



Chapter 4

Data and Results

4.1 Base Year Data

The study chose 1995 as the base year data. Each items are following the items of “Statistical Year Book of China” and the China Total Health Expenditure Reports. The growth rates of the variables concerned were calculated from the average of their values during 5 years, to be used as the long term average model (Table 4.1.1).

Table 4.1.1 Variable List of data to be collected for the base year (1995):

	unit	1990	1991	1992	1993	1994	1995
Population	billion	1.14	1.15	1.17	1.18	1.19	1.21
Value added by sector							
1. Primary Industry	billion	501.70	528.86	580.00	688.21	945.72	1199.30
2. Secondary Industry	billion	771.74	910.22	1169.95	1642.85	2237.22	2853.79
3. Tertiary Industry	billion	581.35	722.70	913.86	1132.38	1493.00	1794.72
Utilization of sources							
Private consumption	billion	921.83	1033.33	1273.30	1645.13	2160.28	2736.78
Public consumption	billion	228.14	246.44	301.01	394.83	528.38	660.80
Gross fixed capital gross formation	billion	652.89	836.61	1020.24	1298.79	1889.08	2350.82
Exports of Goods and Services	billion	309.36	385.27	513.59	723.30	1094.20	1204.22
Imports of Goods and Services	billion	257.43	339.87	444.33	598.62	996.01	1104.81
Utilization (as a % of GDP)							

	unit	1990	1991	1992	1993	1994	1995
Private consumption	%	49.7	47.8	47.8	47.5	46.2	46.8
Public consumption	%	12.3	11.4	11.3	11.4	11.3	11.3
Gross fixed capital gross formation	%	35.2	38.7	38.3	37.5	40.4	40.2
Exports of Goods and Services	%	16.7	17.8	19.3	20.9	23.4	20.6
Imports of Goods and Services	%	13.9	15.7	16.7	17.3	21.3	18.9
International transactions							
Net factor income	billion	5.05	4.47	1.38	-7.39	-8.94	-98.32
Net current transfers	billion	1.31	4.42	6.38	6.76	10.20	9.94
Net capital inflow	billion	15.56	42.73	-1.38	135.20	298.90	365.61
Price indices							
Consumer price index	1978=100	165.20	170.80	181.70	208.40	258.62	287.84
GDP deflator	1978=100	281.70	307.60	351.40	398.80	449.30	496.50
Exchange rate							

	unit	1990	1991	1992	1993	1994	1995
RMB per US\$	Yuan/US\$	4.78	5.32	5.51	5.76	8.62	8.35
Tax rates							
Industrial and Commercial	%	10.22	9.37	8.55	9.22	8.37	7.85
Agricultural and Animal Husbandry Taxes	%	0.47	0.42	0.34	0.36	0.50	0.48
International trade	%	0.86	0.87	0.80	0.74	0.58	0.50
Others	%	3.66	3.18	2.03	1.96	1.52	1.50
Other Government Revenues							
Non-Tax Revenue	billion	49.07	62.07	103.16	83.29	38.42	20.42
Government Expenditure							
Economic Construction	billion	154.62	160.86	182.17	214.37	210.68	227.84
Culture and Education	billion	73.76	84.97	97.01	117.83	127.82	146.71
National Defense	billion	29.03	33.03	37.79	42.58	55.07	63.67
Administration	billion	41.46	41.40	46.34	63.43	72.94	87.27

	unit	1990	1991	1992	1993	1994	1995
<i>Capital Expenditure</i>							
Base Construction Expenditure(Within Budget)	billion	0.77	0.73	0.77	1.15	1.24	1.16
Health Expenditure by other Ministries							
<i>Current Expenditure</i>	billion	35.40	42.02	49.28	59.00	71.67	83.90
Recurrent budget for Traditional Medicine System	billion	0.66	0.73	0.83	0.92	1.21	1.37
Recurrent budget for Family Planning	billion	1.55	1.61	1.94	2.29	2.65	3.19
High Education for Medical training	billion	0.61	0.71	0.75	0.93	1.24	1.28
Government Employee Insurance Scheme	billion	4.43	5.04	5.81	7.63	9.20	11.23
Enterprises Health Expenditure (state-owned)	billion	20.35	24.71	29.45	35.52	43.06	49.76
Collective-owned units health expenditure	billion	2.40	2.70	3.06	3.46	4.06	5.01
Organization and Institutions Health expenditure	billion	3.26	4.27	5.08	5.81	7.67	9.44
Other Government department Health Expenditure(special)	billion	2.14	2.25	2.37	2.45	2.59	2.62
<i>Capital Expenditure</i>							
Base Construction Expenditure(Without Budget)	billion	0.62	0.49	0.71	1.07	1.41	1.86

	unit	1990	1991	1992	1993	1994	1995
Private Health Expenditure							
Private Practitioners Expenditure ³	billion	0.00	0.02	0.08	0.13	0.17	0.16
Urban Households Expenditure (out of pocket)	billion	8.00	10.33	14.62	21.06	31.22	44.12
Rural Households Expenditure (out of pocket)	billion	19.54	24.19	30.26	38.42	49.47	69.38

Notes:

Recurrent budget for Health System ¹ : mainly for preventive institutions and staff salary of public hospital, etc. .

Health Administration expenditure ² : for health system supervision.

Sources: MOPH, China National Health Economics Institute, Statistical Yearbook of China (1994, 1995, 1998)

4.2 Results: Tables and Figures (4.2.1 --4.2.5)

Table 4.2.1 Long Term Average Economic Growth Rate

Figure 4.2.1a The Trends of Three Growth Rates

Figure 4.2.1b Government Effort for Health

Figure 4.2.1c Structure by sectors

Figure 4.2.1d Three Sectors' Growth Rate

Table 4.2.2 Low Economic Growth Scenario

Figure 4.2.2a The Trends of Three Growth Rates

Figure 4.2.2b Government Effort for Health

Figure 4.2.2c Structure by sectors

Figure 4.2.2d Three Sectors' Growth Rate

Table 4.2.3 Long Term Average Growth with High GHE Scenario

Figure 4.2.3a The Trends of Three Growth Rates

Figure 4.2.3b Government Effort for Health

Figure 4.2.3c Structure by sectors

Figure 4.2.3d Three Sectors' Growth Rate

Table 4.2.4 Long Term Average Growth with High PHE scenario

Figure 4.2.4a The Trends of Three Growth Rates

Figure 4.2.4b Government Effort for Health

Figure 4.2.4c Structure by sectors

Figure 4.2.4d Three Sectors' Growth Rate

Table 4.2.5 High CPI and High PHE Scenario

Figure 4.2.5a The Trends of Three Growth Rate

Figure 4.2.5b Government Effort for Health

Figure 4.2.5c Structure by sectors

Figure 4.2.5d Three Sectors' Growth Rate

4.3 Estimation of the result:

By using this Model, health expenditure is estimated at both current prices and constant prices. The total health expenditure are divided into three components, MOH expenditure, health expenditure of others Ministries, and private health expenditure. The first two components are combined to total government expenditure. According to China available data and combine with China economic policy, run the model, we get the result table: long term average economic growth, we treat it as the base case.

4.3.1 Base case: long term average growth rate

Base case (Table 4.2.1): long term average growth, it refers to the case when the economy is in line with the government economic policy, and it has performed in past 6 years. Under this normal long term situation, the macroeconomic environment is that: total government revenue increase year by year, meanwhile government expenditure increase higher than revenue increase, so, it is expected that there tends to be a wider government budget deficit, the government deficit as a percentage of GDP is higher after the year of 2001, at 2005, it will be -4.4%. GDP is increasing, at 2005, it will be 27700 billions. The population of China increase with a decrease growth rate.

Total health expenditure as a percentage of GDP(FP) can likely achieve 5.1% at the year 2000, and keeps increasing steadily. (see Figure 4.2.1a). The growth rate of CTHE is higher than the Growth rate of GDP, keeping in line with the growth rate of total expenditure per capita. From the government effort for health(see Fig 4.2.1b), MOH expenditure as percentage of total government expenditure and government health expenditure as a percentage of total government expenditure are decreasing while the total expenditure as a percentage of GDP is increasing. The real growth rate of government health expenditure, at the year 1999 to 2001, is at the peak , after that, keep a lower growth rate. (Table 4.2a).

Table 4.2.a The Trends of CTHE:

	1995	1997	1999	2001	2003	2005
CTHE / GDP (%)	3.9	4.5	4.9	5.2	5.4	5.6
MOH / GE (%)	3.9	3.8	3.4	3.1	3.0	2.9
GHE / GE (%)	16.4	16.3	14.6	13.9	13.4	12.9
Growth rate of GHE		11.8	13.7	13.2	7.7	7.8

By analyzing the structure of health expenditure, the reason can be explained. With the share of MOH and other ministries expenditure in CTHE decreases, the share of private sector is increasing(see Figure 4.2.1c). But from 1996, the central government set the target for health system that, by the end of 2000, the CTHE in GDP should achieve the

target of 5%. In 9th National five years plan, the government will make strenuous efforts to infrastructure construction, push the economic develop quickly. From 1999, in all cities of China, will increase the health insurance coverage, so under all above opportunity, health system will get more development. Government health expenditure will increase. So that, the growth rate of MOH and other ministries expenditure will decease slowly than before, and private expenditure growth rate will trend gently to decrease(see Figure 4.2.1d). That is a good sound for China.

Table 4.2.1 Long Term Average Growth Rate: (Base Case)

HEALTH EXPENDITURE CURRENT PRICES

MACROECONOMIC ENVIRONMENT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total government revenues	624.22	737.91	865.86	1086.21	1425.94	1856.02	1954.98	2313.46	2700.46	3147.43	3668.82
Total government expenditure	682.37	791.99	919.85	1162.66	1508.23	1958.58	2468.57	2942.30	3484.68	4130.71	4901.00
Government deficit(-)/surplus(+)	-58.15	-54.08	-53.99	-76.45	-82.29	-102.56	-513.59	-628.84	-784.22	-983.28	-1232.18
GDP at factor prices (FP)	5847.81	6782.52	7479.32	8609.04	10303.84	12372.59	14860.23	17400.68	20378.59	23757.88	27700.96
Gov. deficit as a % of GDP (FP)	<i>-1.0%</i>	<i>-0.8%</i>	<i>-0.7%</i>	<i>-0.9%</i>	<i>-0.8%</i>	<i>-0.8%</i>	<i>-3.5%</i>	<i>-3.6%</i>	<i>-3.8%</i>	<i>-4.1%</i>	<i>-4.4%</i>
Population (in billions)	1.21	1.22	1.23	1.24	1.25	1.27	1.28	1.29	1.30	1.32	1.33
MOH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.85	33.02	38.99	48.60	59.89	72.87	85.30	99.85	116.88	136.83
Capital MOH expenditure	1.16	1.31	1.48	1.73	2.19	2.77	3.50	4.16	4.94	5.87	6.97
Total MOH expenditure	26.37	30.16	34.51	40.72	50.79	62.66	76.37	89.46	104.79	122.75	143.80
Total MOH exp/Tot gov exp	<i>3.9%</i>	<i>3.8%</i>	<i>3.8%</i>	<i>3.5%</i>	<i>3.4%</i>	<i>3.2%</i>	<i>3.1%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>2.9%</i>
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure :	225.80	276.09	334.09	404.83	504.36	628.21	778.16	923.19	1093.82	1297.42	1540.62
...of which Other Ministries	85.77	99.92	115.00	135.54	169.62	212.39	266.11	311.20	361.43	419.80	487.67
Private sector	113.66	146.01	184.59	228.57	283.95	353.16	435.68	522.53	627.61	754.86	909.15
Total expenditure per capita	187.39	226.79	271.68	325.98	402.18	496.09	608.53	714.94	838.86	985.34	1158.69
Total expenditure as a % of GDP (FP)	<i>3.9%</i>	<i>4.1%</i>	<i>4.5%</i>	<i>4.7%</i>	<i>4.9%</i>	<i>5.1%</i>	<i>5.2%</i>	<i>5.3%</i>	<i>5.4%</i>	<i>5.5%</i>	<i>5.6%</i>
Tot.gov.health exp as % of Tot gov exp	<i>16.4%</i>	<i>16.4%</i>	<i>16.3%</i>	<i>15.2%</i>	<i>14.6%</i>	<i>14.0%</i>	<i>13.9%</i>	<i>13.6%</i>	<i>13.4%</i>	<i>13.1%</i>	<i>12.9%</i>

Table 4.2.1 Long Term Average Growth Rate: (continue)

HEALTH EXPENDITURE CONSTANT PRICES

MINISTRY HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.06	31.25	34.81	39.44	44.19	48.87	52.97	57.41	62.23	67.46
Capital MOH expenditure	1.16	1.28	1.40	1.54	1.78	2.04	2.35	2.58	2.84	3.13	3.44
Total MOH expenditure	26.37	29.34	32.65	36.35	41.22	46.23	51.22	55.55	60.26	65.36	70.89
Growth rate of total MOH expenditure	-	<i>11.3%</i>	<i>11.3%</i>	<i>11.3%</i>	<i>13.4%</i>	<i>12.2%</i>	<i>10.8%</i>	<i>8.5%</i>	<i>8.5%</i>	<i>8.5%</i>	<i>8.5%</i>
MINISTRY HEALTH EXP. PER CAP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH exp per capita	21.88	24.10	26.55	29.27	32.87	36.51	40.06	43.02	46.21	49.64	53.32
MOH exp. per capita in \$	2.62	2.89	3.18	3.51	3.94	4.37	4.80	5.15	5.53	5.94	6.39
Growth rate of MOH exp. per capita	-	<i>10.1%</i>	<i>10.2%</i>	<i>10.2%</i>	<i>12.3%</i>	<i>11.1%</i>	<i>9.7%</i>	<i>7.4%</i>	<i>7.4%</i>	<i>7.4%</i>	<i>7.4%</i>
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure :	225.80	268.57	316.14	361.40	409.31	463.48	521.91	573.32	628.97	690.78	759.50
....of which Other Ministries	85.77	97.20	108.82	121.00	137.66	156.70	178.48	193.26	207.83	223.51	240.41
Growth rate of other ministries expenditure		<i>13.3%</i>	<i>12.0%</i>	<i>11.2%</i>	<i>13.8%</i>	<i>13.8%</i>	<i>13.9%</i>	<i>8.3%</i>	<i>7.5%</i>	<i>7.5%</i>	<i>7.6%</i>
Private sector	113.66	142.04	174.67	204.05	230.44	260.55	292.21	324.50	360.89	401.91	448.20
Growth rate of PHE		<i>25.0%</i>	<i>23.0%</i>	<i>16.8%</i>	<i>12.9%</i>	<i>13.1%</i>	<i>12.2%</i>	<i>11.1%</i>	<i>11.2%</i>	<i>11.4%</i>	<i>11.5%</i>
Growth rate of total expenditure	-	<i>18.9%</i>	<i>17.7%</i>	<i>14.3%</i>	<i>13.3%</i>	<i>13.2%</i>	<i>12.6%</i>	<i>9.8%</i>	<i>9.7%</i>	<i>9.8%</i>	<i>9.9%</i>
Total expenditure per capita	187.39	220.61	257.09	291.01	326.39	366.00	408.14	443.99	482.36	524.62	571.22
Growth rate of total exp. per capita	-	<i>17.7%</i>	<i>16.5%</i>	<i>13.2%</i>	<i>12.2%</i>	<i>12.1%</i>	<i>11.5%</i>	<i>8.8%</i>	<i>8.6%</i>	<i>8.8%</i>	<i>8.9%</i>

Table 4.2.1 Long Term Average Growth Rate: (continue)

