597)	(0.0857)	0.0110	(0.0207)	(0.0390)	0.0493	0.1373
Sign of each value:		**A: + +**	**B: + −**	**C: − +**	**D : − −**	**between two values**															
	$(s_G-i_G)/Y$ and s_G	A	**C**	**C**	A	A	A	D	A	A'	D	**C**	A	D	D	D	D	D	D	D	D
	$(s_G-i_G)/Y$ and g_Y^*	B	C	C	A	A	A	C	A	A'	D	D	A	C	D	C	D	C	D	C	C
	$(s_G-i_G)/Y$ and i_G	B	C	C	A	A	A	C	A	A'	D	C	A	C	D	C	D	C	C	C	D
	$\theta_G=i_G/s_G$ and α_G/s_G	C	A	B	A	A	A	D	A	A	A	A	A	C	A	C	A	D	C	D	B
	s_G and α_G	A	A	B	A	A	A	C	A	A	D	A'	A	D	D	D	D	C	D	C	C
	s_G and r_G	A	A	B	A	A	A	C	A	A	D	A'	A	D	D	D	D	C	D	**C**	**C**
In the same direction	α_G and r_G	A	A'	D	A	A	A	A	A	A	D	A	A	D	D	D	D	A	D	A	A
	$g_{Y(G)}^*$ and r_G	C	A	B	A	A	A	A	A	A	D	C	A	B	D	B	D	A	D	A	A
	$g_{Y(G)}^*$ and $(r_G-g_{Y(G)}^*)$	C	B	B	A	B	B	A	A	A'	D	C	A	B	D	B	C	B	D	A	A
	i_G and $g_{Y(G)}^*$	D	A	A	A	A	A	A	A	A	D	**B**	A	A	D	A	D	A	**B**	**A**	**C**

Table 5-1 Saving, investment, and budget deficit in the government sector, with the cost of capital, by country

Classes of saving level in the total economy: **SS: saving oriented country** S: Semi-saving oriented country ***C: Consumptionoriented country***

To Y_G **2003**	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
Saving to Y_G $s_G=S_G/Y_G$	(0.5233)	0.0557	0.2893	(0.6681)	(0.0658)	0.3240	0.1716	(0.0781)	0.2472	(0.5350)	(0.5461)	0.0947	0.2711	0.0428	0.1516	(0.2000)	0.0023	(0.2073)	(0.1602)	(0.0758)
Invest. to Y_G $i_G=I_G/Y_G$	0.1266	0.0411	0.4205	(0.0238)	(0.0043)	(0.0468)	0.4635	0.2481	0.0984	0.1324	0.0572	0.0731	0.1692	0.0428	0.0177	(0.0032)	0.0126	0.0367	0.0357	(0.0592)
$(s_G-i_G)/Y_G$	(0.6499)	0.0147	(0.1312)	(0.6444)	(0.0615)	0.3709	(0.2919)	(0.3261)	0.1488	(0.6675)	(0.6033)	0.0216	0.1019	0.0000	0.1339	(0.1968)	(0.0103)	(0.2440)	(0.1959)	(0.0166)
Y_G/Y	0.1419	0.1646	0.1917	0.0847	0.2026	0.1677	0.1797	0.0807	0.1646	0.0830	0.1121	0.2356	0.2603	#DIV/0!	0.2350	0.1947	0.2838	0.1779	0.2326	0.2027
Deficit by ( ) $(s_G-i_G)/Y$	(0.0923)	0.0024	(0.0252)	(0.0546)	(0.0125)	0.0622	(0.0524)	(0.0263)	0.0245	(0.0554)	(0.0676)	0.0051	0.0265	0.0000	0.0315	(0.0383)	(0.0029)	(0.0434)	(0.0456)	(0.0034)
Classes of saving level	*17*	**6**	**2**	14	10	**1**	**3**	7	**5**	*18*	*19*	8	**4**	9	12	*20*	11	13	15	16
$\alpha_G=\Pi_G/Y_G$ α_G	0.0042	0.0020	0.2564	(0.4564)	(0.0394)	0.1402	(0.0067)	0.1614	0.1241	(0.0749)	0.1566	0.0971	0.1525	0.0306	0.1111	0.1489	0.0185	(0.1418)	(0.0672)	(0.0003)
$r_G=\Pi_G/K_G$ r_G	0.0008	0.0017	0.0937	(1.9813)	(0.2369)	0.0778	(0.0023)	0.0608	0.0322	(0.0496)	0.0792	0.0904	0.2726	0.0449	0.2638	0.1609	0.0457	(0.1218)	(0.0683)	(0.0002)
Growth rate* $g_{Y(G)}^*$	0.0215	0.0314	0.1207	(0.0217)	(0.0289)	(0.0124)	0.1376	0.0264	0.0529	(0.0105)	0.0299	0.0392	0.0997	0.0397	0.0228	0.0236	(0.0931)	0.0232	0.0174	(0.0112)
Capital cost $(r_G-g_{Y(G)}^*)$	(0.0207)	(0.0296)	(0.0270)	(1.9597)	(0.2080)	0.0902	(0.1400)	0.0343	(0.0207)	(0.0390)	0.0493	0.0512	0.1729	0.0052	0.2410	0.1373	0.1388	(0.1450)	(0.0857)	0.0110
Sign of each value:	**A:** + +	**B:** + −	**C:** − +	**D:** − −	**between two values**															
$(s_G-i_G)/Y$ and s_G	D	A	**C**	D	D	A	**C**	D	A	D	D	A	A	A'	A	D	**C**	D	D	D
$(s_G-i_G)/Y$ and g_Y^*	C	A	C	D	D	B	C	C	A	D	C	A	A	A'	A	C	D	C	C	D
$(s_G-i_G)/Y$ and i_G	C	A	C	D	D	B	C	C	A	C	C	A	A	A'	A	D	C	C	C	D
$\theta_G=i_G/s_G$ and α_G/s_G	D	A	A	A	A	C	B	D	A	C	D	A	A	A	A	B	A	C	C	A
s_G and α_G	C	A	A	D	D	A	B	C	A	D	C	A	A	A	A	C	A'	D	D	D
s_G and r_G	C	A	A	D	D	A	B	C	A	D	**C**	A	A	A	A	**C**	A'	D	D	D
In the same direction α_G and r_G	A	A	A'	D	D	A	D	A	A	D	A	A	A	A	A	A	A	D	D	D
$g_{Y(G)}^*$ and r_G	A	A	A	D	D	C	B	A	A	D	A	A	A	A	A	A	C	B	B	D
$g_{Y(G)}^*$ and $(r_G-g_{Y(G)}^*)$	B	B	B	D	D	C	B	A	B	D	A	A	A	A'	A	A	C	B	B	C
i_G and $g_{Y(G)}^*$	A	A	A	D	D	D	A	A	A	**B**	**A**	A	A	A	A	**C**	**B**	A	A	D

Table Saving, investment, and the difference of saving and investment in the private sector, with the cost of capital, by country

Classes of saving level in the total economy: **SS: saving oriented country** S: Semi-saving oriented country ***C: Consumptionoriented country***

