The Determinants of Investment and Economic Growth
The Case of the Philippines

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Investment Updates

Investment-led growth resumed as mobility restrictions were eased and COVID-19 vaccination was rolled out nationwide. Capital formation, the most comprehensive measure of investment, rose as percent of GDP to 25.1% in the first semester of 2022, moving closer to its level in 2019, the last normal year before the pandemic. (Table 1)

Capital formation, which is tracked by the National Income Accounts, shows a real growth of 20.5% in the first semester of 2022 after a sterling 20.3% surge in 2021. Of the major components of investments, fixed capital grew by 11.8%, replicating its 2021 double-digit growth. Inventory accumulation also resumed as demand recovered and labor mobility returned.

Table 1. GROSS CAPITAL FORMATION	2019	2020	2021	2021S1	2022S2
At Constant 2018 Prices					
Capital formation	**5,132.3**	3,375.8	4,061.0	2,002	2,411
% of GDP	**26.5%**	**19.2%**	**21.9%**	**22.5%**	**25.1%**
A. Fixed Capital	**5,175.5**	3,761.8	4,136.0	2,072.7	2,334.1
1. Construction	**3,206.0**	2,242.5	2,491.4	1,256.5	1,449.4
2. Durable Equipment	**1,424.5**	1,001.6	1,123.3	572.7	634.0

3. Breeding Stock & Orchard Development	**403.6**	389.9	376.9	185.0	187.3
4. Intellectual Property Products	**141.4**	127.8	144.3	58.5	63.4
B. Changes in Inventories	**(44.6)**	(386.7)	-75.8	(71.2)	76.9
C. Valuables	**1.4**	0.7	0.8	0.4	0.3
At Constant 2018 Prices	**Growth Rates**				
	2019	**2020**	**2021**	**2021S1**	**2022S1**
Capital formation	28.1%	-34.2%	20.3%	23.8%	20.5%
A. Fixed Capital	25.8%	-27.3%	9.9%	6.9%	12.6%
1. Construction	29.8%	-30.1%	11.1%	3.8%	15.4%
2. Durable Equipment	27.1%	-29.7%	12.2%	19.0%	10.7%
3. Breeding Stock & Orchard Development	7.1%	-3.4%	-3.3%	-2.9%	1.2%
4. Intellectual Property Products	-3.4%	-9.6%	12.9%	5.6%	8.4%
B. Changes in Inventories	-59.1%	767.0%	-80.4%	-77.9%	-208.1%
C. Valuables	88.1%	-50.7%	8.2%	8.8%	-24.5%

Source: Philippine Statistics Authority

Another measure of investment is foreign direct investment (FDI) and portfolio investments tracked by the balance of payments account which is released periodically by the Bangko Sentral ng Pilipinas (Table 2). These measure the amount of investment coming from foreign investors. Foreign direct investment (FDI) is the more important indicator because it measures the amount of investment in the form of a controlling ownership in a business in one country by foreign investors which implies more active participation and more commitment by the investors in management.

It is distinguished from **foreign portfolio investment** wherein the investor is a passive participant and has no direct management control. In contrast, a portfolio investor may buy and sell stocks and bonds daily and generates profits on price differences. Portfolio investment is referred to as "hot money" because it can leave anytime.

Table 2. BALANCE OF PAYMENTS ACCOUNT	2019	2020	2021	2021S1	2022S1
FOREIGN DIRECT INVESTMENTS (NET), million US$	8,670	6,743	10,500	4,323	5,369
FOREIGN DIRECT INVESTMENTS (NET), million Php	449,085	334,557	517,280	208,522	279,700
% of GDP	2.09%	1.73%	2.54%	2.28%	2.71%
PORTFOLIO INVESTMENTS (NET), million US$	(1,856)	(4,240)	(629)	-161	728
PORTFOLIO INVESTMENTS (NET), million Php	(96,145)	(210,386)	(30,989)	(7,758.92)	37,936.64

% of GDP	-0.4%	-1.1%	-0.2%	-0.08%	0.37%
	GROWTH RATES				
	2019	**2020**	**2021**	**2021S1**	**2022S1**
FOREIGN DIRECT INVESTMENTS (NET), million US$	-12.9%	-22.2%	55.7%	50.1%	24.2%
FOREIGN DIRECT INVESTMENTS (NET), million Php	-8.4%	-25.5%	54.6%	47.7%	34.1%
FOREIGN DIRECT INVESTMENTS (NET), million US$	-558.0%	128.4%	-85.2%	-91%	-553%
FOREIGN DIRECT INVESTMENTS (NET), million Php	-581.6%	118.8%	-85.3%	-92%	-589%

Source: Bangko Sentral ng Pilipinas

Foreign direct investment (FDI) increased by 24.2% in US$ terms in the first semester of 2022 from 50.1% during the same period in 2021. As percent of GDP, this shows a rise from 2.3% in 2021 to 2.7% in 2022, exceeding the 2.1% level set in 2019. (Table 2)

Portfolio investments which are minority holdings in local company stocks and bonds by foreign investors show significant variability, declining from –U$1.9 billion in 2019 to –US$4.2 billion 2021 due to the impact of the pandemic which made values of global stocks and bonds highly uncertain. However, it recovered to US$728 million in 2022 despite uncertainties intensified by the Russia-Ukraine war, the surge of petroleum prices and the worldwide monetary tightening. During such periods, such investors usually shift their portfolios to developed economies. As percent of GDP, the ratio of portfolio investment to GDP improved from -0.4% in 2019 to 0.4% of GDP in the first half of 2022. This indicates that the country's favorable macroeconomic fundamentals overturned the negative impact of external shocks.