Economy	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDP (FP)	5847.81	6213.94	6319.01	6672.91	7195.10	7783.50	8422.03	9047.55	9721.03	10397.27	11121.93
Growth rate of GDP	-	6.3%	1.7%	5.6%	7.8%	8.2%	8.2%	7.4%	7.4%	7.0%	7.0%
GDP per capita	4852.95	5104.23	5138.63	5373.22	5737.48	6146.45	6586.14	7006.63	7455.13	7896.36	8364.74
Growth rate of GDP per capita	-	5.2%	0.7%	4.6%	6.8%	7.1%	7.2%	6.4%	6.4%	5.9%	5.9%

STRUCTURE OF HEALTH EXPENDITURE

Structure by sector (in %)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH	11.7%	10.9%	10.3%	10.1%	10.1%	10.0%	9.8%	9.7%	9.6%	9.5%	9.3%
Other Ministries	38.0%	36.2%	34.4%	33.5%	33.6%	33.8%	34.2%	33.7%	33.0%	32.4%	31.7%
Private sector	50.3%	52.9%	55.3%	56.5%	56.3%	56.2%	56.0%	56.6%	57.4%	58.2%	59.0%

GOVERNMENT EFFORT FOR HEALTH

	1995	1997	1999	2001	2003	2005
MOH exp as % of gov. exp.	3.9%	3.8%	3.4%	3.1%	3.0%	2.9%
Gov. health exp as a % of gov. exp.	16.4%	16.3%	14.6%	13.9%	13.4%	12.9%
Real growth rate of gov. health exp.		11.8%	13.7%	13.2%	7.7%	7.8%

Fig 4.2.1a The Trends of Three Growth Rates

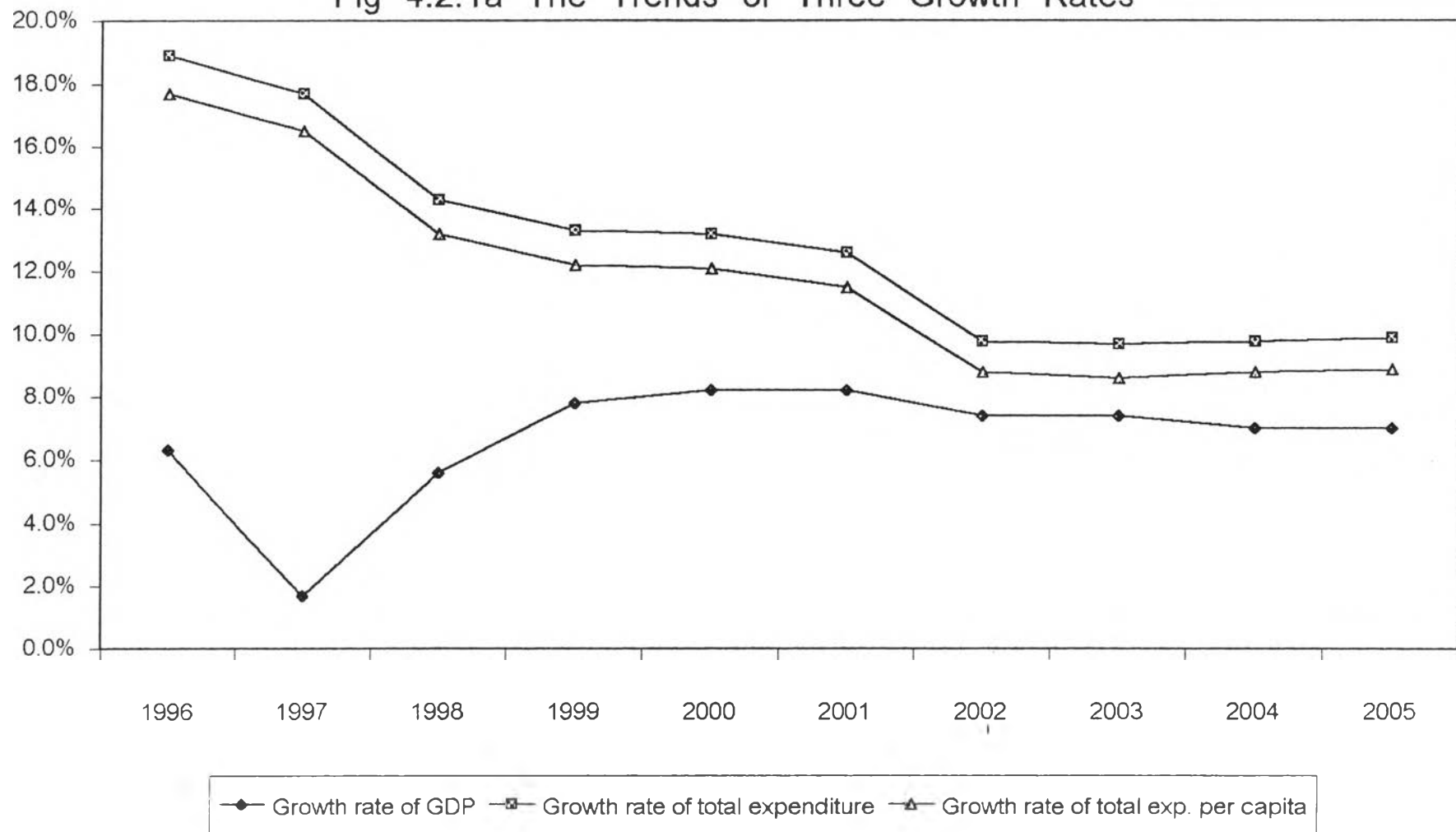
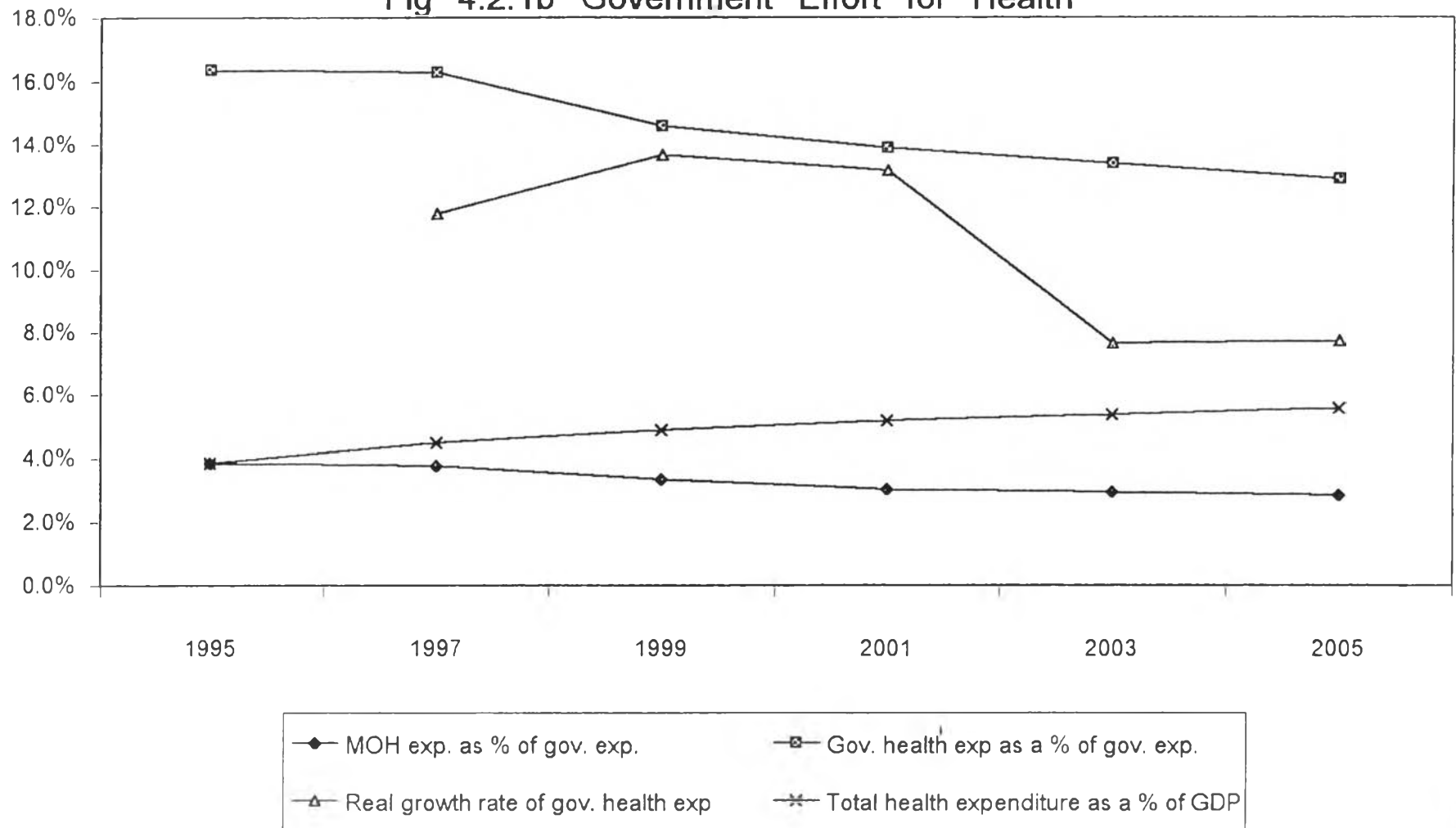


Fig 4.2.1b Government Effort for Health



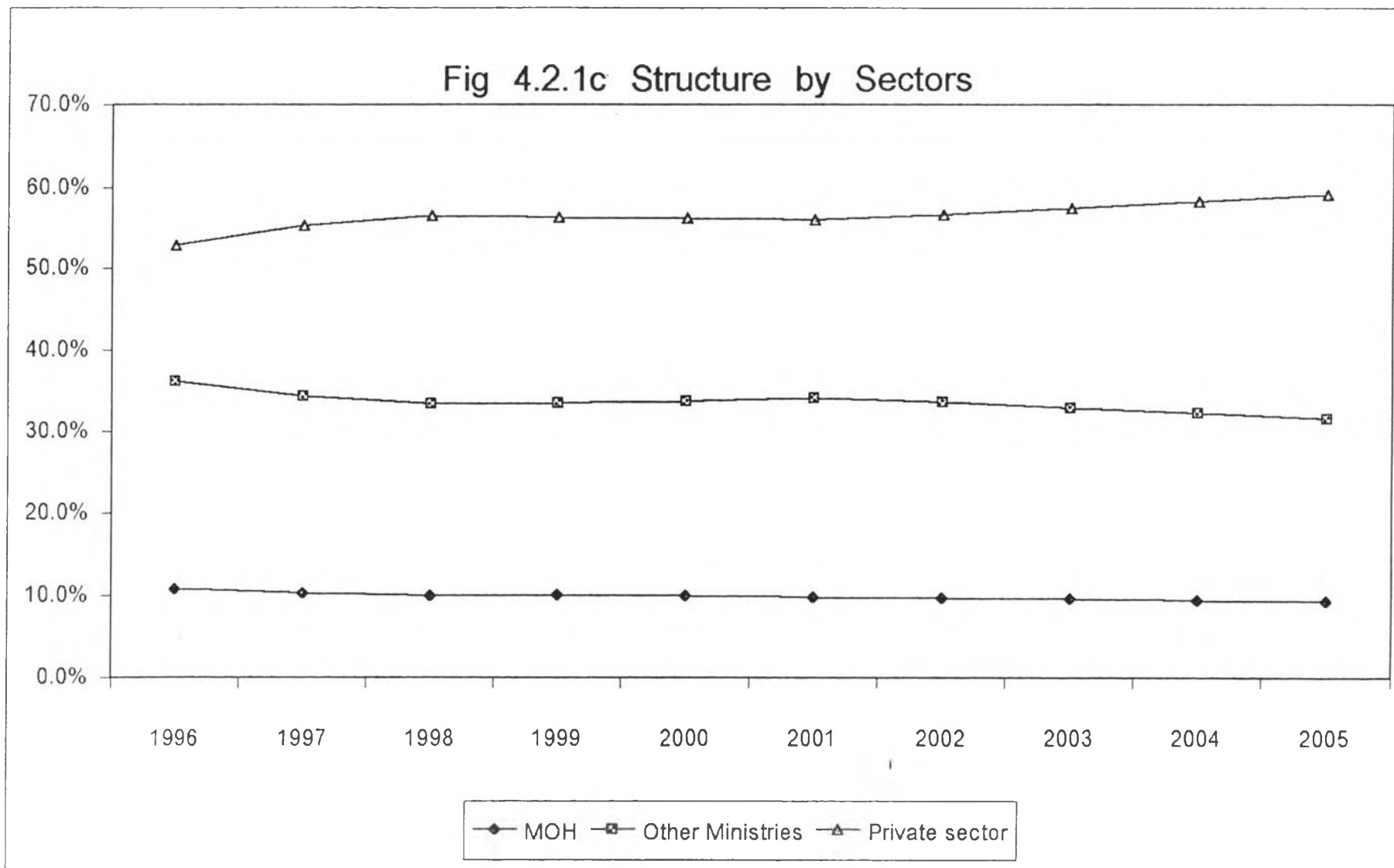
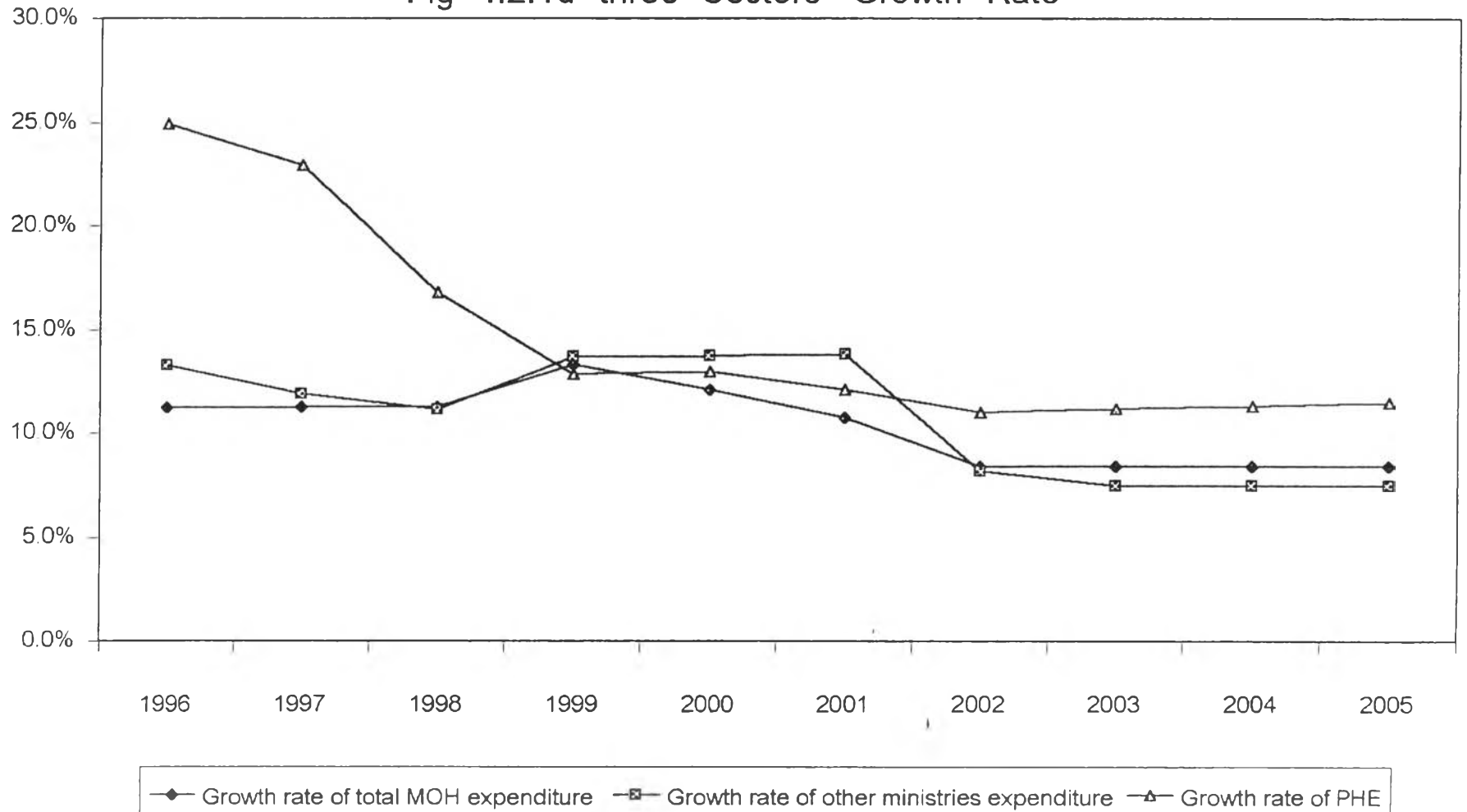


Fig 4.2.1d three Sectors' Growth Rate



4.3.2 Scenario 1: low economic growth rate scenario

Normally, when we deal with the future, there may possibly be some sensitive factors changed, especially those exogenous determined, such as GDP growth rate, government policy and therefore government expenditure. So scenarios will be set as an assumption on future economic circumstance. Due to uncertainties of the future as discussed, the estimation was used under 4 scenarios to analyze the health expenditure structures. Those scenarios are used to represent the conditions of macroeconomic variable movements & health expenditure variables. Two scenarios of macroeconomic variable movements were: the low economic growth rate scenario, and the high CPI and high PHE scenario. The other two scenarios for health expenditure variables were assumed, that is: the high government health expenditure growth and the high private health expenditure growth.

