

THE FUTURE OF THE PHILIPPINE ECONOMY AND AGRO-INDUSTRY: THE ROLE OF PRODUCTIVITY GROWTH



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Issues

Economic targets (PDP 2017 – 2022)

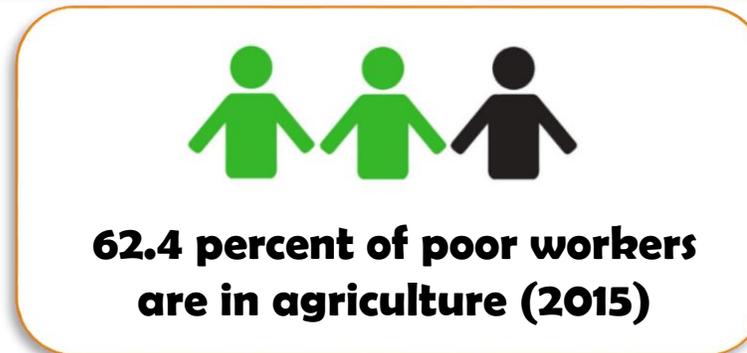
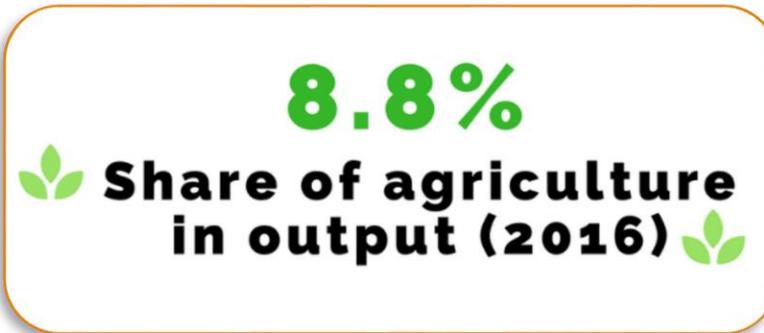
By 2022:

- Annual economic **growth of 7 – 8%**
up to 2040 (“Ambisyon”)



- **Per capita GDP to rise 41%** over the period 2015 – 2022,
reach upper middle income status of \$5,000
(vs. Thailand: \$5,690 in 2015)
- **Poverty to decline: 21.6% → 14.0%**
in 2015 *in 2022*

In fact,



➤ *Policies needed to reach agriculture-dependent households to achieve inclusive growth*

Importance of agriculture

- Unfortunately,



- Agricultural wages:



- Moreover, the agriculture sector must contend with climate change; growth in 2017 was 4.0% with recovery from El Nino

Sources of growth

- Short run – macroeconomic stabilization – fiscal balance, monetary restraint – *problem solved*
- Long run – supply factors: growth in labor, capital, technical progress
- Technical progress - measured by TFP growth: best prospect for long term growth





Scenarios

Definition of scenarios (2013 – 2030)

Scenarios

- **Reference scenario:** identifying the productivity trends that will sustain the growth patterns observed since 2010, which reflect targets set in the PDP 2017-2022.
- Reference + subsidy: payment for use of capital in agriculture = 5%
- **Productive agriculture:** same as Reference scenario, except productivity in agriculture accelerates - match that of industry and services.
- **Climate change:** the same as Reference scenario, except agricultural productivity remains flat
- **Productive industry-services:** as in Reference scenario, but TFP growth in industry and services accelerates by 0.5 percent points p.a.

Assumptions for reference scenario

	2014	2015	2016	2017	2018-2030
Agricultural sectors	-2.00	-2.00	-2.75	2.75	1.00
Industry sectors	1.50	2.00	2.50	2.50	2.50
Service sectors	2.00	2.20	2.50	2.50	2.50

Compare 2010 – 2014 TFP estimates:

- FRED: 2.8%
- Abo et al (2016): 2.4%

Validation with data (2014 – 2016)

	Official data				Reference scenario			
	2014	2015	2016	2010-16	2014	2015	2016	2017-30
Agriculture	1.7	0.1	-1.3	1.0	1.9	0.2	-0.7	1.98
Industry	7.8	6.4	8.4	7.5	8.6	5.3	8.4	8.18
Services	6.0	6.9	7.4	6.7	5.5	7.6	6.9	6.73
GDP	6.1	6.1	6.9	6.3	6.1	6.1	6.6	6.91

