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Chen, Chien-Hsun

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1 March 2023

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MPRA Paper No. 116543, posted 01 Mar 2023 08:42 UTC

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Chien-Hsun Chen

(Corresponding author)

Chung-Hua Institution for Economic Research

75 Chang Hsing St., Taipei, Taiwan 10672

Tel: 886-2-2735-6006 ext 4341 Fax: 886-2-2739-0610

E-mail: chchen@cier.edu.tw

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Abstract

A rapidly aging population became a pressing demographic issue in Taiwan in the 1990s due to industrial transformation, family planning and urbanization in the 1970s and 1980s. An aging population tends to lead to less human capital and lower economic growth. The percentage of population aged 65 and above was 13.2% in 2016, while the figure is expected to jump to 16.0% by 2020 and 19.8% by 2025. Taiwan's total population is projected to register a negative growth rate by 2025. The spike in old-age dependency ratios will deeply affect future labor markets. As the population ages, the working-age population has experienced a declining trend since 2015. Indeed, an aging population is expected to slow down economic growth and raise government spending on social welfare and health care programs, negatively impacting future fiscal sustainability. An enlarging aging population has turned out to be a politically strong force to be reckoned with during elections. Long-term care insurance products could reduce family burden and provide high quality long-term care. It supplements old-age support provided mostly by the family in accordance with Taiwanese cultural values; the family hence still plays a pivotal role in long-term care.

Keywords: aging population; old-age dependency ratios; Social welfare and health care programs; long-term care

JEL Classification: I380, J110, J140, O110

1. Introduction

Like developed countries, Taiwan is experiencing a momentous demographic transition. A rapidly aging population became a pressing demographic issue in Taiwan in the 1990s due to industrial transformation, family planning and urbanisation in the 1970s and 1980s. An aging population imposed negative impacts on human capital and economic growth (Bloom, Canning and Fink, 2010; Jones, 2022). Indeed, Taiwan has experienced sluggish economic growth since the 2008 global financial crisis, registering marginal economic growth rates of 0.81% and 1.41% in 2015 and 2016, respectively.

Based on the medium variant population projections by Taiwan's National Development Council (NDC), Taiwan's age structure will encounter remarkable changes over the period 2016–2061. The percentage of the population aged 65 and above was 13.2% in 2016, while the figure is expected to increase to 16.0% by 2020 and to 19.8% by 2025. Taiwan's total population is projected to register a negative growth rate by 2025 (National Development Council, 2017).

Substantial demographic changes have taken place in Taiwan since the 1990s. In 1993, Taiwan became an aging society as the proportion of those over the age of 65 exceeded 7% of the overall population. Population statistics released by the Ministry of Interior indicate that the proportion of those 65 years of age or more has exceeded that of those aged 14 or less since February 2017. As shown in Table 1, Taiwan became an aged society when 14% or more of its population are 65 years of age or older in 2018. Therefore, this study uses policy-oriented approach to examine Taiwan's aging population crisis, which provides most valuable appraisal of current economic policies in Taiwan. The remainder of this paper is organized as follows. The next section presents the crisis of aging population in Taiwan. The third section described worsening dependency ratio. The fourth section presents deteriorating fiscal sustainability. The penultimate section explains government welfare programs for the elderly, and the final section presents the conclusions drawn from this study

Table 1 Taiwan's population age structure, 2016–2045

Year	Percentage of Age Distribution (%)		
	0–14 Years	15–64 Years	65 Years and Over
2016	13.4	73.4	13.2
2017	13.2	73.0	13.9
2018	13.1	72.4	14.5
2019	13.0	71.8	15.2
2020	12.9	71.1	16.0
2021	12.9	70.4	16.8
2022	12.8	69.7	17.5
2023	12.8	69.0	18.2
2024	12.7	68.3	19.0
2025	12.8	67.4	19.8
2026	12.7	66.7	20.6
2027	12.5	66.1	21.4
2028	12.4	65.4	22.2
2029	12.3	64.8	22.9
2030	12.1	64.3	23.6
2031	11.9	63.7	24.4
2032	11.7	63.3	25.0
2033	11.6	62.8	25.6
2034	11.4	62.3	26.3
2035	11.2	61.9	26.9
2036	11.0	61.5	27.5
2037	10.8	61.1	28.1
2038	10.7	60.7	28.6
2039	10.5	60.4	29.1
2040	10.3	60.0	29.6
2041	10.2	59.4	30.4
2042	10.0	59.0	31.0
2043	9.9	58.4	31.7
2044	9.8	57.9	32.4
2045	9.6	57.3	33.1

Source: National Development Council (NDC), Taiwan.