Any low / high growth scenarios were treated to have the growth rates of $\pm 20\%$ of their normal conditions.

Scenario 1 (Table 4.2.2), Low economic growth. It is assumed that government cannot be successful to push the economic development as the target, (Fig 4.2.2a). The GDP growth rate keeps a lower level, from the government effort for health, (Fig 4.2.2b), MOH expenditure as percentage of government expenditure, government health expenditure as a percentage

of government expenditure, the real growth rate of government health expenditure, the structure of health expenditure and three sectors growth rate are still the same as in the base case, (Fig 4.2.2c & d). This shows a limitation of the model. Because, along with the macroeconomic worsening, health expenditure, especially on the government health expenditure should be affected by it, normally it should be lower than the base case, but in this case, even though the economic developing is slowly, but the health expenditure still as the same with the base case. The major reasons are that these unchanged variables were treated exogenous to the system in this model. This may reflect a partial comparative static type rather than a general equilibrium type of model.

Table 4.2.2 Low Economic Growth Rate Scenario:

HEALTH EXPENDITURE CURRENT PRICES

MACROECONOMIC ENVIRONMENT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total government revenues	624.22	737.91	865.86	1086.21	1405.83	1802.83	1871.15	2184.44	2515.36	2894.40	3330.82
Total government expenditure	682.37	791.99	919.85	1162.66	1508.23	1958.58	2468.57	2942.30	3484.68	4130.71	4901.00
Government deficit(-)/surplus(+)	-58.15	-54.08	-53.99	-76.45	-102.40	-155.75	-597.42	-757.87	-969.32	-1236.31	-1570.17
GDP at factor prices (FP)	5847.81	6782.52	7479.32	8609.04	10154.28	12008.30	14203.08	16400.04	18938.78	21789.68	25071.82
Gov. deficit as a % of GDP (FP)	<i>-1.0%</i>	<i>-0.8%</i>	<i>-0.7%</i>	<i>-0.9%</i>	<i>-1.0%</i>	<i>-1.3%</i>	<i>-4.2%</i>	<i>-4.6%</i>	<i>-5.1%</i>	<i>-5.7%</i>	<i>-6.3%</i>
Population (in billions)	1.21	1.22	1.23	1.24	1.25	1.27	1.28	1.29	1.30	1.32	1.33
MOH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.85	33.02	38.99	48.60	59.89	72.87	85.30	99.85	116.88	136.83
Capital MOH expenditure	1.16	1.31	1.48	1.73	2.19	2.77	3.50	4.16	4.94	5.87	6.97
Total MOH expenditure	26.37	30.16	34.51	40.72	50.79	62.66	76.37	89.46	104.79	122.75	143.80
Total MOH exp/Tot gov exp	<i>3.9%</i>	<i>3.8%</i>	<i>3.8%</i>	<i>3.5%</i>	<i>3.4%</i>	<i>3.2%</i>	<i>3.1%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>2.9%</i>
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure :	225.80	276.09	334.09	404.83	504.36	628.21	778.16	923.19	1093.82	1297.42	1540.62
...of which Other Ministries	85.77	99.92	115.00	135.54	169.62	212.39	266.11	311.20	361.43	419.80	487.67
Private sector	113.66	146.01	184.59	228.57	283.95	353.16	435.68	522.53	627.61	754.86	909.15
Total expenditure per capita	187.39	226.79	271.68	325.98	402.18	496.09	608.53	714.94	838.86	985.34	1158.69
Total expenditure as a % of GDP (FP)	<i>3.9%</i>	<i>4.1%</i>	<i>4.5%</i>	<i>4.7%</i>	<i>5.0%</i>	<i>5.2%</i>	<i>5.5%</i>	<i>5.6%</i>	<i>5.8%</i>	<i>6.0%</i>	<i>6.1%</i>
Tot.gov.health exp as % of Tot gov exp	<i>16.4%</i>	<i>16.4%</i>	<i>16.3%</i>	<i>15.2%</i>	<i>14.6%</i>	<i>14.0%</i>	<i>13.9%</i>	<i>13.6%</i>	<i>13.4%</i>	<i>13.1%</i>	<i>12.9%</i>

Table 4.2.2 Low Economic Growth Rate Scenario:(continue)

HEALTH EXPENDITURE CONSTANT PRICES

MINISTRY HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.06	31.25	34.81	39.44	44.19	48.87	52.97	57.41	62.23	67.46
Capital MOH expenditure	1.16	1.28	1.40	1.54	1.78	2.04	2.35	2.58	2.84	3.13	3.44
Total MOH expenditure	26.37	29.34	32.65	36.35	41.22	46.23	51.22	55.55	60.26	65.36	70.89
Growth rate of total MOH expenditure	-	<i>11.3%</i>	<i>11.3%</i>	<i>11.3%</i>	<i>13.4%</i>	<i>12.2%</i>	<i>10.8%</i>	<i>8.5%</i>	<i>8.5%</i>	<i>8.5%</i>	<i>8.5%</i>
MINISTRY HEALTH EXP. PER CAP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH exp per capita	21.88	24.10	26.55	29.27	32.87	36.51	40.06	43.02	46.21	49.64	53.32
MOH exp. per capita in \$	2.62	2.89	3.18	3.51	3.94	4.37	4.80	5.15	5.53	5.94	6.39
Growth rate of MOH exp. per capita	-	<i>10.1%</i>	<i>10.2%</i>	<i>10.2%</i>	<i>12.3%</i>	<i>11.1%</i>	<i>9.7%</i>	<i>7.4%</i>	<i>7.4%</i>	<i>7.4%</i>	<i>7.4%</i>
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure :	225.80	268.57	316.14	361.40	409.31	463.48	521.91	573.32	628.97	690.78	759.50
....of which Other Ministries	85.77	97.20	108.82	121.00	137.66	156.70	178.48	193.26	207.83	223.51	240.41
Growth rate of other ministries expenditure		<i>13.3%</i>	<i>12.0%</i>	<i>11.2%</i>	<i>13.8%</i>	<i>13.8%</i>	<i>13.9%</i>	<i>8.3%</i>	<i>7.5%</i>	<i>7.5%</i>	<i>7.6%</i>
Private sector	113.66	142.04	174.67	204.05	230.44	260.55	292.21	324.50	360.89	401.91	448.20
Growth rate of PHE		<i>25.0%</i>	<i>23.0%</i>	<i>16.8%</i>	<i>12.9%</i>	<i>13.1%</i>	<i>12.2%</i>	<i>11.1%</i>	<i>11.2%</i>	<i>11.4%</i>	<i>11.5%</i>
Growth rate of total expenditure	-	<i>18.9%</i>	<i>17.7%</i>	<i>14.3%</i>	<i>13.3%</i>	<i>13.2%</i>	<i>12.6%</i>	<i>9.8%</i>	<i>9.7%</i>	<i>9.8%</i>	<i>9.9%</i>
Total expenditure per capita	187.39	220.61	257.09	291.01	326.39	366.00	408.14	443.99	482.36	524.62	571.22
Growth rate of total exp. per capita	-	<i>17.7%</i>	<i>16.5%</i>	<i>13.2%</i>	<i>12.2%</i>	<i>12.1%</i>	<i>11.5%</i>	<i>8.8%</i>	<i>8.6%</i>	<i>8.8%</i>	<i>8.9%</i>

Table 4.2.2 Low Economic Growth Rate Scenario:(continue)

Economy	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDP (FP)	5847.81	6213.94	6319.01	6672.91	7090.66	7554.33	8049.59	8527.26	9034.21	9535.92	10066.33
Growth rate of GDP	-	6.3%	1.7%	5.6%	6.3%	6.5%	6.6%	5.9%	5.9%	5.6%	5.6%
GDP per capita	4852.95	5104.23	5138.63	5373.22	5654.20	5965.48	6294.88	6603.71	6928.41	7242.20	7570.83
Growth rate of GDP per capita	-	5.2%	0.7%	4.6%	5.2%	5.5%	5.5%	4.9%	4.9%	4.5%	4.5%

STRUCTURE OF HEALTH EXPENDITURE

Structure by sector (in %)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH	11.7%	10.9%	10.3%	10.1%	10.1%	10.0%	9.8%	9.7%	9.6%	9.5%	9.3%
Other Ministries	38.0%	36.2%	34.4%	33.5%	33.6%	33.8%	34.2%	33.7%	33.0%	32.4%	31.7%
Private sector	50.3%	52.9%	55.3%	56.5%	56.3%	56.2%	56.0%	56.6%	57.4%	58.2%	59.0%

GOVERNMENT EFFORT FOR HEALTH

	1995	1997	1999	2001	2003	2005
MOH exp as % of gov. exp	3.9%	3.8%	3.4%	3.1%	3.0%	2.9%
Gov. health exp as a % of gov. exp.	16.4%	16.3%	14.6%	13.9%	13.4%	12.9%
Real growth rate of gov. health exp		11.8%	13.7%	13.2%	7.7%	7.8%

