

INFLATION EXPECTATIONS GROW AT SLOWER PACE WITH POLICY INTERVENTIONS

SINGAPORE, 17 January, 2022

These are the research findings of the 42nd round of quarterly release for the DBS-SKBI Singapore Index of Inflation Expectations (SInDEx) Survey at the Sim Kee Boon Institute for Financial Economics (SKBI), Singapore Management University (SMU).

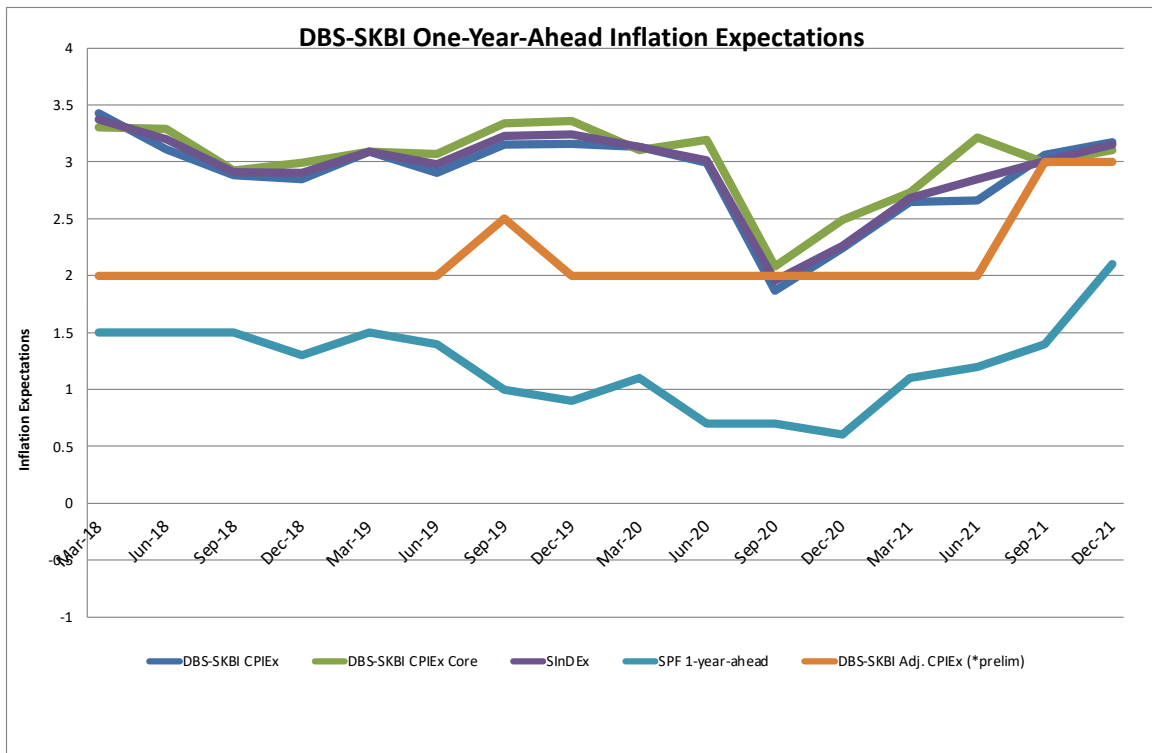
- One-year-Ahead headline inflation expectations moderately elevated to 3.2% in December 2021, compared to 3.1% in September 2021. Headline inflation expectations continued its upward trend since September 2020. However, the current headline inflation expectations is on par with the 10 year (2011-2020) fourth quarter average of 3.2%.
- As a comparison benchmark, the MAS Survey of Professional Forecasters (MAS SPF) data released in December 2021 showed that the median forecasts of CPI All-Items inflation for 2022 was 2.1%, up from 1.4% in the September 2021 survey. The latest release from Department of Statistics showed that average CPI-All Items in January–November in 2021 was 2.2%, higher compared to the reading in the same period in 2020, while the latest November 2021 monthly inflation is 3.8%, year on year. In view of accumulating external and domestic cost pressures, the Monetary Authority of Singapore tightened its monetary policy stance slightly in October 2021 to “ensure price stability over the medium term”.
- The overall CPIEx Inflation Expectations, after adjusting for potential component-wise behavioral biases and re-combining across components, decreased to 3.1% in December 2021 from 3.7% in September 2021. Inflation expectations for most components witnessed moderate declines while others were unchanged. Components that saw a decrease in inflation expectations from the September 2021 survey include transportation, housing & utilities, healthcare, recreation & culture, communications, and miscellaneous goods & services.
- We also observed that the free response behaviorally adjusted overall inflation expectations remained steady at 3.0% in December 2021, unchanged from the previous quarter.
- In the December 2021 wave, continuing the analysis we embarked on in September 2020, an in-depth survey on the potential impact of Covid-19 on inflation expectations of different components of CPI was conducted. We found that the inflation expectations for most

components are expected to have no Covid-19 related impact, including the overall One-year-Ahead inflation. Two components are exceptions to this - overall Five-year-Ahead inflation and healthcare – both of which are expected to see limited positive impact.