Fiscal incentives became less important as driver of investment growth. The third measure of investments which represents the approved investments compiled by the Philippine Statistics Authority (PSA) from the investment promotion agencies shows a drop in approvals from 2019 to 2021 from 6.1% of GDP in 2019 to 3.7% in 2021. This occurred even as overall investment levels as measured by capital formation rose steadily. However, a swift recovery occurred in 2022 with approvals rising 19.0% in the first half of 2022, boosting its share in GDP to 2.8% of GDP. (Table 3)

The continuing rapid rise in capital formation and FDI, particularly for those sectors not seeking fiscal incentives, implies that investors are attracted primarily by the country's improving economic fundamentals. While the World Trade Organization (WTO) projects world trade to rise 3.5% in volume terms in 2022, growth is expected to slow down to 1% in 2023. This is due to global tensions, the disruption of global value chains and monetary tightening in almost all countries to counter inflation. Meanwhile, domestic value chains continue to improve with the rise of the government's infrastructure program.

Table 3. APPROVED INVESTMENTS WITH FISCAL INCENTIVES	2019	2020	2021	2021S1	2022S1
TOTAL APPROVALS, in billion pesos	1,309.15	1,139.37	756.63	249.18	290.18
Foreign	390.13	112.11	192.26	41.97	55.21
Filipino	919.02	1,027.26	564.37	207.21	234.97
% of GDP	6.1%	5.9%	3.7%	2.7%	2.8%
Foreign as % of Approved Investments	29.8%	9.8%	25.4%	16.8%	19.0%
% of CAPITAL FORMATION	26.4%	22.1%	24.2%	12.7%	10.7%
	GROWTH RATE				
	2019	**2020**	**2021**	**2021S1**	**2022S1**
TOTAL APPROVALS, in billion pesos	73.0%	-13.0%	-33.6%	5.6%	16.5%
Foreign	102.9%	-71.3%	71.5%	-5.9%	31.5%
Filipino	62.8%	11.8%	-45.1%	-79.8%	13.4%

Determinants of Investment

Private investment is heavily influenced by three factors:

1. Real GDP growth;
2. Public investment; and
3. Real lending rate.

Real GDP growth boosts private investments. When real GDP rises, market opportunities expand thus encouraging the private sector to set up and/or expand production capacities to take advantage of rising demand. Private investment follows GDP growth with a two quarter lag. Regression analysis using data from 2014 to 2021 show that for every percentage point rise in GDP, private investment grows by additional 2.8 percentage points. (see Table 4)

Table 4. REGRESSION RESULTS

(1) LN PRIVATE INVESTMENT = 2.83 LN REAL GDP(-2)	– 3.71 REAL LENDING RATE (-1)	
(2.7)	(-1.87)	
+ 0.39 LN PUBLIC INVESTMENT		
(2.62)		
R2 adj = 0.28		
(2) LN PUBLIC INVESTMENT = 26.66 LN REAL GDP	– 147.04 CONSTANT	
(3.22)	(-2.76)	
R2 adj =0.34		
n = 18		

Private investors also tend to follow the footsteps of government when they decide on investment. Infrastructure investments by government increase the competitiveness of private investments. A percentage point increase in public investment boosts private investment by 0.39 percentage point. On the other hand, a percentage point increase in the real lending rate dampens private investment by 3.71 percentage points. Thus, when the Fed normalizes monetary policy, the Philippines may also tighten money supply to maintain financial stability. The rise in interest rates, however, tends to discourage private investment, especially in sectors with lower rates of return.

In the case of public investments, real GDP is the only significant variable. This is due to the fact that public investments are sensitive to revenue collections which are highly correlated to real GDP. Thus, when the government decides to move economic growth to a higher trajectory through rapid, investment-led growth, it has to boost public sector resource mobilization through tax policy and administration reforms. This is necessary to avoid a debt crisis in the long run.

Good macroeconomic fundamentals, efficient public sector resource mobilization and infrastructure investments are strong determinants of private investment. When government has adequate revenues to finance public investment particularly infrastructure, private investments also grow at rapid pace. The 8.7% annual increase (in real terms) of National Government (NG) investment to reach 6.2% of GDP in 2028 under the infrastructure program will boost private investment by an incremental 3.45 percentage points annually thus raising the country's economic growth.