To Y_{PRI} **2003**	Japan	Korea	China	India	Brazil	Singapore	Malaysia	Indonesia	Thailand	Philippines	The U S	Canada	Russia	Australia	New Zealand	The U K	Sweden	Germany	France	Italy
$s_{PRI}=S_{PRI}/Y_{PRI}$	0.1880	0.2489	0.4131	0.2037	0.2000	0.5077	0.4283	0.1830	0.2138	0.1187	0.1178	0.1671	0.2324	0.1773	0.1384	0.0728	0.2002	0.2073	0.2060	0.1515
$i_{PRI}=I_{PRI}/Y_{PRI}$	0.0294	0.2139	0.3340	0.1739	0.1324	0.2019	0.0861	0.1544	0.1490	0.0975	0.0979	0.1173	0.0952	0.2190	0.1805	0.0695	0.0883	0.0968	0.1221	0.1432
$(s_{PRI}-i_{PRI})/Y_{PRI}$	0.1586	0.0323	0.0791	0.0472	0.0681	0.3058	0.3422	0.0286	0.0647	0.0274	0.0195	0.0532	0.1372	(0.0404)	(0.0366)	0.0067	0.1119	0.1103	0.0594	0.0117
Y_{PRI}/Y	0.8581	0.8354	0.8083	0.9153	0.7974	0.8323	0.8203	0.9193	0.8354	0.9170	0.8879	0.7644	0.7397	0.7934	0.7650	0.8053	0.7162	0.8221	0.7674	0.7973
$(s_{PRI}-i_{PRI})/Y$	0.1361	0.0270	0.0640	0.0432	0.0543	0.2545	0.2808	0.0263	0.0541	0.0252	0.0173	0.0407	0.1015	(0.0320)	(0.0280)	0.0054	0.0801	0.0907	0.0456	0.0093
Classes of saving level	*17*	**6**	**2**	14	10	**1**	**3**	7	**5**	*18*	*19*	8	**4**	9	12	*20*	11	13	15	16
$\alpha_\Pi=\Pi_\Pi/Y_P$ $\alpha_{\Pi PI}$	0.1417	0.1975	0.3579	0.1583	0.1499	0.3930	0.2907	0.1120	0.1045	0.0971	0.1089	0.1260	0.1074	0.1358	0.1053	0.0947	0.1491	0.1549	0.1544	0.1152
$r_P=\Pi_\Pi/K_P$ r_{PRI}	0.0587	0.0829	0.1982	0.1538	0.1208	0.4557	0.2439	0.1492	0.1699	0.1625	0.0400	0.0539	0.0475	0.0658	0.0585	0.0356	0.0766	0.0791	0.0682	0.0641
Growth rate* $g_{Y(PRI)}^*$	0.0086	0.0673	0.1392	0.1022	0.0674	0.1453	0.0469	0.1114	0.0860	0.0885	0.0290	0.0389	0.0310	0.0767	0.0691	0.0221	0.0554	0.0336	0.0411	0.0497
$(r_{PRI}-g_{Y(PRI)}^*)$	0.0501	0.0156	0.0590	0.0516	0.0534	0.3104	0.1970	0.0378	0.0839	0.0740	0.0109	0.0150	0.0166	(0.0108)	(0.0106)	0.0135	0.0212	0.0456	0.0270	0.0144
Sign of each value:	**A:** + +	**B:** + −	**C:** − +	**D:** − −	**between two values**															
$(s_{PRI}-i_{PRI})/Y$ and s_{PRI}	A	A	A	A	A	A	A	A	A	A	A	A	A	C	C	A	A	A	A	A
$(s_{PRI}-i_{PRI})/Y$ and $g_{Y(PRI)}^*$	A	A	A	A	A	A	A	A	A	A	A	A	A	C	C	A	A	A	A	A
$(s_{PRI}-i_{PRI})/Y$ and i_{PRI}	A	A	A	A	A	A	A	A	A	A	A	A	A	C	C	A	A	A	A	A
$\theta_{\Pi PI}=i_{PRI}/s_{PRI}$ and $\alpha_{\Pi PI}/s_{PRI}$	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
s_{PRI} and $\alpha_{\Pi PI}$	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
s_{PRI} and r_{PRI}	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
$\alpha_{\Pi PI}$ and r_{PRI}	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
$g_{Y(G)}^*$ and r_G	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
$g_{Y(G)}^*$ and $(r_G-g_{Y(G)}^*)$	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	A	A	A	A	A
i_G and $g_{Y(G)}^*$	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Table 5-2 Saving, investment, and budget deficit in the government sector, with the cost of capital, by class of saving level

Classes of saving level in t	SS: saving oriented country						S: Semi-saving oriented country										C: Consumptionoriented country			
To Y_G 2003	Singapore	China	Malaysia	Russia	Thailand	Korea	Indonesia	Canada	Australia	Brazil	Sweden	New Zealand	Germany	India	France	Italy	Japan	Philippines	The U S	The U K
Saving to Y_G $s_G=S_G/Y_G$	0.3240	0.2893	0.1716	0.2711	0.2472	0.0557	(0.0781)	0.0947	0.0428	(0.0658)	0.0023	0.1516	(0.2073)	(0.6681)	(0.1602)	(0.0758)	(0.5233)	(0.5350)	(0.5461)	(0.2000)
Invest. to Y_G $i_G=I_G/Y_G$	(0.0468)	0.4205	0.4635	0.1692	0.0984	0.0411	0.2481	0.0731	0.0428	(0.0043)	0.0126	0.0177	0.0367	(0.0238)	0.0357	(0.0592)	0.1266	0.1324	0.0572	(0.0032)
$(s_G-i_G)/Y_G$	0.3709	(0.1312)	(0.2919)	0.1019	0.1488	0.0147	(0.3261)	0.0216	0.0000	(0.0615)	(0.0103)	0.1339	(0.2440)	(0.6444)	(0.1959)	(0.0166)	(0.6499)	(0.6675)	(0.6033)	(0.1968)
Y_G/Y	0.1677	0.1917	0.1797	0.2603	0.1646	0.1646	0.0807	0.2356	#DIV/0!	0.2026	0.2838	0.2350	0.1779	0.0847	0.2326	0.2027	0.1419	0.0830	0.1121	0.1947
Deficit by ( ) $(s_G-i_G)/Y$	0.0622	(0.0252)	(0.0524)	0.0265	0.0245	0.0024	(0.0263)	0.0051	0.0000	(0.0125)	(0.0029)	0.0315	(0.0434)	(0.0546)	(0.0456)	(0.0034)	(0.0923)	(0.0554)	(0.0676)	(0.0383)
Classes of saving level	**1**	**2**	**3**	**4**	**5**	**6**	7	8	9	10	11	12	13	14	15	16	***17***	***18***	***19***	***20***
$□_G=□_G/Y_G$ $□_G$	0.1402	0.2564	(0.0067)	0.1525	0.1241	0.0020	0.1614	0.0971	0.0306	(0.0394)	0.0185	0.1111	(0.1418)	(0.4564)	(0.0672)	(0.0003)	0.0042	(0.0749)	0.1566	0.1489
$r_G=□_G/K_G$ r_G	0.0778	0.0937	(0.0023)	0.2726	0.0322	0.0017	0.0608	0.0904	0.0449	(0.2369)	0.0457	0.2638	(0.1218)	(1.9813)	(0.0683)	(0.0002)	0.0008	(0.0496)	0.0792	0.1609
Growth rate* $g_{Y(G)}^*$	(0.0124)	0.1207	0.1376	0.0997	0.0529	0.0314	0.0264	0.0392	0.0397	(0.0289)	(0.0931)	0.0228	0.0232	(0.0217)	0.0174	(0.0112)	0.0215	(0.0105)	0.0299	0.0236
Capital cost $(r_G-g_{Y(G)}^*)$	0.0902	(0.0270)	(0.1400)	0.1729	(0.0207)	(0.0296)	0.0343	0.0512	0.0052	(0.2080)	0.1388	0.2410	(0.1450)	(1.9597)	(0.0857)	0.0110	(0.0207)	(0.0390)	0.0493	0.1373
Sign of each value:	**A: + +**	**B: + −**	**C: − +**	**D: − −**	**between two values**															
$(s_G-i_G)/Y$ and s_G	A	**C**	**C**	A	A	A	D	A	A'	D	**C**	A	D	D	D	D	D	D	D	D
$(s_G-i_G)/Y$ and g_Y^*	B	C	C	A	A	A	C	A	A'	D	D	A	C	D	C	D	C	D	C	C
$(s_G-i_G)/Y$ and i_G	B	C	C	A	A	A	C	A	A'	D	C	A	C	D	C	D	C	C	C	D
$□_G=i_G/s_G$ and $□_G/s_G$	C	A	B	A	A	A	D	A	A	A	A	A	C	A	C	A	D	C	D	B
s_G and $□_G$	A	A	B	A	A	A	C	A	A	D	A'	A	D	D	D	D	C	D	C	C
s_G and r_G	A	A	B	A	A	A	C	A	A	D	A'	A	D	D	D	D	C	D	**C**	**C**
In the same direction $□_G$ and r_G	A	A'	D	A	A	A	A	A	A	D	A		D	D	D	D	A	D	A	A
$g_{Y(G)}^*$ and r_G	C	A	B	A	A	A	A	A	A	D	C	A	B	D	B	D	A	D	A	A
$g_{Y(G)}^*$ and $(r_G-g_{Y(G)}^*)$	C	B	B	A	B	B	A	A	A'	D	C	A	B	D	B	C	B	D	A	A
i_G and $g_{Y(G)}^*$	D	A	A	A	A	A	A	A	A	D	**B**	A	A	D	A	D	A	**B**	**A**	**C**

