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PHILIPPINES

SELECTED ISSUES

December 2024

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November 15, 2024

Approved By
Asia and Pacific Department

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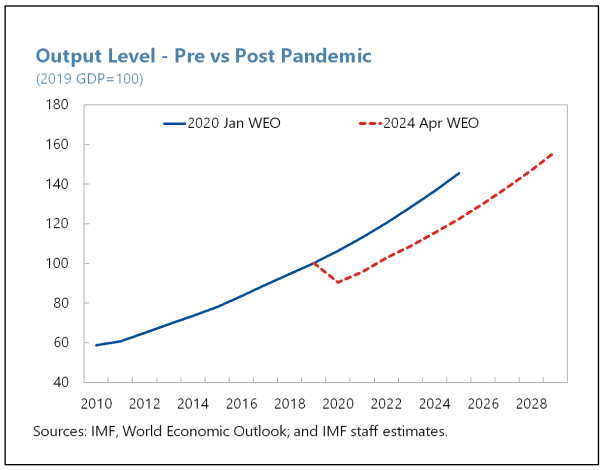
POTENTIAL GROWTH AND DEMOGRAPHIC DIVIDEND[1]

Output and employment in the Philippines were severely impacted by the COVID-19 pandemic. While the Philippines recovered strongly after the pandemic, there is some evidence of scarring in output, and labor productivity remains below pre-pandemic trends. At a structural level, the Philippines is on the cusp of a demographic transition but must close important structural gaps to take advantage of this potential dividend and boost growth. Under current policy settings, potential growth projections are estimated to be between 6.0-6.3 percent in the medium term. An upside scenario, which assumes ambitious and well-sequenced structural reforms, shows that growth could reach 7.0-7.5 percent over a longer time horizon.

A. Recent Developments

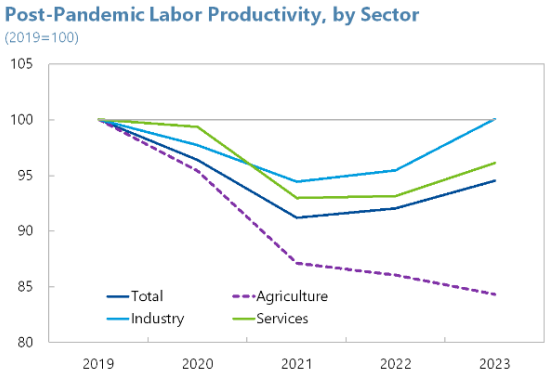
1. While the Philippine economy has undergone a rapid recovery from the COVID-19 pandemic since 2022, growth remains below its pre-pandemic trend. Economic activity was severely disrupted by the pandemic, not the least because the Philippines imposed one of the strictest lockdowns globally. Real GDP in 2020 fell by 9.5 percent and the unemployment rate surged to 10.3 percent. The ensuing years marked a significant recovery, with real GDP growth peaking at 7.6 percent in 2022, before moderating to 5.5 percent in 2023. Although unemployment has reverted to pre-pandemic levels, averaging 4.4 percent in 2023, a considerable disparity persists between the anticipated growth trend pre-pandemic and the actual real GDP growth.

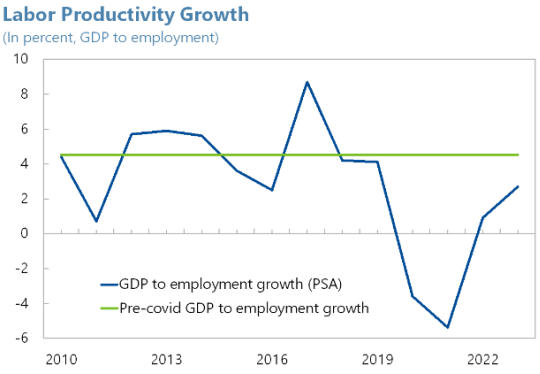


2. While employment has recovered since the pandemic, labor productivity is lagging. In the period following the pandemic, the unemployment rate has decreased to levels lower than those before the pandemic. Nonetheless, the slower recovery in output, coupled with this employment resurgence, has led to labor productivity—both in absolute terms and growth rates—remaining below the averages seen before the pandemic (Figure 1). Labor productivity has been particularly weak in agriculture, but also remains well below its pre-pandemic level in the services sector.

[1] Prepared by Margaux MacDonald (APD) with contributions by Ragnar Gudmundsson and Anne-Charlotte Paret Onorato.

Figure 1. Philippines: Post-Pandemic Sectoral Employment and Labor Productivity





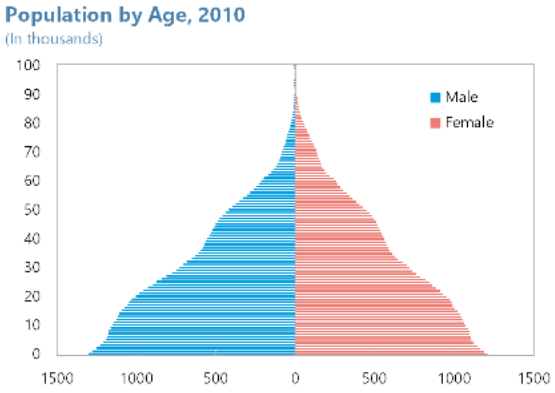
Sources: Haver Analytics; Philippine Statistics Authority; and IMF staff calculations.

Notes: Labor productivity is measured as GDP (total or sectoral) divided by employment.

B. Demographic Trends

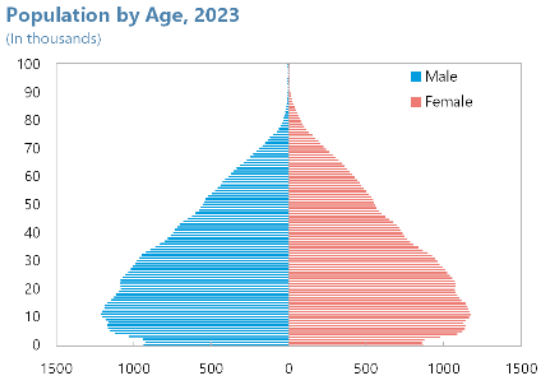
3. Population trends indicate that the Philippines is currently in a demographic dividend era. By end-2024, it is projected that the Philippines' dependency ratio—the ratio of the population ages 0-14 plus 65+ divided by the population 15-64—will fall below 50 percent. United Nations population forecasts suggest that the working age population will continue to grow until around 2045. This can, under the right policy settings, liberate resources for investment in economic development and family welfare, spur growth and increase per capita income. Research indicates that demographic transitions were responsible for 10-50 percent of East Asia's economic growth from 1965 to the mid-2000s (Moroz and others, 2021).[2] In the period between 2060 and 2070, the dependency ratio in the Philippines is expected to exceed 50 percent, with the national population beginning its decline around 2060. This shift will denote the Philippines' transition into the later stages of the demographic dividend period, characterized by an increasing proportion of older dependents (Figure 2).

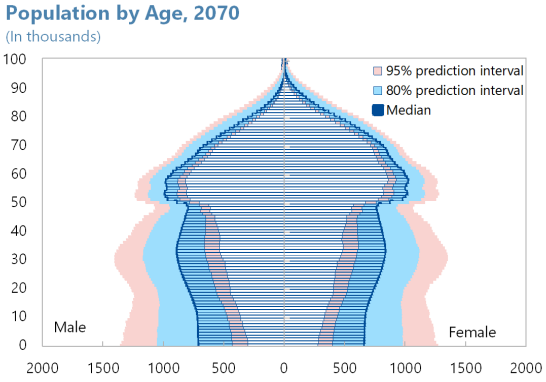
Figure 2. Philippines: Demographic Dividend Timeline



[2] This includes estimates for Thailand, Japan, China, and Singapore.

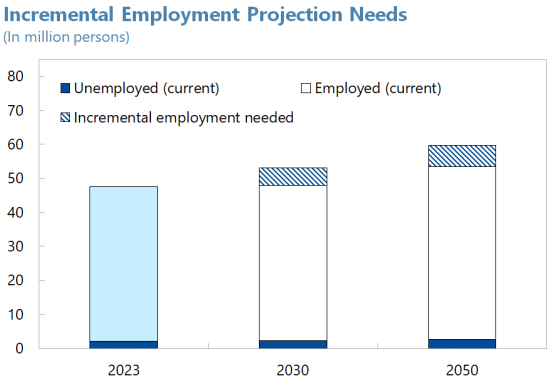
Figure 2. Philippines: Demographic Dividend Timeline (Concluded)





Source: UN Population Projections.

4. The dividends from demographic transition are not automatic, not the least because the Philippines will need to generate millions of jobs for its rising population. The implementation of supportive policies is essential for harvesting the demographic dividend and attaining macroeconomic and developmental goals (World Bank Group, 2016; Bloom, Canning, and Sevilla, 2003; Gu, Kolovich, Mondragon, Newiak, and Herrmann, 2024). These policies should focus on providing access to quality education, health services, employment opportunities, and financial services for the younger population, among other priorities (IMF, 2013). Employment opportunities will be particularly critical as the Philippines will need to create at least 12 million new jobs between now and 2050, or an average of about 450 thousand per year.[3]



Sources: Philippines Statistical Authority; and IMF staff estimates.
Note: Calculations assume a constant LFP rate of 65 percent from

C. Structural Gaps

5. A comparison between the Philippines and peer countries along structural areas key to supporting higher growth can inform reform efforts to support higher growth. Specifically, we undertake a benchmarking exercise based on IMF (2024) to assess the Philippines' structural gaps at a granular level. We benchmark against regional peers (ASEAN-6) and two groups of upper

[3] During the period 2005-2019 the Philippines created on average 700 thousand jobs per year. If instead the Philippines targets a higher labor force participation rate, particularly for women, the number of jobs needed to be created would rise.

middle-income countries (G20 EMs and OECD-EMs[4])—an income level which the Philippines is aiming to achieve in the near term. We compare the Philippines along eight dimensions that have been shown in the literature to be important for achieving high growth, including: trade regulation and barriers, business regulation and infrastructure, economic complexity and openness, credit market regulation and financial inclusion, governance, labor markets, human capital, and human development, health, and demographics.

