Inflation in the United Arab Emirates

Central Bank of the United Arab Emirates

1. Introduction

The United Arab Emirates (UAE), as a small economy with an open capital account and pegged foreign exchange rate regime, has limited scope for exerting an independent monetary policy. More specifically, given that its key policy objective is to maintain a stable peg with US dollar, domestic short-term interest rates generally follow US interest rates and therefore, the Central Bank of the UAE (CBUAE) does not anchor the inflation target. Moreover, inflation in the UAE moves for the most part in response to other forces that are not under the direct control of the central bank. Specifically, non-tradables account for 63% of the CPI basket, of which housing accounts for 39% of the total. Further, inflation of tradables (37% of the CPI basket) moves with developments in the nominal effective exchange rate (NEER), largely attributed to bilateral movements in the US dollar with respect to major trading partners.

While there is no explicit inflation target in the UAE, inflation is an important economic indicator which the CBUAE closely monitors.[1] The following discusses the various inflation measurements and assesses the challenges involved in capturing underlying inflation.

2. Inflation measurements

Inflation measures how quickly prices of a basket of goods and services rise in a given period of time. In other words, it measures the general price level, where a positive figure implies an increase in the cost of living and a fall in the purchasing power of money. In general, the prices of a basket of goods and services that are representative of the economy are collected; then the cost of this basket is collated to generate a consumer price index (CPI), which is also called headline inflation. In the UAE, headline inflation measures the price level of a basket of 334 different categories of goods and services, collected by the Federal Competitiveness and Statistics Authority (FCSA). This CPI is calculated by using a Young index, which assumes expenditure weights are constant over time.[2]

[1] The CBUAE has developed a collection of other operational and regulatory policy tools, such as liquidity management and macroprudential measures, to complement the traditional monetary policy tools in the absence of independence to set the policy interest rate. These tools play a significant role in better monitoring monetary conditions (including inflation) and safeguarding overall economic and financial stability in the UAE.

[2] The Young index differs from the Lowe index, where quantities are constant over time and expenditure shares are price-updated every month. In general, the Young index tends to underestimate price movements relative to the Lowe index.

Nonetheless, headline inflation measures total inflation, including energy and food, which tends to exhibit high volatility. For example, food consumption is dominated by imports, which move with the exchange rate of the US dollar with respect to major trading partners, mostly non-dollarised. Therefore, the published CPI does not always present an accurate picture of an economy's underlying trend change in prices, as sector-specific inflation shocks are unlikely to persist. In line with other central banks and statistical agencies, the CBUAE has designed multiple measures to analyse inflationary trends, which are more likely to assess underlying trends in prices and provide more useful leading indicators of where prices are heading. Such measures include exclusion-based and statistical methods, such as trimmed mean and volatility-weighted measures.

Different price indices are used by the CBUAE to gauge inflation. More specifically, based on the features of the UAE's basket of goods and services, the CBUAE tracks the prices of different goods and services using the following inflation measurements. Examples are provided in Section 3:

i. *Headline inflation (CPI):* FCSA started publishing the CPI on a monthly basis in January 2008. However, temporary shocks, along with other measurement issues, introduce noise into this measure of inflation.

ii. *CPI excluding rent:* As the rent component accounts for 33.8% of the total CPI basket, it is important to examine the price level of rent and non-rent items separately.

iii. *CPI excluding food:* This method excludes food items as they are mostly imported from abroad and have volatile prices. Thus, their temporary price shocks can diverge from the overall trend of inflation.

iv. *Tradable CPI vs non-tradable CPI:* As a small open economy with trade contributing significantly to the economy, the analysis of tradable and non-tradable inflation could provide valuable information on whether inflationary pressures are generated domestically or imported from overseas. Tradable and non-tradable goods represent 37% and 63% of the total CPI basket, respectively.

v. *Trimmed CPI:* This statistical method removes the most volatile items in a given month. The remaining items are re-weighted and the trimmed CPI is calculated. Analysis of the CPI components in the UAE suggests trimming the top 5% and bottom 5% of items is optimal in terms of both volatility and the ability to predict future inflation, though the effect of seasonality needs to be further examined.

vi. Volatility-weighted inflation: This statistical method re-weights the items in the CPI basket by assigning weights based on the inverse of relative volatility, where the most volatile constituents get assigned the smallest weights. However, this methodology has little theoretical underpinning and reduces the impact of major constituents of the basket, such as the rent component.

vii. Apart from various consumer price indices, the NBS published an annual *Producer Price Index (PPI)*, but it only covers the period 2008–11.