Table Saving, investment, and the difference of saving and investment in the private sector, with the cost of capital, by class of saving level

Classes of saving level in t	SS: saving oriented country						S: Semi-saving oriented country										C: Consumptionoriented country			
To Y_{PRI} 2003	Singapore	China	Malaysia	Russia	Thailand	Korea	Indonesia	Canada	Australia	Brazil	Sweden	New Zealand	Germany	India	France	Italy	Japan	Philippines	The U S	The U K
$s_{PRI}=S_{PRI}/Y_{PRI}$	0.5077	0.4131	0.4283	0.2324	0.2138	0.2489	0.1830	0.1671	0.1773	0.2000	0.2002	0.1384	0.2073	0.2037	0.2060	0.1515	0.1880	0.1187	0.1178	0.0728
$i_{PRI}=I_{PRI}/Y_{PRI}$	0.2019	0.3340	0.0861	0.0952	0.1490	0.2139	0.1544	0.1173	0.2190	0.1324	0.0883	0.1805	0.0968	0.1739	0.1221	0.1432	0.0294	0.0975	0.0979	0.0695
$(s_{PRI}-i_{PRI})/Y_{PRI}$	0.3058	0.0791	0.3422	0.1372	0.0647	0.0323	0.0286	0.0532	(0.0404)	0.0681	0.1119	(0.0366)	0.1103	0.0472	0.0594	0.0117	0.1586	0.0274	0.0195	0.0067
Y_{PRI}/Y	0.8323	0.8083	0.8203	0.7397	0.8354	0.8354	0.9193	0.7644	0.7934	0.7974	0.7162	0.7650	0.8221	0.9153	0.7674	0.7973	0.8581	0.9170	0.8879	0.8053
$(s_{PRI}-i_{PRI})/Y$	0.2545	0.0640	0.2808	0.1015	0.0541	0.0270	0.0263	0.0407	(0.0320)	0.0543	0.0801	(0.0280)	0.0907	0.0432	0.0456	0.0093	0.1361	0.0252	0.0173	0.0054
Classes of saving level	**1**	**2**	**3**	**4**	**5**	**6**	7	8	9	10	11	12	13	14	15	16	***17***	***18***	***19***	***20***
$□_□=□_□/Y_P$ $□□_{PI}$	0.3930	0.3579	0.2907	0.1074	0.1045	0.1975	0.1120	0.1260	0.1358	0.1499	0.1491	0.1053	0.1549	0.1583	0.1544	0.1152	0.1417	0.0971	0.1089	0.0947
$r_P=□_□/K_P$ r_{PRI}	0.4557	0.1982	0.2439	0.0475	0.1699	0.0829	0.1492	0.0539	0.0658	0.1208	0.0766	0.0585	0.0791	0.1538	0.0682	0.0641	0.0587	0.1625	0.0400	0.0356
Growth rate* $g_{Y(PRI)}^*$	0.1453	0.1392	0.0469	0.0310	0.0860	0.0673	0.1114	0.0389	0.0767	0.0674	0.0554	0.0691	0.0336	0.1022	0.0411	0.0497	0.0086	0.0885	0.0290	0.0221
$(r_{PRI}-g_{Y(PRI)}^*)$	0.3104	0.0590	0.1970	0.0166	0.0839	0.0156	0.0378	0.0150	(0.0108)	0.0534	0.0212	(0.0106)	0.0456	0.0516	0.0270	0.0144	0.0501	0.0740	0.0109	0.0135
Sign of each value:	**A: + +**	**B: + −**	**C: − +**	**D: − −**	**between two values**															
$(s_{PRI}-i_{PRI})/Y$ and s_{PRI}	A	A	A	A	A	A	A	A	C	A	A	C	A	A	A	A	A	A	A	A
$(s_{PRI}-i_{PRI})/Y$ and $g_{Y(PRI)}^*$	A	A	A	A	A	A	A	A	C	A	A	C	A	A	A	A	A	A	A	A
$(s_{PRI}-i_{PRI})/Y$ and i_{PRI}	A	A	A	A	A	A	A	A	C	A	A	C	A	A	A	A	A	A	A	A
$□_{□PI}=i_{PRI}/s_{PRI}$ and $□_{□PI}/s_{PRI}$	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
s_{PRI} and $□□_{PI}$	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
s_{PRI} and r_{PRI}	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
$□□_{PI}$ and r_{PRI}	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
$g_{Y(G)}^*$ and r_G	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
$g_{Y(G)}^*$ and $(r_G-g_{Y(G)}^*)$	A	A	A	A	A	A	A	A	B	A	A	B	A	A	A	A	A	A	A	A
i_G and $g_{Y(G)}^*$	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Table 6-1

Table 1-1 Results of simulation 1: Mutual relationship between the government and private sector

	c	(rho/r)	c_G	$(rho/r)_G$	c_{PRI}	$(rho/r)_{PRI}$
1. Japan	**Actual (excl. pensions) C_G**					
1995	0.8553	0.9640	1.0577	1.1279	0.8391	0.9500
1996	0.8548	0.9640	1.1117	1.1022	0.8354	0.9520
1997	0.8498	0.9630	1.0525	1.0843	0.8333	0.9520
1998	0.9220	1.0450	(7.1919)	44.2254	0.8235	0.9470
1999	0.8751	0.9900	2.5399	1.6614	0.8164	0.9480
2000	0.8817	0.9930	2.2252	1.6793	0.8264	0.9500
2001	0.9033	1.0170	2.3397	2.0932	0.8445	0.9610
2002	0.9133	1.0400	5.4655	3.7689	0.8335	0.9600
2003	0.9129	1.0400	4.6212	5.7038	0.8353	0.9500
2. Japan	**Final (incl.pens.) CG**					
1995	0.8542	0.9640	1.0247	1.0301	0.8184	0.9480
1996	0.8548	0.9640	1.0458	1.0339	0.8153	0.9470
1997	0.8498	0.9630	1.0225	1.0318	0.8128	0.9460
1998	0.9220	1.0450	2.0248	1.7599	0.8019	0.9400
1999	0.8751	0.9900	1.3715	1.2424	0.7936	0.9360
2000	0.8817	0.9930	1.3154	1.1925	0.8031	0.9460
2001	0.9033	1.0170	1.3321	1.3227	0.8225	0.9500
2002	0.9133	1.0400	1.5577	1.5436	0.8101	0.9450
2003	0.9129	1.0400	1.5233	1.5298	0.8120	0.9460
3. Japan	Using Final consumption (incl.pens.)					
1995	0.8548	0.9640	1.2362	1.0677	0.7906	0.9400
1996	0.8557	0.9640	1.2550	1.0666	0.7890	0.9400
1997	0.8498	0.9630	1.1787	1.0592	0.7904	0.9400
1998	0.9220	1.0450	8.0403	2.0656	0.7415	0.9200
1999	0.8751	0.9900	2.0432	1.3300	0.7529	0.9230
2000	0.8817	0.9930	1.7868	1.3129	0.7664	0.9260
2001	0.9033	1.0170	1.7888	1.4195	0.7847	0.9360
2002	0.9133	1.0400	2.4519	1.7320	0.7654	0.9260
2003	0.9129	1.0400	2.2565	1.7127	0.7705	0.9270
4. Japan	Using Final consumption (incl.pens.)					
1995	0.8542	0.9640	0.7635	0.9565	0.8817	0.9660
1996	0.8548	0.9640	0.7843	0.9794	0.8757	0.9600
1997	0.8498	0.9630	0.8083	0.9979	0.8618	0.9540
1998	0.9220	1.0450	0.8111	1.0272	0.9580	1.0500
1999	0.8751	0.9900	0.8275	1.0718	0.8897	0.9690
2000	0.8817	0.9930	0.8611	1.0876	0.8880	0.9680
2001	0.9033	1.0170	0.8818	1.2039	0.9100	0.9710
2002	0.9133	1.0400	0.9007	1.3393	0.9173	0.9730
2003	0.9129	1.0400	0.9233	1.3365	0.9098	0.9730
5. Japan	Using Final consumption (incl.pens.)					
1995	0.8749	0.9900	1.0247	0.9900	0.8425	0.9900
1996	0.8706	0.8990	1.0458	0.8990	0.8336	0.8990
1997	0.8788	0.9910	1.0225	0.9910	0.8467	0.9910
1998	0.9019	1.0160	2.0248	1.3822	0.7826	0.9470
1999	0.9070	1.0180	1.3715	1.3611	0.8275	0.9500
2000	0.9099	1.0190	1.3154	1.8511	0.8336	0.8990
2001	0.9311	1.0520	1.3321	1.3063	0.8527	0.9930
2002	0.9453	1.0800	1.5577	1.5243	0.8432	0.9910
2003	0.9548	1.0800	1.5233	1.5048	0.8557	0.9930

