

New Data Release: Production and Generation of Income Accounts by Institutional Sector and Government Consumption Expenditure by Individual and Collective Consumption

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Introduction

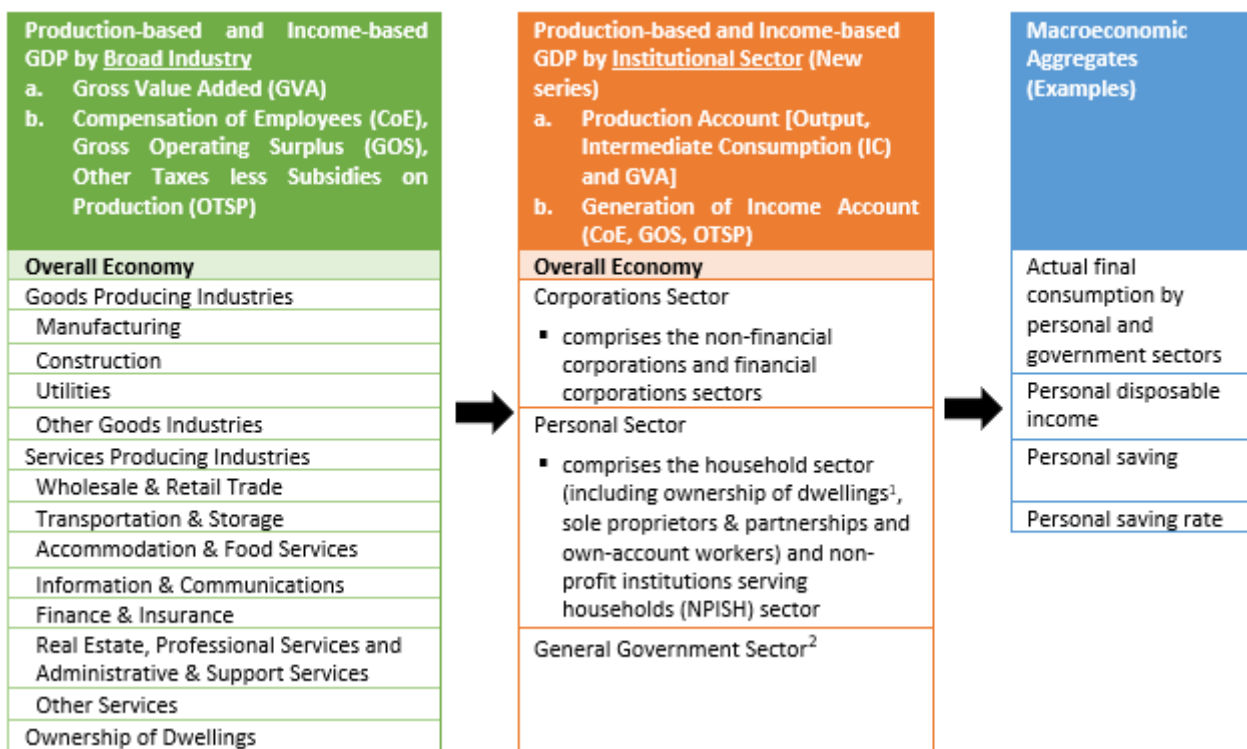
The Singapore Department of Statistics (DOS) has released new annual series on production and generation of income accounts by institutional sector (corporations, personal and general government) as well as the government consumption expenditure (GCE) by individual and collective consumption.

Presently, the production-based and income-based gross domestic product (GDP) are published at the industry level (Chart 1). The newly released production-based and income-based GDP by

institutional sector will serve as key building blocks for the compilation of macroeconomic aggregates (e.g., personal disposable income and personal saving rate).

In addition, the 'total' value of the goods and services consumed by households can be derived by adding the newly released government expenditure by individual consumption to private consumption expenditure (PCE). Such economic aggregates provide useful analytical perspectives for policy studies and international comparisons of national accounts statistics.

Chart 1
PRESENTATION OF ECONOMIC STATISTICS BY INSTITUTIONAL SECTOR



1 Ownership of dwellings refer to housing services provided by owner-occupiers and individuals who let out their residential properties.
 2 General government sector refers to government agencies and statutory boards providing goods and services either for free or at prices or fees that are economically insignificant (i.e., prices which do not have a significant influence on both the amounts producers are willing to supply and the amounts purchasers wish to buy).

