



INFLATION EXPECTATIONS TICK UP WITH RECOVERY PROSPECTS

SINGAPORE, 21 January 2021

These are the research findings of the 38th 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 rose to 2.2% in December 2020, from 1.9% in September 2020. This expectation for headline inflation is just above the lowest point polled in September 2020 since the inception of the SInDEx Survey in 2011, and is lower than the fourth quarter average of 3.2% from 2012 till 2019.
- As Singapore wound down Phase 3, some semblance of normalisation and global cues of recovery with the advent of vaccines might have buoyed inflation expectations. As a comparison benchmark, the MAS Survey of Professional Forecasters (MAS SPF) data released in December 2020 polled median CPI All-Item inflation expectations of -0.3% for 2020 and the MAS SPF median forecast for 2021 is 0.6%. The latest Department of Statistics' CPI All-Items inflation reading in November 2020 was -0.2%.
- The overall CPIEx Inflation Expectations, after adjusting for potential behavioural biases and re-combining across components, increased to 3.2% in December 2020 from 2.8% in September 2020. The trend in inflation expectations adjusted for behavioural biases seem to be in line with the general increase in inflation expectations, although inflation expectations for some components like healthcare, clothing & footwear, recreation & culture and communications have increased by a larger extent. We also observed that the free-response unadjusted overall inflation expectations increased to 2.5% in December 2020 compared to 2% recorded in the September 2020 survey, suggesting that the survey reduced the "anchoring bias" prevalent in many survey based instruments.
- In the December 2020 wave, similar to September 2020, an in-depth survey on the potential impact of Covid-19 on inflation expectations of different components of CPI was conducted. Unlike the September wave, we did not find any component inflation expectations significantly influenced as an aftermath of Covid-19.

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- 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 September 2020, we observed moderate declines in households' spending on clothing & footwear, transportation and recreation & culture. However, households' consumption patterns appear to have reverted to pre-Covid norms in December 2020 as consumer spending picks up and economic activities resume.
- Excluding accommodation and private road transportation related costs, the One-year-Ahead CPIEx core inflation expectations edged up to 2.5% in December 2020 (from 2.1% in September 2020). This increase possibly reflects renewed economic activities, including a moderate increase in world commodity prices, as the world economy entered a recovery phase.
- For a subgroup of the population who owns their accommodation and uses public transport, the One-year-Ahead CPIEx core inflation expectations also increased to 2.1% in December 2020 from 1.9% in September 2020. Not being exposed to private road transportation or accommodation expenses, this subgroup's expectations of core inflation closely resemble the Singapore Core Inflation Expectations.
- The One-year-Ahead composite index SInDEx1 that puts less weight on more volatile components like accommodation, private transport, food and energy, polled at 2.3% in December 2020 compared to 2% polled in September 2020. This remained below the fourth quarter average of 3.2% since the survey's inception in 2012 till 2019.
- In December 2020, around 71% of the survey respondents reported their belief that Covid-19's impact on inflation would be significant compared to 77% in September 2020. The share of survey respondents who feel that Covid-19 will have long-term impact on inflation also declined to around 72%, from nearly 79% in September 2020.
- In addition, around 18.1% of the Singaporeans polled expect a more than 5% reduction in salary in the next 12 months, this is a lower proportion compared to September 2020. The median salary increment expectations stayed between -1% and 1%.
- As a measure of the tradeoff between prioritizing economic growth compared to the cost to life, the so-called livelihood over life debate, the ratio was 3.1 in December 2020, nearly unchanged from 3.2 in September 2020. This means for every person who wanted to prioritize life over livelihood there are three who prioritized livelihood over life. This ratio was 2 in June

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2020, which means for respondent who prioritized life over livelihood, two were prioritizing livelihood over life.

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 15-26, 2020.



DBS-SKBI CPIEx, 1 year-ahead

Source: SKBI, SMU

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DBS Chief Economist and Managing Director of Group Research, Dr. Taimur Baig commented, "Inflation expectations in Singapore appear to be responding to global cues, with sentiments improving and yet not particularly strong. With the depth of the pandemic hopefully behind and supportive policies still in place, some pick up in food, energy, manufactured goods, and services prices can be expected. Accordingly, we see a welcome revival in inflation expectations, although they are by no means high.".

Commenting on the results of the 38th round of the DBS-SKBI survey, SKBI Director Professor David Fernandez said, "The sharp drop in inflation expectations, now followed by this stabilisation at low levels, is consistent with our view that policymakers won't want to withdraw Covid-induced support any time soon. It will be worth tracking, going forward, the pace at which inflation expectations recover."