2. An Aging Population

As 20% of its population will be 65 years of age or more in 2026, Taiwan is set to become a super-aged society. In 2016, the population of aged people continued to increase to 13.2%. With the aging of baby boomers in the near future, the aging trend will become more apparent (Hsieh and Tung 2016). In 2011, the aging index (the ratio of people aged 65 or older to people aged 14 or younger) was over 100 in three cities and counties; however, in 2017, the figure increased to 15 of 22 counties and cities; for example, it was 177 for Chiayi county, 141.87 for Yunlin county and 139.48 for Nantou county.

Taiwan's rapidly aging population can be attributed to a rapid decline in the total fertility rate (TFR) and prolonged life expectancy (Lin and Huang, 2016; Cheng and Loichinger, 2017). From 1951 to 2016, total birth rate dived from 7.04 persons (7,040‰) in 1951 to 1.17 persons (1,170‰) in 2016. As early as in 1985, the total birth rate was 1.88 persons, the first time that birth rate was less than 2 persons. The slide did not stop here. The figure hit a record low of 0.895 persons (895‰) in 2010 (see Table 2) (Department of Household Registration Affairs, 2017).

Life expectancy has also a part to play; in 2002, average life expectancy at birth was 77.2 years (74.6 years for men and 80.2 years for women). However, the figure reached a record high of 80.2 years (77.0 years for men and 83.6 years for women) in 2015, up from 79.8 years (76.7 years for men and 83.2 years for women) in 2014 (Health Promotion Administration 2017). In 2016, due to deadly cold fronts, the figure fell slightly to 80.0 years (76.8 years for men and 83.4 years for women).

Table 2 Taiwan's fertility rates of childbearing age women

Unit: ‰

Year	General Fertility Rate	Total Fertility Rate
1951	211	7,040
1956	196	6,505
1961	177	5,585
1966	149	4,815
1971	112	3,705
1976	105	3,085
1981	89	2,455
1982	85	2,320
1983	79	2,170
1984	75	2,055
1985	68	1,880
1986	60	1,680
1987	60	1,700
1988	64	1,855
1989	58	1,680
1990	62	1,810
1991	58	1,720
1992	57	1,730
1993	57	1,760
1994	55	1,755
1995	55	1,775
1996	54	1,760
1997	53	1,770
1998	43	1,465
1999	45	1,555
2000	48	1,680
2001	41	1,400
2002	39	1,340
2003	36	1,235
2004	34	1,180
2005	33	1,115
2006	33	1,115
2007	32	1,100
2008	31	1,050
2009	31	1,030
2010	27	895
2011	32	1,065
2012	38	1,270
2013	32	1,065
2014	34	1,165
2015	35	1,175
2016	34	1,170

Source: Department of Household Registration Affairs, Ministry of Interior (MOI), Taiwan.

3. Worsening Dependency Ratio

Taiwan will be undergoing its greatest demographic transition in the foreseeable future. According to population projections for 2016–2061 by the NDC (National Development Council, 2017), the percentage of people aged 65 or above in Taiwan is expected to increase to 19.8% of the population by 2025, from 16.0% in 2020, while the percentage for those of working age (15–64 years) is set to fall to 67.4% by 2025, from 71.1% in 2020.

The number of dependent elderly people is increasing in Taiwan. In 1991, the dependency ratio for the elderly population, i.e. population aged 65 and older as a percentage of population aged 15–64, was only 9.73%, while the dependency ratio for the youth, i.e. population aged 0–14 as a percentage of population aged 15–64, was 38.23%. However, these figures changed dramatically by 2009—the dependency ratio for the elderly surged to 14.56% and that for the youth dipped to 22.38%.

The trend continued in 2016, with the dependency ratio for the elderly hitting 18.0% from 15.03% in 2012, and the dependency ratio for the youth further dipping to 18.2% from 19.7% in the same year. Under the current trend of population aging, the dependence of the elderly will be more monumental than that of the youth in the foreseeable future.

According to the NDC's population projections, as shown in Table 3, the dependency ratio for the elderly will increase to an estimated 22.5% in 2020 and to 29.4% in 2025, while the youth dependency ratio will increase from 18.2% in 2020 to 19.0% in 2025. Total dependency ratio, i.e. population aged 0–14 and population aged 65 and above as a percentage of population aged 15–64 will increase from 36.2% in 2016 to 40.7% in 2020, to 48.4% in 2025 and to 55.6% in 2030.