6. Under each of the eight structural categories we use several granular measures of structural characteristics which have been found to be important drivers of growth. These variables are listed in Table 1.[5] Because all variables are defined and scaled differently, we normalize all to range from 0 to 1, with higher values denoting better outcomes. We focus on the gaps between the Philippines and each comparator's group's median, such that the results are less likely biased by outliers. Gaps should not be interpreted in relation to a possible frontier in each area, but rather as gaps to be bridged to help resemble the typical country in each comparator group. A gap of zero implies the Philippines is the median country in the sample. Negative gaps indicate that the Philippines performs better than the comparator group's median in a specific area. Many of the indicators are based on public perception and surveys, but still considered as they do allow to get a broader picture of the considered structural area.[6]

D. Trade Openness and Investment Environment

7. The Philippines ranks about evenly with ASEAN peers on trade openness but is less open than upper-middle income countries. While the Philippines ranks among the middle of the pack on most trade openness measures in comparison to ASEAN-6 peers, it is much less open than OECD EMs with regards to trade restrictions (tariff and non-tariff), trade facilitation, and external sector regulation reform. Additionally, the Philippine authorities have identified maritime shipping as another area where the cost and ease -of -doing -business could be significantly improved.

8. The Philippines has space to improve its business environment and infrastructure. While the Philippines is comparable to peers on complexity and diversification, it lags on economic openness, business regulation reform, electricity access and logistics. These are key to private investment and productivity growth in sectors which the Philippines wishes to expand capacity, including the industrial and manufacturing sectors. The authorities' Philippine Development Plan 2023-28 highlights additional infrastructure gaps not captured by these broad measures. These include facility and equipment infrastructure gaps in education which reduce learning opportunities for students. Basic physical infrastructure gaps, including roads, especially in poor or remote communities, which impede service delivery and adversely affect livelihoods. Large digital infrastructure gaps, as exemplified by the cost of fixed broadband being about four times higher than in Vietnam and more than twice the Southeast Asia average according to the World Bank.

[4] G20 EMs include Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, and Turkey. Countries classified as OECD EMs include Chile, Colombia, Costa Rica, Hungary, Mexico, Poland, and Turkey. Of these, Chile, Hungary and Poland are classified by the World Bank as high income.

[5] See IMF, 2024, for a detailed discussion of each indicator.

[6] These indicators provide qualitative information about each of the structural areas and do not represent the IMF's assessment of the level of each structural gap.

Recent legislative reforms as well as an emphasis on developing physical and digital infrastructure through public-private partnerships (PPPs) and using green lanes to fast-track strategic investment aims to close some of these gaps. On the positive side, financial markets in the Philippines appear to be operating at least as well, if not better than upper -middle-income countries, with regards to credit provision and financial market regulation, but less well than ASEAN peers.

E. Governance

9. Strengthening anti-corruption efforts, while enhancing the legal system, regulatory quality, and improving the rule of law would support business certainty. Gaps are identified relative to ASEAN peers in these areas, though the Philippines performs better than G20EM countries and relatively closer to peers in measures of regulatory quality, accountability, and effectiveness. Building on these successes in other measures of government would help support private investment, including through fair contract enforcement and protection of property rights.

Figure 3. Philippines: Granular Structural Characteristics, Gap to Comparator Country Groups

(Philippines gaps relative to peer group median; positive gap indicates a worse outcome relative to comparator group)

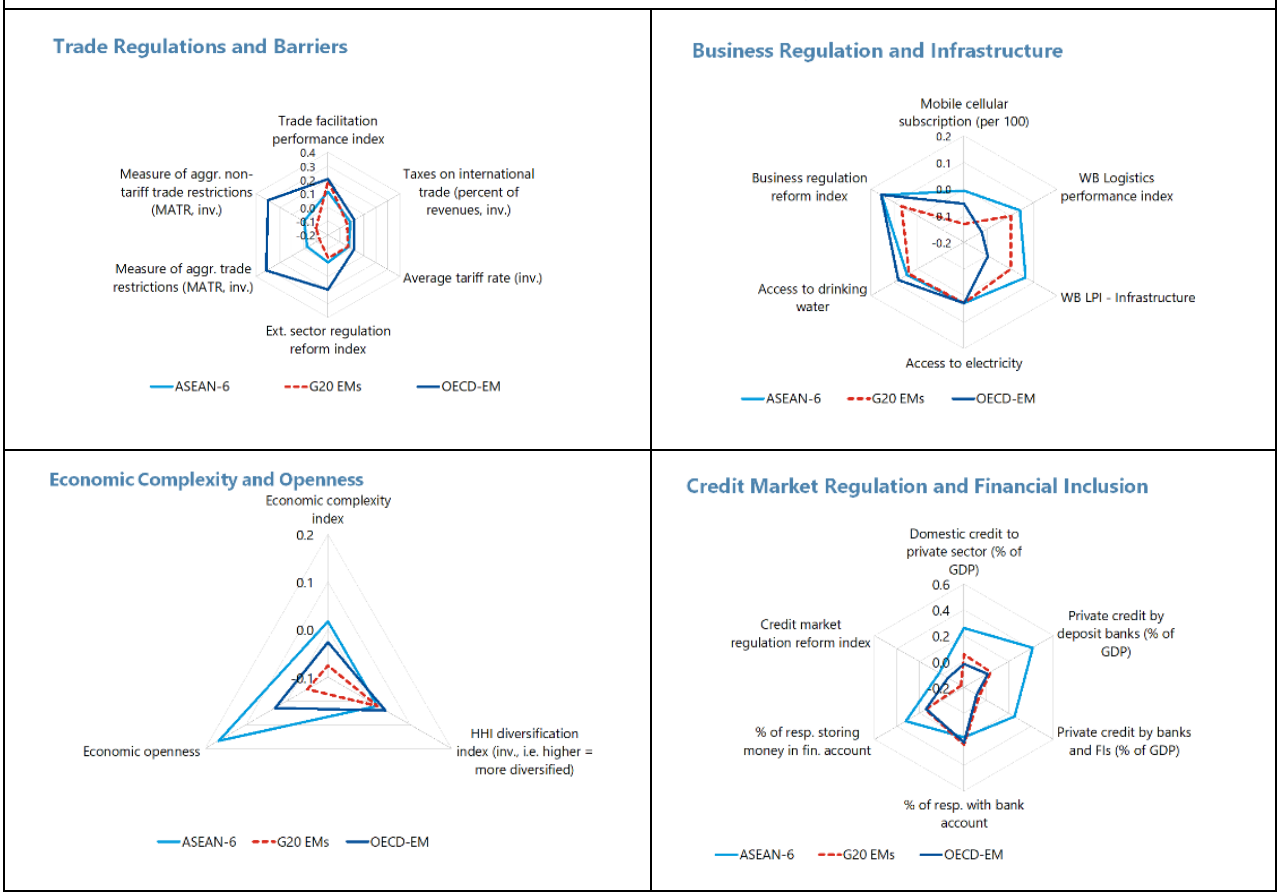
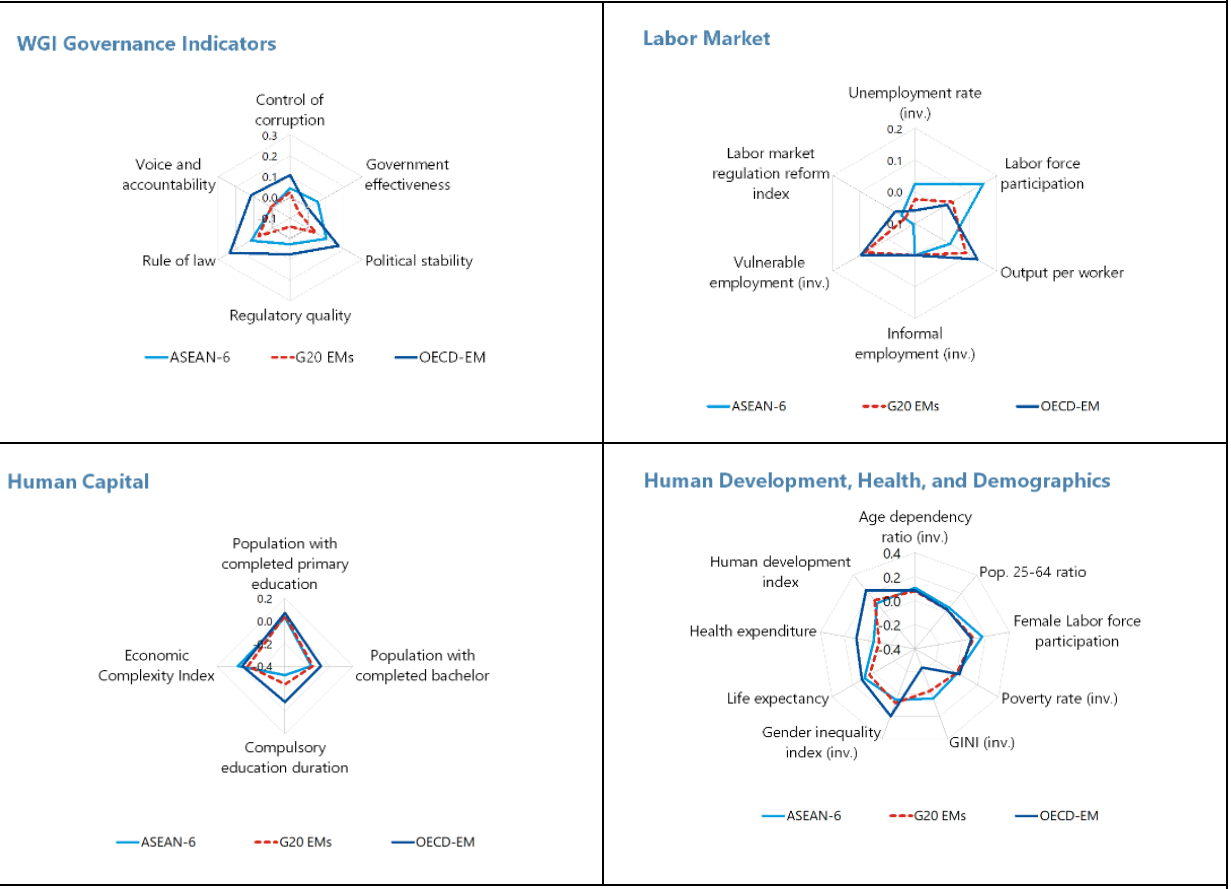


Figure 3. Philippines: Granular Structural Characteristics, Gap to Comparator Country Groups (Concluded)

(Philippines gaps relative to peer group median; positive gap indicates a worse outcome relative to comparator group)



Source: See Table 1

F. Labor Markets and Human Capital Development

10. While labor market regulations in the Philippines are more pro-growth than peers, labor productivity and labor force participation are lagging. Though the Philippines ranks among countries with the narrowest gender gap, in part due to tax, labor, and property laws that ensure similar rights for women and men (Christopherson Puh and others, 2022), female labor force participation lags that of men by almost 20 percent. Furthermore, while women in paid jobs earn more on average than men in the Philippines, reflecting higher pay at the upper-end of the wage distribution thanks to their higher tertiary education and higher concentration in high-skill jobs[7], once human capital gender differences are accounted for, the gender wage gap rises to close to 30 percent in favor of men.