Although the CBUAE considers various measures of inflation to better understand and monitor the true underlying inflation trends, due to the limitations in sampling methods in the design and implementation of the consumer expenditure surveys, there are unavoidably measurement biases, such as substitution bias, quality adjustment bias, new products and products attrition bias etc, in the inflation measurement. On top of that, given the relatively short history of the data and the limited information on the sampling techniques, there are no quantitative measurements to measure the magnitude of these biases yet.

Another challenge is that many items in the CPI basket have administered and/or regulated prices. The prices of these goods and services are currently being treated in the same way as other products, and no adjustment has been made accordingly. Further investigation and specific treatment for these administered and regulated goods is needed.

Moreover, there can be potentially large measurement biases for key drivers of headline inflation such as the rent component, which accounts for nearly 34% of the CPI basket. In particular, one has to consider, among other things, whether owner-occupied homes have been included; whether any change in the neighbourhood quality has been taken into consideration; or whether new and old rental contracts have been adjusted properly. A sophisticated and consistent rental measurement method needs to be developed and deployed.

With respect to the role of wage growth and unemployment in shaping inflation, data limitations imply that quantifying such impacts is not possible in the case of the UAE, so far. Such information would be helpful to assess the impact of demand on rental increases and CPI inflation.

3. The inflation process

By examining the subcategories that make up headline CPI, it is clear that the various measurements of inflation differ significantly owing to the different causes of inflation. Therefore, it is important to identify whether a given change in inflation is due to temporary or permanent shocks, so as to identify the underlying inflationary trends. A close examination of UAE inflation measurements follows.

After the 2008 financial crisis, headline CPI in the UAE gradually lifted starting in early 2012, in parallel with the recovery of economic activity, and persisted through 2015. As shown in Table 1, in average terms headline CPI increased by 4.12% in 2015 (year to end-July), while year-on-year CPI increased to 4.43% in July 2015, from 3.1% in December 2014, mainly due to the acceleration in the prices of non-tradable goods and services.

By component, much of the inflation is largely attributable to housing costs, which increased 9.95% year on year in July 2015. The upward housing cost pressure mainly comes from rising rent, along with water and electricity subsidies reform. Other service sector components, such as "Education", "Restaurant and Hotels", and "Transportation", also made notable contributions to headline CPI through 2015. However, prices of imports, such as "Textiles, Clothing and Footwear", were weighed down by the rising nominal effective exchange rate, weak trading partner inflation and falling commodity prices (Table 1).

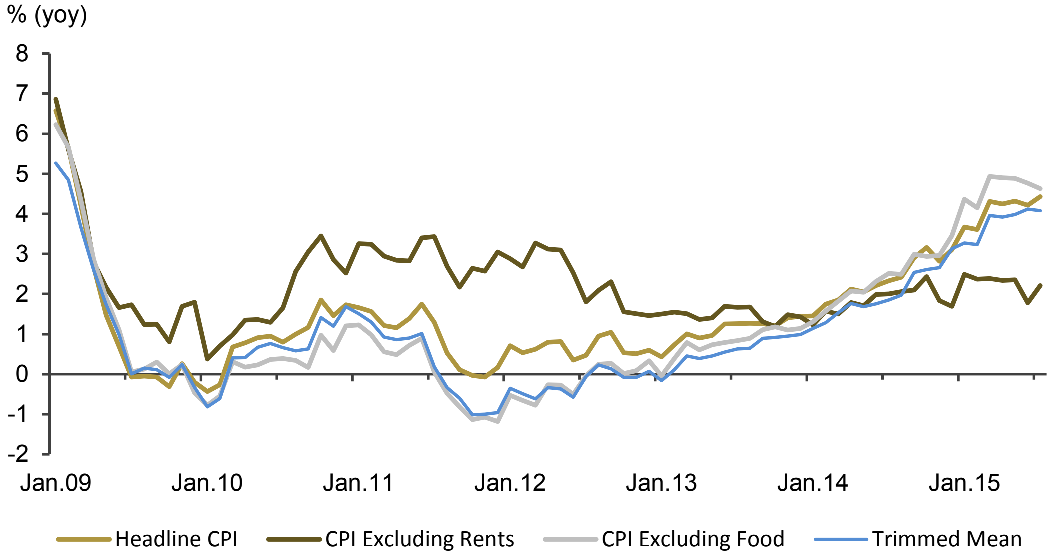
The impact of the rent component on headline CPI inflation becomes evident once we exclude from the latter its most volatile constituents. In 2015, there was upward pressure on overall headline CPI, while CPI excluding rents was well contained. In July, CPI excluding rents increased only 2.2% year on year, compared with 4.43% headline CPI. This reflects the significant contribution of rent to consumer price inflation. Unsurprisingly, other measures of underlying inflation (including the rent component) also displayed an upward trend. Reflecting this, trimmed mean inflation went up 4.08% year on year, while CPI excluding food increased 4.63% year on year in July 2015, surpassing headline inflation (Graph 1).