Table 3 Taiwan's dependency ratios, potential support ratio and aging index, 2016–2045

Year	Total Dependency Ratio (%)	Youth Dependency Ratio (%)	Aged Dependency Ratio (%)	Potential Support Ratio	Aging Index
2016	36.2	18.2	18.0	5.6	98.8
2017	37.0	18.1	19.0	5.3	105.2
2018	38.1	18.0	20.1	5.0	111.2
2019	39.3	18.1	21.2	4.7	117.4
2020	40.7	18.2	22.5	4.4	123.7
2021	42.1	18.3	23.8	4.2	130.2
2022	43.4	18.4	25.0	4.0	136.4
2023	44.9	18.5	26.4	3.8	142.7
2024	46.5	18.7	27.8	3.6	149.3
2025	48.4	19.0	29.4	3.4	154.6
2026	49.9	19.1	30.8	3.2	161.6
2027	51.2	18.9	32.3	3.1	170.9
2028	52.9	19.0	33.9	3.0	178.4
2029	54.3	18.9	35.4	2.8	186.8
2030	55.6	18.8	36.8	2.7	195.5
2031	56.9	18.7	38.2	2.6	204.5
2032	58.0	18.5	39.4	2.5	212.8
2033	59.2	18.4	40.8	2.5	221.8
2034	60.4	18.3	42.2	2.4	230.9
2035	61.7	18.1	43.5	2.3	240.2
2036	62.7	18.0	44.8	2.2	249.5
2037	63.7	17.8	45.9	2.2	258.7
2038	64.6	17.6	47.1	2.1	267.9
2039	65.6	17.4	48.2	2.1	277.1
2040	66.6	17.2	49.4	2.0	286.8
2041	68.3	17.1	51.1	2.0	298.7
2042	69.6	17.0	52.6	1.9	309.4
2043	71.1	16.9	54.2	1.8	320.7
2044	72.8	16.9	56.0	1.8	332.2
2045	74.5	16.8	57.7	1.7	342.8

Source: NDC, Taiwan.

Meanwhile, the potential support ratio, i.e., population aged 15–64 as a percentage of population aged 65 and older, will deteriorate in the future from 4.4 workers for 1 elderly person by 2020, to only 3.4 workers for 1 elderly person by 2025. Thus, the burden of supporting the elderly such as through the provision of medical and health care will become increasingly heavy for the next generation of working age.

The sharp increase in old-age dependency ratios will deeply affect future labor markets (Huang, Lin and Lee, 2019). As a result of the aging population, working-age population has experienced a declining trend. Working-age population started to decline roughly around the year 2015. The age structure of the labour force will show the dominance of older workers (Cai and Stoyanow, 2016). These demographic changes are likely to have a profound adverse impact on productivity and economic growth in Taiwan (Lin, 2010).

4. Deteriorating Fiscal Sustainability

An aging population will be a critical challenge for Taiwan's economy in the long run, slowing down economic growth and raising government spending on social welfare and health care programs (Dybczak et al., 2005). Future fiscal sustainability is hence at risk.

Under Taiwan's current taxation and expenditure system, government spending will increase with the spending on age-related programs (Hsu, 2017). Such increases to social welfare spending could lead to unsustainable public debt. Since an aging population can reduce economic growth, without a reduction in interest rates, it would be more strenuous for Taiwan to reduce its growing government debt.

The current pension system in Taiwan is financed mostly by a pay-as-you-go system through intergenerational transfers that places a heavy burden on the working population due to the aging population. According to statistics released by the Directorate-General of Budget, Accounting and Statistics (DGBAS), spending on the pensions of civil servants, public school teachers and military personnel accounted for 7.69% of the central government's budget expenditure in 2016.

The figure is likely to rise rapidly if no imminent pension reform is carried out,¹ generating further burden on public finance and crowding out government spending on economic development.

On revenue, income tax is a major source of Taiwan's tax revenue. In 2016, the share of income tax amounted to 45.2%. Since income tax revenue is related to economic growth, income tax revenue will significantly decline due to the shrinkage of the workforce. Meanwhile, a slowing down of economic growth will lead to an adverse impact on aggregate consumption, reducing the consumption tax revenue.

However, an aging population poses the most serious challenge to Taiwan's sustainable pension system (Shiu, 2005). The burgeoning retired population will place an extremely heavy financial burden on the government. Taiwan's generous pension system is not affordable when its economy is growing slowly.

