

Capital Stock of Thailand in 2018

Overview

1. Gross Capital Stock

Gross capital stock at replacement cost in 2018 was Bath 61,074.5 billion, increasing from 2017 by Bath 1,999.5 billion. The improvement mainly came from both public and private sectors which rose by Bath 594.4 billion and Bath 1,405.2 billion, respectively. In real term or chain volume measure, the gross capital stock grew by 2.8%, accelerating from 2.2% in 2017. However, in the latter half of the year, investment from the public sector was decreasing, as a result of reducing in budget disbursement of water resource management and road transportation since it was at the end of the project.

2. Net Capital Stock

Net capital stock at replacement cost was Bath 38,237.7 billion, as an increase of Bath 1,168.3 billion from 2017. After comparing to GDP at current prices which accounted for Bath 16,318.0 billion in 2018 indicated that net capital stock at replacement cost was around 2.3 times larger than GDP.

2.1 Net Capital Stock classified by institutions

Private sector held the majority accounted around 68.3% of total net capital stock and the remainder of only 31.7% held by the public sector.

2.2 Net Capital Stock classified by economic activities

Agricultural sector: net capital stock at replacement cost in 2018 was Bath 2,971.7 billion. In terms of chain volume measures, net capital stock increased by 2.9%, compared to a rise of 2.6% in 2017.

Non-agricultural sector: net capital stock at replacement cost in 2018 was Bath 35,266.0 billion. With regard to chain volume measures, net capital stock grew by 3.1%, higher than 2.2% in 2017. Particular details for manufacturing and service sectors are discussed below.

- **Manufacturing:** net capital stock rose by 3.7%, accelerating from 3.4% in 2017 associated with an escalation of investing in private industrial machineries and equipment.

- **Services and other sector:** net capital stock grew by 2.8%, compared to 1.7% in the previous year. There were improvements in almost all sectors, except for public administration which its capital stock decreased in 2017.

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

Unit – Billion Bath

	2013	2014	2015	2016	2017	2018p
Value of Gross Capital Stock at Replacement Cost	52,853.0	54,750.2	56,678.5	57,219.2	59,075.0	61,074.5
Growth Rate of Gross Capital Stock at CVM (%)	3.3	1.7	1.9	2.6	2.2	2.8
● Public	4.3	1.8	3.5	3.2	-1.8	1.3
● Private	2.8	1.7	1.0	2.3	4.3	3.6
Value of Net Capital Stock at Replacement Cost	33,956.3	34,856.7	35,834.6	36,057.4	37,069.4	38,237.7
● Public	11,195.3	11,503.7	11,982.7	12,070.6	11,832.6	12,122.7
● Private	22,761.0	23,353.0	23,851.9	23,986.8	25,236.8	26,115.0
Growth rate of Net Capital Stock at CVM (%)	2.3	1.4	1.7	2.7	2.3	3.1
● Public	3.3	0.9	1.8	2.3	-2.2	0.8
● Private	1.8	1.6	1.7	2.8	4.5	4.1

3. Capital factor sector analysis and sources of economic growth in 2018

3.1 Incremental Capital Output Ratio: ICOR

Overview

In 2018, ICOR was 1.87, indicating a one unit increase in GDP took 1.87 additional units of capital, compared to the value of 1.44 in 2017. It implied that the performance of capital in 2018 was lower than in 2017. Details of the selected year are mentioned below.

Agriculture: ICOR of agriculture sector in 2018 was 2.00, lower than 2.41 in 2017. It indicated that an increase in one unit of agricultural value added required 2.0 unit increase in capital. Notably, the agricultural sector performed better than previous year.

Manufacturing: In 2018, ICOR for the manufacturing sector was 2.81, compared with 3.13 in 2017, implying an increase in one unit in GDP required 2.81 additional units of capital. Consequently, capital in the manufacturing sector in 2018 was more efficient than in the previous year.

Services and other sectors: ICOR was 1.56, increasing from 0.94 in 2017. Evidently, it performed less in 2018.

3.2 Capital Productivity: CP

Overview

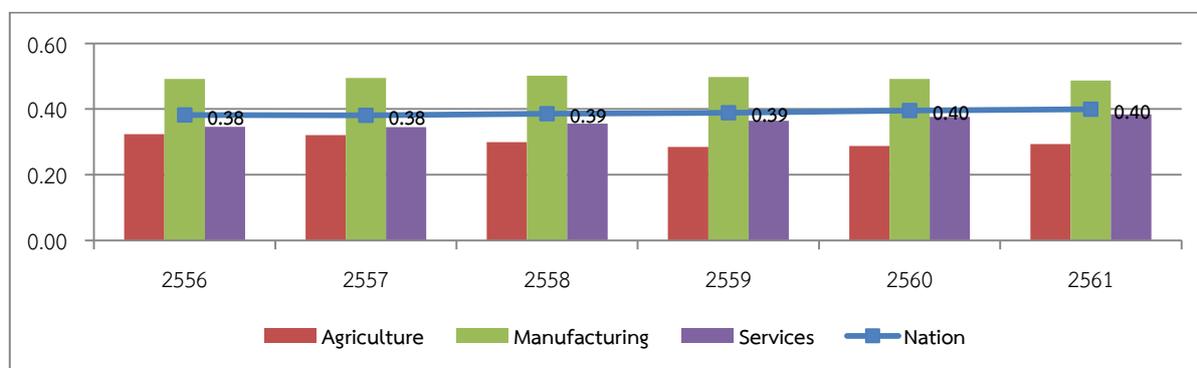
Capital productivity in 2018 was 0.40, the same rate as in 2017, implying each unit of capital is used to produce 0.40 unit of GDP. It performed slightly better than the year 2013 to 2016 which CP was around 0.38 and 0.39. The estimated capital productivity is discussed in detail below.