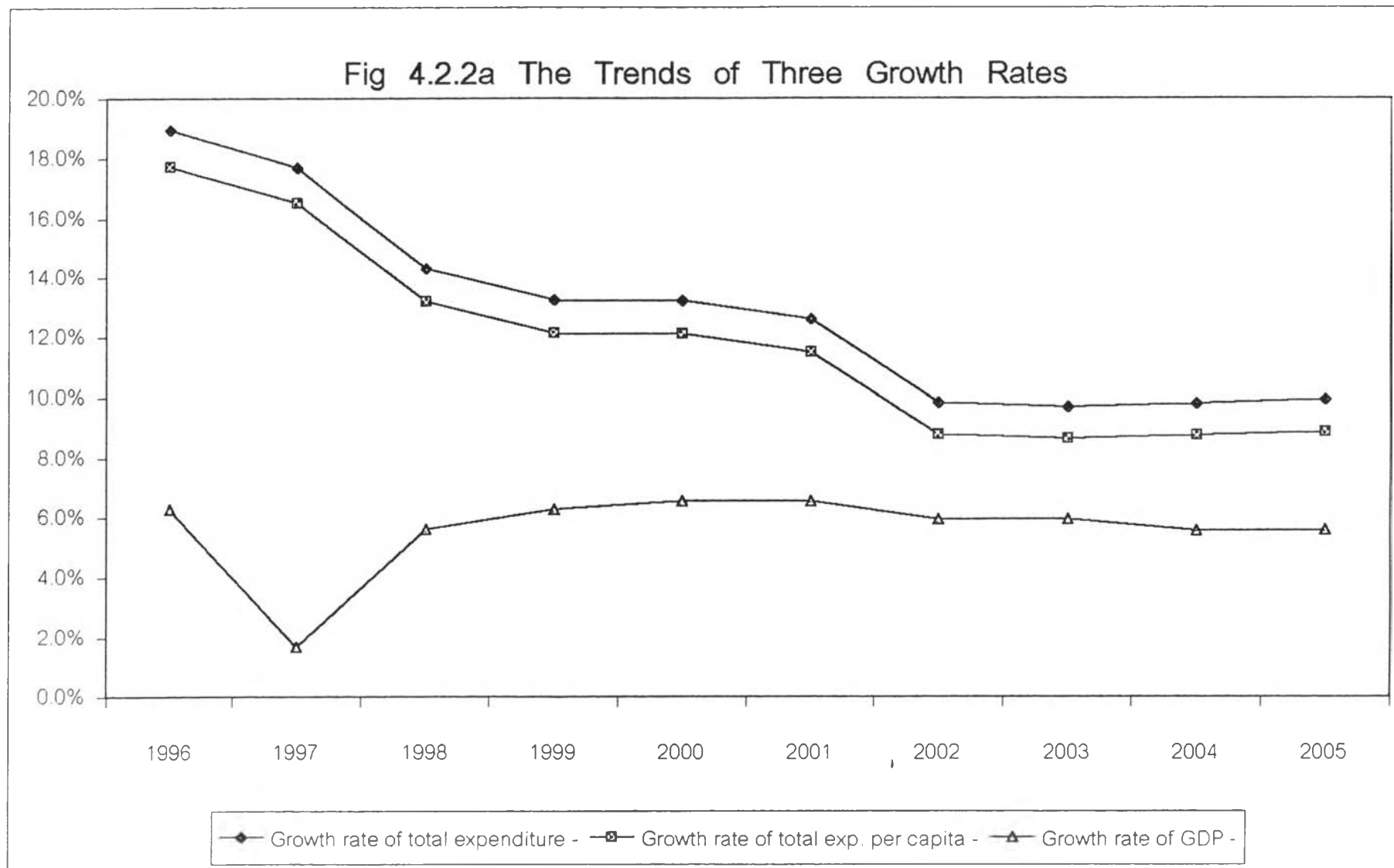
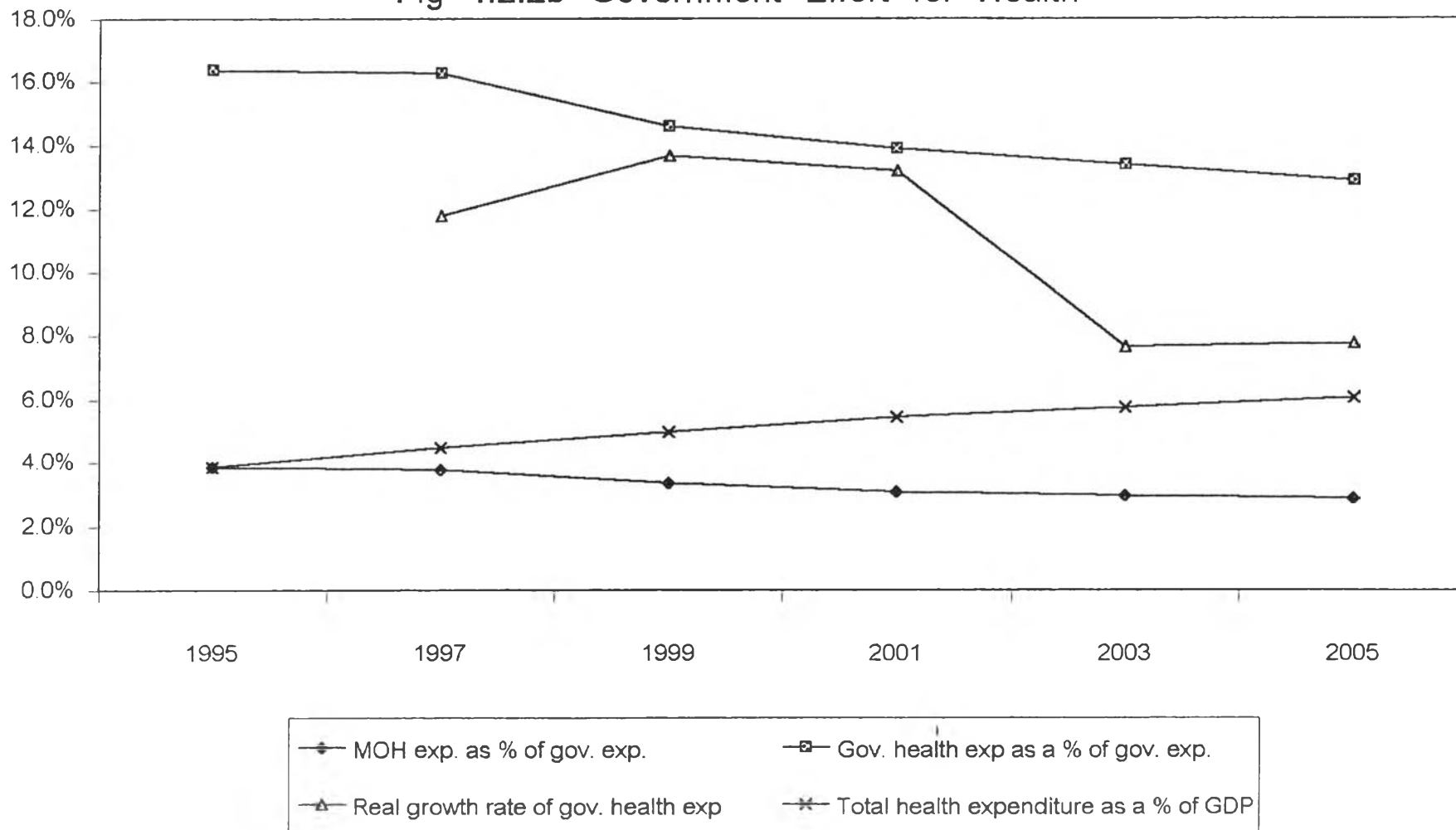
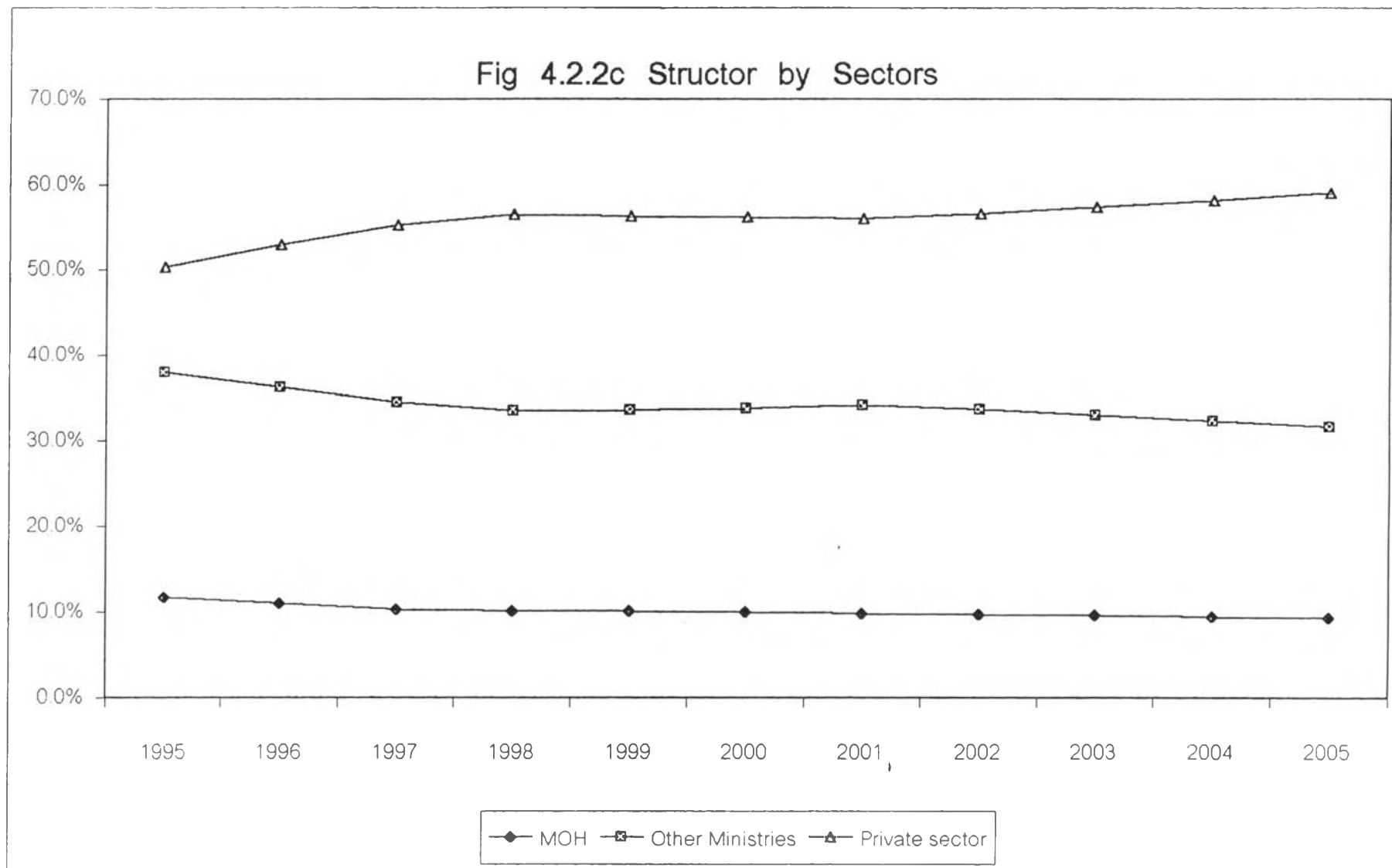


Fig 4.2.2b Government Effort for Health







4.3.3 Scenario 2: long term average growth rate with high government health expenditure scenario

Scenario 2 (Table 4.2.3): the economy are as expected to keep long term average growth rate, meanwhile government health expenditure are kept in a high growth rate, Under this situation, government pay more attention on health system's developing, and want to take more responsibility on health sector, so the GHE keep in line with government expenditure (Fig 4.2.3a & b). The total health expenditure growth rate is higher than base case and the total health expenditure growth rate is higher than GDP growth rate. From Government effort to health, MOH expenditure as percentage of government expenditure and government health expenditure as a percentage of government expenditure are higher than base case. MOH in government expenditure keep at 3.3%, GHE in government expenditure keep at 14.7% in 2003 to 2005, the decrease trend was stopped. the real growth rate of government health expenditure is higher than base case, at 1999, it will be 16.4%, at the peak of real growth rate. The structure of health expenditure and three sectors growth rates (Fig 4.2.2c & d), have a smooth trend.

Table 4.2.3 Long Term Average Growth with High GHE Scenario:

HEALTH EXPENDITURE CURRENT PRICES

MACROECONOMIC ENVIRONMENT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total government revenues	624.22	737.91	865.86	1086.21	1425.94	1856.02	1954.98	2313.46	2700.46	3147.43	3668.82
Total government expenditure	682.37	791.99	919.85	1162.66	1508.23	1958.58	2468.57	2942.30	3484.68	4130.71	4901.00
Government deficit(-)/surplus(+)	-58.15	-54.08	-53.99	-76.45	-82.29	-102.56	-513.59	-628.84	-784.22	-983.28	-1232.18
GDP at factor prices (FP)	5847.81	6782.52	7479.32	8609.04	10303.84	12372.59	14860.23	17400.68	20378.59	23757.88	27700.96
Gov. deficit as a % of GDP (FP)	<i>-1.0%</i>	<i>-0.8%</i>	<i>-0.7%</i>	<i>-0.9%</i>	<i>-0.8%</i>	<i>-0.8%</i>	<i>-3.5%</i>	<i>-3.6%</i>	<i>-3.8%</i>	<i>-4.1%</i>	<i>-4.4%</i>
Population (in billions)	1.21	1.22	1.23	1.24	1.25	1.27	1.28	1.29	1.30	1.32	1.33
MOH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.85	33.02	38.99	49.74	62.62	77.64	92.29	109.71	130.42	155.04
Capital MOH expenditure	1.16	1.31	1.48	1.73	2.24	2.91	3.78	4.58	5.53	6.69	8.10
Total MOH expenditure	26.37	30.16	34.51	40.72	51.99	65.53	81.42	96.87	115.24	137.11	163.14
Total MOH exp/Tot gov exp	<i>3.9%</i>	<i>3.8%</i>	<i>3.8%</i>	<i>3.5%</i>	<i>3.4%</i>	<i>3.3%</i>	<i>3.3%</i>	<i>3.3%</i>	<i>3.3%</i>	<i>3.3%</i>	<i>3.3%</i>
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure :	225.80	276.09	334.09	404.83	509.66	641.54	803.19	959.09	1142.88	1363.15	1627.36
... of which Other Ministries	85.77	99.92	115.00	135.54	173.72	222.85	286.09	339.69	400.04	471.18	555.07
Private sector	113.66	146.01	184.59	228.57	283.95	353.16	435.68	522.53	627.61	754.86	909.15
Total expenditure per capita	187.39	226.79	271.68	325.98	406.41	506.61	628.11	742.74	876.49	1035.27	1223.93
Total expenditure as a % of GDP (FP)	<i>3.9%</i>	<i>4.1%</i>	<i>4.5%</i>	<i>4.7%</i>	<i>4.9%</i>	<i>5.2%</i>	<i>5.4%</i>	<i>5.5%</i>	<i>5.6%</i>	<i>5.7%</i>	<i>5.9%</i>
Tot.gov.health exp as % of Tot gov exp	<i>16.4%</i>	<i>16.4%</i>	<i>16.3%</i>	<i>15.2%</i>	<i>15.0%</i>	<i>14.7%</i>	<i>14.9%</i>	<i>14.8%</i>	<i>14.8%</i>	<i>14.7%</i>	<i>14.7%</i>

Table 4.2.3 Long Term Average Growth with High GHE Scenario:(continue)

HEALTH EXPENDITURE CONSTANT PRICES

MINISTRY HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.06	31.25	34.81	40.37	46.20	52.08	57.31	63.08	69.44	76.43
Capital MOH expenditure	1.16	1.28	1.40	1.54	1.82	2.15	2.54	2.84	3.18	3.56	3.99
Total MOH expenditure	26.37	29.34	32.65	36.35	42.19	48.35	54.61	60.16	66.27	73.00	80.43
Growth rate of total MOH expenditure	-	11.3%	11.3%	11.3%	16.1%	14.6%	13.0%	10.2%	10.2%	10.2%	10.2%
MINISTRY HEALTH EXP. PER CAP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH exp per capita	21.88	24.10	26.55	29.27	33.64	38.18	42.71	46.59	50.82	55.44	60.49
MOH exp. per capita in \$	2.62	2.89	3.18	3.51	4.03	4.57	5.11	5.58	6.09	6.64	7.24
Growth rate of MOH exp. per capita	-	10.1%	10.2%	10.2%	14.9%	13.5%	11.9%	9.1%	9.1%	9.1%	9.1%
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure :	225.80	268.57	316.14	361.40	413.62	473.31	538.70	595.62	657.18	725.78	802.27
....of which Other Ministries	85.77	97.20	108.82	121.00	140.99	164.41	191.88	210.96	230.03	250.87	273.64
Growth rate of other ministries expenditure		13.3%	12.0%	11.2%	16.5%	16.6%	16.7%	9.9%	9.0%	9.1%	9.1%
Private sector	113.66	142.04	174.67	204.05	230.44	260.55	292.21	324.50	360.89	401.91	448.20
Growth rate of PHE		25.0%	23.0%	16.8%	12.9%	13.1%	12.2%	11.1%	11.2%	11.4%	11.5%
Growth rate of total expenditure	-	18.9%	17.7%	14.3%	14.4%	14.4%	13.8%	10.6%	10.3%	10.4%	10.5%
Total expenditure per capita	187.39	220.61	257.09	291.01	329.82	373.76	421.27	461.26	504.00	551.20	603.38
Growth rate of total exp. per capita	-	17.7%	16.5%	13.2%	13.3%	13.3%	12.7%	9.5%	9.3%	9.4%	9.5%

Table 4.2.3 Long Term Average Growth with High GHE Scenario:(continue)

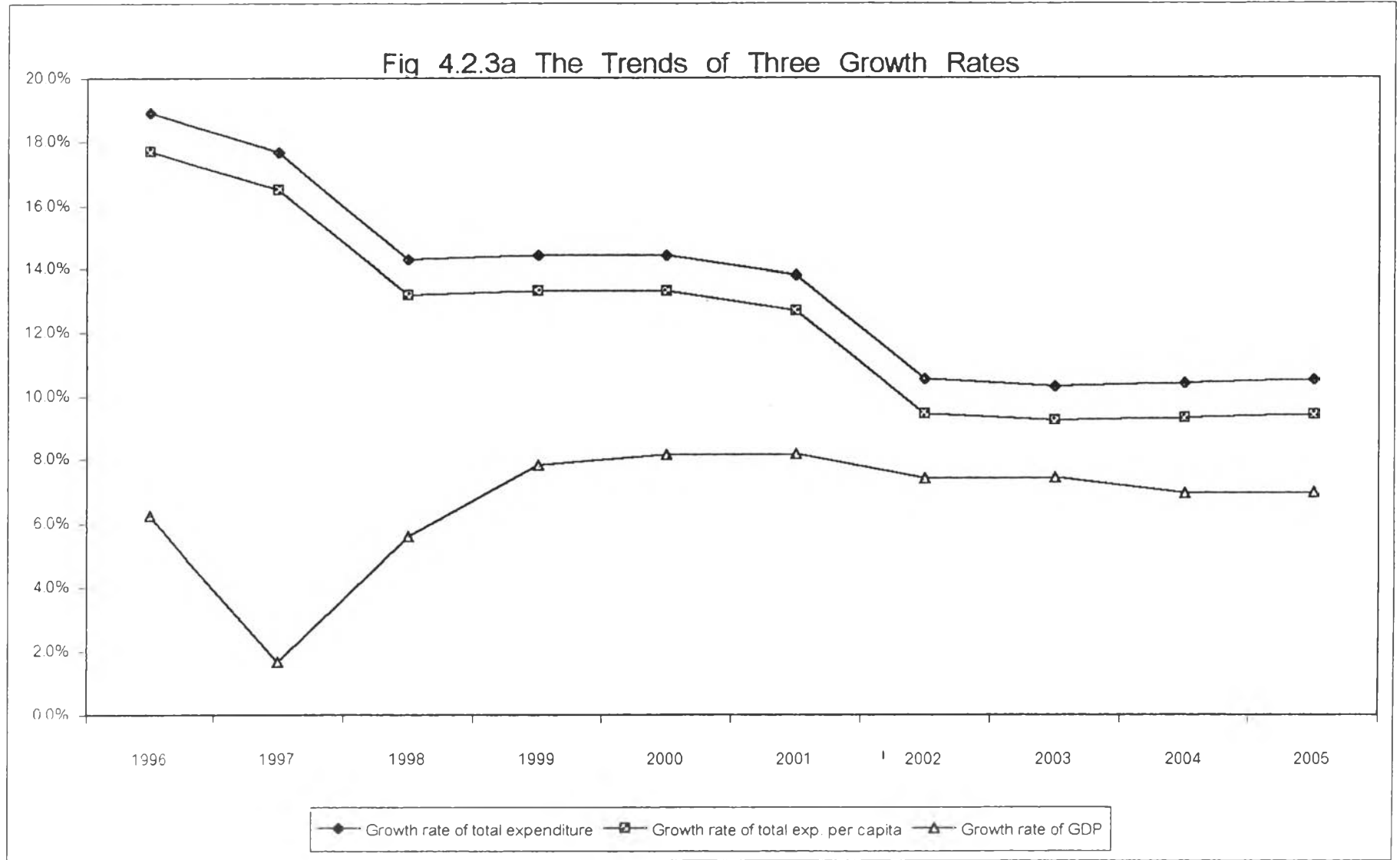
Economy	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDP (FP)	5847.81	6213.94	6319.01	6672.91	7195.10	7783.50	8422.03	9047.55	9721.03	10397.27	11121.93
Growth rate of GDP	-	6.3%	1.7%	5.6%	7.8%	8.2%	8.2%	7.4%	7.4%	7.0%	7.0%
GDP per capita	4852.95	5104.23	5138.63	5373.22	5737.48	6146.45	6586.14	7006.63	7455.13	7896.36	8364.74
Growth rate of GDP per capita	-	5.2%	0.7%	4.6%	6.8%	7.1%	7.2%	6.4%	6.4%	5.9%	5.9%