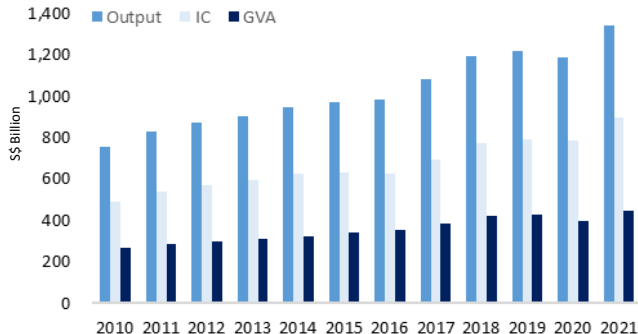
Production³ and Generation of Income⁴ Accounts by Institutional Sector

Corporations Sector

The corporations sector was the largest contributor of the overall economy gross value added (GVA) in the production account, accounting for over 86 per cent of GVA in 2010 and gradually increasing to 88 per cent in 2021. This was a reflection of how Singapore's pro-business environment supported companies' growth across industries.

The onset of COVID-19 in 2020 adversely affected businesses, resulting in GVA of the corporations sector declining 6.6 per cent (Chart 2). The decline was led by a fall in output across industries, even as intermediate consumption (IC) was largely unchanged from 2019. In 2021, GVA of the corporations sector rose above its pre-COVID level, supported by the recovery of the economy.

Chart 2
OUTPUT, IC AND GVA
OF THE CORPORATIONS SECTOR, 2010 – 2021

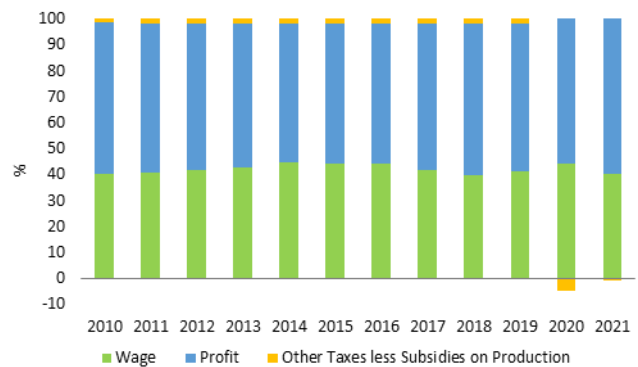


IC as a proportion of output rose slightly in 2020 and 2021, reflecting the impact of COVID-19 on business margins.

In line with a strong presence of capital-intensive industries (e.g., manufacturing) in the Singapore economy, the corporations sector had a higher

profit share (i.e., gross operating surplus as a share of GVA) in the generation of income account (Chart 3). Notably, the negative shares in other taxes less subsidies on production for years 2020 and 2021 were due to the government's strong fiscal support provided to businesses (e.g., Jobs Support Scheme) during the period.

Chart 3
INCOME SHARES
OF THE CORPORATIONS SECTOR, 2010 – 2021



Personal Sector

The personal sector's share of overall economy GVA in the production account fell slightly between 2010 and 2021.

GVA of the personal sector saw a steady increase prior to 2014 which was consistent with overall economic expansion during the period and was led by an increase in ownership of dwelling activities (Chart 4). GVA of the personal sector was relatively stable between 2014 and 2019, before falling in 2020 as household businesses (e.g., own-account workers like taxi drivers) were adversely affected by the COVID-19 Circuit Breaker measures.

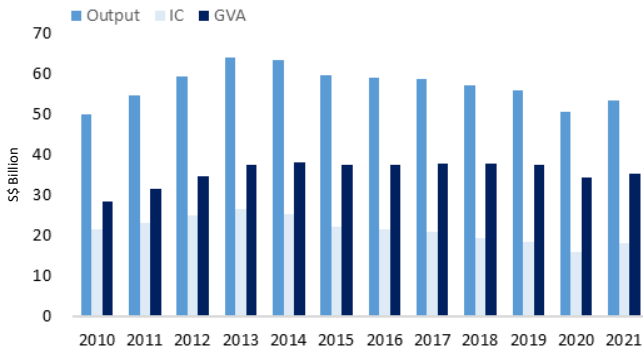
The personal sector recovered in 2021 with the gradual resumption of economic activities, although it remained below its pre-COVID level.

IC as a proportion of output fell between 2014 and 2020 amid industry transformation during the period but rose slightly in 2021.