- Following the academic work by Alberto Cavallo of Harvard Business School (2020) and the UK Office of National Statistics (ONS), respondents were asked if there were any substantive changes to their consumption basket. In December 2021, results suggest there is no change in any of the components. This perhaps indicates that after two years since the pandemic was first declared, Singaporeans are getting used to the new normal and their component-wise monthly expenditures now remain stable even in the face of new waves of infections and new restrictions.
- Excluding accommodation and private road transportation related costs, the One-year-Ahead CPIEx core inflation expectations saw a slight uptick with an increase from 3.0% in September 2021 to 3.1% in December 2021, similar to the increase in the headline inflation expectations.
- For a subgroup of the population who owns their accommodation and uses public transport, the One-year-Ahead CPIEx core inflation expectations pared from 3.0% in September 2021 to 2.9% in December 2021. This sub-sample measurement is potentially more accurate than the full sample measurement, as the respondents face the impact of core inflation on a day-to-day basis. Although this shift is the inverse of that observed in the full sample, the level is in line with the overall inflation expectations which has been largely flat, despite much stronger growth in housing prices leading to further property cooling measures from policymakers.
- The One-year-Ahead composite index SInDEx1 that puts less weight on more volatile components like accommodation, private transport, food and energy related expenses polled at 3.2% in December 2021, an increase from the 3.0% figure polled in September 2021. It is on par with 3.2% since the survey's inception in 2011 till 2020.
- In December 2021, around 59% of the survey respondents reported their belief that Covid-19's impact on inflation would be significant compared to a higher proportion of 64% in September 2021. The share of survey respondents who feel that Covid-19 will have long-term impact on inflation similarly declined to around 59%, from about 68% in September 2021. Both results indicate that despite the pessimistic turn of events with the emergence of the Omicron variant and the renewed restrictions on travel, new waves of infections and continued constraints on normal life are being accepted as "the new normal" of an endemic Covid-19.

- In addition, around 10.4% of the Singaporeans polled expect a more than 5% reduction in salary in the next 12 months. This is slightly lower compared to 13.6% in September 2021. The median salary increment expectation stayed between -1% and 1%.
- As a measure of the tradeoff between prioritising economic growth compared to the cost to life, the so-called livelihood over life debate, the ratio was 2.6 in December 2021, higher than 2.2 in September 2021. This means for every person who prioritised life over livelihood, there are more than two who prioritised livelihood over life. The higher ratio indicates a shift in public's attitude towards the pandemic. More Singaporeans are leaning towards further reopening of economy to support economic growth and job creation.

Figure 1: One-year-ahead-inflation expectations: The chart shows the quarterly DBS-SKBI CPIEx (CPI-All Item) and DBS-SKBI CPIEx Core (Excluding accommodation and private road transportation components) One-Year-Ahead Inflation Expectations polled in the quarterly online Singapore Index of Inflation Expectations (SinDex) Survey conducted December 13-23, 2021.



Source: SKBI, SMU, MAS, Department of Statistics

DBS Chief Economist and Managing Director of Group Research, Dr. Taimur Baig commented, “In line with global trend, especially among developed markets, Singapore has seen a steady rise in goods, energy, and services prices over the past year. Inflation expectations polled and estimated by the DBS-SKBI survey show similar trend, along with the insight that expectations are still anchored, with no sign of a sharp jump. Authorities have already begun adjusting their monetary and fiscal policy stance to address the bottoming of economic activities and rise in inflation, which ought to keep a lid on inflation expectations.”

SMU Assistant Professor of Finance and founding Principal Investigator of the DBS-SKBI SInDEx Project, Aurobindo Ghosh highlighted, “Global economy is at a crossroad. The rate of transmission of the Omicron variant, detected first in South Africa in November 2021, disrupted the gradual resumption of global travel and trade. Domestically, despite a vaccination rate of over 90% among eligible residents, broader re-opening up of the Singapore economy, including further relaxation of the safe management restrictions, had to be delayed in an abundance of caution against this highly transmissible strain. Having said that, the DBS-SKBI SInDEx survey suggests that Singaporeans seem to have priced in the new normal in forming their inflation expectations and behaviour, including having consumption baskets returning to their pre-pandemic levels (Cavallo, 2020).”