	i	$beta$	$beta_*$	$i{\cdot}beta_*$	r^*	g_Y^*	$r^*-g_Y^*$	$delta$	$\delta-\alpha$
1. Japan	**Actual (excl. pensions) C_G**								**The total economy**
1995	0.1223	----	----	----	0.0419	----	----	----	----
1996	0.1270	0.9020	0.7685	0.0976	0.0418	0.0360	0.0058	0.1974	0.0841
1997	0.1172	0.9074	0.7722	0.0905	0.0428	0.0330	0.0098	0.2042	0.0867
1998	0.1002	0.9146	0.7874	0.0789	0.0399	0.0267	0.0131	0.2227	0.1050
1999	0.0897	0.9084	0.7772	0.0697	0.0417	0.0250	0.0166	0.2210	0.1049
2000	0.0873	0.9048	0.7757	0.0677	0.0400	0.0241	0.0158	0.2051	0.0930
2001	0.0669	0.9085	0.7839	0.0524	0.0388	0.0182	0.0206	0.2280	0.1162
2002	0.0529	0.9176	0.7886	0.0417	0.0420	0.0144	0.0277	0.2515	0.1297
2003	0.0432	0.9171	0.7869	0.0340	0.0425	0.0118	0.0307	0.2493	0.1272
2. Japan	**Final (incl.pens.) C_G**		**Table 2 Results of simulation 2: How to adjust the relationship between huge inves**						
1995	0.1222	----	----	----	0.0419	----	----	----	----
1996	0.1270	0.9020	0.7685	0.0976	0.0418	0.0360	0.0058	0.1974	0.0841
1997	0.1172	0.9074	0.7722	0.0905	0.0428	0.0330	0.0098	0.2042	0.0867
1998	0.1002	0.9146	0.7874	0.0789	0.0399	0.0267	0.0131	0.2227	0.1050
1999	0.0897	0.9084	0.7772	0.0697	0.0417	0.0250	0.0166	0.2210	0.1049
2000	0.0873	0.9048	0.7757	0.0677	0.0400	0.0241	0.0158	0.2051	0.0930
2001	0.0669	0.9085	0.7839	0.0524	0.0388	0.0182	0.0206	0.2280	0.1162
2002	0.0529	0.9176	0.7886	0.0417	0.0420	0.0144	0.0277	0.2515	0.1297
2003	0.0432	0.9171	0.7869	0.0340	0.0425	0.0118	0.0307	0.2493	0.1272
3. Japan	Assume that budget deficit increases by 1.5 times						Using Final consumption (incl.pens.)		
1995	0.1222	----	----	----	0.0419	----	----	----	----
1996	0.1271	0.9004	0.7668	0.0975	0.0418	0.0363	0.0055	0.1959	0.0835
1997	0.1172	0.9074	0.7722	0.0905	0.0428	0.0330	0.0098	0.2042	0.0867
1998	0.1002	0.9146	0.7874	0.0789	0.0399	0.0267	0.0131	0.2227	0.1050
1999	0.0897	0.9084	0.7772	0.0697	0.0417	0.0250	0.0166	0.2210	0.1049
2000	0.0873	0.9048	0.7757	0.0677	0.0400	0.0241	0.0158	0.2051	0.0930
2001	0.0669	0.9085	0.7839	0.0524	0.0388	0.0182	0.0206	0.2280	0.1162
2002	0.0529	0.9176	0.7886	0.0417	0.0420	0.0144	0.0277	0.2515	0.1297
2003	0.0432	0.9171	0.7869	0.0340	0.0425	0.0118	0.0307	0.2493	0.1272
4. Japan	Assume that budget deficit is zero						Using Final consumption (incl.pens.)		
1995	0.1222	----	----	----	0.0419	----	----	----	----
1996	0.1270	0.9020	0.7685	0.0976	0.0418	0.0360	0.0058	0.1974	0.0841
1997	0.1172	0.9074	0.7722	0.0905	0.0428	0.0330	0.0098	0.2042	0.0867
1998	0.1002	0.9146	0.7874	0.0789	0.0399	0.0267	0.0131	0.2227	0.1050
1999	0.0897	0.9084	0.7772	0.0697	0.0417	0.0250	0.0166	0.2210	0.1049
2000	0.0873	0.9048	0.7757	0.0677	0.0400	0.0241	0.0158	0.2051	0.0930
2001	0.0669	0.9085	0.7839	0.0524	0.0388	0.0182	0.0206	0.2280	0.1162
2002	0.0529	0.9176	0.7886	0.0417	0.0420	0.0144	0.0277	0.2515	0.1297
2003	0.0432	0.9171	0.7869	0.0340	0.0425	0.0118	0.0307	0.2493	0.1272
5. Japan	Assume that the balance of payment is zero						Using Final consumption (incl.pens.)		
1995	0.1251	----	----	----	0.0408	----	----	----	----
1996	0.1294	0.9151	0.7844	0.1015	0.0408	0.0346	0.0062	0.2077	0.0880
1997	0.1212	0.9005	0.7674	0.0930	0.0416	0.0345	0.0072	0.1949	0.0826
1998	0.0981	0.9029	0.7729	0.0758	0.0410	0.0277	0.0133	0.2134	0.1011
1999	0.0930	0.8979	0.7687	0.0715	0.0405	0.0266	0.0140	0.2073	0.0983
2000	0.0901	0.8976	0.7704	0.0694	0.0390	0.0253	0.0137	0.1956	0.0886
2001	0.0689	0.9164	0.7950	0.0548	0.0375	0.0179	0.0196	0.2333	0.1184
2002	0.0547	0.9247	0.7996	0.0437	0.0405	0.0142	0.0263	0.2564	0.1317
2003	0.0452	0.9098	0.7820	0.0353	0.0410	0.0125	0.0285	0.2356	0.1197

Table 6-2

Table 1-2 Results of simulation 1: Mutual relationship between the government and private sector