11. The Philippines ranks better than ASEAN and G20EM peers with regards to primary and higher education completion, but this masks important gaps in education outcomes.

[7] World Bank, *Overcoming Barriers to Women's Economic Empowerment in the Philippines*, December 2021.

While enrolment in basic education has improved, learning outcomes remain weak and were further hurt by the pandemic. Furthermore, the share of the population with secondary education remains low and heavily skewed towards the wealthiest decile. Additionally, there is a mismatch between the skills of many graduates and the demands of employers (Department of Education, 2023).

G. Potential Growth

12. Potential growth for the medium term in the Philippines, given its existing structural gaps, is estimated using the production function approach. Potential growth is estimated for the post-pandemic period using the production function approach and assuming a Cobb-Douglas production function.[8] The data for the historical growth accounting exercise is based on the Penn World Table (PWT) 10.0, with the latest observation in 2019. For the period 2020-2023 data from the Philippine Statistics Authority (PSA), Haver, the World Bank World Development Index, and the United Nations Population Projections are used. In the projection period for the baseline scenario, the structural gaps discussed above are considered to be addressed only to the extent existing policies are either already in place or realistically planned to address them. Specifically:

- *Capital*: The historical elasticity between capital service growth and capital stock growth is used to estimate capital service growth, where capital stock is based on the WEO projections for fixed capital investment and a 2 percent depreciation rate. We assume capital share is equal to its value in 2019 from the PWT of 0.5.

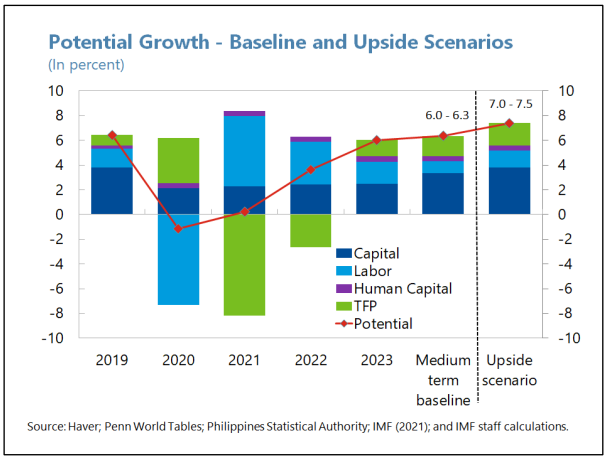
- *Labor*: Effective labor is equal to employment times hours worked. We used the PSA's working age population projections through 2023, assuming a labor force participation rate and employment rate equal to their 2023 values (64.9 percent and 95.7 percent, respectively). We assume hours worked grows at a pace such that in the medium term the pandemic decline in hours worked is fully reversed. We assume labor share is equal to its value in 2019 from the PWT of 0.5.

- *Total Factor Productivity (TFP):* In historical growth decompositions TFP is calculated as a residual. Since in the projection period we are projecting GDP growth, an alternative methodology must be used to project TFP. We estimate the historical relationship between TFP and labor productivity in the Philippines and use the estimated elasticities along with our projections for labor productivity (based on projected employment growth and the projected nominal GDP in the World Economic Outlook) to project TFP growth, with adjustors to account for planned investments that are expected to impact TFP growth.

- *Human Capital:* Human capital is estimated following the method of the PWT, where it is proxied by the number of years of schooling under an assumed rate of return following Psacharopouls (1994) and Caselli (2005). We assume the number of years of schooling rises by 1.5 years from the 2019 value (8.9 years) through the medium term, given the focus on improving education in the Philippine Development Plan.

[8] The methodology follows that of Oura (2007) and Kotera and Xu (2023) closely. See those papers for detailed derivation of the growth decomposition.

13. Potential output is estimated to have moderated in the post-pandemic period to 6.0-6.3 percent, stemming from pandemic scarring. The pre-pandemic estimate of potential growth was 6.5 percent. Given the realized scarring impact from the pandemic, including a permanent decline in the trajectory of output, the slow recovery in labor productivity, and that negative impacts to education will likely be long lasting, the potential growth projection based on the above methodology is revised down to 6.0-6.3 percent in the medium term. The contribution of capital services growth peaked in the five years just prior to the pandemic, at around 4½ percentage points. Given the current investment projections, its contribution is expected to gradually rise to only about 3.3 percent by the medium term. A greater crowding in of private sector investment, for example through the government's PPP initiatives, could help boost capital's contribution to growth. With regards to the contribution of labor, the pre-pandemic average contribution was 1.1 percentage points, while in the projection period labor is projected to contribute around the same, despite the rising working age population, given the still lower female labor force participation and relatively high underemployment. The contribution of human capital is slightly higher given our assumption of longer average years of schooling, a proxy for efforts to improve education outcomes to help close the large education and skills gaps still present in the Philippines. TFP growth is also expected to contribute slightly more to growth than previously expected (1.6 percentage points versus 1.0 percentage points in the five years pre-pandemic). This reflects the assumption described above that planned improvements in public infrastructure, digitalization, and efforts to open up the country to greater foreign investment materialize in the medium term.



Source: Haver; Penn World Tables; Philippines Statistical Authority; IMF (2021); and IMF staff calculations.

H. Boosting Potential Growth Through Structural Reforms

14. This section examines how structural reforms could support achieving the Philippine authorities' growth target for 2026-28 of 6.5-8.0 percent. We use estimates from IMF (2024) and Budina and others (2023) of potential gains in output from major structural reforms.[9] These include reforms to the external sector, business regulation, governance, labor market, credit market regulation, and human development.

15. Estimates suggest that, for the average emerging market, first-generation reforms would have a significant, positive impact on output. First-generation reforms are classified as those that address critical constraints to economic activity and include external sector regulation, governance, and business regulation reforms. Like IMF (2024) we also consider human development

[9] Estimates are from local projections models which regress either real GDP at Purchasing Power Parity or employment (for labor market regulation) on aggregate reform indices that are constructed as averages of corresponding sub-variables. Major reforms are defined as episodes for which an improvement in the relevant indicator is at least two standard deviations of the distribution. The sample covers the period 1996-2022 and includes both AE and EM countries. See IMF (2024) and Budina and others (2023) for further details.

reforms to be first generation given the Philippines demographic transition and need to address gaps in human capital to take advantage of this potential dividend. Estimates suggest that, when implemented alone, governance and human development reforms would have immediate, large impacts on output—an increase of around 1 percent and 5 percent, respectively, following a two standard deviation shock to the reform index. In the case of the Philippines, given their initial conditions as presented in Figure 3, the country would need a shock 2-3 times this size to catch up to the ASEAN-6 and emerging market peers in these categories. Reforms to the external sector and business regulation would have a more gradual impact on output, with an estimated increase of 1.5-2.0 percent after 4-6 years. However, in the case of these reforms, with only the two standard deviations shock, the Philippines would achieve close to the average of ASEAN-6 and upper middle income emerging market peers. A combined package that implements all first-generation reforms could raise output by around 1.5 to 2 percent after 2 years. Conditional on implementing all reforms simultaneously output could increase by as much as 3 percent after four years.

16. Other reforms could also boost output, albeit to a lesser extent than their first-generation counterparts. Reforms to credit market regulation, which are not considered first generation, would have a more gradual impact on output, with their maximum impact around 4-6 years after the reform and estimated to be 1.5-2.0 percent. Labor market reforms are found to have a positive albeit not significant impact on employment, which could be explained by the high degree of informality in emerging markets (including in the Philippines). That said, with regards to the reform gaps presented in Figure 3, the two standard deviation shock from the model to credit reforms and labor markets would bring the Philippines above or very close to the median of ASEAN-6 and upper middle income emerging market peers.

17. The Philippines has the capacity to boost potential growth under ambitious policies and the right sequencing. First, it will be critical to implement remaining first-generation reforms to address bottlenecks that are constraining economic activity in the Philippines. This should include:

- Investment in critical infrastructure (electrical grids, enhancing power supply through renewable energy investments, transport, digital infrastructure, etc.), reforming business regulation, and opening the telecommunications sector to greater competition. The Philippine Digital Infrastructure Project which aims at boosting connectivity in remote areas and improving cybersecurity, should help support some of these objectives. With regards to maritime trade, more efficient management of Philippine ports is needed, as are lower shipping and customs clearance fees, and reduced freight charges. Improvements in the agriculture sector have significant upside potential, and should include increased investment, improved access to credit and insurance, lower tariff, and non-tariff barriers (e.g. through the 2019 Rice Tariffication Law), policies to address the high vulnerability to multidimensional shocks, expanding long term PPPs to attract investment and value chain upgrading, and promoting land consolidation.

- Improving governance, particularly at the local government level.[10] This includes strengthening oversight of government-owned and controlled corporations and of PPPs which can be supported by legislating the Progressive Budgeting for Better and Modernized Governance and the National Government Rightsizing Program. The ongoing digitalization of the Public Financial Management (PFM) system, procurement processes, frontline services, and the courts will also help. Efforts to reduce corruption and improve contract and property rights enforcement should also be prioritized.

- Education reforms to boost learning outcomes and increase education attainment among lower income households, and to ensure workers have the right skills for the labor market. This should include a review of the basic education system to strengthen foundational skills, technical and vocational training aligned with the needs of the job market through PPPs, more equitable access to tertiary education, and lifelong learning opportunities for professional development. The recent initiatives aimed at developing opportunities for teachers and integrating technical and vocational education and training into senior high school curricula are welcome in this regard (State of the Nation Address, 2024).

18. The Philippines has relatively less gaps with regards to second generation reforms (credit and labor market), but there is nonetheless room for improvement along certain dimensions, in particular labor market reforms should include:

- Efforts to promote women's participation in the economy could focus on increasing childcare options, addressing social norms that confine women to domestic roles, taking advantage of work from home opportunities in the BPO sector and e-commerce, and expanding access to technical and vocational education in ICT and STEM-related fields.

19. The first-generation reforms, together with efforts to boost female employment and close gender wage gaps, will support greater crowding in private sector investment and FDI, can help boost the capital stock and TFP's contribution to growth, and increase labor productivity. Given its demographic transition, improvements in education outcomes and skills training are particularly critical in the near term to take advantage of the relatively younger population compared to peer countries.

20. We apply these reforms to our growth accounting exercise to generate an upside scenario, which suggests the Philippines can reach 7.0-7.5 percent growth over a medium- to long-term horizon:

- Capital: Growth in capital services is assumed to rise 1.5 percentage points higher than its pre--pandemic average stemming from a greater crowding in of private and foreign investment relative to the baseline following reforms to boost infrastructure investment.

[10] GlobalSource Partner, Beyond FDI campaigning and H. Parcon-Santos, M. Amador, M. Romarate, ASEAN-5 Countries: In Competition for FDI, Bangko Sentral ng Pilipinas, BSP Discussion Paper Series No. 7, December 2021.