“From somewhat divergent beliefs in the September 2021 survey, we observe a broad-based decline in component-wise inflation expectations leading to a convergence of One-year-Ahead headline and core inflation expectations closer to a long-term average of about 3%, even after accommodating for behavioral and anchoring biases identified in academic literature. This convergence is potentially an effect of proactive policymaking via an unexpected tightening of the monetary policy in October 2021 and property cooling measures in December 2021 to promote a stable and sustainable property market. The inflation expectations polled in December 2021 display some degree of anchoring of medium term inflation expectations,” Prof Ghosh observed.

For the longer horizon, the Five-year-Ahead CPIEx inflation expectations decreased moderately from 3.9% in the September 2021 survey to 3.8% in December 2021. The current polled number continues to remain slightly lower than the fourth quarter average of 4.0% since the survey's inception in 2011 till 2020.

The Five-year-Ahead CPIEx core inflation expectations (excluding accommodation and private road transportation related costs), on the other hand, remained unchanged at 3.6% in December 2021. Overall, the composite Five-year-Ahead SInDEx5 also remained unchanged at 3.7% in December. In comparison, the fourth quarter average value (since the survey's inception in 2011 till 2020) of the composite Five-year-Ahead SInDEx5 is 3.9%.

“Responding to communications from the US Federal Reserve Board to control inflationary pressures and consensus from economists of the potential of multiple increases in the US benchmark interest rate in 2022, the International Monetary Fund (IMF) have issued a warning to emerging economies of a faster than expected increase in global interest rate which can potentially affect financial markets and depreciate currencies. Appreciating US dollar might also impact longer term inflation expectations through imported inflation (such as oil and commodity



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prices), while impending rollout of increased GST and domestic pass-through costs like wages and rental might impact Singaporeans' pocketbooks. In addition, there is some evidence of pandemic restriction fatigue despite the emergence of the highly transmissible but potentially less virulent Omicron variant, as reflected in the life and livelihood debate. In December 2021, three respondents who prioritise livelihood over life for every respondent who chose life over livelihood, up from two in the September 2021 survey," Professor Ghosh commented.

Methodology

DBS-SKBI SInDEx survey yields CPIEx Inflation Expectations (estimating headline inflation expectations) and related indices are products of the online survey of around 500 randomly selected individuals representing a cross section of Singaporean households. The survey is led by Principal Investigator Dr. Aurobindo Ghosh, Assistant Professor of Finance (Education) at Lee Kong Chian School of Business, SMU. The online survey, powered by Agility Research and Strategy, helps researchers understand the behaviour and sentiments of decision makers in Singaporean households. DBS Group Research is a co-sponsor and research partner with the Sim Kee Boon Institute for Financial Economics (SKBI) at SMU.

The quarterly DBS-SKBI SInDEx survey has also yielded two composite indices, SInDEx1 and SInDEx5. SInDEx1 and SInDEx5 measure the One-year inflation expectations and the Five-year inflation expectations, respectively. The sampling was done using a quota sample over gender, age and residency status to ensure representativeness of the sample. Employees in some sectors like journalism and marketing were excluded as that might have an effect on their responses to questions on consumption behaviour and expectations.

The DBS-SKBI SInDEx survey was augmented in June 2018, based on a joint research study conducted by SMU researchers in collaboration with MAS and the Behavioral Insights Team, where respondents were polled on their perceptions of components of the Consumers Price Index (CPI) and adjusted for possible behavioural biases prevalent in online surveys.