UAE headline CPI and components (July 2015) Table 1

	Yoy change, %	Year to July average change, %	% weighting
Total	**4.43**	**4.12**	**100**
Food and Soft Drinks	3.4	1.32	13.94
Beverages and Tobacco	–0.92	2.41	0.22
Textiles, Clothing and Footwear	–3.03	–2.00	7.58
Housing	9.95	8.97	39.33
Furniture and Household Goods	1.73	3.14	4.21
Medical Care	–0.05	0.68	1.12
Transportation	0.16	1.15	9.94
Communications	–0.07	0.28	6.93
Recreation and Culture	–0.03	0.11	3.07
Education	3.93	3.96	4.00
Restaurants and Hotels	3.26	2.29	4.35
Miscellaneous Goods and Services	0.35	3.12	5.31

Sources: FCSA and CBUAE

Underlying inflation measurements Graph 1

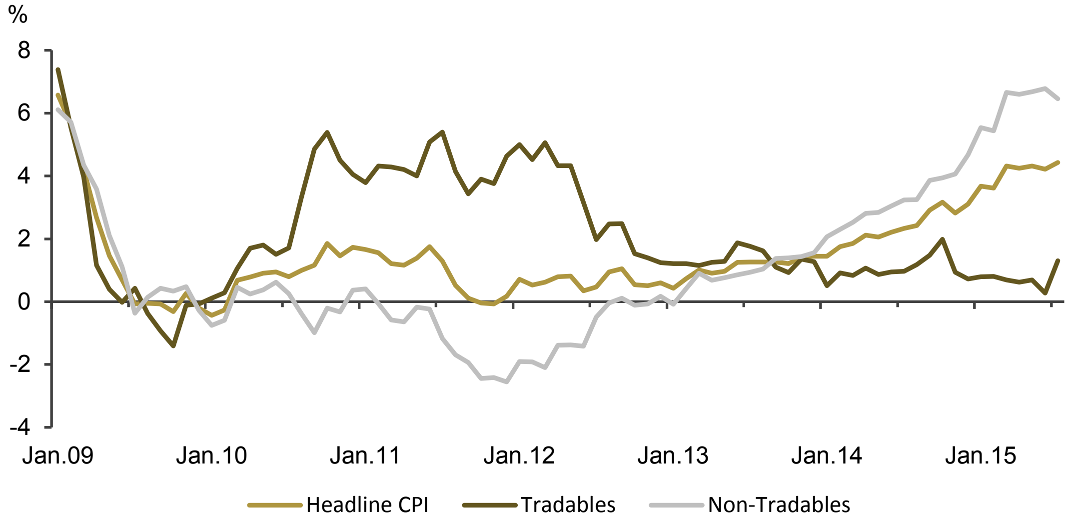


Sources: FCSA and CBUAE

As Graph 2 shows, the acceleration of inflation was largely attributable to domestic factors in 2015. Non-tradable inflation, representing 63% of the total CPI basket, increased 6.5% year on year in July 2015. This is mainly due to the increase in rent prices and the government’s decision to remove energy subsidies, while the prices of other non-tradable goods and services were well contained. Non-tradable inflation excluding rent, which accounts for around one third of the CPI basket, increased 3.4% year on year.