Assumptions for other scenarios

	Productive agriculture	Climate change	Productive industry-services
Agriculture	2.5	0	1.0
Industry	2.5	2.5	3.0
Service	2.5	2.5	3.0

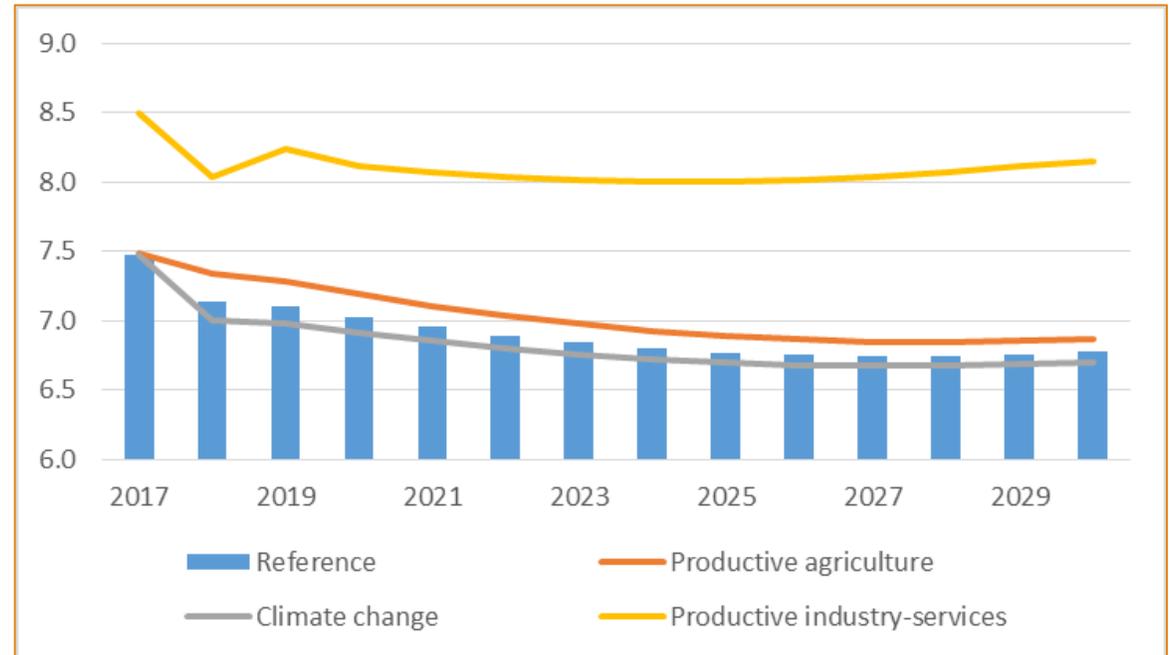


Results

Projections for GDP

Average growth rates by scenario, 2017 – 30 (%):

- Reference 6.91
Subsidy: 6.90
- Productive agriculture 7.03
- Climate change 6.83
- Productive I-S 8.10