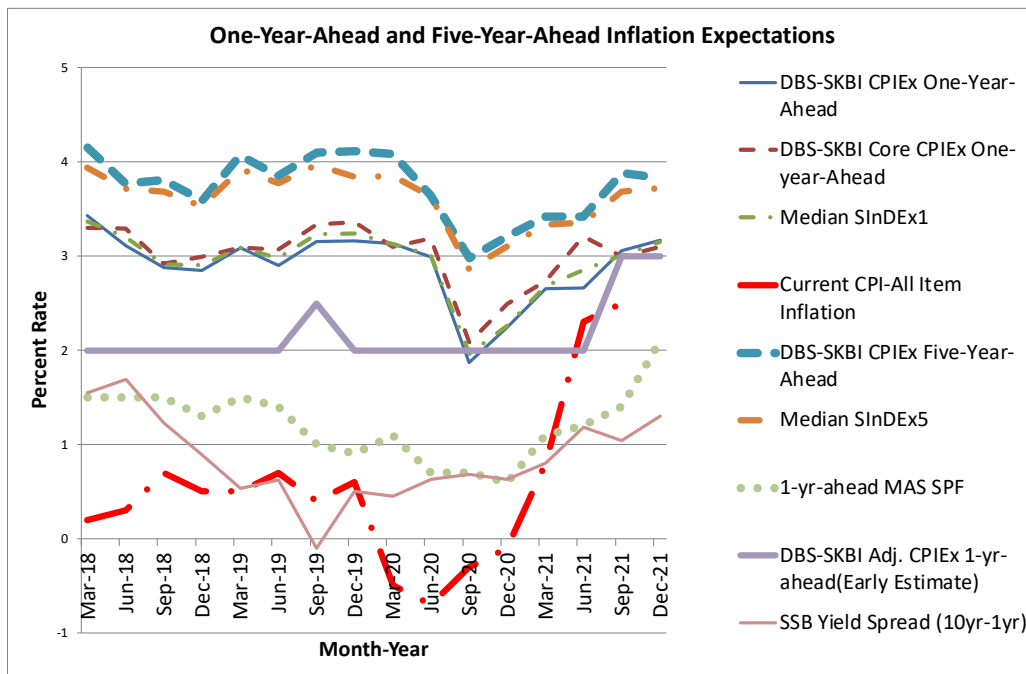
Based on the recommendations of the joint study, since March 2019 the research team has polled the One-year-Ahead inflation expectations of all of the major components of CPI-All Items inflation. The behaviorally adjusted component-wise inflation expectations have remained unchanged in categories like food, clothing & footwear and decreased moderately for transportation, housing & utilities, healthcare, recreation & culture, communications, and miscellaneous goods & services. In free response answers, compared to September 2021 survey, respondents in the December 2021 survey polled One-year-Ahead and Five-year-Ahead headline and core inflation expectations to stay put or decline moderately.

We introduced a new ratio in the June 2020 survey, on the life versus livelihood debate as an aftermath of the Covid-19 pandemic - the ratio of respondents who feels livelihood should be prioritised over life vis-à-vis those who feel the other way. This ratio increased from 2.2 in September 2021, to 2.6 in December 2021, which means for every respondent who prioritised life over livelihood, there were more than 2 who prioritised livelihood over life, signaling a level of pandemic restriction fatigue and a divergence of opinion about the best way forward.



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Figure 2: Five-year-Ahead-Inflation Expectations in Singapore: The chart shows the quarterly DBS-SKBI CPIEx (CPI-All Item), DBS-SKBI CPIEx Core (excluding accommodation and private road transportation components), SInDex (Composite index with lower weights on volatile components like food, energy, accommodation and private road transportation) One-Year and Five-Year-Ahead Inflation Expectations polled online quarterly for the Singapore Index of Inflation Expectations (SInDex) Survey conducted December 13-23, 2021. The chart shows a preliminary estimate of Behaviourally Adjusted One-year-Ahead overall DBS-SKBI Adjusted CPIEx. As comparison benchmarks, the chart provides the most recent quarterly CPI-All Item Inflation, MAS Survey of Professional Forecasters median One-year-Ahead CPI-All Item inflation forecasts and the yield spread of 10-year and 1-year Singapore Savings Bonds (SSB).



Source: SKBI, SMU, MAS, Department of Statistics



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DBS provides a full range of services in consumer, SME and corporate banking. As a bank born and bred in Asia, DBS understands the intricacies of doing business in the region's most dynamic markets. DBS is committed to building lasting relationships with customers, and positively impacting communities through supporting social enterprises, as it banks the Asian way. It has also established a SGD 50 million foundation to strengthen its corporate social responsibility efforts in Singapore and across Asia.

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SMU emphasises rigorous, high-impact, multi- and interdisciplinary research that addresses Asian issues of global relevance. SMU faculty members collaborate with leading international researchers and universities around the world, as well as with partners in the business community and public sector. SMU's city campus is a modern facility located in the heart of downtown



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The Sim Kee Boon Institute for Financial Economics (SKBI) is the premier Asian institute for applied financial research and training in financial economics. It is the think-tank within SMU that spearheads cutting-edge research in financial markets that is driven by industry and societal needs in Singapore and the region.

Over the last 10 years, a diverse portfolio of financial research, outreach and training initiatives has been built. In the coming 10 years, while further expanding that traditional financial economics portfolio, the Institute will focus our efforts on the areas of financial inclusion and literacy, sustainable finance, financial technology, and data and governance. To maintain our relevance to finance practitioners and policy-makers, SKBI also adopts a view on Asian and global economic trends.

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