- Labor: The labor force participation rate is assumed to rise from 64.9 percent to 67 percent, which could be achieved by increasing the female labor force participation rate from the current 50 percent to just under 60 percent. This would be feasible under the set of first-generation reforms with policies to improve working conditions and childcare options.

- TFP: Growth in TFP is assumed to rise to 1.8-2.0 percent per year (from 1.6 percent in the baseline), which could be supported by greater than planned investment in infrastructure, improvements in the business climate, and further inflows of foreign investment.

- Human capital: Human capital is assumed to rise such that the majority of the population would either finish secondary school or engage in upskilling or reskilling. Such improvements in human capital will be critical for fully taking advantage of the demographic transition in the country. Furthermore, it will require not only investment in education but also relying on the simultaneous implementation of other first-generation reforms, including those to labor markets and infrastructure, that will create opportunities for individuals to use their human capital in productive ways.

Table 1. Philippines: Data Sources

Structural Area	Variables	Source
Trade Regulations and Barriers	Measure of Aggregate Trade Restrictions (MATR)	IMF AREAER Database
	IMF External sector reform index	Fraser Institute (using Budina et al. methodology)
	OECD Trade Facilitation Performance Index Taxes on International trade (% of revenues)	OECD
		World Bank
	Tariff rate (simple mean on all products)	World Bank
External Sector Openness and Trade Structure	Economic openness	IMF, World Economic Outlook; and IMF staff calculations
	FDI (share of GDP)	World Bank, World Development Indicators
	Hausman Complexity Outlook Index (COI)	Atlas of Economic Complexity
	Herfindahl-Hirschman Prod. Concentration Index	World Bank (based on mirrored exports)
Governance	Control of Corruption, Government Effectiveness, Political Stability, Regulatory Quality, Rule of Law, Voice and Accountability	World Bank, Worldwide Governance Indicator
	IMF Governance reform index	IMF staff calculations, using Budina et al. methodology
Credit Market Regulation and Financial Inclusion	IMF Credit market regulation index	Fraser Institute (using Budina et al. methodology)
	Domestic credit to private sector (% of GDP)	World Bank, World Development Indicators
	Private credit by deposit money banks (% of GDP)	World Bank, Global Financial Development Database
	Private credit by deposit money banks and other FIs (% of GDP)	World Bank. Global Financial Development Database
	Financial inclusion: % of respondents having a bank account, Financial inclusion: % of respondents keeping money in a financial account	Global Financial Inclusion Database
Business Regulation and Infrastructure	Infrastructure: Mobile cellular subscriptions, Access to electricity, Access to drinking water, Logistics performance index	World Bank, World Development Indicators
	IMF Business regulation index	Fraser Institute (using Budina et al. methodology)
Labor Market	Unemployment rate	IMF, World Economic Outlook
	Labor force participation rate, weekly worked per employee, output per worker, share of informal employment, vuln. employment	International Labor Organization (ILO)
	IMF Labor market regulation index	Fraser Institute (using Budina et al. methodology)
Human Capital	Primary school enrollment rate, compulsory education duration, share of 25+ that completed at least prim. education, adult literacy rate	World Bank, World development Index
	Hausman Economic Complexity Index (ECI)	World Bank, Atlas of Economic Complexity (Hausman)
Human Development, Health, and Demographics	Human Development Index, Gender Inequality Index, Female labor force	United Nations Development Programme (UNDP)
	Poverty headcount ratio, Life expectancy at birth, Current health exp, Age dependency ratio, population	World Bank, World Development Indicators
	GINI coefficient	World Inequality Database

Note: The variables referred to as IMF reform indices are the ones developed in Budina et al. (2023). The Governance reform index is a simple average of the six WGI indices. The External sector index is an average of four indicators incorporating information on tariffs, non-tariff trade barriers, black-market exchange rate, and control of the movement of capital and people. The Credit Market regulation index comprises three components on ownership of banks, the size of private sector borrowing, interest rate controls. The Labor Market regulation index incorporates information on hiring and firing regulation, and the degree of centralized collective wage bargaining. The Business regulation index is an average of subcomponents on bureaucracy costs, administrative requirements, and impartial public administration. Except for the first index, subcomponents are all sourced from the Fraser institute. They are scaled from 0 to 1, with higher values indicating a higher degree of freedom.

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INFLATION IN THE PHILIPPINES: SUPPLY OR DEMAND DRIVEN?[1]

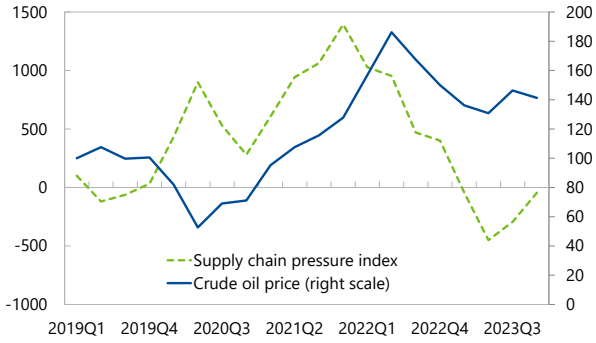
A confluence of factors led to higher inflation globally since 2020. Whether this rise in inflation was mainly driven by supply or demand factors is an important consideration for policymakers, including in the Philippines. This note attempts to identify the drivers of inflation in the Philippines by reviewing various inflation decomposition methods. It finds that over time, including in the post pandemic period, inflation tends to be more supply driven in the Philippines and that this is mainly related to rising supply-side inflation of goods and food.

A. Motivation

1. Inflation has risen globally since 2020, including in the Philippines. Supply-chain disruptions stemming from closures during the COVID-19 pandemic, followed by rising commodity prices on the back of the war in Ukraine led to widespread price pressures (Figure 1).[2] At the same time, an unprecedented amount of fiscal and monetary stimulus supported domestic demand in many economies. Together, these developments pushed all measures of inflation higher, including in the Philippines (Figure 2), where higher headline inflation was driven largely by rising food, housing, utility, and transport prices (Figure 3).

Figure 1. Philippines: Supply Chain Pressure Index and Crude Oil Prices

(Index, 2019Q1=100)



Sources: Federal Reserve Bank of New York, Global Supply Change Pressure Index; and Haver Analytics.

2. Understanding the extent to which inflation shocks are demand or supply driven is an important input into how central banks may choose to react to price shocks. In response to rising inflation and inflation expectations in recent years, central banks, including the Bangko Sentral ng Pilipinas (BSP) increased policy rates substantially above pre-pandemic lows (Figures 4 and 5). Many central banks reacted to the rise in inflation with a lag, reasoning initially that the surge reflected a temporary supply shock, which would dissipate over time. The delayed policy response and persistently high inflation renewed interest by academics and policymakers alike on the conduct

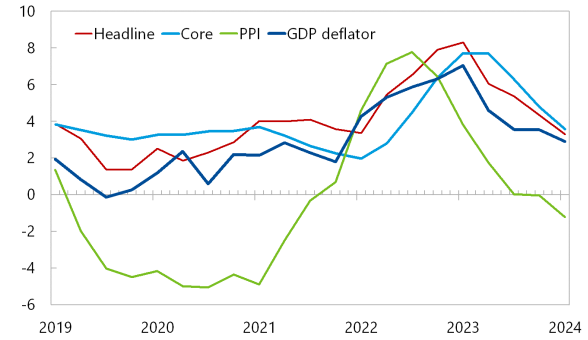
[1] Prepared by Tristan Hennig, Margaux MacDonald (both APD), and Melih First (SPR).

[2] The Supply Chain Pressure Index is a parsimonious measure of global supply chain pressures that can be used as a proxy to gauge the importance of supply constraints. The Index extracts the common component from twenty-seven variables for seven economies (China, euro area, Japan, Korea, Taiwan, the United Kingdom, and the United States) using a principal component analysis. The variables include the Baltic Dry Index and the Harpex index (capturing global transportation costs), airfreight cost indices from the U.S. Bureau of Labor Statistics, and sub-components "delivery time", "backlogs", and "purchased stocks" from the Purchasing Managers' Index survey for manufacturing firms in each country.

of monetary policy in response to supply shocks (see, among others, Bandera and others, 2023, and Beaudry and others, 2023). This period also highlighted the limit to how accurately central banks and professional forecasters can forecast inflation dynamics, and triggered calls for reviewing central banks' models for forecasting inflation.[3]

Figure 2. Philippines: Inflation

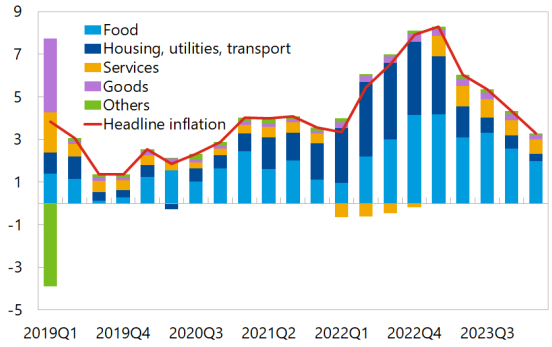
(In percent, year on year)



Sources: Haver Analytics; and IMF staff calculations.

Figure 3. Philippines: Contribution to CPI Inflation

(In percent, year on year)



Sources: Haver Analytics; and IMF staff calculations.

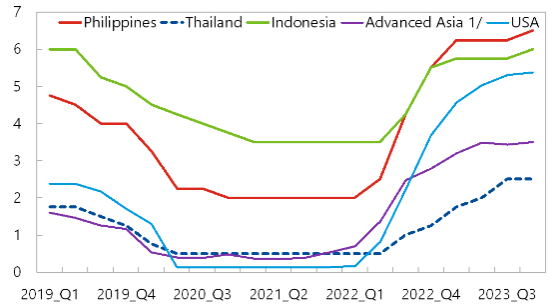
Note: Prior to 2022 it is assumed that the weight for "restaurants & accommodation services" and "financial services" in CPI are each equal to half of the difference between the weight of the "other" category and the sum of its given components.

3. Against this background, this note seeks to quantify the relative importance of supply- and demand-driven inflation in the Philippines. It first provides a simple decomposition both with respect to the Philippines' own historical trends and relative to other emerging markets and regional comparators. The methodology used in this note can be applied to new price data as it is published, providing a high frequency indicator of the extent to which new inflation shocks are supply driven. The note then looks at alternative methodologies for decomposing inflation to determine the robustness of the results and methods proposed. It also examines potential reasons for the Philippines' susceptibility to supply and demand driven inflation.