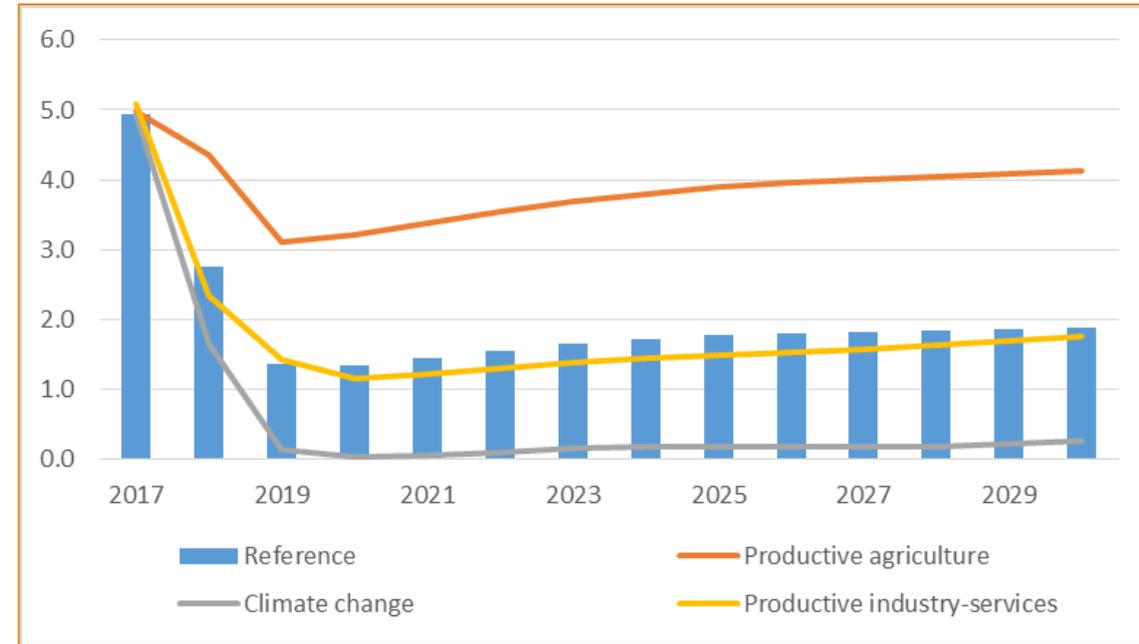


*Growth targets achievable under trend rates of TFP growth for industry-service.
Small increment in TFP growth for I-S leads to large increment in GDP growth,
contrasting with the impact of TFP growth in agriculture.
Subsidies have slight negative impact on GDP growth*

Projections for Agricultural GVA

Average growth rates by scenario, 2017 – 30 (%):

- Reference 1.98
Subsidy: 2.32
- Productive agriculture 3.87
- Climate change 0.61
- Productive I-S 1.79



Overall growth in agriculture resembles the trend in agricultural TFP growth.

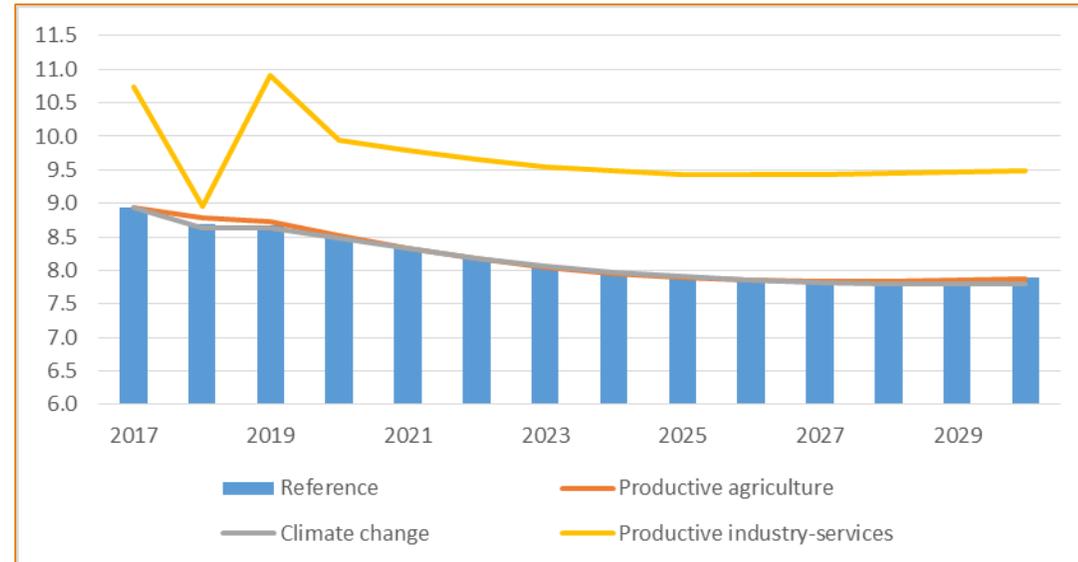
No growth impact from faster TFP growth of I-S sectors.

Subsidy moderately accelerates growth in agricultural GVA

Projections for Industry GVA

Average growth rates by scenario, 2017 – 30 (%):