The government sector

	i_G	$beta_G$	$beta_G^*$	$i_G \cdot beta_G^*$	r_G^*	$g_{Y\ G}^*$	$r_G^* - g_{YG}^*$	$delta_G$	$\delta_G - \alpha_G$
1. Japan	**ACTUAL C_G**					the cost of capital			
1995	0.7409	----	----	----	0.0069	----	----	----	----
1996	0.7022	0.9265	0.9322	0.6546	(0.0009)	0.0665	(0.0674)	0.3823	0.3910
1997	0.5663	0.9808	0.9746	0.5519	0.0031	0.0583	(0.0552)	2.9247	2.8954
1998	(3.7699)	1.0000	(0.4904)	1.8488	(0.0183)	(0.0291)	0.0108	1.1345	(0.0282)
1999	1.1855	199.445	2.2342	2.6486	(0.0240)	0.1201	(0.1441)	(26.717)	(26.188)
2000	0.8242	0.3701	0.9415	0.7760	(0.0167)	0.0399	(0.0567)	(0.2301)	0.0950
2001	0.7204	(0.0456)	0.6616	0.4767	(0.0059)	0.0238	(0.0297)	(0.8491)	(0.7313)
2002	1.3754	(12.7171)	0.2146	0.2951	(0.0098)	0.0064	(0.0161)	(1.0183)	(0.5682)
2003	0.8762	0.9475	0.5194	0.4551	**0.0049**	0.0116	**(0.0068)**	(0.4534)	(0.6432)
2. Japan	**FINAL C_G**								
1995	0.3174	----	----	----	0.0013	----	----	----	----
1996	0.2877	0.8036	0.8196	0.2358	(0.0028)	0.0585	(0.0613)	0.1220	0.1335
1997	0.2425	0.8656	0.8560	0.2076	0.0022	0.0512	(0.0490)	0.4475	0.4385
1998	0.4716	(2.4428)	(0.2658)	(0.1254)	(0.0189)	(0.0158)	(0.0032)	(0.8289)	(0.6784)
1999	0.2860	2.7482	1.7917	0.5124	(0.0195)	0.0963	(0.1158)	(1.9526)	(1.8488)
2000	0.2122	1.3454	1.1662	0.2475	(0.0206)	0.0495	(0.0701)	(2.7346)	(2.6316)
2001	0.1786	0.5262	0.5519	0.0986	(0.0014)	0.0199	(0.0213)	(0.7018)	(0.6947)
2002	0.1718	0.1309	0.1920	0.0330	(0.0016)	0.0057	(0.0073)	(0.8516)	(0.8425)
2003	0.1266	0.9593	0.9579	0.1213	**0.0008**	0.0215	**(0.0207)**	2.9953	2.9910
3. Japan	Assume that budget deficit increases by 1.5 times						Using Final consumption (incl.pens.)		
1995	0.3829	----	----	----	(0.0337)	----	----	----	----
1996	0.3452	0.5315	0.8376	0.2892	(0.0365)	0.0598	(0.0963)	0.0668	0.2435
1997	0.2796	0.7342	0.8755	0.2448	(0.0242)	0.0524	(0.0765)	0.5412	0.6541
1998	1.8727	(7.3111)	(0.4838)	(0.9061)	(0.0915)	(0.0287)	(0.0629)	(3.4993)	(0.6069)
1999	0.4261	9.1639	1.9690	0.8389	(0.0677)	0.1058	(0.1735)	(2.4423)	(1.9061)
2000	0.2882	1.2371	1.0441	0.3009	(0.0531)	0.0443	(0.0974)	(6.1563)	(5.7953)
2001	0.2398	(0.3082)	0.6969	0.1671	(0.0391)	0.0251	(0.0642)	(0.7943)	(0.5341)
2002	0.2704	(4.6573)	0.0375	0.0101	(0.0458)	0.0011	(0.0469)	(1.2552)	(0.8396)
2003	0.1876	0.8573	0.9754	0.1829	**(0.0379)**	0.0219	**(0.0598)**	4.8951	5.2126
4. Japan	Assume that budget deficit is zero						Using Final consumption (incl.pens.)		
1995	0.2365	----	----	----	0.0697	----	----	----	----
1996	0.2157	0.9525	0.7496	0.1617	0.0659	0.0535	0.0124	0.0053	(0.1939)
1997	0.1917	0.9553	0.7788	0.1493	0.0593	0.0466	0.0127	0.0857	(0.1043)
1998	0.1889	1.0077	1.0459	0.1976	0.0660	0.0620	0.0040	(6.5068)	(6.7172)
1999	0.1725	0.9343	0.5404	0.0932	0.0710	0.0291	0.0420	(0.4224)	(0.6504)
2000	0.1389	0.9871	0.9238	0.1283	0.0636	0.0392	0.0244	2.1133	1.9051
2001	0.1182	0.9544	0.5269	0.0623	0.0815	0.0190	0.0625	(0.4307)	(0.6982)
2002	0.0993	0.9675	0.3866	0.0384	0.0983	0.0115	0.0867	(0.4728)	(0.8003)
2003	0.0767	0.9938	0.9002	0.0691	**0.0903**	0.0202	**0.0701**	1.1203	0.8111
5. Japan	Assume that the balance of payment is zero						Using Final consumption (incl.pens.)		
1995	0.3174	----	----	----	(0.0090)	----	----	----	----
1996	0.2877	0.9436	(0.2759)	(0.0794)	0.0847	(0.0197)	0.1044	(0.3236)	(0.6649)
1997	0.2425	2.7349	2.2994	0.5577	(0.0091)	0.1376	(0.1467)	(2.1238)	(2.0872)
1998	0.4716	(4.0574)	(0.0468)	(0.0220)	(0.0584)	(0.0028)	(0.0556)	(1.2189)	(0.7541)
1999	0.2860	0.9759	0.9773	0.2795	(0.0014)	0.0525	(0.0540)	7.1116	7.1192
2000	0.2122	0.9313	(0.0311)	(0.0066)	0.0579	(0.0013)	0.0592	(0.4785)	(0.7679)
2001	0.1786	2.8192	2.5457	0.4546	(0.0040)	0.0917	(0.0956)	(1.8551)	(1.8354)
2002	0.1718	0.0570	0.2065	0.0355	(0.0038)	0.0062	(0.0100)	(0.8635)	(0.8416)
2003	0.1266	0.9818	0.9836	0.1245	**(0.0022)**	0.0220	**(0.0242)**	9.6782	9.6905