[3] See Chahad and others (2023); Fleming, Arnold, and Smith "Central banks rethink forecasting after failures on inflation" *Financial Times* https://www.ft.com/content/5d7851f3-ef7c-4599-8a5c-c34cecb83511. Accessed 4/10/2023; Fleming "Bank of England prepares for 'once in a generation' overhaul in forecasting" *Financial Times* https://www.ft.com/content/2db61c2a-9af6-45b9-b27e-98d2825fefa8. Accessed 4/10/2023; Bernanke (2024) and Bank of Canada (2021).

Figure 4. Philippines: Policy Rates

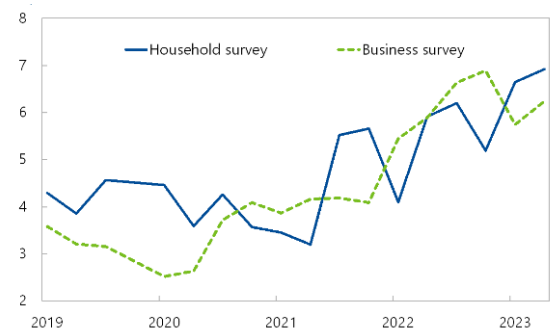
(In percent)



Sources: Haver Analytics; and IMF staff calculations.
1/ Average of Australia, Hong Kong SAR, Japan, Korea, Singapore, New Zealand, and Taiwan PRC.

Figure 5. Philippines: Inflation Expectations

(In percent, 12-months ahead)



Source: Philippines Authorities via CEIC Data Co. Ltd.

B. Supply and Demand Decomposition: Methodology

4. The methodology used in this note quantifies the degree to which prices move due to a surprise change in demand or a surprise change in supply. This supply-demand decomposition methodology was originally proposed by Shapiro (2022) and is based on quarterly personal consumption expenditure (PCE) data, which is available for 12 categories/sectors in the Philippines (see Annex I for a description of the data sample). It is based on the premise that shifts in demand move both prices and quantities in the same direction along the upward-sloping supply curve, while shifts in supply move prices and quantities in opposite directions along the downward-sloping demand curve. For instance, an unexpected increase in both the quantity sold and price of a good would indicate a positive demand shock while an unexpected increase in the quantity sold at a lower price would indicate a positive supply shock.

5. To extract unexpected changes in prices and quantities, we estimate a vector autoregression (VAR) at the sector level with one equation for each variable. For each expenditure item i, the price and quantity dynamics are modeled as follows:

$$y_{it} = \sum_{h=1}^{H} C_{ij} y_{i,t-h} + v_{it} \qquad (1)$$

where the vector $y_{it} = (\Delta p_{it}, \Delta q_{it})$ contains the first differences in the (log) deflator (Δp_{it}) and real consumption (Δq_{it}) of item i at quarter t, respectively. $v_{it} = (v_{it}^{p}, v_{it}^{q})$ denotes the residuals, which will be used to identify the expenditure item's inflation as demand or supply driven. The baseline specification uses H = 4 lags of each variable in estimation.

6. Following Shapiro (2022), inflation in each expenditure item is characterized as "demand driven" if the residuals of price (v_{it}^{p}) and quantity (v_{it}^{q}) from equation (1) have the same sign, and "supply driven" if the residuals have opposite signs. The sets of demand and supply driven inflation items, D_t and S_t, are given by:

$$D_t = \{i : v_{it}^{p} v_{it}^{q} \geq 0\}$$

$$S_t = \{i: v_{it}^p v_{it}^q < 0\}$$

After categorizing each item, the demand and supply driven inflation series are calculated as the weighted sum of item level inflation rates as follows:

$$\pi_t^d = \sum_i 1_{i \in D_t} \omega_{it} \pi_{it}$$
$$\pi_t^s = \sum_i 1_{i \in S_t} \omega_{it} \pi_{it}$$

where π_t^d and π_t^s denote the demand and supply driven inflation series. For item aggregation weights, ω_{it}, the year-to-date expenditure share of item i is used. Aggregate inflation (π_t) is defined as the sum of demand and supply driven such that $\pi_t = \pi_t^d + \pi_t^s$.

7. The methodology carries a caveat as it operates under the assumption that in any given period a sector experiences either a demand or a supply shock, which may be a restrictive assumption. In essence, we determine inflation within a sector as either demand-driven or supply-driven based on fluctuations in prices and quantities. Nevertheless, by distinguishing between demand-driven and supply-driven inflation across different industries and aggregating them according to their industry-level weights, we can effectively represent aggregate level inflation as both demand- and supply-driven. However, the methodology was chosen because unlike other methods (e.g. a structural VAR), it allows us to see the supply and demand decomposition for each sector separately.

8. A second caveat of the methodology is that this method does not explicitly account for or identify the persistence of supply and demand drivers and cannot identify simultaneous drivers. The model had both a persistent component and a surprise (the residual), and while the supply or demand component is identified by the surprise, the auto-regressive term could also contain the impact of previous surprises from either demand or supply that may be important but not captured in the methodology. Alternative models could address both persistence and simultaneity concerns, but they also come with some drawbacks. For instance, Kabaca and Tuzcuoglu (2023) and Berholt and others (2023) use structural VAR (SVAR) models with sign and narrative restrictions to estimate several different factors contributing to US inflation since the pandemic, while Eickmeier and Hofmann (2023) use a principal component analysis with sign restrictions to estimate the demand and supply contributions to the US inflation surge since mid-2021. The advantage of these approaches is that they can identify multiple contributions to inflation within the same period. The key drawback is that they use aggregate inflation, so they do not analyze sectoral variations as this paper does. Furthermore, by aggregating sectoral demand or supply drivers we are also able to generate the share of demand and supply contributions at the aggregate level for each quarter. From the SVAR model one would also be able to conduct a forecast error variance decomposition which would show the contributions of different shocks to inflation over time, capturing explicitly the persistent impact of shocks. The approach we take in this paper only implicitly identifies the persistence of supply and demand drivers in the sense that consecutive periods may be identified as supply or demand driven due to a common underlying shock series, but the actual source of the shock is not identified. Sheremirov (2022), who also looked at the supply and demand drivers of

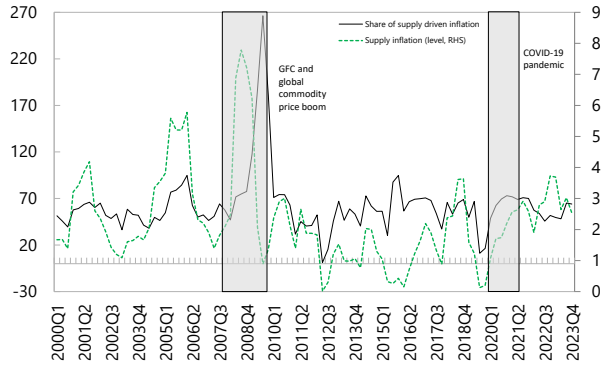
inflation following the Shapiro (2022) methodology, attempts to address part of this constraint by measuring the persistence of the supply and demand shocks by identifying those that last for at least 11 consecutive months.[4] However, this approach to measuring persistence is most conducive to monthly inflation data, and given that the data we use is quarterly one would expect to see less persistence if the same analysis were undertaken.

C. Supply and Demand Decomposition: Results

9. While demand factors have also played an important role, supply factors tend to explain a higher share of inflation in the Philippines, including during the post-pandemic period. Throughout the 23-year sample period, the share of supply driven inflation has fluctuated but on average has contributed to a larger share of overall inflation—accounting for 2.3 percentage points of the average 3.8 percent inflation rate (Table 1) or an average share of 62 percent (Figure 6). Supply driven inflation has also been more volatile on average compared to demand driven inflation (Table 1). While Figure 6 suggests that there is no distinct trend over the full time series in either the level or share of supply-driven inflation, there is some evidence that episodes of global shocks (e.g., global recessions or commodity price shocks) generally overlapped with instances of more supply-driven inflation. For instance, during the period of the global financial crisis (GFC) which coincided with a sharp rise in global food prices, supply driven inflation was significantly higher than demand driven inflation (5.4 percent versus 1.4 percent, Table 1). Similarly, during the COVID pandemic period inflation was mainly supply driven (Table 1).

Figure 6. Philippines: Supply Driven Inflation – Level and Share

(percent)



Source: Haver Analytics; and IMF staff estimates.

Note: The green line depicts the estimates supply driven inflation. The black line shows the share of this estimated supply driven inflation in overall inflation. The share of inflation that is supply driven is greater than 100 percent in periods when the model estimates that the share of demand driven inflation is negative.

[4] Rather than using a VAR approach, Sheremirov (2022) identifies supply (demand) shocks from simple deviations from trend equations. He finds that when he instead uses a structural VAR he identifies very few episodes of persistent shocks, which he attributes to the time varying trends in the structural VAR absorbing the persistence that is otherwise underlying the shocks.

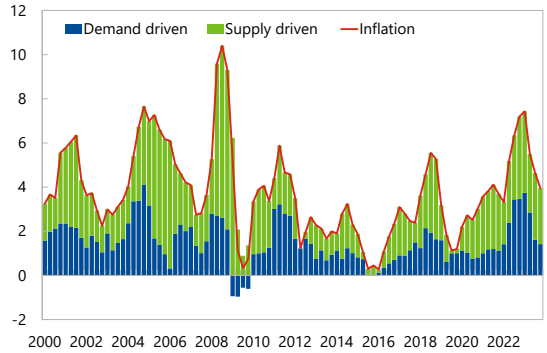
Table 1. Philippines: Summary Statistics – Supply and Demand Inflation Decomposition

	Mean			Standard Deviation		
	Demand Driven Inflation	Supply Driven Inflation	Overall Inflation	Demand Driven Inflation	Supply Driven Inflation	Overall Inflation
Full Sample	1.5	2.3	3.8	1.0	1.5	2.1
Pre-COVID (2000Q1-2019Q4)	1.5	2.3	3.7	1.0	1.6	2.1
GFC (2008Q1-2009Q2)	1.4	5.4	6.8	1.7	2.3	3.3
COVID (2020Q1-2021Q4)	1.0	2.2	3.2	0.2	0.6	0.6
Post-COVID (2022Q1-2023Q4)	2.5	2.9	5.4	0.9	0.6	1.4

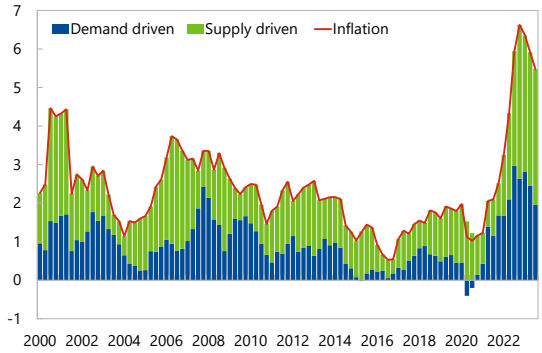
Source: Haver Analytics; and IMF staff estimates.