3 *Production Account* refers to the output, intermediate consumption (IC) and gross value added (GVA) of the economy. *Output* refers to the value of goods and services produced in the economy. *IC* refers to the value of goods and services consumed as inputs during a process of production (e.g., materials, fuel, other operating costs). *GVA* of an economy refers to output less IC. It is the value that producers have added to the intermediate goods and services that they have bought.

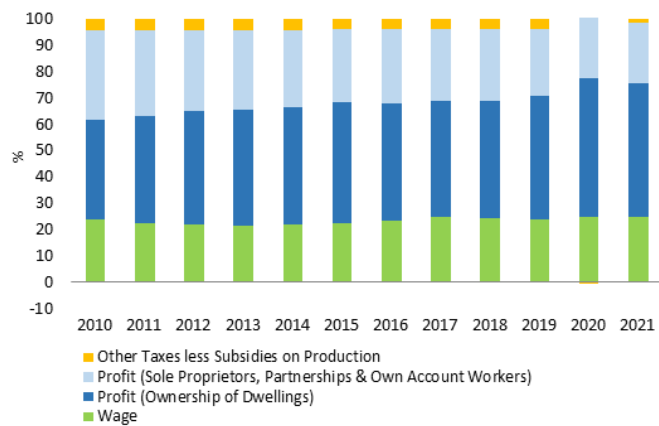
4 *Generation of Income Account* refers to the primary incomes [i.e., compensation of employees (CoE), gross operating surplus (GOS) and other taxes less subsidies on production (OTSP)] accruing to the institutional sectors. *CoE* refers to remuneration received by employees for the provision of labour services in the production of goods and services. It can be paid in cash or in kind. Examples include basic wage, bonuses, welfare benefits and employers' CPF contributions. *GOS* refers to income generated by enterprises from the production of goods and services. *GOS* is a measure of the surplus accruing to owners from production before deducting any explicit or implicit interest charges, rent or other property incomes payable on the financial assets, land and other natural resources. *OTSP* consists of production taxes and subsidies. Production taxes are payable by enterprises during the process of production. Examples include foreign worker levy and property tax. Production subsidies are receivable by enterprises during the process of production. Examples include payouts from the Jobs Support Scheme and Government-Paid Maternity Leave Scheme.

Chart 4
OUTPUT, IC AND GVA
OF THE PERSONAL SECTOR, 2010 – 2021



In the generation of income account, profit accounted for more than 70 per cent of the GVA in the personal sector. As shown in Chart 5, this was mainly attributable to GOS from housing services provided by owner-occupiers and individuals who let out their residential properties.

Chart 5
INCOME SHARES
OF THE PERSONAL SECTOR, 2010 – 2021



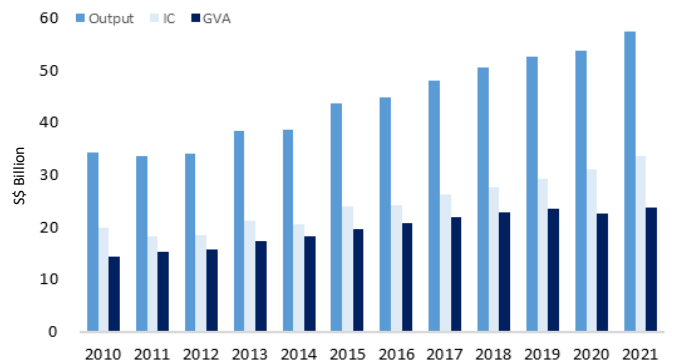
General Government Sector

The general government sector was the smallest contributor of overall economy GVA in the production account, with its share at around 5.0 per cent over the period of 2010 to 2021.

GVA of the general government sector rose steadily from 2010 to 2019 as total wages rose in tandem with an increase in overall activity (Chart 6). The sector's GVA declined 3.1 per cent following the onset of COVID-19 in 2020, before recovering to above its pre-pandemic level in 2021, supported by higher employment in public administration & defence and a recovery in wages.

IC as a proportion of output increased slightly in 2020 and 2021 due to COVID-19 containment costs.

Chart 6
OUTPUT, IC AND GVA
OF THE GENERAL GOVERNMENT SECTOR,
2010 – 2021



A high wage share was observed in the general government sector as it engaged in non-market production. Wage share in the general government sector remained high and stable at about 91 per cent of the sector's GVA over the period of 2010 to 2021 (Chart 7).