The private sector

	i_{PRI}	$beta_{PRI}$	$beta_{PRI}^*$	$i_{PRI} \cdot beta_{PRI}^*$	r_{PRI}^*	$g_{Y\ PRI}^*$	$r_{PRI}^* - g_{YPRI}^*$	$delta_{PRI}$	$\delta_{PRI} - \alpha_{PRI}$
1. Japan	**ACTUAL C_G**					the cost of capital			
1995	0.0726	----	----	----	0.0537	----	----	----	----
1996	0.0835	0.8850	0.7231	0.0604	0.0565	0.0279	0.0286	0.1775	0.0551
1997	0.0805	0.8814	0.7081	0.0570	0.0568	0.0260	0.0308	0.0922	(0.0325)
1998	0.0533	1.2798	1.7209	0.0917	0.0608	0.0428	0.0181	(1.9292)	(2.0595)
1999	0.0511	0.6362	0.0196	0.0010	0.0659	0.0005	0.0654	(0.7985)	(0.9373)
2000	0.0570	0.8940	0.7307	0.0416	0.0614	0.0196	0.0417	0.2414	0.1113
2001	0.0401	0.9585	0.9010	0.0362	0.0556	0.0166	0.0390	2.7772	2.6559
2002	0.0297	1.0785	1.2024	0.0357	0.0617	0.0167	0.0450	(3.3052)	(3.4371)
2003	0.0258	0.9897	0.9758	0.0251	**0.0571**	0.0119	**0.0453**	15.8885	15.7678
2. Japan	**FINAL C_G**								
1995	0.0812	----	----	----	0.0553	----	----	----	----
1996	0.0937	0.9130	0.7513	0.0704	0.0571	0.0289	0.0282	0.2058	0.0667
1997	0.0904	0.9101	0.7380	0.0667	0.0571	0.0270	0.0300	0.1227	(0.0180)
1998	0.0598	1.2105	1.6446	0.0983	0.0611	0.0409	0.0202	(1.8479)	(1.9948)
1999	0.0575	0.7213	0.1266	0.0073	0.0643	0.0031	0.0612	(0.7430)	(0.8951)
2000	0.0646	0.8676	0.5838	0.0377	0.0628	0.0157	0.0471	(0.3383)	(0.4894)
2001	0.0458	0.9846	0.9576	0.0439	0.0539	0.0176	0.0363	6.9773	6.8430
2002	0.0338	1.0846	1.2489	0.0422	0.0586	0.0173	0.0413	(2.6501)	(2.7929)
2003	0.0294	0.8984	0.7063	0.0208	**0.0587**	0.0086	**0.0501**	(0.0011)	(0.1428)
3. Japan	Assume that budget deficit increases by 1.5 times						Using Final consumption (incl.pens.)		
1995	0.0784	----	----	----	0.0670	----	----	----	----
1996	0.0907	0.9235	0.7403	0.0672	0.0690	0.0288	0.0402	0.1874	0.0267
1997	0.0879	0.9200	0.7290	0.0641	0.0664	0.0267	0.0397	0.1043	(0.0548)
1998	0.0553	1.1798	1.8127	0.1002	0.0872	0.0451	0.0422	(1.7208)	(1.9148)
1999	0.0545	0.7618	0.0314	0.0017	0.0820	0.0008	0.0813	(0.7439)	(0.9282)
2000	0.0617	0.9067	0.6519	0.0402	0.0751	0.0175	0.0576	(0.1443)	(0.3166)
2001	0.0437	0.9604	0.8640	0.0378	0.0680	0.0159	0.0521	1.3936	1.2320
2002	0.0319	1.0945	1.3563	0.0433	0.0754	0.0188	0.0565	(2.2263)	(2.3998)
2003	0.0279	0.9168	0.7014	0.0196	**0.0737**	0.0085	**0.0652**	0.0233	(0.1455)
4. Japan	Assume that budget deficit is zero						Using Final consumption (incl.pens.)		
1995	0.0874	----	----	----	0.0327	----	----	----	----
1996	0.1007	0.8893	0.7895	0.0795	0.0336	0.0304	0.0032	0.3892	0.3014
1997	0.0958	0.8909	0.7771	0.0745	0.0370	0.0285	0.0085	0.2966	0.1999
1998	0.0714	0.7920	0.6009	0.0429	0.0305	0.0149	0.0155	(0.4186)	(0.5062)
1999	0.0644	0.9860	0.9745	0.0628	0.0308	0.0236	0.0072	12.2938	12.2119
2000	0.0715	0.8384	0.7049	0.0504	0.0311	0.0189	0.0121	(0.0897)	(0.1723)
2001	0.0507	0.9834	0.9739	0.0494	0.0228	0.0179	0.0049	11.7570	11.6942
2002	0.0383	1.0724	1.1090	0.0425	0.0207	0.0154	0.0054	(4.4382)	(4.4954)
2003	0.0329	0.8333	0.7349	0.0242	**0.0240**	0.0090	**0.0151**	0.0243	(0.0407)
5. Japan	Assume that the balance of payment is zero						Using Final consumption (incl.pens.)		
1995	0.0835	----	----	----	0.0568	----	----	----	----
1996	0.0958	1.2565	1.4388	0.1379	0.0269	0.0510	(0.0241)	(2.153)	(2.226)
1997	0.0941	0.6794	0.0547	0.0051	0.0608	0.0021	0.0586	(0.741)	(0.887)
1998	0.0584	1.1181	1.4420	0.0842	0.0796	0.0386	0.0410	(2.134)	(2.308)
1999	0.0599	0.8656	0.6577	0.0394	0.0576	0.0176	0.0400	(0.118)	(0.247)
2000	0.0671	1.1176	1.1949	0.0802	0.0313	0.0345	(0.0032)	(3.423)	(3.496)
2001	0.0475	0.5709	(0.2608)	(0.0124)	0.0524	(0.0046)	0.0570	(0.855)	(0.996)
2002	0.0352	1.0831	1.2632	0.0444	0.0567	0.0169	0.0398	(2.430)	(2.579)
2003	0.0310	0.8849	0.6814	0.0211	**0.0591**	0.0090	**0.0501**	(0.071)	(0.209)

Data A1 (*Total*) Basic data for the Two-Sector model: Private versus Public (Open S-I Approach)

Data A 1 (Total) Basic data for the Two-Sector model: Private versus Public (**Open S-I** Appraoch) RAW DATA **14-Jul-05**

		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Employed persons: **L**	Total *L*	66640	66668	66728	67274	67705	67043	66642	66691	65947	65142	65118
The growth rate of L	*n*	----	0.00042	0.00090	0.00818	0.00641	-0.00978	-0.00598	0.00074	-0.01116	-0.01221	-0.00037
Average wage rate	otal w=W/L	5.322	5.420	5.473	5.587	5.596	5.242	5.582	5.600	5.547	5.486	5.486
Expressed as minus:	**BOP=(S-I)**	14028.4	12238.8	9198.3	6874.2	12320.0	-13082.4	11674.3	11748.4	11519.2	13024.2	16737.5
Capital ransfers, net	$K_{trans,net}$	-193.2	-189.6	-280.3	-414.6	-912.2	-2108.8	-1566.6	-651.6	-393.6	-363.1	-559.8
To obtain domestic saving:	$(S-I)_{adj}$	**14221.6**	**12428.4**	**9478.6**	**7288.8**	**13232.2**	**-10973.6**	**13240.9**	**12400.0**	**11912.8**	**13387.3**	**17297.3**
Gross fixed capital forma	Igross	139000.6	137856.9	139926.9	147118.5	145149.6	136395.7	133609.1	135352.2	126491.2	119325.1	120238.8
Consumption of fixed ca	Dep	85114.8	87231.5	89580.9	93282.6	94821.1	96462.8	95857.2	98644.4	98954.4	97815.6	102657.1
Changes in inventories	ΔInv	-3140.5	310.7	2088.4	2563.7	3330.8	-748.9	-1736.6	798.2	-1408.3	45.2	270.0
Purchases of land, net	I_{land}	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net produced assets	$\mathbf{I_{(NET)}}$	53885.8	50625.4	50346.0	53835.9	50328.5	39932.9	37751.9	36707.8	27536.8	21509.5	17581.7
	Inet/Igross	0.3877	0.3672	0.3598	0.3659	0.3467	0.2928	0.2826	0.2712	0.2177	0.1803	0.1462
	$S=(S-I)_{adj}-I$	68107.4	63053.8	59824.6	61124.7	63560.7	28959.3	50992.8	49107.8	39449.6	34896.8	34879.0
Actual consumption	C	335869.5	344002.9	352050.5	362360.8	364872.4	367287.7	368304.2	370823.9	372014.9	371635.9	371549.5
	Y=S+C	403976.9	407056.7	411875.1	423485.5	428433.1	396247.0	419297.0	419931.7	411464.5	406532.7	406428.5
For confirmation	$Y=Y_G+Y_{PRI}$	403976.9	407056.7	411875.1	423485.5	428433.1	396247.0	419297.0	419931.7	411464.5	406532.7	406428.5
For utility function	c=C/Y	0.8314	0.8451	0.8548	0.8557	0.8516	0.9269	0.8784	0.8831	0.9041	0.9142	0.9142
	$L_{EV}=(I-S_{CORP})/S_{CORP}$	3.1710	2.1898	1.8150	1.1217	1.0412	0.8250	0.6976	0.2478	-0.0895	-0.3052	-0.5408
	(S-I)/Y	0.0352	0.0305	0.0230	0.0172	0.0309	(0.0277)	0.0316	0.0295	0.0290	0.0329	0.0426
the utility coefficient	ρ/r=	**0.947**	**0.952**	0.9640	0.9640	0.9630	**1.0450**	0.9900	0.9930	1.0170	1.0400	1.0400
	W=C/(ρ/r)	354666.8	361347.6	365197.6	375892.9	378891.4	351471.5	372024.4	373438.0	365796.4	357342.2	357259.1
	W/Y	0.8779	0.8877	0.8867	0.8876	0.8844	0.8870	0.8873	0.8893	0.8890	0.8790	0.8790
	s/alpha	1.3812	1.3795	1.2817	1.2843	1.2830	0.6468	1.0787	1.0562	0.8638	0.7094	0.7094
Wages in GDP	$W_{before\ Pen.}$	260845.8	265560.9	270223.9	275251.4	281433.0	276722.0	273030.2	275443.5	272263.0	266043.7	263360.3
Social contri., receivable	Total pensio	57592.2	57845.3	62871.8	62885.2	66480.1	66423.2	66079.6	67024.8	68871.7	70071.1	69244.1
	Wactual	318438.0	323406.2	333095.7	338136.6	347913.1	343145.2	339109.8	342468.3	341134.7	336114.8	332604.4
	W_{actual}/W	0.8979	0.8950	0.9121	0.8996	0.9182	0.9763	0.9115	0.9171	0.9326	0.9406	0.9310
Social costs/profit	Π	49310.1	45709.1	46677.5	47592.6	49541.7	44775.5	47272.6	46493.7	45668.1	49190.5	49169.4
Operating surplus in GDP	$\mathbf{O}_{SURP}$	104202.7	104740.0	99856.7	105428.2	102209.8	94980.7	93970.1	96672.4	87569.5	88033.5	96512.5
	$\mathbf{O}_{SURP}/\Pi$	2.1132	2.2914	2.1393	2.2152	2.0631	2.1213	1.9878	2.0793	1.9175	1.7896	1.9629
Balance sheet	$K_{(incl.inv.)}$	1169269	1190789	1201593	1240236	1278283	1269597	1264272	1276011	1260664	1248501.3	1251470.4
	Inv.	99207	96381	96228	98660	99828	94719	90793	89421	84413	81060.2	79460.3
	K	1070062	1094408	1105365	1141576	1178455	1174878	1173479	1186590	1176251	1167441.1	
Total ΔK (incl.land) from stock		----	24346.0	10956.9	36210.7	36879.3	-3577.6	-1398.4	13110.7	-10339.0	-8809.8	-1167441.1
By endogenous growth	*beta*	----	0.5473	0.0235	(0.6745)	0.7570	9.3178	(8.0033)	1.0558	2.7961	1.0836	1.0000
	*beta**	----	0.7541	0.7567	0.7965	0.7942	0.7012	0.7132	0.7664	0.6467	0.6067	0.0000
	delta	----	0.1245	0.1402	0.3932	0.3500	(0.1751)	(0.0928)	0.1427	(0.3085)	(0.3946)	0.1135