The number of retirees is likely to increase, resulting in a sharp rise in pension-related expenditure. Population aging could lead to government budget deficit with the increase in government expenditure on health care and social welfare and a reduction in potential tax revenue. That will impose considerable tax burden on the younger generation.

An aging population has mixed effects on the financial markets. According to life cycle saving, the elderly tend to save lesser than that of the younger generation (Lee, Mason and Miller, 2000). Meanwhile, as baby boomers will retire and die, asset values will further melt down (the so-called asset meltdown hypothesis), leading to a decline in the return on financial investments (Börsch-Supan and Agin, 2009). As the elderly are risk averters, they are attracted to financial products with stable profits such as bonds (DBS Group Research, 2016).

Moreover, as shown in Table 4, since 1996, the percentage of health care in household spending increased from 9.79% in 1996 to 14.39% in 2010 and to 15.33% in 2016. This implies

¹ In June 2017, the Legislative Yuan passed the Act Governing the Retirement and Pensions of Public School Teachers and Employment and the Act Governing Civil Servants' Retirement, Discharge and Pensions as part of the government's pension reform. In June 2018, the Legislative Yuan passed the Act of Military Service for Officers and Noncommissioned Officers of the Armed Forces.

that more investment in medical care and the pharmaceutical industry are needed for an aging population.

Table 4 Distribution of household total expenditures, 1987–2016 (%)

Unit: %

Year	Total	Food, beverage and tobacco	Clothing and footwear	Housing, water, electricity, gas and other fuels	Furnishings, household equipment and routine household maintenance	Health	Transport and communication	Recreation, culture and education	Restaurants and hotels	Miscellaneous goods and services
1987	100.00	31.98	6.04	23.17	3.69	5.36	8.83	9.67	6.10	5.17
1988	100.00	30.29	6.13	23.35	3.90	5.24	8.83	10.52	6.51	5.22
1989	100.00	28.76	6.09	24.01	3.83	4.85	9.69	10.70	6.79	5.29
1990	100.00	26.89	5.97	24.88	3.36	4.82	9.38	11.68	7.57	5.44
1991	100.00	25.40	6.00	25.77	3.21	5.36	9.42	11.33	7.57	5.94
1992	100.00	24.05	6.15	26.48	3.11	5.05	9.51	11.76	7.97	5.93
1993	100.00	22.11	5.69	25.66	2.96	7.78	10.34	11.43	7.82	6.20
1994	100.00	19.80	4.94	25.80	3.41	8.49	10.40	11.89	8.59	6.68
1995	100.00	19.53	4.63	25.13	3.43	10.37	10.50	11.60	8.16	6.66
1996	100.00	19.72	4.51	25.62	3.27	9.79	10.65	11.51	8.43	6.51
1997	100.00	19.18	4.52	25.46	3.07	9.92	10.91	11.65	8.66	6.63
1998	100.00	18.96	4.50	25.61	2.84	10.25	11.03	11.52	8.87	6.41
1999	100.00	18.22	4.10	25.33	2.76	10.89	11.56	11.63	8.93	6.58
2000	100.00	17.33	3.85	25.62	2.66	11.01	11.86	12.06	8.92	6.69
2001	100.00	17.29	3.66	25.08	2.59	11.43	12.12	12.04	8.98	6.82
2002	100.00	17.17	3.57	24.23	2.47	12.16	12.67	12.20	8.78	6.75
2003	100.00	16.86	3.53	24.38	2.43	12.52	12.50	11.99	8.92	6.88
2004	100.00	16.44	3.48	23.52	2.57	12.74	12.96	12.07	9.14	7.08
2005	100.00	16.20	3.41	23.77	2.51	13.19	12.97	11.75	9.32	6.88
2006	100.00	16.13	3.37	23.67	2.41	13.75	12.79	11.53	9.31	7.03
2007	100.00	16.48	3.27	23.91	2.48	14.11	12.90	11.23	9.67	5.95
2008	100.00	16.40	3.18	24.23	2.47	14.35	12.38	11.29	10.08	5.62
2009	100.00	16.68	3.19	24.30	2.53	14.45	12.73	11.04	9.37	5.71
2010	100.00	16.64	3.23	24.57	2.48	14.39	12.52	11.01	9.71	5.45
2011	100.00	16.22	3.10	24.39	2.49	14.62	13.00	10.39	10.16	5.63
2012	100.00	16.54	3.03	24.36	2.50	14.55	13.02	10.01	10.58	5.41
2013	100.00	16.30	2.98	24.27	2.46	14.67	13.37	9.73	10.57	5.65
2014	100.00	15.87	3.02	24.46	2.44	14.87	13.12	9.58	11.08	5.55
2015	100.00	15.88	2.96	24.64	2.45	15.05	12.67	9.64	11.27	5.46
2016	100.00	15.76	2.95	24.22	2.43	15.33	12.65	9.38	11.83	5.45

Source: Directorate-General of Budget, Accounting and Statistics (DGBAS), Taiwan.