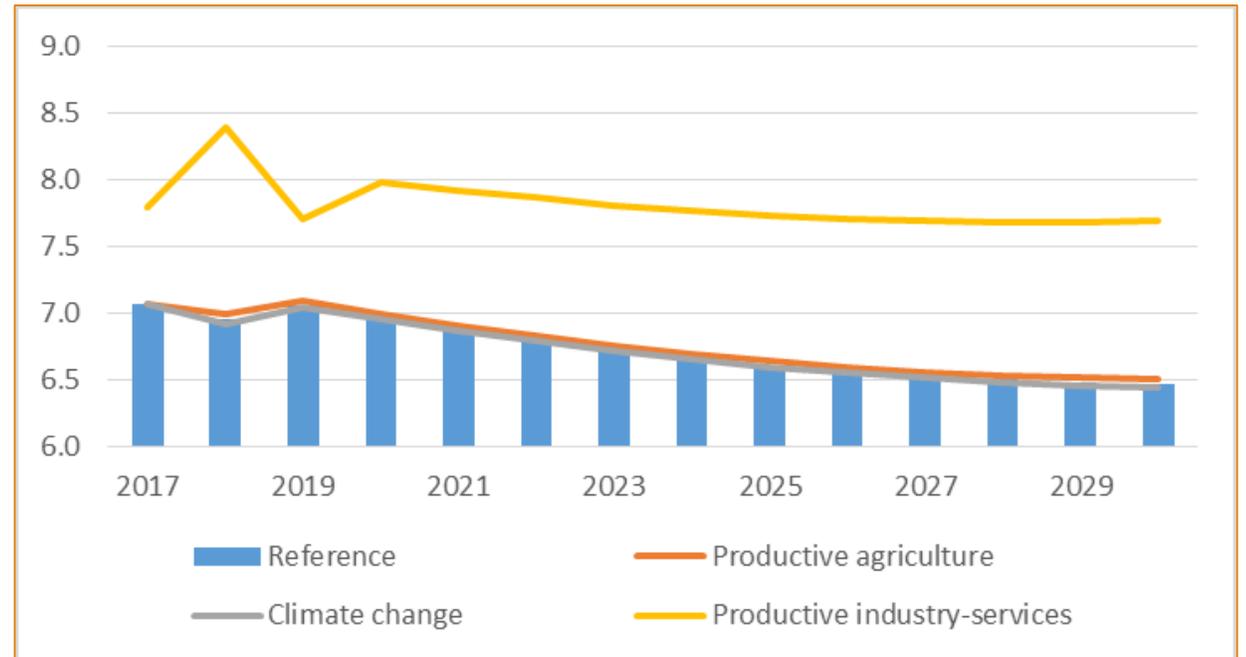
- Reference 8.18
Subsidy: 8.16
- Productive agriculture 8.19
- Climate change 8.16
- Productive I-S 9.69



Projections for Service GVA

Average growth rates by scenario, 2017 – 30 (%):

- Reference 6.73
Subsidy: 6.73
- Productive agriculture 6.76
- Climate change 6.72
- Productive I-S 7.82



Industry to lead in growth performance, with service at average pace. Both sectors largely unaffected by changes in agricultural sector.

Growth in I-S rises significantly with small increment in growth of TFP.

Projections for wages (in real terms)

Agricultural wage

	2013-16	2017-19	2020-22	2023-25	2025-30	2013-30
Reference	4.44	3.86	3.37	3.34	3.08	3.54
Productive agriculture	4.44	4.09	3.84	3.95	3.89	4.02
Climate change	4.44	3.69	2.95	2.71	2.10	3.02
Productive industry-services	4.44	4.75	4.07	3.89	3.39	4.00

Industry-Service wage

	2013-16	2017-19	2020-22	2023-25	2025-30	2013-30
Reference	4.05	5.31	5.09	4.71	4.28	4.62
Productive agriculture	4.05	5.60	5.53	5.24	4.97	5.05
Climate change	4.05	5.11	4.71	4.16	3.38	4.14
Productive industry-services	4.05	6.25	5.88	5.35	4.63	5.13

Agricultural wages will grow, but will be outpaced by industry-service wages. Growth in agricultural wage is significantly affected by productivity growth in agriculture, as well as by productivity growth in industry-service.



Conclusion

Conclusion

- Sustaining productivity growth (at recent trend rates) for industry and services suffices to reach PDP growth targets
- Weak performance of agriculture will persist if poor TFP performance persists
- Input subsidy can boost agri GVA growth but reduce overall GDP growth
- Agricultural wages to rise, but wage disparity continues to widen

Conclusion

- Productivity growth in agriculture impacts strongly on agriculture itself but hardly the industry-service sectors
- Similarly, productivity growth in industry-services impacts strongly on itself and GDP, but not agriculture
- Little support for strong indirect impacts

Conclusion

- Strong support for accelerated growth in TFP, across all basic sectors
- TFP can be boosted by R&D, innovation, adoption of technology, improved practices and systems, public goods (e.g. transport infrastructure)
- No rationale for provision of private goods
- Possible case for strengthening agricultural value chains → increase inter-industry flows, accelerate capital formation in specific industries, e.g. food manufacturing based on domestically produced raw materials



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