Non-tradable inflation and tradable Inflation

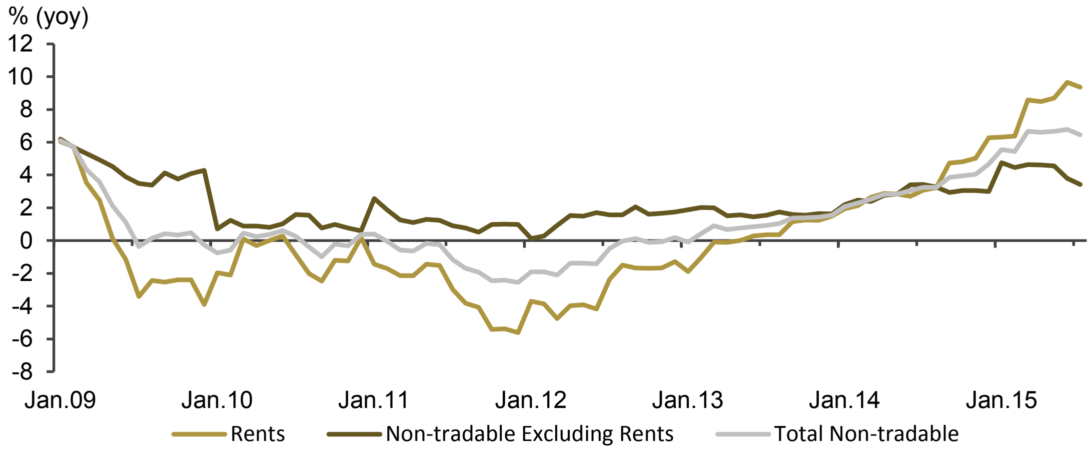
Graph 2



Sources: FCSA and CBUAE

Non-tradable inflation

Graph 3

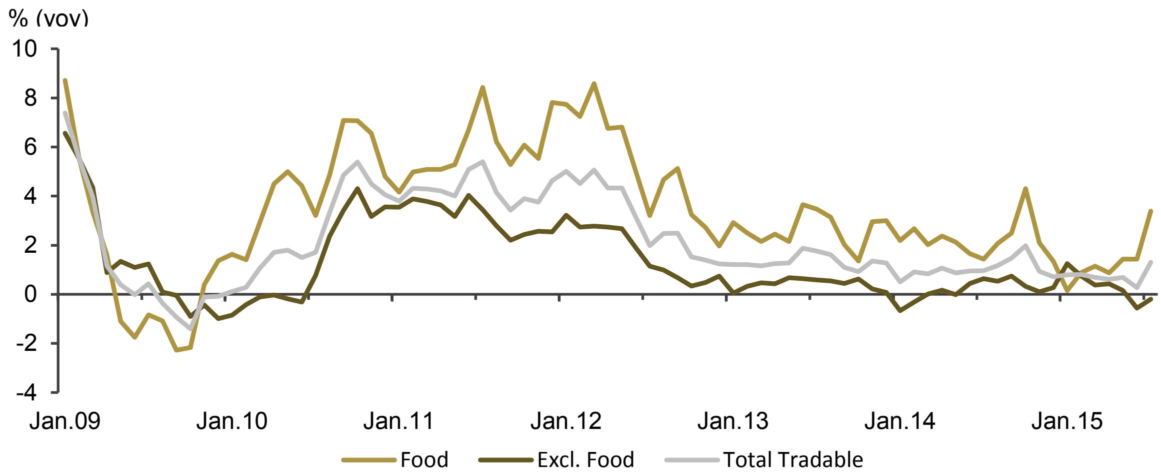


Sources: FCSA and CBUAE.

In contrast to non-tradable inflation, inflation of tradables, which account for 37% of the CPI basket, was relatively subdued, with a year-on-year increase of 1.3% in July 2015. As tradable goods are either import- or export-competing, their prices tend to be influenced by movements in the NEER), mostly on account of bilateral movements in the dollar exchange rate with non-dollarised trading partners, global commodity prices and trading partners' inflation. For a small open economy such as the UAE, exchange rate movements of the domestic currency relative to those of the respective major trading partners play a significant role in the inflation process. Therefore, the strong NEER due to the strengthening US dollar contributed to the low tradable inflation, which increased just 0.74% in average terms (year to end-July). Moreover, low inflation in key trading partners also helped contain tradable inflation.

Tradable inflation

Graph 4



Sources: FCSA and CBUAE.

The overall analysis reveals that much of the weakness in tradable inflation was attributed to non-food items, which accounts for around 23% of the CPI basket. Tradable inflation excluding food decreased 0.2% year on year in July 2015. For food items, weakening global prices of soft commodities saw low food price inflation in the first half of 2015 in addition to the appreciation of the dirham. However, a significant pickup in food prices was observed in July, mainly due to the Eid holiday. Although the increase in food prices pushed up tradable inflation that month, its impact is considered transitory and does not alter the trend of the underlying tradable inflation.

Accounting for the movements of the different CPI subcomponents, it is projected that headline CPI will ease gradually owing to falling commodity prices, weaker inflation registered by the UAE's trading partners, a strong NEER and moderate rent prices slowly feeding into CPI.

4. Inflation expectations

Currently, there are no surveys of inflation expectations available in the UAE. In addition, due to the relatively less developed bond market, no market-based measures of inflation expectations (such as inflation-linked government bonds and inflation swaps) have been formed yet.