Chart 7
INCOME SHARES
OF THE GENERAL GOVERNMENT SECTOR,
2010 – 2021



Government's Individual and Collective Consumption Expenditure

Government consumption expenditure (GCE) refers to the sum of expenditures incurred by the general government on consumption goods and services provided to the general public. GCE can be further disaggregated into individual consumption expenditure and collective consumption expenditure.

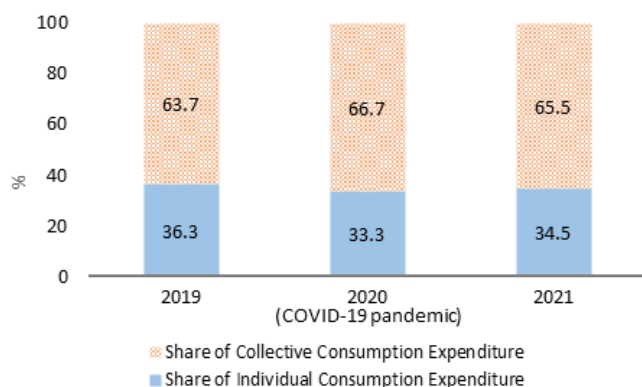
Individual consumption expenditure consists of expenditure on goods and services incurred by the government on behalf of the households (e.g., public education and healthcare which are consumed by individuals or households).

On the other hand, *collective consumption expenditure* consists of expenditure on goods and services incurred by the government for the benefit of the community as a whole or large sections of the community (e.g., national security and defence). It is akin to a 'public good', which is non-excludable and non-rivalrous in nature⁵.

Impact of COVID-19 on Government's Individual and Collective Consumption Expenditure

The share of individual consumption expenditure and collective consumption expenditure over government consumption expenditure remained relatively stable over the period of 2019 to 2021 (Chart 8).

Chart 8
SHARE OF GOVERNMENT'S INDIVIDUAL AND COLLECTIVE CONSUMPTION EXPENDITURE, 2019 - 2021

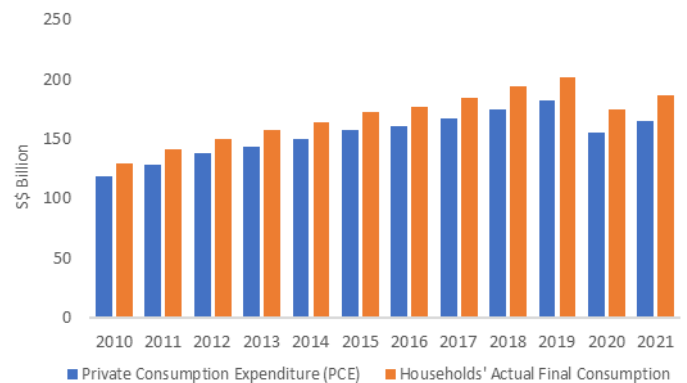


The relatively higher share of collective consumption expenditure in 2020 was due to the government's increased spending on the various COVID-19 contingency measures.

Actual Final Consumption of Households

While private consumption expenditure (PCE) includes the consumption expenditure on goods and services incurred by the households, the actual consumption of households is in fact higher as the government provides subsidies on the consumption of certain goods and services incurred by the households (e.g., public education and healthcare) (Chart 9).

Chart 9
PRIVATE CONSUMPTION EXPENDITURE AND HOUSEHOLDS' ACTUAL FINAL CONSUMPTION, 2010 - 2021



With the availability of the breakdown of GCE by individual and collective consumption expenditure, the households' actual final consumption can be derived by adding government's individual consumption expenditure to PCE. This indicator provides useful analytical perspective for policy studies.



For example, PCE grew by around 3.0 per cent over the period of 2010 to 2021, while households' actual final consumption grew at a slightly faster pace of around 3.4 per cent over the same period. The higher growth for the latter was due mainly to the higher growth of government's individual consumption expenditure on healthcare.

Conclusion

The successful development and compilation of the production and generation of income accounts by institutional sector and government consumption expenditure by individual and collective consumption not only provide useful analytical perspectives for policy studies, but also facilitate international comparisons of national accounts statistics.

⁵ A non-excludable good is a public good that once provided cannot exclude a certain individual or group of individuals from using and benefitting from it. A non-rivalrous good can be consumed by multiple users at the same time, without reducing the ability of another user to consume it.