5. Government Welfare Programs for the Elderly

Democratization has sown the seeds for Taiwan's social welfare problems. Political parties are inclined to offer more and better social welfare benefits to please voters. As the population begins to age, the elderly constitute a larger and politically stronger force. Political parties proposed unrealistic social welfare policies as a winning strategy during Taiwan's democratization process in the 1990s.

In the 2012 presidential election, the ruling Kuomintang (KMT) and the opposition Democratic Progressive Party (DPP) competed to offer better allowances to old-age farmers in order to gain their support. Parties resort to outbid each other in their proposed social welfare policies.

When the KMT first proposed adding NT\$316 to the old-age farmer's original allowance of NT\$6,000, it was immediately met by the DPP raising its stake to NT\$1,000 in its political campaign (NT\$7,000 for each farmer), and subsequently to the KMT further increasing its offer.

Clearly, parties made their offers without doing their sums or pondering over the repercussions of such moves. Social welfare policy has turned into an election tool that will not only create budget deficit problems, but also distort the efficient distribution of public resources. The sustained budget deficits could reduce national savings and further exert a negative impact on long-term economic growth (Adam and Bevan, 2005; Reinhart and Rogoff, 2010; Reinhart, Reinhart and Rogoff, 2012; Feldstein, 2016).

From 1955 to 1980, national defense took the lion's share of all government spending. Since 1990, however, spending on social welfare has exhibited an upward trend. Social welfare expenditures have accounted for large shares of the annual budget, respectively accounting for 23.65% and 23.31% of the total in 2013 and 2016.

There are at least five welfare allowance programs for supporting the elderly, namely, the medium- and low-income elderly living allowance (NT\$3,600 or NT\$7,000 per month), the old-age farmer welfare allowance (NT\$7,000 per month), the veteran home-care allowance

(NT\$14,150 per month), the old-age basic guaranteed pension (NT\$3,500 per month) and the old-age indigenous welfare allowance (NT\$3,500 per month).

With an aging population, the government's welfare policy has played an increasingly important role in enhancing the welfare of the elderly (Tsai, 2008). According to the Report of the Senior Citizen Condition Survey 2013 by the Ministry of Health and Welfare, in 2013, the financial support of those aged 65 years old and above mainly came from their adult children (43.9%) and from government allowances and subsidies (36.3%).

In terms of their living condition, 37.5% of them lived in a three-generation family, followed by 25.8% in a two-generation family, 20.6% lived with their spouse and 11.1% lived alone. The survey also revealed that 81.1% of the elderly suffer from chronic illnesses.

According to the Survey of Family Income and Expenditure 2016 by DGBAS, the percentage of households with the head over 65 years of age increased from 13.28% in 2001 to 19.69% in 2015 and to 20.57% in 2016.

Meanwhile, the percentage of average disposable income for households with the head over 65 years old accounted for 40.71% of the lowest 20% in 2001. The figure increased to 53.12% in 2014 but then fell to 52.52% in 2015. However, in 2016, the figure stood at 53.52% due to the aging population. Evidently, there is an urgent need for the government to provide programs to support the elderly poor.

As shown in Table 5, in 2016, Taiwan's income distribution gap between the highest and the lowest 20% of households in terms of earnings without government transfer payments and social welfare was respectively 7.28 times and 6.08 times that of government transfer payments and social welfare. The income distribution gap was thus reduced 1.21 times.