Agriculture: Capital productivity in the agricultural sector was 0.29. It indicated that one unit of capital will result in 0.29 unit in agricultural value added when compared to national average which recorded the value at 0.40 implying lower performance of capital productivity in agricultural sector than other sector average.

Manufacturing: For the manufacturing sector, capital productivity was 0.49 similar rate to 2017. Thus one unit of capital could produce 0.49 unit of manufacturing value added. However, CP from 2017 and 2018 were decreasing from 0.50 in 2016. When breaking down into each sector, it indicated that capital productivity of this sector outperformed the national average.

Services and other sectors: In 2018, capital productivity of services and other sector was 0.38, recording at the same as in 2017. It implied that capital productivity of services and other sectors was less efficient comparing to national average.

Figure 1 Capital productivity of Thailand, 2013-2018



3.3 Total Factor Productivity: TFP

Thai economy expanded from 4.0% in 2017 to 4.1% in 2018. From the source of growth estimate, it was found that capital factor, labor factor and TFP explained 2.0%, 0.37% and 1.76% of total growth, respectively. Source of growth by selected sectors is discussed below.

Agriculture: In 2018, the agricultural sector grew at a higher rate of 5.1%, compared to 3.7% in 2017. When considering the source of growth, capital, labor and TFP were found to be the positive contributors with 2.48%, 0.35% and 2.25%, respectively.

Manufacturing: Manufacturing sector in 2018 rose by 2.7% in comparison with a growth of 2.2% in 2017. This was caused by an expansion in the capital sector, labor sector and TFP, which was 2.53%, 0.33% and 0.17%, respectively.

Services and other sectors: In 2018, services and other sectors grew at a lower rate of 4.8%, compared to 5.1% in 2017. In considering to the source of growth, a decelerating growth was caused by capital factor and TFP, literally by 1.72% and 3.26%. However, the labor factor showed a negative growth of 0.18% in this year.

Table 2 Capital factor analysis and sources of economic growth in 2018

	ICOR*	CP**	GDP Growth	Labor	Land	Capital	TFP***
Overall	1.87	0.40	4.10	0.37	0.0	2.01	1.76
● Agriculture	2.00	0.29	5.10	0.35	0.0	2.48	2.25
● Manufacturing	2.81	0.49	2.70	0.33	0.0	2.53	-0.17
● Services and others	1.56	0.38	4.80	-0.18	0.0	1.72	3.26

*Incremental Capital Output Ratio: ICOR

**Capital Productivity: CP

***Total Factor Productivity: TFP

Indicators of Capital

	2013	2014	2015	2016	2017	2018p
1. Growth rate of GDP (%)	2.7	1.0	3.1	3.4	4.0	4.1
2. Net capital stock at replacement cost (Billion Bath)	33,956.2	34,856.6	35,834.5	36,057.3	37,069.4	38,237.7
● Public	15,805.1	16,053.4	16,324.6	16,786.7	17,544.6	18,271.3
● Private	22,760.9	23,852.9	23,851.9	23,986.8	25,236.8	26,114.9
3. Growth rate of Net Capital Stock at CVM (%)	2.3	1.4	1.7	2.7	2.3	3.1
● Public	3.3	0.9	1.8	2.3	-2.2	0.8
● Private	1.8	1.6	1.7	2.8	4.5	4.1
4. Structure of Net Capital Stock (%)						
● Public	33.0	33.0	33.4	33.5	31.9	31.7
● Private	67.0	67.0	66.6	66.5	68.1	68.3
5. Net Capital Stock at Replacement Cost (Billion Bath)						
● Agriculture	2,644.9	2,762.5	2,849.8	2,831.9	2,767.7	2,971.7
● Manufacturing	8,773.2	9,015.9	9,318.3	9,466.9	9,898.5	10,349.4
● Services and others	22,538.2	23,078.2	23,666.5	23,758.6	24,403.2	24,916.6
6. Growth Rate of Net Capital Stock at CVM (%)						
● Agriculture	2.5	0.6	0.2	3.7	2.6	2.9
● Manufacturing	3.0	-0.5	0.6	3.0	3.4	3.7
● Services and others	2.0	2.2	2.3	2.4	1.7	2.8
7. Incremental Capital Output Ratio: ICOR	2.26	3.52	1.44	2.06	1.44	1.87
8. Capital Productivity: CP	0.38	0.38	0.39	0.39	0.40	0.40
● Agriculture	0.32	0.32	0.30	0.28	0.29	0.29
● Manufacturing	0.49	0.49	0.50	0.50	0.49	0.49
● Services and others	0.35	0.35	0.36	0.36	0.38	0.38
9. Total Factor Productivity: TFP						
● Agriculture	-1.29	1.80	-6.10	-3.46	1.70	2.25
● Manufacturing	-0.56	-5.35	1.19	-0.39	0.47	-0.17
● Services and others	2.68	-1.50	3.49	3.28	4.23	3.26
● Overall	1.25	0.89	2.11	1.98	2.78	1.76

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