Data A1 (*G sector*) Basic data for the Two-Sector model: Private versus Public (Open S-I Approach)

Data A 1 (G sector) Basic data for the Two-Sector model: Private versus Public (**Open S-I** Appraoch) **14-Jul-05**

Government sector		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Actual (excl.**pens.**) C_G												
L_G in government sector		3729	3734	3729	3724	3711	3693	3677	3638	3600	3555	3539
The growth rate of L	n_G	----	0.00134	-0.00134	-0.00134	-0.00349	-0.00485	-0.00433	-0.01061	-0.01045	-0.01250	-0.00450
	$w_G=W_G/L_G$	9.071	8.635	7.706	8.066	8.487	0.216	5.957	6.052	5.026	2.863	1.911
p.356	**$(S-I)_G$**	(13395)	(20310)	(24473)	(24240)	(20077)	**(58542)**	(39047)	(34054)	(33347)	(40992)	(37546)
Capital trans, net, p232	$K_{trans,net(G)}$	-50.1	-310.1	-820.6	-2022.4	-1011.6	-29486.5	-4682	-4605.3	-1869.3	-2450.4	1086.8
To obtain domestic saving:	$(S-I)_{adj(G)}$	**-13344.4**	**-19999.6**	**-23652.2**	**-22218.0**	**-19065.8**	**-29055.8**	**-34365.1**	**-29448.5**	**-31477.5**	**-38541.7**	**-38632.3**
Gross fixed capital forma	Igross(G)	30422.3	29887.3	31802.3	30614.4	28638.9	29375.8	28518.4	26009.1	24340.9	22909.1	21030.0
Consumption of fixed cap	Dep(G)	7883.0	8482.1	9098.8	9701.3	10266.0	10925.5	11533.6	12313.8	12679.6	13256.5	13715.1
Changes in inventories	Δinv(G)	-26.2	10.6	37.6	59.6	52.8	23.5	19.3	17.2	36.7	22.2	13.9
Purchases of land, net	$I_{land(G)}$	6399.1	5423.1	6065.9	5358.4	4410.9	4886.2	4304.0	4076.5	3620.5	3163.1	2855.0
Net produced assets	**$I_{G(NET)}$**	22539.3	21405.2	22703.5	20913.1	18372.9	18450.3	16984.8	13695.3	11661.3	9652.6	7314.9
	Inet/Igross	0.7409	0.7162	0.7139	0.6831	0.6415	0.6281	0.5956	0.5266	0.4791	0.4213	0.3478
	$S_G=(S_G-I_G)-I_G$	9194.9	1405.6	-948.7	-1304.9	-692.9	-10605.5	-17380.3	-15753.2	-19816.2	-28889.1	-31317.4
Actual (excl.**pens.**) C_G	C_G	30428.0	31023.3	32411.6	33108.1	34150.7	35197.9	36389.4	36974.3	37872.2	38357.6	38578.9
	$Y_G=S_G+C_G$	39622.9	32428.9	31462.9	31803.2	33457.8	24592.4	19009.1	21221.1	18056.0	9468.5	7261.5
	$c_G=C_G/Y_G$	0.7679	0.9567	1.0302	1.0410	1.0207	1.4313	1.9143	1.7423	2.0975	4.0511	5.3128
	$L_{EV(G)}=(I_G-S_G)/S_G$	0.4479	2.1296	3.4040	4.0836	3.8715	-4.2401	-2.3008	-2.1746	-1.7172	-1.3755	-1.2571
	$(S_G-I_G)/Y_G$	(0.3368)	(0.6167)	(0.7517)	(0.6986)	(0.5698)	(1.1815)	(1.8078)	(1.3877)	(1.7433)	(4.0705)	(5.3202)
using W_G=W-W_{PRI}	$\rho/r=C_G/W_G$	0.900	0.962	1.128	1.102	1.084	44.225	1.661	1.679	2.093	3.769	5.704
	$W_G=W-W_{PRI}$	33824.9	32241.8	28735.6	30039.3	31494.6	795.9	21903.3	22017.3	18093.2	10177.3	6763.8
	W_G/Y_G	0.8537	0.9942	0.9133	0.9445	0.9413	0.0324	1.1523	1.0375	1.0021	1.0749	0.9315
	$s_G/alpha_G$	1.5859	7.5126	-0.3479	-0.7398	-0.3530	-0.4457	6.0051	19.7846	532.1199	40.7569	-62.9200
Wages in GDP	$W_{Gbefore\ Pen.}$	14596.2	14873.8	15101.1	15236.7	15425.7	15243.0	15064.6	15025.5	14862.6	14518.8	14313.0
Social contri., receivable	Total pensio	3222.7	3239.9	3513.5	3481.1	3643.9	3658.9	3646.0	3656.2	3759.7	3824.0	3763.2
	$W_{actual(G)}$	17819.0	18113.6	18614.6	18717.8	19069.6	18901.8	18710.5	18681.7	18622.3	18342.8	18076.2
	$W_{actual(G)}/W_G$	0.5268	0.5618	0.6478	0.6231	0.6055	23.7497	0.8542	0.8485	1.0292	1.8023	2.6725
Social costs/profit Π_G	Π_G	5798.0	187.1	2727.3	1763.9	1963.2	23796.5	-2894.2	-796.2	-37.2	-708.8	497.7
	$O_{SURP(G)}$	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	$O_{SURP(G)}/\Pi_G$	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Balance sheet												
G sector Total,p.415	$K_{G(incl.inv.)}$	259159	273097	283320	298510	312295	316446	321027	327771	328429	328357	330834
less inventories	Inv.	5680.8	5612.3	5532.3	5507.8	5281.5	5102.1	5059.0	4956.9	4529.3	4394.2	4351.2
Produced fixed assets	K_G	253478	267484	277788	293002	307014	311344	315968	322814	323900	323962	326483
ΔK for G (incl.land) from stock		----	14006.0	10303.8	15214.4	14011.1	4330.4	4624.0	6846.4	1085.2	62.8	2520.5
By endogenous growth	$beta_G$	----	20.3995	3.2667	0.1505	(5.1049)	1.43	42.64	(19.85)	20.50	58.91	16.41
	$beta^*_G$	----	0.8944	0.9046	0.9051	0.9012	0.9972	0.9297	0.9194	0.9311	0.9562	0.9755
	$delta_G$	----	0.0249	0.0689	0.0352	(0.0019)	0.8922	(0.2317)	(0.2490)	(0.2372)	(0.3760)	(0.1014)