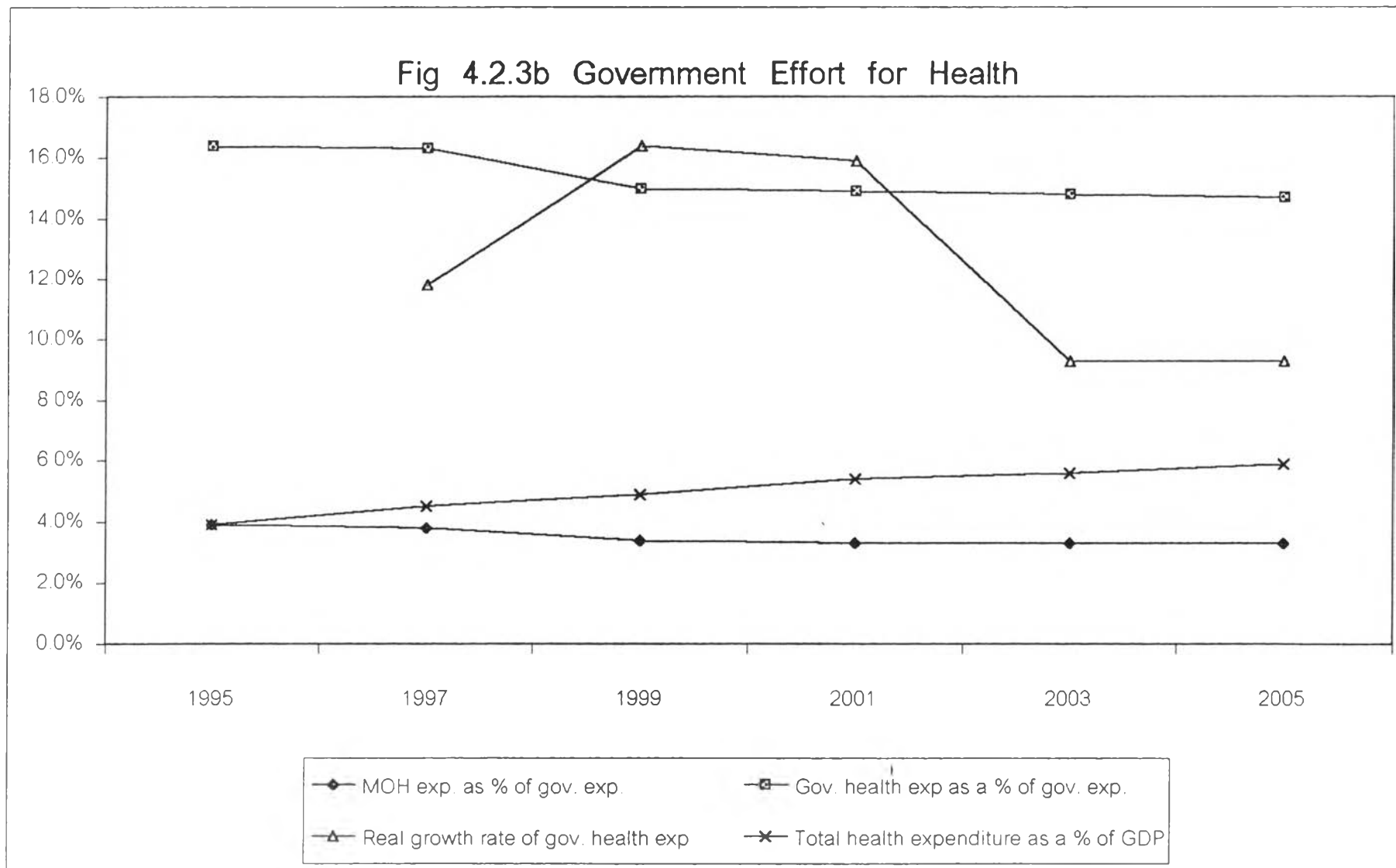
STRUCTURE OF HEALTH EXPENDITURE

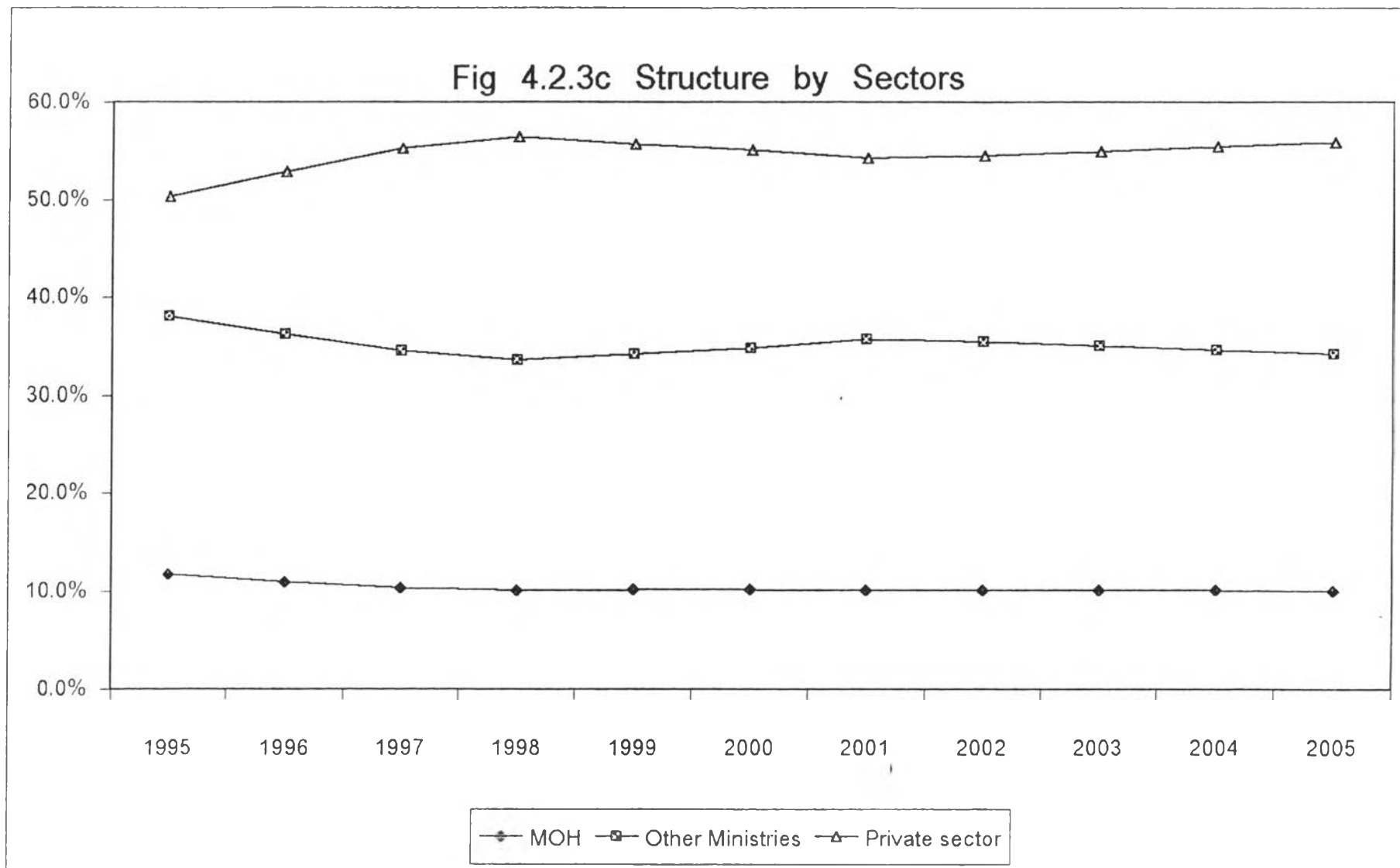
Structure by sector (in %)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH	11.7%	10.9%	10.3%	10.1%	10.2%	10.2%	10.1%	10.1%	10.1%	10.1%	10.0%
Other Ministries	38.0%	36.2%	34.4%	33.5%	34.1%	34.7%	35.6%	35.4%	35.0%	34.6%	34.1%
Private sector	50.3%	52.9%	55.3%	56.5%	55.7%	55.0%	54.2%	54.5%	54.9%	55.4%	55.9%

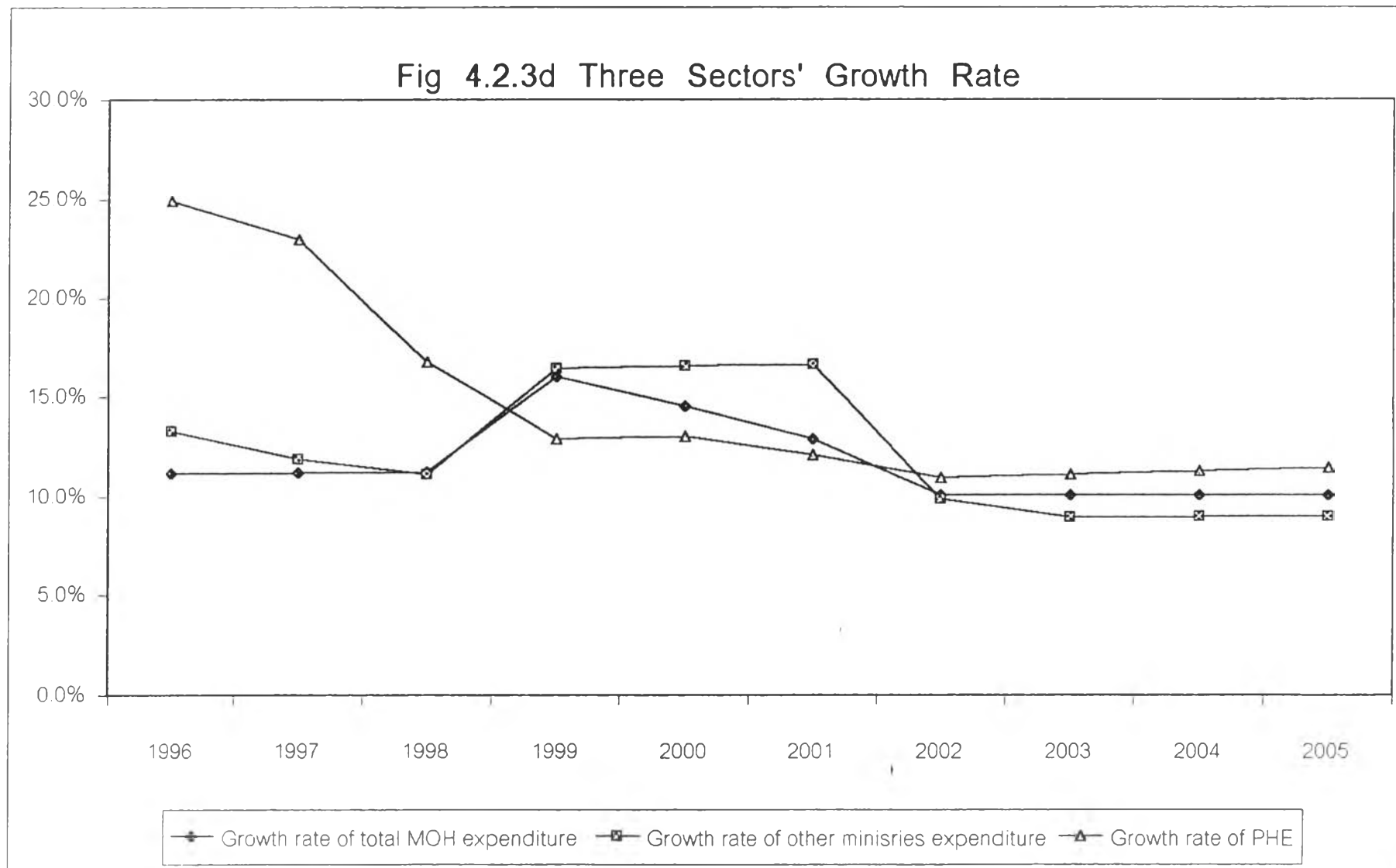
GOVERNMENT EFFORT FOR HEALTH

	1995	1997	1999	2001	2003	2005
MOH exp. as % of gov. exp.	3.9%	3.8%	3.4%	3.3%	3.3%	3.3%
Gov. health exp as a % of gov. exp.	16.4%	16.3%	15.0%	14.9%	14.8%	14.7%
Real growth rate of gov. health exp		11.8%	16.4%	15.9%	9.3%	9.3%









4.3.4 Scenario 3: long term average growth with high private health expenditure scenario

Scenario 3 (Table 4.2.4): the economy are as expected to keep long term average growth rate, but private health expenditure are kept in a high growth rate, Under this situation, government pay more attention on other system, due to the PHE increase quickly. The total health expenditure as a percentage of GDP is very high at the year of 2005. It will be 6.1%, and keep a high growth rate, (Fig 4.2.4a & b). From Government effort to health, MOH expenditure as percentage of government expenditure and government health expenditure as a percentage of government expenditure are the same with the base case. From the structure of health expenditure and three sectors growth rate, (Fig 4.2.2c & d), the share of PHE in CTHE will be 62.7% at the year of 2005, PHE keep a high growth rate than GHE.(Fig 4.2.4c & d).