Figure 7. Philippines: Supply and Demand Inflation Decomposition

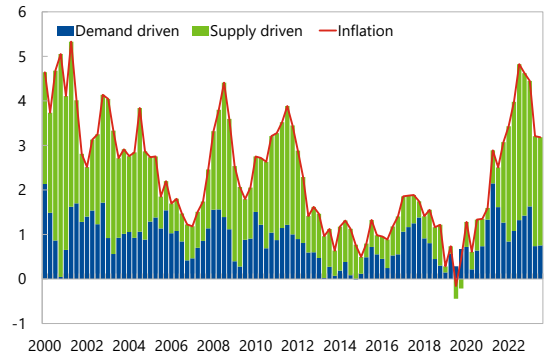
Philippines
(In percent, year-on-year)



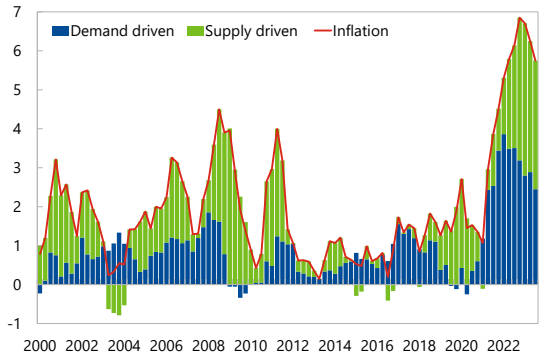
Australia
(In percent, year-on-year)



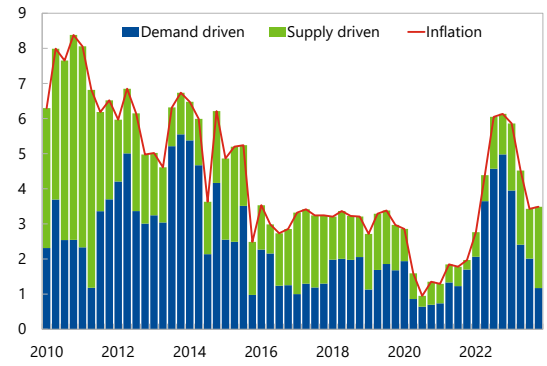
Korea
(In percent, year-on-year)



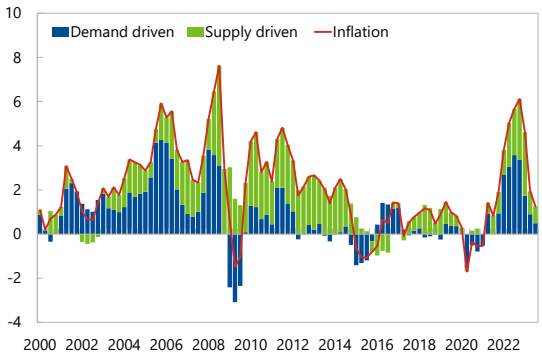
New Zealand
(In percent, year-on-year)



Indonesia
(In percent, year-on-year)



Thailand
(In percent, year-on-year)



Sources: Haver Analytics; and IMF staff estimates.

10. Looking at the recent episode of elevated inflation shows that in other Asian and Pacific economies, inflation was similarly driven by a mix of demand and supply. Figure 7 shows the full estimated supply and demand decomposition of headline inflation for the Philippines and for selected ASEAN economies and advanced economies who are major trading partners of the Philippines.[5] The share of supply driven inflation over the full sample period in Australia and Korea is similar to that of the Philippines, around 60 percent. In other counties, it is much lower: around 40 percent in both New Zealand and Indonesia, and 50 percent in Thailand. As is the case in the Philippines, a large share of the post-pandemic inflation surge was driven by supply factors in Australia, Korea, and New Zealand—suggesting a role for global supply constraints. A similar pattern is observed during other major global economic downturns, including the global financial crisis. Other countries—Indonesia and Thailand—saw a greater role for demand driven inflation during the acute pandemic period but appear to have been more affected by supply drivers in recent quarters. However, it is important to keep in mind that the existence of price subsidies, administered prices, and/or supply policies in some countries, particularly for certain imported commodities like food or fuel, may impact both the level and share of inflation that is supply driven.

11. The role of external factors appears to be important in driving aggregate inflation through the supply side. This relationship is supported by a high correlation between the import deflator and supply driven inflation, particularly during the latter half of the sample period (Figure 8, correlation between the series from 2010-2023 is 0.48). Using global input output tables provides a measure of the share of foreign content in final demand, which is another way to measure the Philippines' exposure to global factors. As shown in Figure 9, foreign content accounts for a relatively large share of final demand (about 30 percent) in the Philippines relative to most other Asia-Pacific countries. Within total final demand, about 75 percent is consumption demand and the share of foreign content is approximately the same as in the aggregate. This is consistent with other findings in the literature that have shown global factors play an increasingly important role in driving inflation in the Philippines (Ocampo and Espano, 2019) and globally (Razin and Binyamini, 2007, Helbling and Sommer, 2006).

12. Inflation in the Philippines tends to be more volatile during periods of supply-driven inflation. While the BSP brought down the inflation target and as a result average headline inflation has declined since 2002, inflation volatility nonetheless tends to pick up when inflation is driven by supply factors (Figure 10, Table 1). A simple correlation between the annual standard deviation of headline CPI inflation and the share of supply driven inflation is 33 percent.

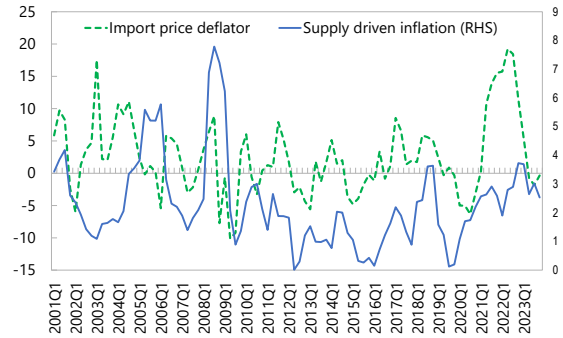
13. Demand driven inflation also plays an important role and appears to be associated with measures of the output gap in the Philippines. Economic theory posits that all else equal, if the output gap is positive, suggesting that output is above the economy's productive capacity, over time prices will begin to rise in response to demand pressures. Looking at the historical correlation of demand driven inflation identified above with an estimate of the Philippines' output gap (notwithstanding the uncertainty around its measurement) indeed shows a positive correlation, of

[5] Selection of countries and time period is chosen based on data availability.

around 20 percent over the period 2001Q4-2023Q4 (Figure 11).[6] There has, however, been substantial variation over time. During periods of economic stress, the relationship between the output gap and demand driven inflation is higher, with the correlation at 96 percent for the GFC period (2008Q1-2009Q2) and 50 percent for the COVID and post-COVID commodity shock period 2020Q1-2023Q4. Furthermore, other research has shown that the relationship between the output gap and inflation in the Philippines (i.e., estimates of the Phillips Curve) has flattened over time (Ocampo and Espano, 2019).

Figure 8. Philippines: Terms of Trade and Supply Driven Inflation

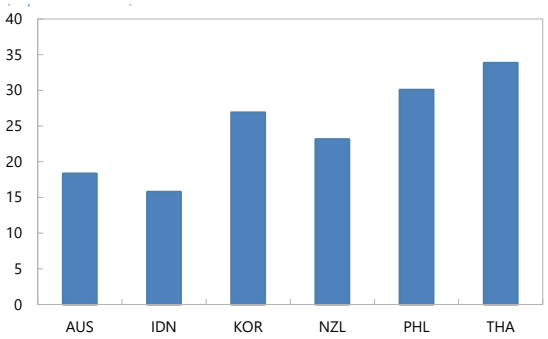
(Percent, year-over-year)



Sources: Haver Analytics; and IMF staff calculations.

Figure 9. Philippines: Foreign Content of Final Demand, 2022

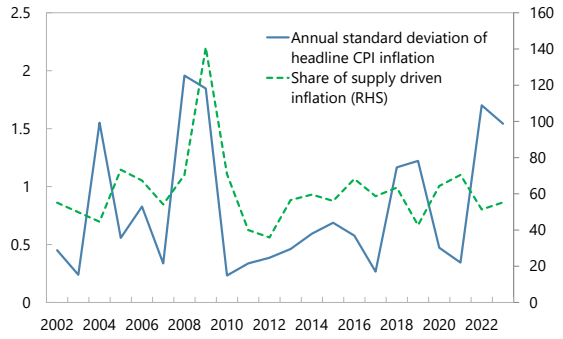
(Percent)



Source: Eora Global Supply Chain Database; and IMF staff calculations.

Figure 10. Philippines: Inflation Volatility

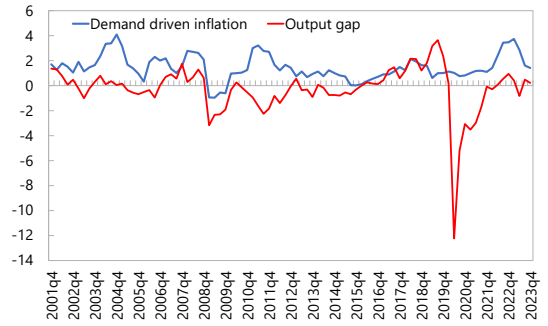
(In percentage points)



Source: Haver and IMF staff calculations.

Figure 11. Philippines: Demand-Driven Inflation and Output Gap

(Percent)



Source: Have Analytics; and IMF staff calculations.

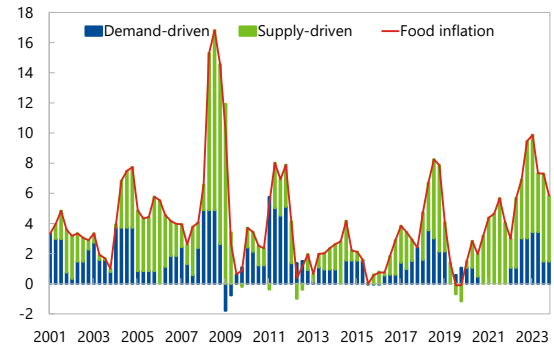
14. The decomposition of food inflation further highlights the role of supply factors in driving headline inflation. Figure 12 shows that for the Philippines, supply factors were a large driver of aggregate food inflation during episodes of high overall inflation. This finding is consistent with the importance of food imports in overall food supply and the large share of food (38 percent)

[6] The correlation is not always positive (e.g., 2010-2012) and it rises to 21 percent with one-quarter lagged inflation and declines below 20 percent with further lags.

