Capital Stock of Thailand in 2019

Overview

1. Gross Capital Stock

Gross capital stock at replacement cost in 2019 was 62,183.5 billion baht, increasing from 2018 by 1,120.3 billion baht. The expansion was from an increase in both public and private sectors by 61.3 billion baht and 1,059.0 billion baht, respectively. Overall investment decelerated, contributed by both public and private investment which resulted in the gross capital stock in real terms increasing by 1.5%, compared to a rise of 2.8% in 2018. The slowdown was mainly from a delay in the passage of a budget bill for the 2020 fiscal year which caused a disbursement for public investment to decrease in the last quarter of 2019, and trade conflict between the United States and China making the global economy more volatility affecting private investors to slow their plans according to a fall in the number of capital goods imports.

2. Net Capital Stock

Net capital stock at replacement cost valued at 38,822.8 billion baht, rising by 574.1 billion baht from 2018. In comparison to GDP at current prices, which was 16,875.9 billion baht in 2019 showed that net capital stock at replacement cost was about 2.3 times larger than GDP.

2.1 Net Capital Stock classified by institutions

The private sector held the majority proportion which accounted for 68.7% of total net capital stock and the remainder of only 31.3% held by the public sector.

2.2 Net Capital Stock classified by economic activities

1) **Agricultural sector:** net capital stock at replacement cost in 2019 recorded at 3,028.5 billion baht. By terms of chain volume measures, the net capital stock grew by 1.3%, slowing down from a 2.9% expansion in 2018.

2) **Non-agricultural sector:** net capital stock at replacement cost in 2019 was 35,794.3 billion baht. In real terms revealed growth at the rate of 1.4%, compared to a rise of 3.1% in 2018. Particular details for the industrial and service sectors are as follows.

- **Industrial:** net capital stock increased by 0.2%, decelerating from a rise of 3.7% in 2018, contributed by lower imports of private machinery and equipment.
- **Services and other sector:** net capital stock grew by 1.9%, slowed down from 2.8% in 2018. The deceleration was seen from wholesale and retail and real estate activities, besides transportation and storage and information and communication decreased. Meanwhile, the main sectors provided positive effect to this year, such as accommodation and food services activities, education and human health and social work activities.

Table 1 Value, Structure and Growth Rate of Gross Capital Stock and Net Capital Stock

Unit – Billion Bath

	2014	2015	2016	2017	2018	2019p
Value of Gross Capital Stock at Replacement Cost	54,750.2	56,670.4	57,214.1	59,077.3	61,063.1	62,183.5
Growth Rate of Gross Capital Stock at CVM (%)	1.7	1.9	2.6	2.2	2.8	1.5
• Public	1.8	3.5	3.2	-1.9	1.6	-0.3
• Private	1.7	1.0	2.3	4.3	3.5	2.3
Value of Net Capital Stock at Replacement Cost	34,856.7	35,830.1	36,054.5	37,070.3	38,248.7	38,822.8
• Public	11,503.7	11,981.9	12,065.3	11,827.2	12,120.6	12,133.7
• Private	23,353.0	23,848.2	23,989.1	25,243.1	26,128.1	26,689.1
Growth rate of Net Capital Stock at CVM (%)	1.4	1.7	2.7	2.2	3.1	1.4
• Public	0.9	1.8	2.4	-2.3	0.8	-0.3
• Private	1.6	1.7	2.8	4.5	4.1	2.2

3. Capital factor sector analysis and sources of economic growth in 2019

3.1 Incremental Capital Output Ratio: ICOR

Overview

In 2019, ICOR was 1.49, implying a one unit increase in GDP took 1.49 additional unit of capital, compared to the value of 1.87 in 2018. Consequently, the overall capital in 2019 performed more efficiently than in 2018. Details of the economic activities are as follows.

Agriculture: ICOR of the agriculture sector was a fall of 27.19. The negative value in 2019 was caused by having more investment in the agriculture sector but getting

lower productivity due to drought conditions and widespread flooding, which caused lower yields.

Industrial: In 2019, the ICOR of the industrial sector was a fall of 16.7, resulting from a fall in the industrial value-added due to a slowdown in overall economy. It can be seen from capital utilization in 2019 which was reduced to 66.0, lower than 69.8 in 2018.

Services and other sectors: ICOR was 1.25, dropped from 1.58 in 2018. Therefore, the use of capital in services and other sectors was more efficient in this year.

3.2 Capital Productivity: CP

Overview

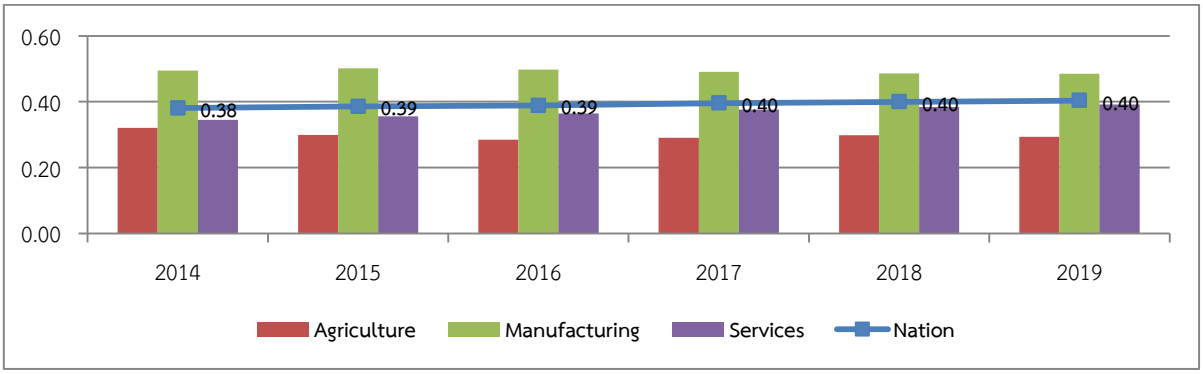
Capital productivity in 2019 was 0.40, remained at the same rate since 2018, indicating each unit of capital is used to produce 0.40 units of GDP. It performed slightly better than the year from 2017 to 2019 which CP was 0.39. Capital productivity is discussed in detail below.

