Aggregate GCC Consumer Price Index inflation estimates
Summary
Consumer Price Index (CPI) is a key macroeconomic indicator of interest to policymakers, businesses, researchers as well as ordinary households. All GCC member countries currently compile monthly national CPIs but they have some significant methodological differences that make precise country comparisons and regional aggregation difficult. The Statistical Center for the Gulf Cooperation Council (GCC-Stat) and the six member states are engaged in a project to harmonize the conceptual and methodological basis for measuring consumer inflation in the region. While this work is progressing, a temporary measure aggregate measure has been developed to provide an indicative overall GCC level inflation estimates. This temporary aggregate index is compiled based on the national CPI main group level data, excluding the main group for housing. The temporary aggregate index is compiled from January 2009 onwards and will be disseminated together with national CPI data through GCC-Stat data portal\(^1\).

\(^1\) See dp.gccstat.org
Methodology

The temporary aggregate GCC non-housing CPI is compiled from published national 12 main groups of COICOP classification, less “Housing, water, electricity, gas and other fuels”, for which the data division level estimates are deemed non-comparable due to methodological differences that significantly hinders cross-country comparisons. The expenditure weights of the aggregate index groups are derived from

i) Purchasing Power Parity adjusted real expenditure estimates for actual individual consumption expenditure by households without housing, that give the overall relative importance between countries as estimated in the latest round of International Comparison Program (ICP), as presented in the last column of Table 1, and

ii) Unadjusted national CPI expenditure weight distribution without housing services group.

The country weights from the ICP are distributed based on the national CPI weight distribution, excluding housing. As indicated in the Table 1 below, Saudi Arabia has the largest overall weight with almost 50% of expenditure share, followed by UAE and Kuwait with 30.4 and 7.5%, respectively. Food and beverages group has by far the largest expenditure share with over 25%. Transport group with 15% is the second largest, followed by Clothing, Furnishing and Communication groups all around 10% expenditure share of all GCC countries.

Table 1. GCC aggregate expenditure share distribution

<table>
<thead>
<tr>
<th>COICOP group/ Country</th>
<th>Food and beverage</th>
<th>Tobacco</th>
<th>Clothing</th>
<th>Furnishing</th>
<th>Health</th>
<th>Transport</th>
<th>Communication</th>
<th>Recreation</th>
<th>Education</th>
<th>Rest. &amp; Hotels</th>
<th>Misc. goods/serv</th>
<th>Country weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAE</td>
<td>7.0%</td>
<td>0.1%</td>
<td>3.8%</td>
<td>2.1%</td>
<td>0.6%</td>
<td>5.0%</td>
<td>3.5%</td>
<td>1.5%</td>
<td>2.0%</td>
<td>2.2%</td>
<td>2.7%</td>
<td>30.4%</td>
</tr>
<tr>
<td>Bahrain</td>
<td>0.6%</td>
<td>0.0%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.1%</td>
<td>0.5%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>2.9%</td>
</tr>
<tr>
<td>KSA</td>
<td>13.5%</td>
<td>0.3%</td>
<td>5.2%</td>
<td>5.6%</td>
<td>1.6%</td>
<td>6.5%</td>
<td>5.0%</td>
<td>2.2%</td>
<td>1.7%</td>
<td>3.5%</td>
<td>4.2%</td>
<td>49.3%</td>
</tr>
<tr>
<td>Oman</td>
<td>1.9%</td>
<td>0.0%</td>
<td>0.5%</td>
<td>0.3%</td>
<td>0.1%</td>
<td>1.5%</td>
<td>0.4%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.5%</td>
<td>0.4%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Qatar</td>
<td>0.7%</td>
<td>0.0%</td>
<td>0.3%</td>
<td>0.4%</td>
<td>0.1%</td>
<td>0.8%</td>
<td>0.3%</td>
<td>0.7%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Kuwait</td>
<td>1.9%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>1.2%</td>
<td>0.2%</td>
<td>0.8%</td>
<td>0.4%</td>
<td>0.4%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.8%</td>
<td>7.5%</td>
</tr>
<tr>
<td>GCC</td>
<td>25.5%</td>
<td>0.5%</td>
<td>11.0%</td>
<td>10.0%</td>
<td>2.6%</td>
<td>15.0%</td>
<td>9.9%</td>
<td>5.2%</td>
<td>4.6%</td>
<td>7.1%</td>
<td>8.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Aggregate GCC non-housing inflation