Table 5 Disposable income changes from current transfers between household and government, 1987–2016

Unit: Times

Year	Ratio of income share of highest 20% to that of lowest 20%			Ratio difference		
	Without current transfers	Including current transfers from government	With current transfers	With current transfers from government	With current transfers to government	With current transfers
	A	B	C	A-B	B-C	A-C
1987	4.88	4.80	4.69	0.08	0.11	0.19
1988	5.05	4.95	4.85	0.11	0.10	0.20
1989	5.18	5.03	4.94	0.15	0.09	0.24
1990	5.53	5.30	5.18	0.23	0.12	0.34
1991	5.31	5.07	4.97	0.24	0.10	0.34
1992	5.57	5.34	5.24	0.23	0.09	0.32
1993	5.76	5.51	5.42	0.26	0.08	0.34
1994	5.79	5.49	5.38	0.31	0.11	0.41
1995	5.93	5.43	5.34	0.50	0.09	0.59
1996	6.17	5.49	5.38	0.68	0.11	0.79
1997	6.25	5.53	5.41	0.72	0.12	0.84
1998	6.49	5.65	5.51	0.84	0.14	0.98
1999	6.47	5.65	5.50	0.82	0.15	0.97
2000	6.57	5.69	5.55	0.88	0.14	1.02
2001	7.67	6.54	6.39	1.13	0.15	1.28
2002	7.47	6.29	6.16	1.18	0.13	1.31
2003	7.32	6.20	6.07	1.12	0.12	1.24
2004	7.41	6.17	6.03	1.24	0.15	1.39
2005	7.45	6.18	6.04	1.26	0.15	1.41
2006	7.45	6.16	6.01	1.29	0.15	1.45
2007	7.52	6.12	5.98	1.40	0.14	1.54
2008	7.73	6.20	6.05	1.53	0.16	1.69
2009	8.22	6.47	6.34	1.75	0.13	1.88
2010	7.72	6.30	6.19	1.42	0.11	1.53
2011	7.75	6.32	6.17	1.43	0.16	1.59
2012	7.70	6.29	6.13	1.42	0.16	1.58
2013	7.53	6.22	6.08	1.31	0.14	1.45
2014	7.40	6.20	6.05	1.20	0.14	1.34
2015	7.33	6.19	6.06	1.14	0.14	1.28
2016	7.28	6.22	6.08	1.07	0.14	1.21

Source: DGBAS, Taiwan.

6. Conclusions

The clear trend towards a rapidly aging population and the swift weakening of family support have created an urgent need for a solid policy on the long-term care of the elderly. In February 2016, Taiwan President Tsai Ing-wen pledged that her administration would allocate NT\$30 billion from tax revenue and NT\$3 billion from the regular government budget to build a sustainable long-term care system for the aging population.

On 29 September 2016, the Executive Yuan promoted a three-tiered “10-Year Long-term Care 2.0 Program” (Chen and Fu, 2020; Wu, Hu and Chiou, 2021). Tier A (flagship stores) comprises community-based integrated service centers, including hospitals, multifunctional daycare centers and service stations in remote areas. Tier B (specialty stores) consists of combined daycare service centers, including local health bureaus. Tier C (corner stores) refers to long-term care stations in alleys and lanes. Seventeen Tier A, 44 Tier B and 85 Tier C centers were established in 2016. Moreover, on 24 November 2017, Taiwan’s Ministry of Health and Welfare launched a nationwide hotline program (1966 Hotline) to offer assistance for long-term care for the elderly.

The Tsai administration also plans to raise tax rates on inheritance and tobacco taxes to finance long-term care. In October 2016, the Executive Yuan announced amendments to the Estate and Gift Tax Act and the Tobacco and Alcohol Tax Act. In April 2017, the Legislative Yuan passed an amendment to the Long-term Care Services Act to hike the estate and gift tax and tobacco tax.

The amendment to the Estate and Gift Tax Act stipulates an increase of 10-20% for inheritance and gift taxes. Tax rates for inherited assets of over NT\$100 million, between NT50 million and NT100 million, and under NT50 million have been revised to a respective 20%, 15% and 10%.

Based on estimates, the increase in inheritance tax will result in an extra NT\$6.3 billion in tax revenues every year. Meanwhile, tobacco taxes will increase from NT\$11.8 to NT\$31.8

per pack, adding NT\$23.346 billion in tax revenue. Since the business cycle might have an adverse impact on these tax revenues, the sustainability of tax revenues for long-term care poses a critical challenge for the Tsai administration. Since the Long-term Care 2.0 Program enlarges government subsidies for the care of the elderly, annual long-term care costs will reach NT\$73.6 billion by 2026, a 369% increase from that of 2016.

As an alternative, long-term care insurance products could reduce family burden and yield high quality long-term care, while the family continues to play a pivotal role as old-age support is still mostly provided by the family, a Taiwanese cultural value.

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