Table 4.2.4 Long Term Average Growth with High PHE Scenario:

HEALTH EXPENDITURE CURRENT PRICES

MACROECONOMIC ENVIRONMENT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total government revenues	624.22	737.91	865.86	1086.21	1425.94	1856.02	1954.98	2313.46	2700.46	3147.43	3668.82
Total government expenditure	682.37	791.99	919.85	1162.66	1508.23	1958.58	2468.57	2942.30	3484.68	4130.71	4901.00
Government deficit(-)/surplus(+)	-58.15	-54.08	-53.99	-76.45	-82.29	-102.56	-513.59	-628.84	-784.22	-983.28	-1232.18
GDP at factor prices (FP)	5847.81	6782.52	7479.32	8609.04	10303.84	12372.59	14860.23	17400.68	20378.59	23757.88	27700.96
Gov. deficit as a % of GDP (FP)	-1.0%	-0.8%	-0.7%	-0.9%	-0.8%	-0.8%	-3.5%	-3.6%	-3.8%	-4.1%	-4.4%
Population (in billions)	1.21	1.22	1.23	1.24	1.25	1.27	1.28	1.29	1.30	1.32	1.33
MOH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.85	33.02	38.99	48.60	59.89	72.87	85.30	99.85	116.88	136.83
Capital MOH expenditure	1.16	1.31	1.48	1.73	2.19	2.77	3.50	4.16	4.94	5.87	6.97
Total MOH expenditure	26.37	30.16	34.51	40.72	50.79	62.66	76.37	89.46	104.79	122.75	143.80
Total MOH exp/Tot gov exp	3.9%	3.8%	3.8%	3.5%	3.4%	3.2%	3.1%	3.0%	3.0%	3.0%	2.9%
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure	225.80	276.09	334.09	404.83	510.86	644.74	808.74	971.50	1166.48	1403.21	1691.16
...of which Other Ministries	85.77	99.92	115.00	135.54	169.62	212.39	266.11	311.20	361.43	419.80	487.67
Private sector	113.66	146.01	184.59	228.57	290.45	369.69	466.26	570.84	700.26	860.65	1059.69
Total expenditure per capita	187.39	226.79	271.68	325.98	407.37	509.14	632.44	752.35	894.58	1065.69	1271.91
Total expenditure as a % of GDP (FP)	3.9%	4.1%	4.5%	4.7%	5.0%	5.2%	5.4%	5.6%	5.7%	5.9%	6.1%
Tot.gov.health exp as % of Tot gov exp	16.4%	16.4%	16.3%	15.2%	14.6%	14.0%	13.9%	13.6%	13.4%	13.1%	12.9%

Table 4.2.4 Long Term Average Growth with High PHE Scenario:(continue)

HEALTH EXPENDITURE CONSTANT PRICES

MINISTRY HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.06	31.25	34.81	39.44	44.19	48.87	52.97	57.41	62.23	67.46
Capital MOH expenditure	1.16	1.28	1.40	1.54	1.78	2.04	2.35	2.58	2.84	3.13	3.44
Total MOH expenditure	26.37	29.34	32.65	36.35	41.22	46.23	51.22	55.55	60.26	65.36	70.89
Growth rate of total MOH expenditure	-	<i>11.3%</i>	<i>11.3%</i>	<i>11.3%</i>	<i>13.4%</i>	<i>12.2%</i>	<i>10.8%</i>	<i>8.5%</i>	<i>8.5%</i>	<i>8.5%</i>	<i>8.5%</i>
MINISTRY HEALTH EXP. PER CAP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH exp per capita	21.88	24.10	26.55	29.27	32.87	36.51	40.06	43.02	46.21	49.64	53.32
MOH exp. per capita in \$	2.62	2.89	3.18	3.51	3.94	4.37	4.80	5.15	5.53	5.94	6.39
Growth rate of MOH exp. per capita	-	<i>10.1%</i>	<i>10.2%</i>	<i>10.2%</i>	<i>12.3%</i>	<i>11.1%</i>	<i>9.7%</i>	<i>7.4%</i>	<i>7.4%</i>	<i>7.4%</i>	<i>7.4%</i>
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure :	225.80	268.57	316.14	361.40	414.59	475.67	542.42	603.32	670.75	747.10	833.72
....of which Other Ministries	85.77	97.20	108.82	121.00	137.66	156.70	178.48	193.26	207.83	223.51	240.41
Growth rate of other ministries expenditure		<i>13.3%</i>	<i>12.0%</i>	<i>11.2%</i>	<i>13.8%</i>	<i>13.8%</i>	<i>13.9%</i>	<i>8.3%</i>	<i>7.5%</i>	<i>7.5%</i>	<i>7.6%</i>
Private sector	113.66	142.04	174.67	204.05	235.72	272.75	312.72	354.51	402.67	458.23	522.41
Growth rate of PHE		<i>25.0%</i>	<i>23.0%</i>	<i>16.8%</i>	<i>15.5%</i>	<i>15.7%</i>	<i>14.7%</i>	<i>13.4%</i>	<i>13.6%</i>	<i>13.8%</i>	<i>14.0%</i>
Growth rate of total expenditure	-	<i>18.9%</i>	<i>17.7%</i>	<i>14.3%</i>	<i>14.7%</i>	<i>14.7%</i>	<i>14.0%</i>	<i>11.2%</i>	<i>11.2%</i>	<i>11.4%</i>	<i>11.6%</i>
Total expenditure per capita	187.39	220.61	257.09	291.01	330.60	375.63	424.18	467.23	514.40	567.40	627.03
Growth rate of total exp. per capita	-	<i>17.7%</i>	<i>16.5%</i>	<i>13.2%</i>	<i>13.6%</i>	<i>13.6%</i>	<i>12.9%</i>	<i>10.1%</i>	<i>10.1%</i>	<i>10.3%</i>	<i>10.5%</i>

Table 4.2.4 Long Term Average Growth with High PHE Scenario:(continue)

Economy	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDP (FP)	5847.81	6213.94	6319.01	6672.91	7195.10	7783.50	8422.03	9047.55	9721.03	10397.27	11121.93
Growth rate of GDP	-	6.3%	1.7%	5.6%	7.8%	8.2%	8.2%	7.4%	7.4%	7.0%	7.0%
GDP per capita	4852.95	5104.23	5138.63	5373.22	5737.48	6146.45	6586.14	7006.63	7455.13	7896.36	8364.74
Growth rate of GDP per capita	-	5.2%	0.7%	4.6%	6.8%	7.1%	7.2%	6.4%	6.4%	5.9%	5.9%

STRUCTURE OF HEALTH EXPENDITURE

Structure by sector (in %)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH	11.7%	10.9%	10.3%	10.1%	9.9%	9.7%	9.4%	9.2%	9.0%	8.7%	8.5%
Other Ministries	38.0%	36.2%	34.4%	33.5%	33.2%	32.9%	32.9%	32.0%	31.0%	29.9%	28.8%
Private sector	50.3%	52.9%	55.3%	56.5%	56.9%	57.3%	57.7%	58.8%	60.0%	61.3%	62.7%

GOVERNMENT EFFORT FOR HEALTH

	1995	1997	1999	2001	2003	2005
MOH exp as % of gov. exp	3.9%	3.8%	3.4%	3.1%	3.0%	2.9%
Gov. health exp as a % of gov. exp	16.4%	16.3%	14.6%	13.9%	13.4%	12.9%
Real growth rate of gov. health exp		11.8%	13.7%	13.2%	7.7%	7.8%

Fig 4.2.4a The Trends of Three Growth Rates

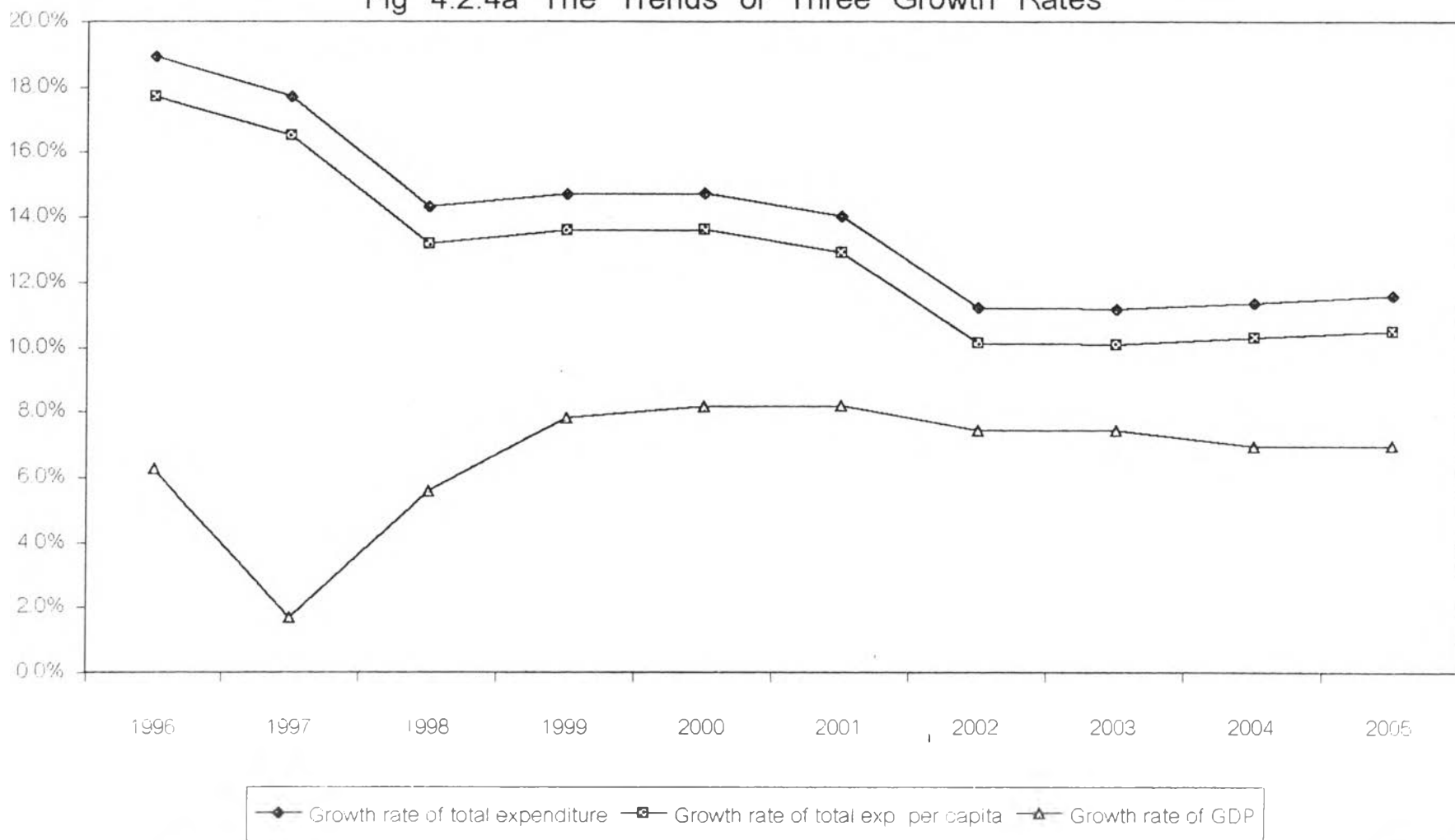
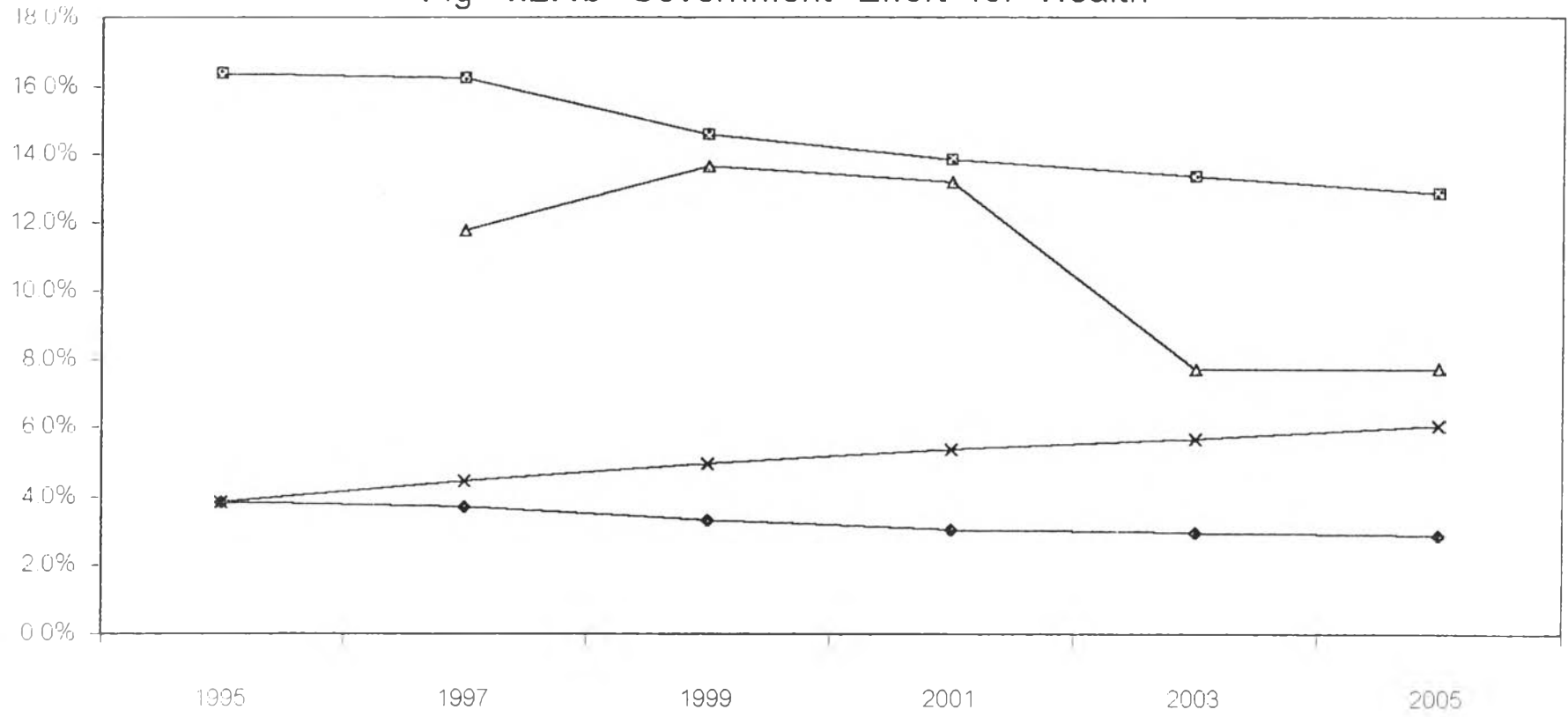


Fig 4.2.4b Government Effort for Health



◆ MOH exp. as % of gov. exp. □ Gov health exp as a % of gov exp
▲ Real growth rate of gov. health exp × Total health expenditure as a % of GDP