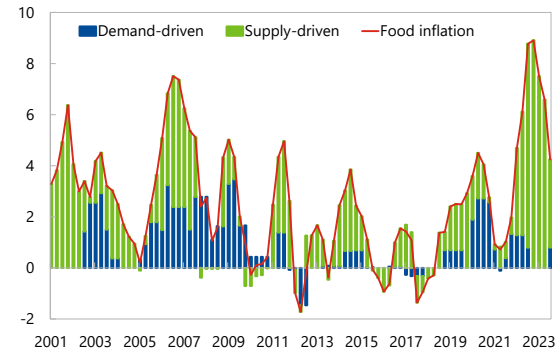
in the overall CPI basket. During the recent episode, global supply chain disruptions and food-related protectionist measures by other countries together raised the cost of transporting and importing food and contributed significantly to high food inflation (Table 1, Figure 6 and 7). Food inflation was also largely driven by supply factors in some other Asia-Pacific economies both during the post-pandemic period and around the global financial crisis period (e.g., Australia, New Zealand, and Korea). In Indonesia and Thailand, demand factors seem to have accounted for most of the variation in food inflation in the most recent period, while earlier episodes of high food inflation were instead driven by supply factors.

Figure 12. Philippines: Supply and Demand Food Inflation Decomposition

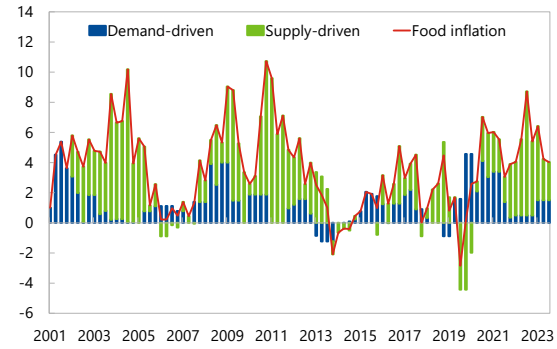
Philippines
(In percent, year-on-year)



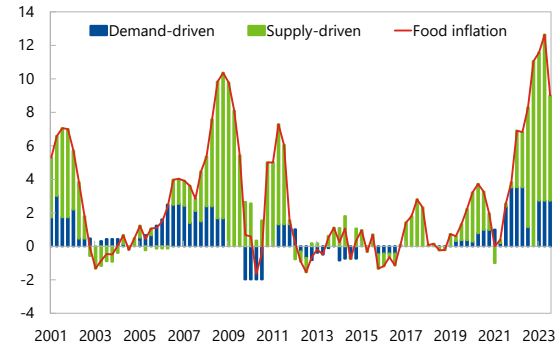
Australia
(In percent, year-on-year)



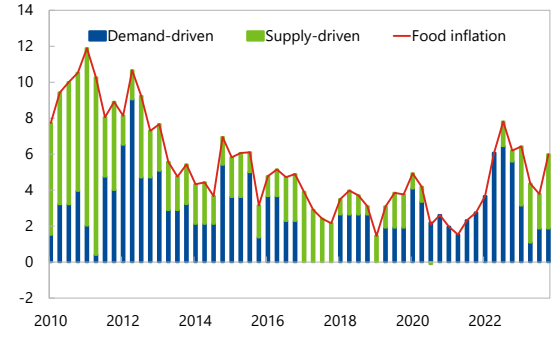
Korea
(In percent, year-on-year)



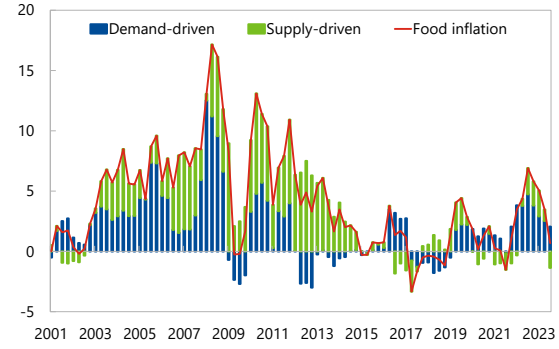
New Zealand
(In percent, year-on-year)



Indonesia
(In percent, year-on-year)

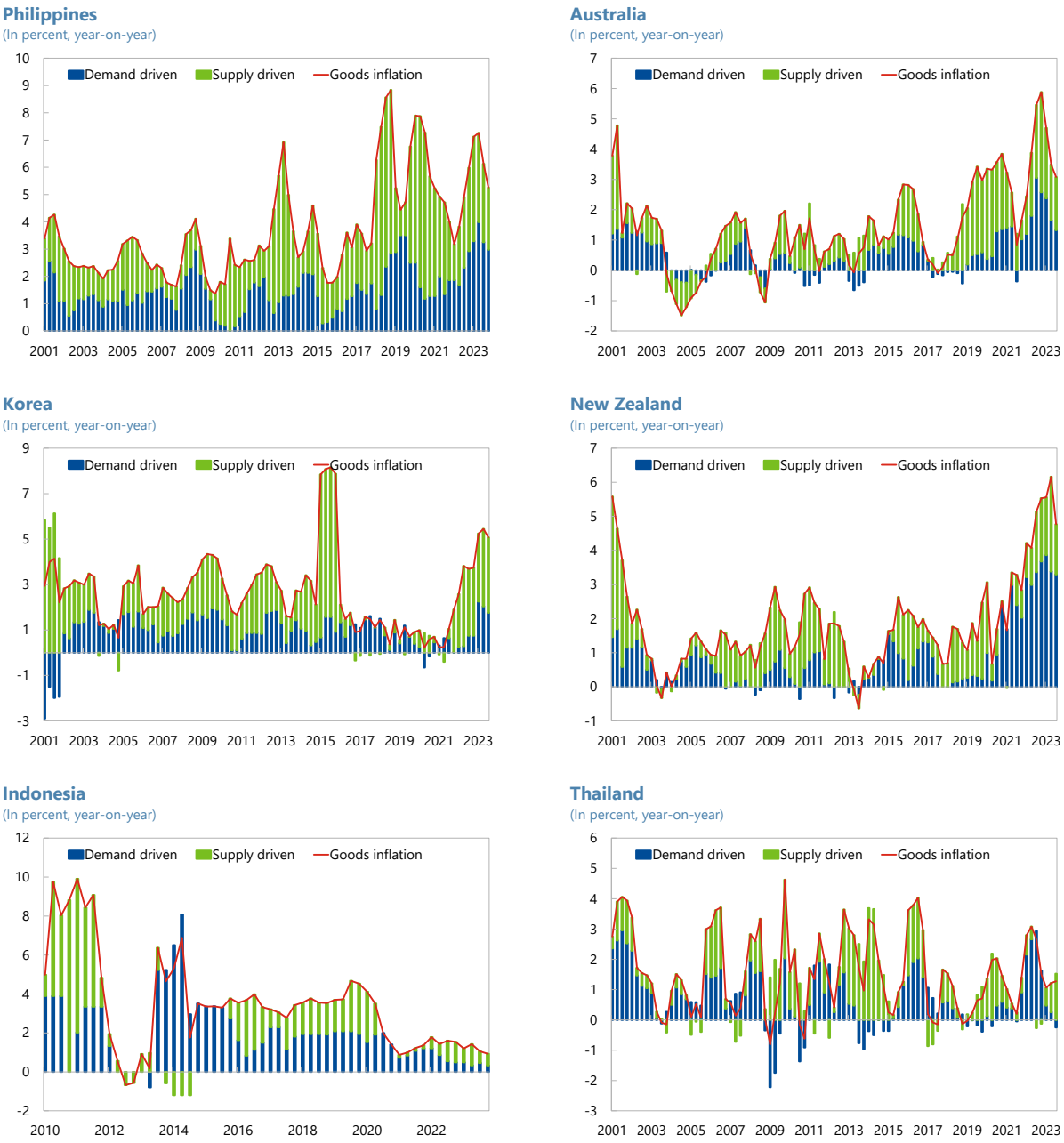


Thailand
(In percent, year-on-year)



Sources: Haver Analytics; and IMF staff estimates.

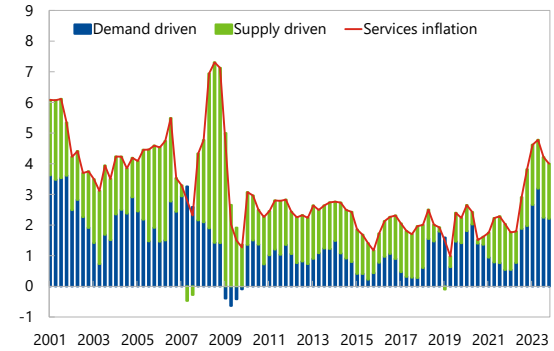
Figure 13. Philippines: Supply and Demand Goods Inflation Decomposition



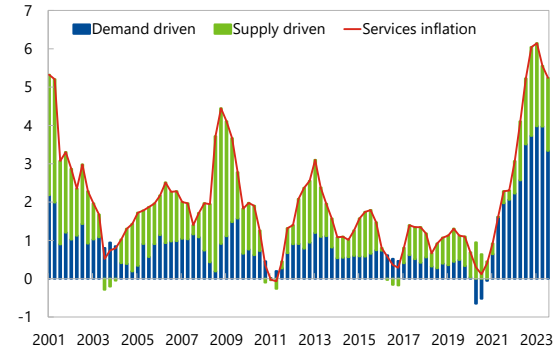
Sources: Haver Analytics; and IMF staff estimates.

Figure 14. Philippines: Supply and Demand Services Inflation Decomposition

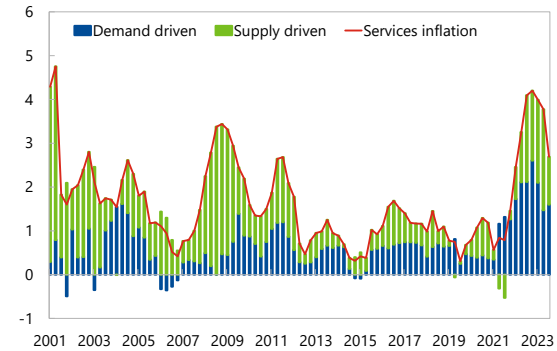
Philippines
(In percent, year-on-year)



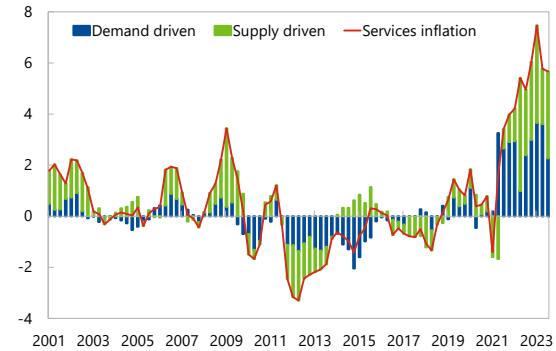
Australia
(In percent, year-on-year)



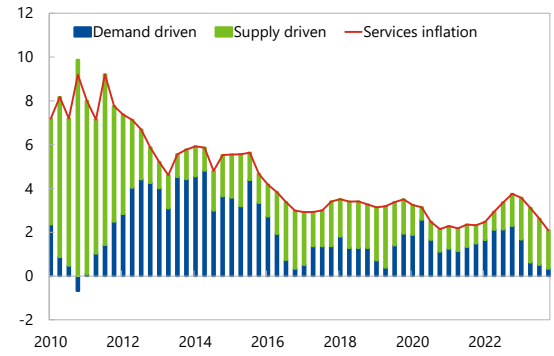
Korea
(In percent, year-on-year)



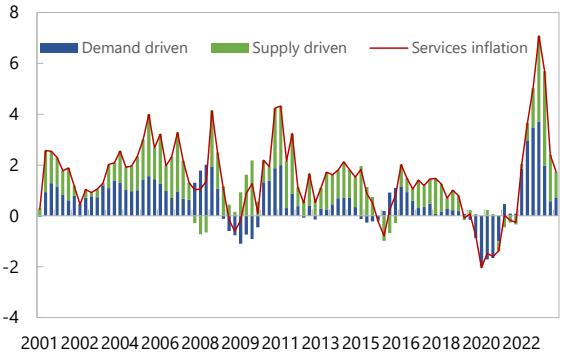
New Zealand
(In percent, year-on-year)



Indonesia
(In percent, year-on-year)



Thailand
(In percent, year-on-year)



Sources: Haver Analytics; and IMF staff estimates.