Agriculture: In 2019, capital productivity of the agricultural sector was 0.29 implying one unit of capital will result in 0.29 units in agricultural value-added when compared to the national average which recorded the value at 0.40 making the agricultural sector had the least efficient about capital productivity.

Industrial: capital productivity of the industrial sector was 0.48, slightly decreasing from 0.49 in 2018. Thus one unit of the capital could produce 0.48 units of the value-added of industrial. CP was continuing the downtrend after 2016, which CP was 0.50. However, capital productivity of this sector outperformed the national average.

Services and other sectors: capital productivity of services and other sectors was 0.39, improving from 0.38 in the previous year. However, capital productivity of services and other sectors was still below the national average which was posted at 0.40.

Figure 1 Capital productivity of Thailand, 2013-2019



3.3 Total Factor Productivity: TFP

Thai economy increased by 2.4%, compared to a rise of 4.2% in 2018. When considering the source of growth, the economic growth was mainly contributed by capital factor and TFP with a rise of 0.92%, and 1.66%, respectively. However, the labor factor decreased by 0.22%. TFP by the source of growth is discussed below.

Agriculture: In 2019, the agricultural sector shrank by 0.2%, in contrast to an increase of 5.5% in 2018. When considering the source of growth, labor and TFP were found to be the negative contributors with 0.44%, and 0.76%, respectively, although capital produced a positive growth of 1.04%.

Industrial: Industrial sector in 2019 decreased by 0.03%, in comparison with a growth of 2.7% in 2018. The major negative aspect came from the labor factor with a decrease of 0.63%. There were expansions in the capital sector and TFP which was 0.13% and 0.47%, respectively.

Services and other sectors: In 2019, services and other sectors rose by 4.0%, decelerating from an increase of 4.8% in 2018. This positive outcome came from all the sources of growth, consisted of capital 1.20%, labor 0.42%, and TFP 2.36%.

Table 2 Capital factor analysis and sources of economic growth in 2019

	ICOR*	CP**	GDP Growth	Labor	Land	Capital	TFP***
Overall	1.49	0.40	2.35	-0.22	0.00	0.92	1.66
● Agriculture	-27.19	0.29	-0.16	-0.44	0.00	1.04	-0.76
● Industrial	-16.17	0.48	-0.03	-0.63	-	0.13	0.47
● Services and others	1.25	0.39	3.99	0.42	-	1.20	2.36

*Incremental Capital Output Ratio: ICOR

**Capital Productivity: CP

***Total Factor Productivity: TFP

Indicators of Capital

	2014	2015	2016	2017	2018	2019p
1. Growth rate of GDP (%)	1.0	3.1	3.4	4.1	4.2	2.4
2. Net capital stock at replacement cost (Billion Bath)	34,856.7	35,830.1	36,054.5	37,070.3	38,248.7	38,822.8
● Public	11,503.7	11,981.9	12,065.3	11,827.2	12,120.6	12,133.7
● Private	23,353.0	23,848.2	23,989.1	25,243.1	26,128.1	26,689.1
3. Growth rate of Net Capital Stock at CVM (%)	1.4	1.7	2.7	2.2	3.1	1.4
● Public	0.9	1.8	2.4	-2.3	0.8	-0.3
● Private	1.6	1.7	2.8	4.5	4.1	2.2
4. Structure of Net Capital Stock (%)						
● Public	33.0	33.4	33.5	31.9	31.7	31.3
● Private	67.0	66.6	66.5	68.1	68.3	68.7
5. Net Capital Stock at Replacement Cost (Billion Bath)						
● Agriculture	2,762.5	2,849.8	2,831.8	2,767.6	2,972.0	3,028.5
● Manufacturing	9,016.0	9,314.2	9,465.7	9,901.5	10,354.0	10,458.7
● Services and others	23,078.2	23,666.1	23,757.0	24,401.2	24,922.8	25,335.6
6. Growth Rate of Net Capital Stock at CVM (%)						
● Agriculture	0.6	0.2	3.7	2.6	2.9	1.3
● Manufacturing	-0.5	0.7	3.0	3.4	3.7	0.2
● Services and others	2.2	2.4	2.5	1.9	2.8	1.9
7. Incremental Capital Output Ratio: ICOR	3.61	1.45	2.02	1.42	1.87	1.49
8. Capital Productivity: CP	0.38	0.39	0.39	0.40	0.40	0.40
● Agriculture	0.32	0.30	0.28	0.29	0.30	0.29
● Manufacturing	0.49	0.50	0.50	0.49	0.49	0.48
● Services and others	0.35	0.36	0.36	0.38	0.38	0.39
9. Total Factor Productivity: TFP						
● Agriculture	1.80	-6.11	-3.45	2.66	2.72	-0.76
● Manufacturing	-5.35	1.19	-0.39	0.66	-0.42	0.47
● Services and others	-1.50	3.49	3.22	4.23	3.20	2.36
● Overall	0.89	2.11	2.04	2.84	1.78	1.66

Source: National Accounts Division, Office of the National Economic and Social Development Council