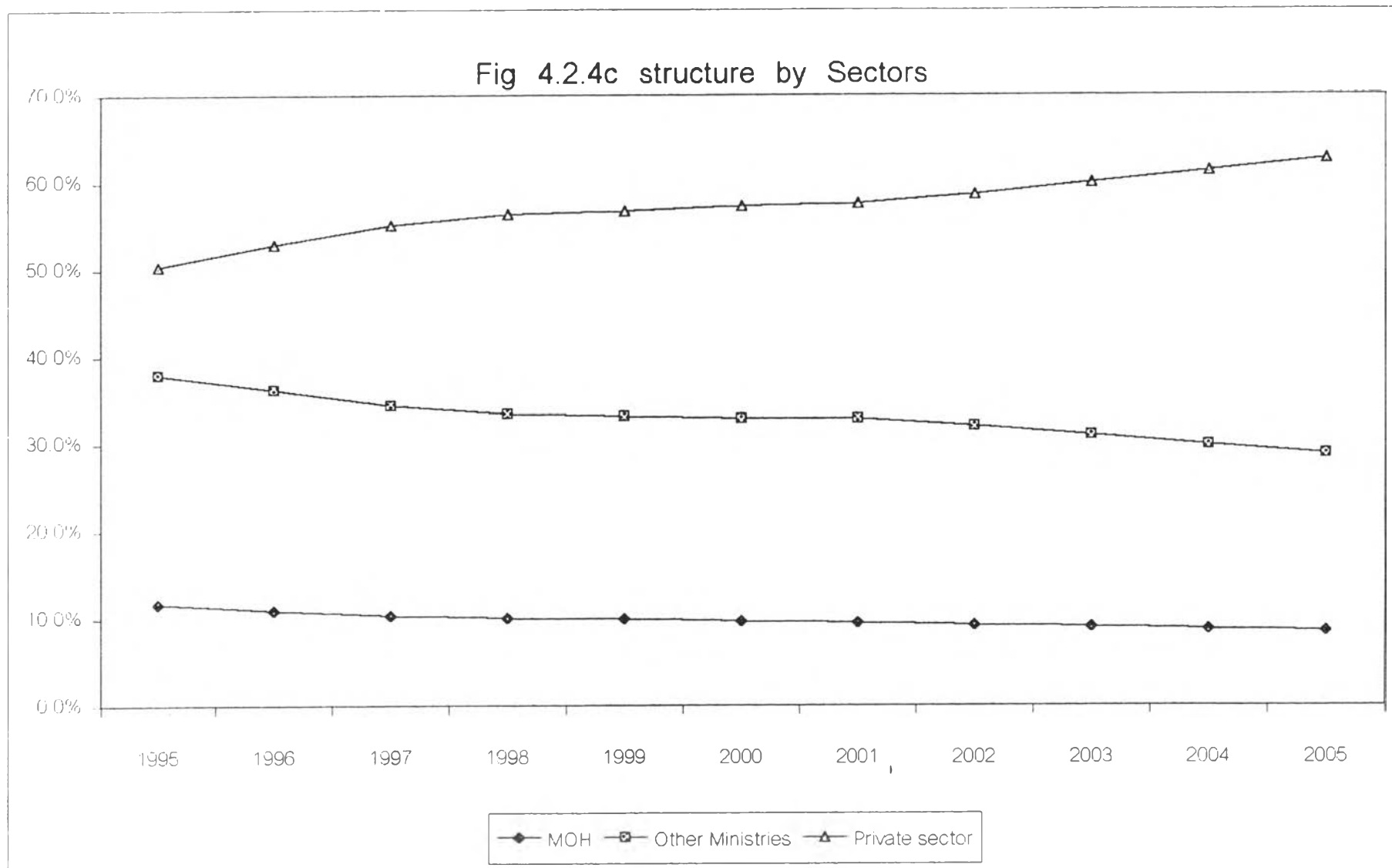
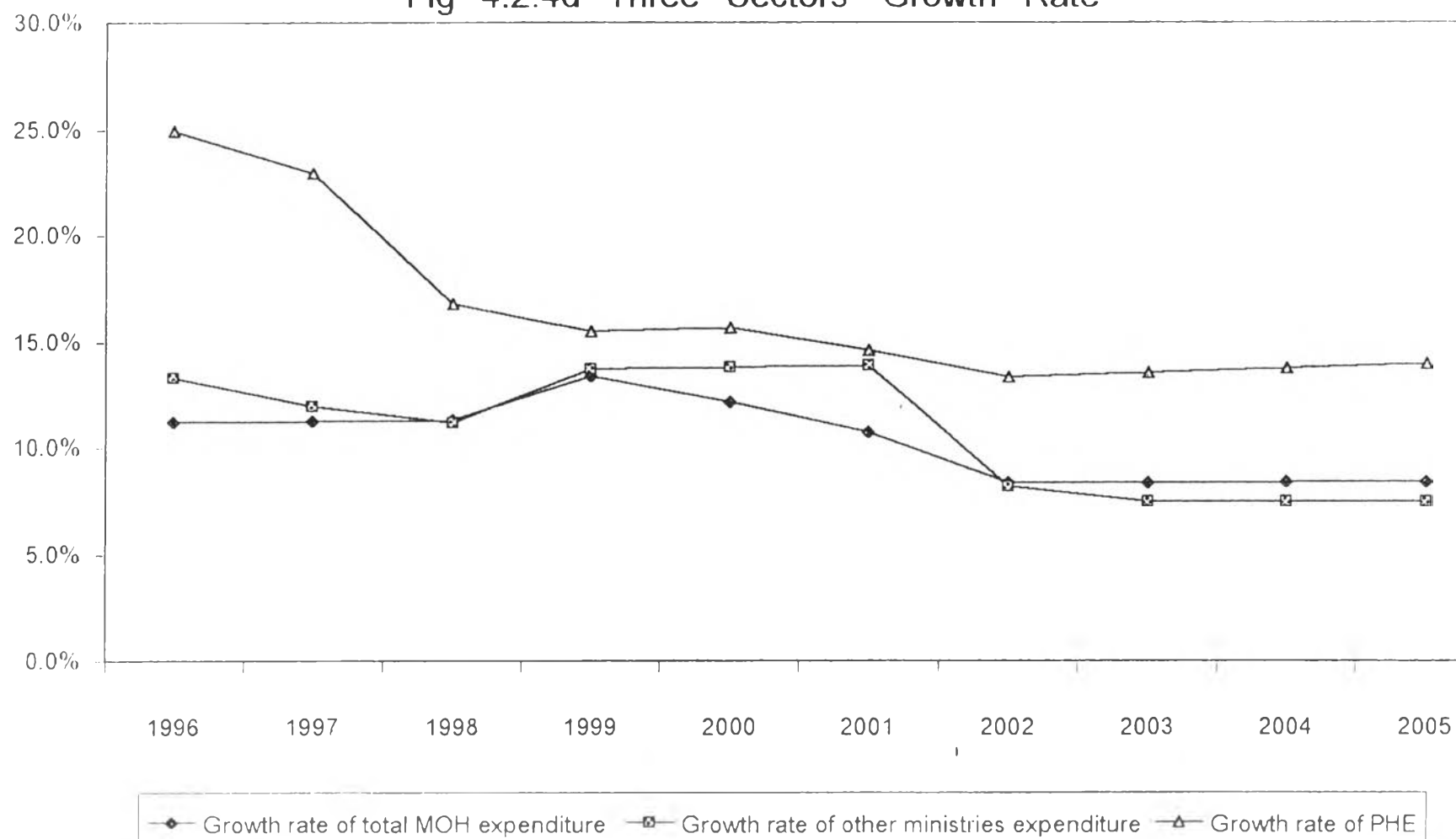


Fig 4.2.4d Three Sectors' Growth Rate



4.3.5 Scenario 4: High consumer price index and high private health expenditure scenario

Scenario 4 (Table 4.2.4): CPI and private health expenditure are kept in a high growth rate. If the CPI was changed, from result table, each current prices value increased, but the constant prices value are same with scenario 3 (Table 4.2.3). From the growth rate and government effort for health (Fig 4.2.3a & b), the total health expenditure as a percentage of GDP is very high at the year of 2005. It will be 6.1%, and will keep at a high growth rate. MOH expenditure as percentage of government expenditure and government health expenditure as a percentage of government expenditure are the same as the base case. From the structure of health expenditure and three sectors growth rate, (Fig 4.2.2c & d), the share of PHE in CTHE will be 62.7% at the year of 2005, PHE keeps a higher growth rate than GHE.(Fig 4.2.4c & d).

Table 4.2.5 High CPI with High PHE scenario:

HEALTH EXPENDITURE CURRENT PRICES

MACROECONOMIC ENVIRONMENT	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total government revenues	624.22	737.91	865.86	1086.21	1454.20	1930.32	2073.54	2494.28	2959.61	3506.43	4154.79
Total government expenditure	682.37	791.99	919.85	1162.66	1535.65	2030.45	2605.68	3151.74	3788.02	4556.81	5486.66
Government deficit(-)/surplus(+)	-58.15	-54.08	-53.99	-76.45	-81.45	-100.13	-532.14	-657.46	-828.41	-1050.38	-1331.86
GDP at factor prices (FP)	5847.81	6782.52	7479.32	8609.04	10508.06	12867.90	15761.44	18760.73	22334.23	26467.80	31370.27
Gov. deficit as a % of GDP (FP)	-1.0%	-0.8%	-0.7%	-0.9%	-0.8%	-0.8%	-3.4%	-3.5%	-3.7%	-4.0%	-4.2%
Population (in billions)	1.21	1.22	1.23	1.24	1.25	1.27	1.28	1.29	1.30	1.32	1.33
MOH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.85	33.02	38.99	49.48	62.09	76.92	91.37	108.54	128.94	153.18
Capital MOH expenditure	1.16	1.31	1.48	1.73	2.23	2.87	3.70	4.46	5.37	6.48	7.81
Total MOH expenditure	26.37	30.16	34.51	40.72	51.71	64.96	80.61	95.82	113.91	135.42	160.99
Total MOH exp/Tot gov exp	3.9%	3.8%	3.8%	3.5%	3.4%	3.2%	3.1%	3.0%	3.0%	3.0%	2.9%
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure :	225.80	276.09	334.09	404.83	520.15	668.40	853.66	1040.65	1268.02	1547.96	1893.25
...of which Other Ministries	85.77	99.92	115.00	135.54	172.70	220.19	280.89	333.36	392.89	463.11	545.94
Private sector	113.66	146.01	184.59	228.57	295.73	383.25	492.16	611.48	761.22	949.43	1186.32
Total expenditure per capita	187.39	226.79	271.68	325.98	414.77	527.82	667.57	805.91	972.46	1175.62	1423.90
Total expenditure as a % of GDP (FP)	3.9%	4.1%	4.5%	4.7%	4.9%	5.2%	5.4%	5.5%	5.7%	5.8%	6.0%
Tot.gov.health exp as % of Tot gov exp	16.4%	16.4%	16.3%	15.2%	14.6%	14.0%	13.9%	13.6%	13.4%	13.1%	12.9%

Table 4.2.5 High CPI with high PHE scenario: (continue)

HEALTH EXPENDITURE CONSTANT PRICES

MINISTRY HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current MOH expenditure	25.21	28.06	31.25	34.81	39.44	44.19	48.87	52.97	57.41	62.23	67.46
Capital MOH expenditure	1.16	1.28	1.40	1.54	1.78	2.04	2.35	2.58	2.84	3.13	3.44
Total MOH expenditure	26.37	29.34	32.65	36.35	41.22	46.23	51.22	55.55	60.26	65.36	70.89
Growth rate of total MOH expenditure	-	<i>11.3%</i>	<i>11.3%</i>	<i>11.3%</i>	<i>13.4%</i>	<i>12.2%</i>	<i>10.8%</i>	<i>8.5%</i>	<i>8.5%</i>	<i>8.5%</i>	<i>8.5%</i>
MINISTRY HEALTH EXP. PER CAP	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH exp per capita	21.88	24.10	26.55	29.27	32.87	36.51	40.06	43.02	46.21	49.64	53.32
MOH exp. per capita in \$	2.62	2.89	3.18	3.51	3.94	4.37	4.80	5.15	5.53	5.94	6.39
Growth rate of MOH exp. per capita	-	<i>10.1%</i>	<i>10.2%</i>	<i>10.2%</i>	<i>12.3%</i>	<i>11.1%</i>	<i>9.7%</i>	<i>7.4%</i>	<i>7.4%</i>	<i>7.4%</i>	<i>7.4%</i>
NATIONAL HEALTH EXPENDITURE	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure :	225.80	268.57	316.14	361.40	414.59	475.67	542.42	603.32	670.75	747.10	833.72
...of which Other Ministries	85.77	97.20	108.82	121.00	137.66	156.70	178.48	193.26	207.83	223.51	240.41
Growth rate of other ministries expenditure		<i>13.3%</i>	<i>12.0%</i>	<i>11.2%</i>	<i>13.8%</i>	<i>13.8%</i>	<i>13.9%</i>	<i>8.3%</i>	<i>7.5%</i>	<i>7.5%</i>	<i>7.6%</i>
Private sector	113.66	142.04	174.67	204.05	235.72	272.75	312.72	354.51	402.67	458.23	522.41
Growth rate of PHE		<i>25.0%</i>	<i>23.0%</i>	<i>16.8%</i>	<i>15.5%</i>	<i>15.7%</i>	<i>14.7%</i>	<i>13.4%</i>	<i>13.6%</i>	<i>13.8%</i>	<i>14.0%</i>
Growth rate of total expenditure	-	<i>18.9%</i>	<i>17.7%</i>	<i>14.3%</i>	<i>14.7%</i>	<i>14.7%</i>	<i>14.0%</i>	<i>11.2%</i>	<i>11.2%</i>	<i>11.4%</i>	<i>11.6%</i>
Total expenditure per capita	187.39	220.61	257.09	291.01	330.60	375.63	424.18	467.23	514.40	567.40	627.03
Growth rate of total exp. per capita	-	<i>17.7%</i>	<i>16.5%</i>	<i>13.2%</i>	<i>13.6%</i>	<i>13.6%</i>	<i>12.9%</i>	<i>10.1%</i>	<i>10.1%</i>	<i>10.3%</i>	<i>10.5%</i>

Table 4.2.5 High CPI with high PHE scenario: (continue)

Economy	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDP (FP)	5847.81	6213.94	6319.01	6672.91	7195.10	7783.50	8422.03	9047.55	9721.03	10397.27	11121.93
Growth rate of GDP	-	6.3%	1.7%	5.6%	7.8%	8.2%	8.2%	7.4%	7.4%	7.0%	7.0%
GDP per capita	4852.95	5104.23	5138.63	5373.22	5737.48	6146.45	6586.14	7006.63	7455.13	7896.36	8364.74
Growth rate of GDP per capita	-	5.2%	0.7%	4.6%	6.8%	7.1%	7.2%	6.4%	6.4%	5.9%	5.9%

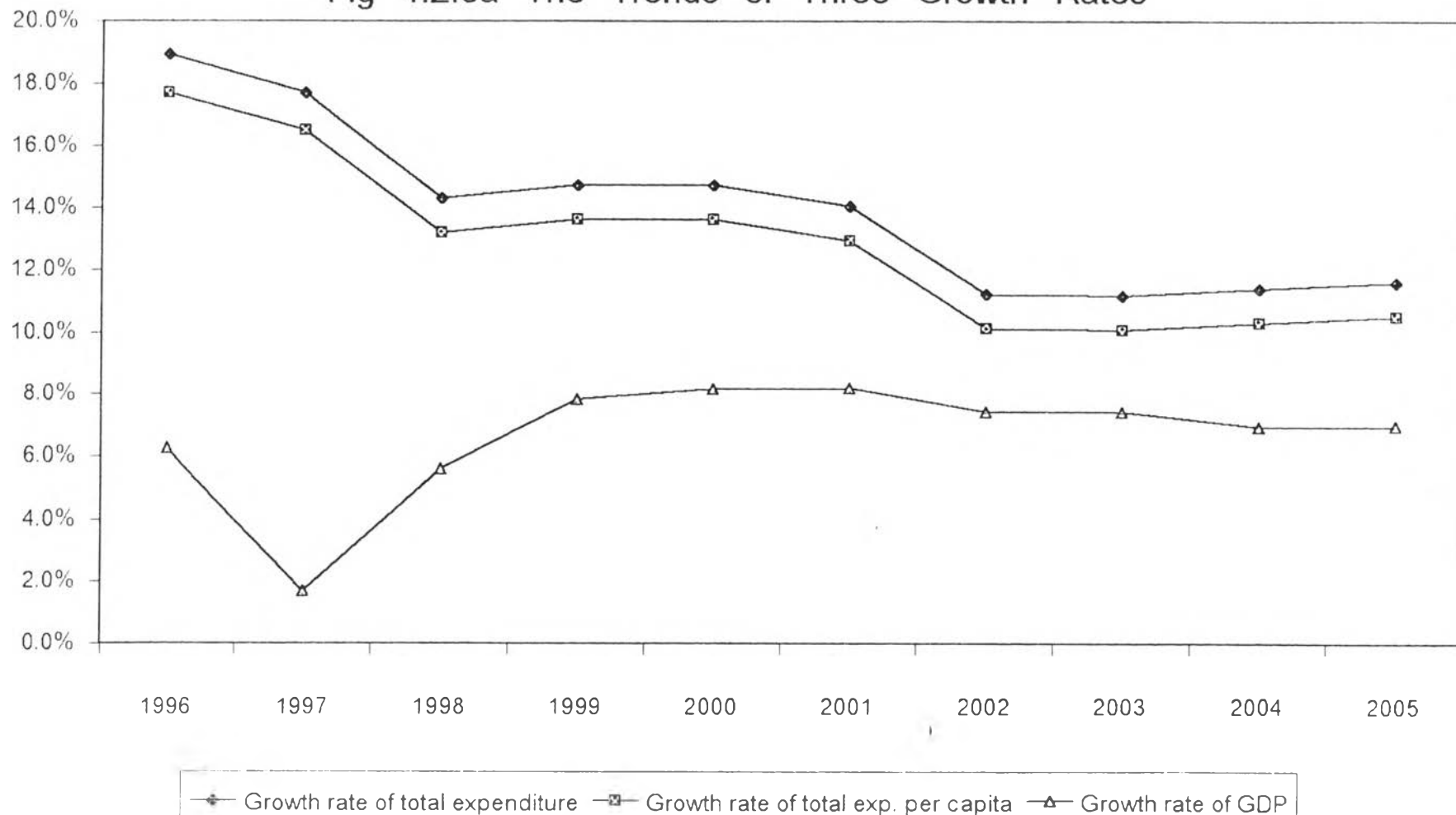
STRUCTURE OF HEALTH EXPENDITURE

Structure by sector (in %)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MOH	11.7%	10.9%	10.3%	10.1%	9.9%	9.7%	9.4%	9.2%	9.0%	8.7%	8.5%
Other Ministries	38.0%	36.2%	34.4%	33.5%	33.2%	32.9%	32.9%	32.0%	31.0%	29.9%	28.8%
Private sector	50.3%	52.9%	55.3%	56.5%	56.9%	57.3%	57.7%	58.8%	60.0%	61.3%	62.7%