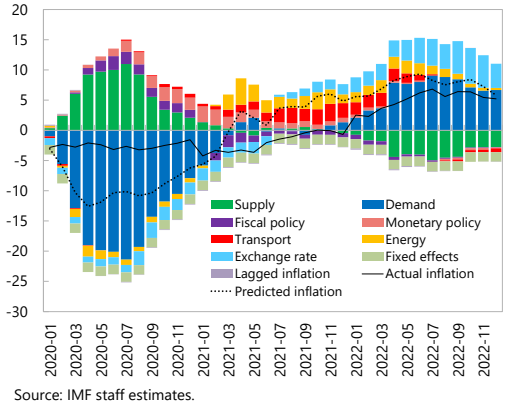
16. Goods inflation in the Philippines has been more balanced between supply and demand, especially during high inflation episodes, while services inflation is more demand driven. While supply drivers accounted for most of goods inflation during the pandemic, demand factors were also at play in the post-pandemic period, possibly due to pent-up demand (Figure 13). This is also the case across most Asian economies. Figure 14 shows the decomposition of services inflation, which has been almost entirely demand driven in the Philippines and most other countries in Asia-Pacific. This is consistent with the fact that services have limited import content (i.e., they are largely produced with domestic factors) and thus less vulnerable to global supply shocks which appear to be an important source of supply-driven inflation.

D. Alternative Decompositions

17. Alternative decomposition approaches can provide additional insights into drivers of inflation in the Philippines. While the results thus far present a consistent story of supply driven inflation coinciding with large global supply shocks (pandemic, supply chain constraints, and the war in Ukraine), it is nonetheless important to examine the same question using alternative methodologies to assess the robustness of the analysis. The method of Chau, Conesa, Kim, and Spray (2024) allows for a more detailed decomposition of aggregate inflation (this time using producer price inflation, which the authors frame as better capturing supply chain disruptions, while they argue that consumer prices are functions of many concurrent demand, supply, domestic, and foreign shocks) by identifying the separate role of fiscal and monetary policy, in addition to supply and demand factors. The authors use a novel harmonized dataset of sectoral producer price inflation and input-output linkages for more than 1000 sectors in 53 countries and identify the inflationary impact of shocks via a Bartik shift-share design, where shares reflect the heterogeneous sectoral exposure to shocks and are derived from a macroeconomic model of international production networks.[7]

18. This alternative decomposition shows that lock-down induced supply shocks along with both fiscal and monetary policy would have pushed up inflation higher than what was observed if it wasn't for the lower demand factor (Figure 15). In the post pandemic period, the rebound in demand helped push inflation higher likely due to pent up demand factors amid reopening. At the same time, the lock-down induced supply factors had an offsetting effect as they unwound, and producer price pressures eased.

Figure 15. Philippines: Alternative Inflation Decomposition: Chau et al (2023) Approach
(Percent)

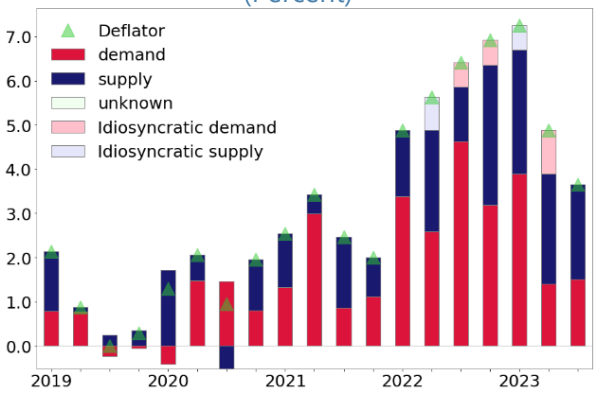


Source: IMF staff estimates.

[7] See paper for a detailed description of the theoretical and empirical model used to estimate this decomposition, along with the data used. Data for this exercise is available up to 2022.

19. It is important to interpret this result in the context of how the model differs from the previously presented results. First, this exercise uses producer prices while the previous exercise uses consumer prices. As shown in Figure 3, the recent inflationary period has been driven largely by food, which itself is driven by supply factors (Figure 12). This strong supply-side component of aggregate inflation is not present in producer price inflation, which largely covers manufactured goods and whose prices have eased faster than consumer prices (Figure 2) as supply chains returned to normal in the recent period. A second important caveat of this alternative exercise is that the decomposition is based on the model's estimated PPI inflation which, as shown in Figure 15, has not followed actual inflation exactly, so there may be some degree of error in the decomposition components.[8]

Figure 16. Philippines: Alternative Deflator Decomposition: Redl (2023) Approach
(Percent)



Source: Redl (2023).

Note: Estimate assume no model uncertainty. If uncertainty is assumed, a portion of the supply and demand factors would be attributed to unexplained factors. See Redl (2023) for details.

20. Other inflation decomposition methodologies can also be useful. Redl (2023) also uses a version of the Shapiro (2022) method but looks at the GDP deflator rather than PCE inflation. The results from this decomposition, reproduced in Figure 16, show a larger role for demand factors. Given that the GDP deflator does not cover the price of imports (whereas the CPE inflation does), that the deflator is slightly more demand driven (versus the CPE results in Figure 7) is consistent with external supply factors being an important driver of PCE inflation. Yet another decomposition approach is provided in previous IMF work from Guo, Karam, and Vlcek (2019), who use a semi-structural model to decompose the contribution of different shocks to inflation, which are classified as either supply or demand factors. This work examines the elevated inflation period in 2018 and shows that it was mainly driven by supply factors associated with commodity-price shocks, but that demand factors also played an important role and highlights the role of monetary policy intervention.

E. Conclusion

21. This note applies different methods for decomposing inflation into demand versus supply factors and finds an important role for supply-driven inflation in the Philippines. It further finds that supply-driven inflation stems mainly from supply-driven inflation in food and goods whereas services inflation has been more balanced, reflecting both demand and supply factors. As evidenced in Firat and Hao (2023) supply-driven inflation tends to be more responsive to external factors such as oil shocks and supply chain pressures, whereas demand-driven inflation exhibits a more pronounced response to monetary policy shocks. This holds significant implications

[8] Note that the model performs well at the global level and for major economies (United States, India, Germany, and China). See Chau and others (forthcoming) for further details.

for effective policy design and central bank communication and raises important questions for further analysis related to the optimal inflation target and the estimation and impact of second round effects when aggregate inflation is supply driven. In particular, it is not clear whether looking through supply shocks is optimal for central banks in a world with more severe and frequent supply shocks (for instance due to climate change and geopolitics) as this could change the way firms and households form their inflation expectations.

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Annex I. Data Sample Details

1. All raw data is from Haver. The table below lists the sectoral data used for each country and the sample period analyzed.

Data Sample

Country	Sector			Sample Period
Australia	Food	Household Tools	Net Losses from Gambling	1985Q1-2023Q4
	Cigarettes/Tobacco	Medicine	Newspaper/Books/Stationary	
	Alcoholic Beverages	Health	Education Services	
	Clothing/Footwear	Purchase of Vehicles	Catering Services	
	Housing Rent	Operation of Vehicles	Accommodation Services	
	Water	Transport Services	Insurance And Other	
	Electricity/Gas/Fuels	Communications	Other Goods	
	Furnishing Household Appliances	Goods for Recreation Culture	Other Services	
		Sports Recreation Culture		
Korea	Food/Non-Alcoholic Beverages	Health	Restaurant Accommodations	1970Q1-2023Q4
	Alcohol/Tobacco	Transportation	Miscellaneous/Goods/Services	
	Clothing/Footwear	Information and Communications		
	House/Water/Electricity/Fuels	Sports Recreation Culture		
	Furnishing Household Equipment	Education Services		
Indonesia	Food Beverages	Health Education	Others	2008Q1-2023Q4
	Clothing/Footwear/Maintenance Services	Transportation and Communications		
	Housing/Household Supplies	Restaurants/Hotels		
New Zealand	Food/Non-Alcoholic Beverages	Household Contents Services	Restaurants Hotels	1987Q1-2023Q4
	Alcoholic Beverages/Tobacco/Illicit Drugs	Transportation	Miscellaneous/Goods/Services	
	Clothing/Footwear	Communications		
	Housing/Household Utilities	Recreation Culture		
Philippines	Food/Alcoholic Beverages	Furnishing Household Equipment	Recreation and Culture	1998Q1-2023Q4
	Alcoholic Beverages/Tobacco	Health	Education	
	Clothing/Footwear	Transportation	Restaurants/Hotels	
	House Water	Communications	Miscellaneous/Goods/Services	
Thailand	Bread Cereals	Tobacco	Communications	1993Q1-2023Q4
	Meat	Clothing	AV Photo Equipment	
	Fish	Footwear	Other Recreation	
	Milk/Cheese/Eggs	Housing and Water	Newspaper/Books/Stationary	
	Oil/Fat	Electric/Gas/Fuels	Education	
	Fruit	Furnish Carpet/ Floor	Restaurants Hotels	
	Vegetables	Household Equipment Maintenance	Personal Care	
	Sugar Products	Health	Personal Effects NEC	
	Food Products NEC	Purchase of Vehicles	Financial Services	
	Non-Alcoholic Beverages	Personal Transportation	Other Services NEC	
	Alcoholic Beverages	Transport Services		