Data A1 (*Private sector*) Basic data for the Two-Sector model: Private versus Public (Open S-I Approach)

Data A 1 (Private sector) Basic data for the Two-Sector model: Private versus Public (**Open S-I** Appraoch) **14-Jul-05**

Private sector		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
Actual (incl.**pens.**) C_{PRI}													(S-I)
L_{PRI} in private sector		62911	62934	62999	63550	63994	63350	62965	63053	62347	61587	61579	p.350
The growth rate of L	n_{PRI}	----	0.00037	0.00103	0.00875	0.00699	-0.01006	-0.00608	0.00140	-0.01120	-0.01219	-0.00013	
	$w_{PRI}=W_{PRI}/L_{PRI}$	5.100	5.229	5.341	5.442	5.429	5.536	5.561	5.573	5.577	5.637	5.692	(4.1), p.19
	$(S\text{-}I)_{PRI}$	27423	32549	33671	31115	32397	45460	50721	45802	44866	54016	54283	**p.357**
Capital ransfers, net	$K_{trans,net(PRI)}$	(143)	121	540	1608	99	27378	3115	3954	1476	2087	(1647)	G(付6) P.230
To obtain domestic saving:	$(S\text{-}I)_{adj(PRI)}$	**27566**	**32428**	**33131**	**29507**	**32298**	**18082**	**47606**	**41849**	**43390**	**51929**	**55930**	(6.1), p.10
Gross fixed capital forma	Igross(PRI)	108578.3	107969.6	108124.6	116504.1	116510.7	107019.9	105090.7	109343.1	102150.3	96416.0	99208.8	(3.1), p.8-9
Consumption of fixed cap	Dep(PRI)	77231.8	78749.4	80482.1	83581.3	84555.1	85537.3	84323.6	86330.6	86274.8	84559.1	88942.0	(3.2), p.8-9
Changes in inventories	Διvϖ(ΠRI)	-3114.3	300.1	2050.8	2504.1	3278.0	-772.4	-1755.9	781.0	-1445.0	23.0	256.1	(3.3), p.8-9
Purchases of land, net	$I_{land(PRI)}$	-6399.1	-5423.1	-6065.9	-5358.4	-4410.9	-4886.2	-4304.0	-4076.5	-3620.5	-3163.1	-2855.0	国全体はゼロ
Net produced assets	**$I_{PRI(NET)}$**	31346.5	29220.2	27642.5	32922.8	31955.6	21482.6	20767.1	23012.5	15875.5	11856.9	10266.8	
	Inet/Igross	0.2887	0.2706	0.2557	0.2826	0.2743	0.2007	0.1976	0.2105	0.1554	0.1230	0.1035	
	$S_{PRI}=(S_{PRI}-I_{PRI})-I_{PRI}$	58912.5	61648.2	60773.3	62429.6	64253.6	39564.8	68373.1	64861.0	59265.8	63785.9	66196.4	
Actual (incl.**pens.**) C_{PRI}	C_{PRI}	305441.5	312979.6	319638.9	329252.7	330721.7	332089.8	331914.8	333849.6	334142.7	333278.3	332970.6	p.50-51, p.236
	$Y_{PRI}=S_{PRI}+C_{PRI}$	364354.0	374627.8	380412.2	391682.3	394975.3	371654.6	400287.9	398710.6	393408.5	397064.2	399167.0	
	$c_{PRI}=C_{PRI}/Y_{PRI}$	0.8383	0.8354	0.8402	0.8406	0.8373	0.8935	0.8292	0.8373	0.8494	0.8394	0.8342	
	$L_{EV(PRI)}=(I_{PRI}-S_{CORP})/S_{CORP}$	1.4264	0.8411	0.5456	0.2975	0.2960	-0.0182	-0.0662	-0.2177	-0.4751	-0.6170	-0.7319	
	$(S_{PRI}-I_{PRI})/Y_{PRI}$	0.0757	0.0866	0.0871	0.0753	0.0818	0.0487	0.1189	0.1050	0.1103	0.1308	0.1401	
the utility coefficient	$\rho/r=$	0.952	0.951	0.9500	0.9520	0.9520	0.9470	0.9480	**0.9500**	0.9610	0.9600	0.9500	
	$W_{PRI}=C_{PRI}/(\rho/r)$	320841.9	329105.8	336462.0	345853.7	347396.7	350675.6	350121.1	351420.6	347703.1	347164.9	350495.4	
	W_{PRI}/Y_{PRI}	0.8806	0.8785	0.8845	0.8830	0.8795	0.9436	0.8747	0.8814	0.8838	0.8743	0.8781	
	$s_{PRI}/alpha_{PRI}$	1.3539	1.3543	1.3828	1.3622	1.3505	1.8859	1.3629	1.3716	1.2967	1.2783	1.3601	
Wages in GDP	$W_{PRIbefore\ Pen}$	246249.6	250687.1	255122.8	260014.7	266007.3	261479.0	257965.6	260418.0	257400.4	251524.9	249047.3	(1.1), p.6
Social contri., receivable	Total pensio	54369.5	54605.4	59358.3	59404.1	62836.2	62764.3	62433.6	63368.6	65112.0	66247.1	65480.9	p.16, see below
	$W_{actual(PRI)}$	300619.0	305292.6	314481.1	319418.8	328843.5	324243.4	320399.3	323786.6	322512.4	317772.0	314528.2	
	$W_{actual(PRI)}$ W_{PRI}	0.9370	0.9276	0.9347	0.9236	0.9466	0.9246	0.9151	0.9214	0.9276	0.9153	0.8974	
Social costs/profit Π_{PRI}	Π_{PRI}	43512.1	45522.0	43950.2	45828.6	47578.6	20979.0	50166.8	47290.0	45705.4	49899.3	48671.6	
Operating surplus in GDP	**$O_{SURP(PRI)}$**	104202.7	104740.0	99856.7	105428.2	102209.8	94980.7	93970.1	96672.4	87569.5	88033.5	96512.5	urplus in GDP
	$O_{SURP(PRI)}/\Pi_{\Pi RI}$	2.3948	2.3009	2.2720	2.3005	2.1482	4.5274	1.8732	2.0442	1.9160	1.7642	1.9829	
Pri.sector Total P.A.	$K_{PRI(incl.inv.)}$	910110	917693	918273	941726	965988	953151	943245	948240	932235	920145	920636	p.372
less inventories	Inv.	93526	90769	90696	93152	94547	89617	85734	84464	79884	76666	75109	p.372
Produced fixed assets	***K_{PRI}***	816584	826924	827577	848574	871442	863534	857511	863776	852351	843479	845527	
ΔK for PRI (incl.land) from stock	----		10340.0	653.1	20996.3	22868.2	-7908.0	-6022.4	6264.3	-11424.2	-8872.6	2048.5	
By endogenous growth	*$beta_{PRI}$*	----	(2.2445)	(0.9381)	(1.2211)	1.1209	10.9783	(14.7504)	2.0508	1.4664	(6.0173)	(0.9835)	
	$beta^*_{PRI}$	----	0.7183	0.7201	0.7771	0.7704	0.5914	0.6357	0.7263	0.5324	0.4508	0.7038	
	$delta_{PRI}$	----	0.1361	0.1604	0.5292	0.4513	(0.3456)	(0.1560)	0.1966	(0.4082)	(0.5242)	0.1070	