GOVERNMENT EFFORT FOR HEALTH

	1995	1997	1999	2001	2003	2005
MOH exp as % of gov. exp	3.9%	3.8%	3.4%	3.1%	3.0%	2.9%
Gov. health exp as a % of gov. exp	16.4%	16.3%	14.6%	13.9%	13.4%	12.9%
Real growth rate of gov. health exp		11.8%	13.7%	13.2%	7.7%	7.8%

Fig 4.2.5a The Trends of Three Growth Rates



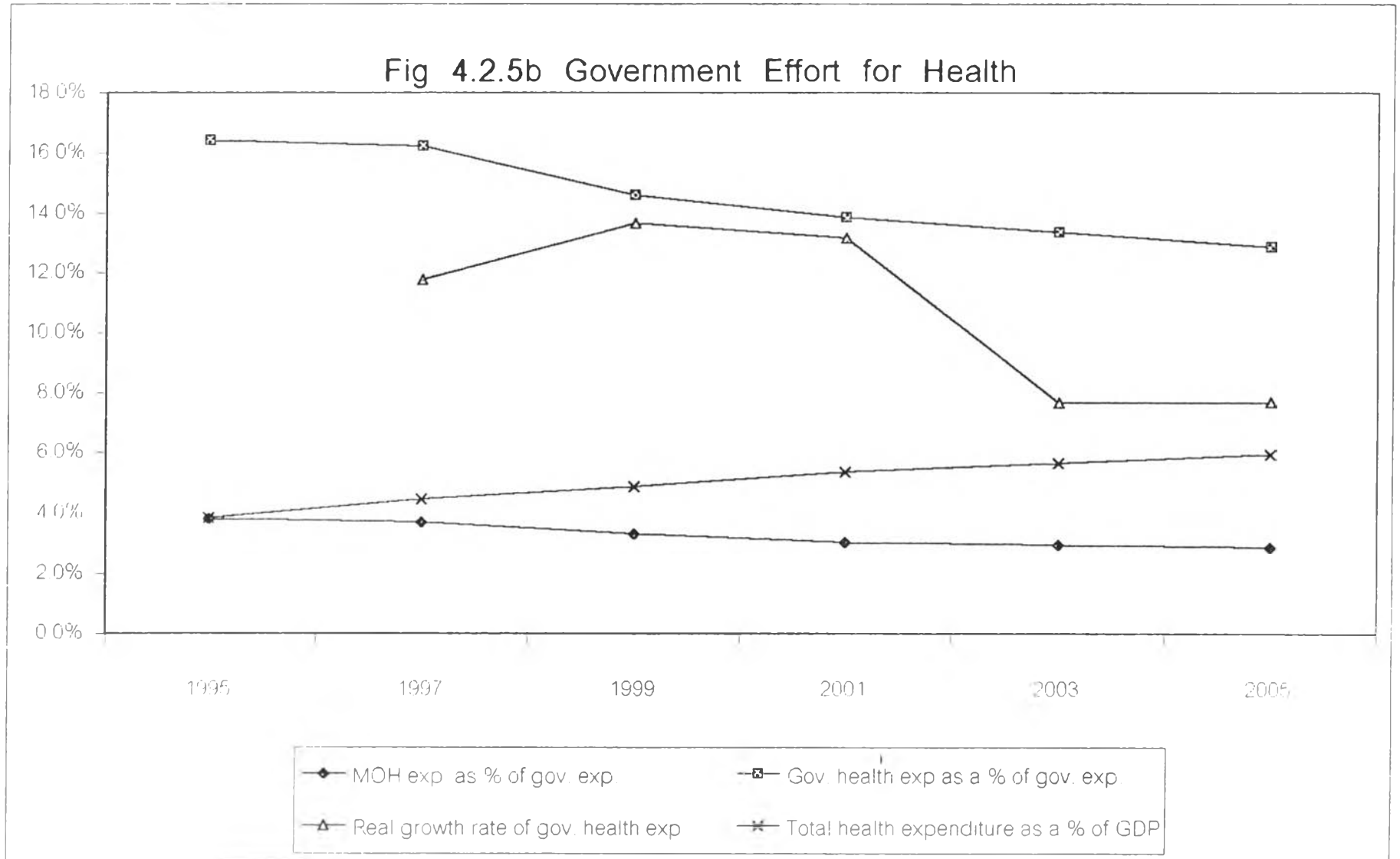
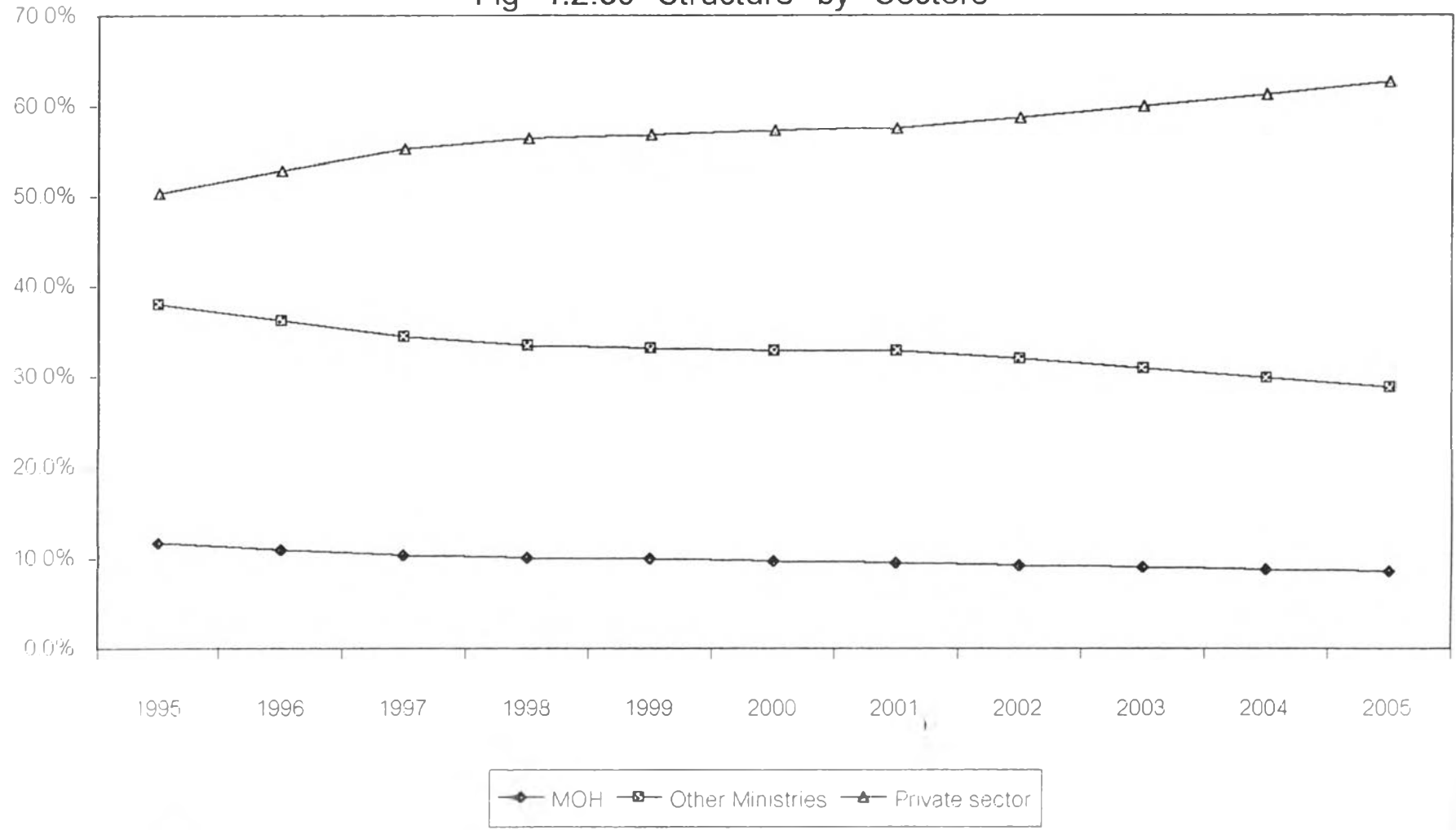
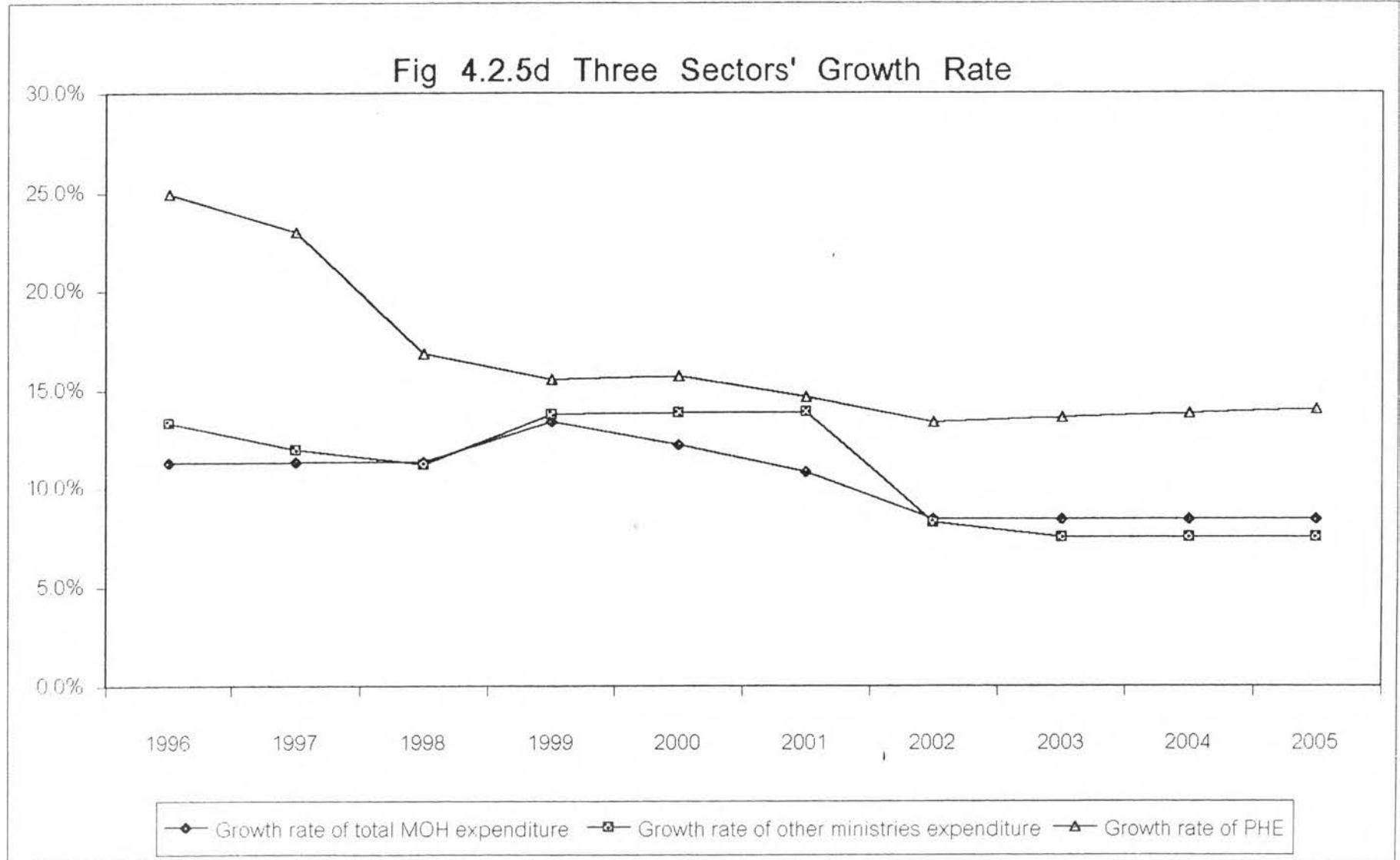


Fig 4.2.5c Structure by Sectors





4.4 Conclusion of the experiments

Along the long term average growth model, it was found that total health expenditure as a percentage of GDP(FP) can likely achieve 5.1% at the year 2000, and keeps increasing steadily. The growth rate of CTHE is higher than the Growth rate of GDP, keeping in line with the growth rate of total expenditure per capita, MOH expenditure as percentage of total government expenditure and government health expenditure as a percentage of total government expenditure are decreasing while the total health expenditure as a percentage of GDP is increasing.

The real growth rate of government health expenditure, at the year 1999 to 2001, is at the peak 13.7%, after that, keep a lower growth rate. In terms of the structure of health expenditure, as a result, the share of MOH and other ministries expenditure in CTHE decreases, the share of private sector is increasing. From 1999 to 2001, government health expenditure will increase. So that, the growth rate of MOH and other ministries expenditure will decrease slowly than before, and private expenditure growth rate will trend gently to decrease. Under the long term average growth model, by the year of 2005, the total health expenditure in GDP, will be 5.6%. the share of MOH, other ministries, and private health expenditure will be 9.3%, 31.7%, and 59.0%.

If the Chinese economy cannot achieve the average growth target, low economic growth, MOH expenditure as percentage of government expenditure, government health expenditure as a percentage of government

expenditure, the real growth rate of government health expenditure, the structure of health expenditure and three sectors' growth rates are still as the same as in the base case.

If the government puts more attention on health sector by raising more expenditure on health, high GHE with long term average growth, it was found that the total health expenditure growth rate is higher than base case and the total health expenditure growth rate is higher than GDP growth rate. MOH expenditure as percentage of government expenditure and government health expenditure as a percentage of government expenditure are higher than base case. MOH in government expenditure keep at 3.3%, GHE in government expenditure keep at 14.7% in 2003 to 2005, the decrease trend was stopped. The real growth rate of government health expenditure is higher than base case, at 1999, it will be 16.4%, at the peak of real growth rate. The structure of health expenditure and three sectors growth rates have a smooth trend.

If the private sector spends in the future more than its average trend (under the assumption that the Chinese economy will become more liberalized and more private sector gets involves in health sector), the total health expenditure as a percentage of GDP is found to be as high as 6.1% at the year of 2005. MOH expenditure as percentage of government expenditure and government health expenditure as a percentage of government expenditure will still be the same with the base case. In terms of the structure of health expenditure, the share of PHE in CTHE will be 62.7% at the year of 2005, and PHE keep a higher growth rate than GHE.