The national main group indices have all been scaled to same base year of 2007 without adjusting internal expenditure weights. The resulting 6 countries 11 CPI group index series are then aggregated as weighted averages for GCC level group aggregates and overall non-housing aggregate. The period currently covers January 2009 to May 2016 as the latest available data at the time of writing this. The aggregate CPI does
not measure price level differences and hence the main emphasis with this temporary aggregate GCC non-
housing CPI is on price level changes. The annual GCC non-housing inflation is defined as 12-month change
in the aggregate GCC non-housing CPI, and similarly group level inflation estimates refer to comparison of
group level index point to its value the same month in previous year.

GCC-Stat compiles and disseminates the aggregate index simultaneously with the re-dissemination of
national CPI data on the data portal. Monthly and annual inflation publications also feature the aggregate
inflation measure among the official national CPI data.

National CPIs
The national CPIs include the important housing component that is excluded from the aggregate measure
and country comparisons due to the methodological differences. In fact, the housing component has been
a dominant contributor to national overall inflation estimates based on official national CPIs.

All countries follow the same COICOP classification system, but the item coverage varies between
countries at various classification levels, sometimes significantly. For example, in some countries Division
11, Restaurants and Hotels include only Catering services without Accommodation services, and coverage
of sub-groups of Division 12 Miscellaneous goods and services regarding Insurance and Financial services
varies.

Future work
The GCC-Stat will continue working on the Harmonized GCC CPI as planned. Majority of the
methodological improvements, clarifications and harmonized statistical techniques will be implemented
to the national CPI programs during the next round of scheduled index revisions. The harmonization
process will hence also benefit the national CPI estimates to be more in line with international best
practices. Unless national user needs require a separate, conceptually different index from the monetary
or market inflation measure the harmonized index is envisioned to be, the national CPIs will contribute
directly to the harmonized GCC level index, as is the case with the temporary aggregate index.

Inclusion of sub-groups of Housing
The current exclusion of total Division 4 reflects the level of available detailed series received from all
countries. Housing maintenance, Water supply and services, Electricity, Gas and other housing related
fuels would ideally be included in the aggregate index. At the minimum and regardless of the future
common approach to housing services, these subgroups will be covered in the Harmonized GCC CPI.

These currently excluded sub-groups are currently of particular interest to both policy-makers and other
users as they deal with government subsidized products. Water and electricity charges and tariffs are
fiscal tools currently being re-evaluated in all member countries and they have a direct and significant
impact for overall national and regional inflation estimates. Apart from cuts in transport fuel subsidies,
these policy measures are currently not reflected in the aggregate index.
**Base year update**
The aggregate CPI base year is currently year 2007, as 3 out of 6 countries still have the same base year in their national index, and one year 2006. However, during the next 12-18 months these 4 countries will revise their national CPIs to new base years. The aggregate index will follow suite.

**Annual weight updates and chain-linking**
As with other aggregate GCC-level economic series, the aggregation methodology is of importance and should follow commonly agreed guidelines and policies. Currently in absence of these, the aggregate CPI uses fixed 2011 country expenditure estimates from the ICP. An improvement in line with possible broader practice of using annual, most recent PPP-adjusted aggregates (in CPI case the relevant household expenditure) should be explored further. This would implicitly require an agreed time series of national GDPs and their sub-aggregates measured at PPP, currently not widely available but likely feasible in near future. The annual update of country weights would require a new compilation strategy of annual chaining of the national overall and division-level CPI series changes to the aggregate index. In my opinion, it would be more realistic to introduce the annual country weight updates and accompanied chain-linking for the future Harmonized GCC CPI instead.