SMU Assistant Professor of Finance and founding Principal Investigator of the DBS-SKBI SInDEx Project, Aurobindo Ghosh observed, "The world exhaled a collective sigh of relief with the availability of the Covid-19 vaccine from Pfizer-BioNTech in November 2020, this was followed by other vaccines made available, leading to a belief that an end to the pandemic could be in sight. Prospects of global recovery have been renewed as a result of better global growth and trade prospects with the signing of the Brexit deal, change of regime in the US and the Regional Comprehensive Economic Partnership (RCEP) treaty. In addition, fewer respondents feel the impact of the pandemic will be longer term or have a significant impact. We also find less perceived distortion in consumption baskets and prices due to the pandemic, although there are expectations of higher inflation in some components like healthcare, clothing & footwear and communications."

For the longer horizon, the Five-year-Ahead CPIEx inflation expectations in the December 2020 survey edged up to 3.2% from 3% in September 2020. The current polled number is significantly lower than the fourth quarter average of 4% since the survey's inception in 2012 till 2019.

The Five-year-Ahead CPIEx core inflation expectations (excluding accommodation and private road transportation related costs) also increased to 3.1% in December 2020 compared to 2.9% in September 2020. Overall, the composite Five-year-Ahead SInDEx5 also increased to 3.1% in December 2020 from 2.9% in September 2020. In comparison, the fourth quarter average value of the composite Five-year-Ahead SInDEx5 was 3.8% since the survey's inception in 2012 till 2019.

"Moderate increase in long term inflation expectations bode well from three perspectives. First, the general uptick in Singaporeans' inflation expectations was based on global cues that included strong commitment to the recovery by central banks which had signaled accommodative policies, ...DBS/SMU partnership Page 4 of 9 DBS Group Holdings Ltd Tel: 63

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both monetary and fiscal, for the immediate and foreseeable future. Second, long term inflation expectations seem more "anchored" in terms of global economic realities despite abundance of liquidity in the market. Finally, as a measure of the tradeoff between prioritizing economic growth compared to the cost to health, the ratio remained unchanged at 3 from September 2020 to December 2020. This means that for every 1 person who wanted to prioritize life over livelihood, there were 3 who prioritized livelihood over life, up from 2 in the June 2020 survey. These observations signal a higher public appetite of normalisation of economic activities that governments are paying heed to globally," Professor Ghosh observed.

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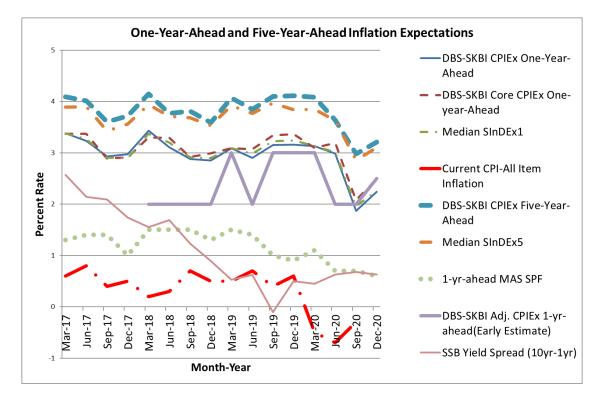
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Figure 2: Five-year-Ahead-Inflation Expectations in Singapore: The chart shows the quarterly DBS-SKBI CPIEx (CPI-All Item), DBS-SKBI CPIEx Core (Excluding accommodation and private road transportation components), SInDEx (Composite index with lower 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 15-26, 2020. 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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<u>Methodology</u>

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 collection powered by Agility Research and Strategy helps researchers understand the behavior 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 1-year inflation expectations and the 5-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 about 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 that study, since March 2019 polled the One-year-Ahead inflation expectations of all the major components of CPI-All Items inflation. Compared to September 2020, when categorical choices were expanded to include deflationary categories to reduce the well documented "anchoring bias" in surveys, the December 2020 survey revealed inflation expectations have largely increased across the board for overall and across most categories. The component-wise inflation expectations have largely increased for Housing and Utilities, Healthcare, Household Durables and Service, Recreation and Culture, Communications and Clothing and Footwear and stayed the same for food, transport, education and other miscellaneous personal effects. In free response answers, compared to September 2020 survey in the December 2020 survey respondents polled One-year Ahead and Five-year Ahead headline and core inflation expectations to go up.

We introduced a new ratio in June 2020 survey, on the life vs livelihood debate as an aftermath of Covid 19 pandemic - a ratio of respondents who feels livelihood should be prioritized over life over those who feel the other way round. This ratio increased from 2 in June 2020 to 3 in September, which means for every respondent who prioritised life over livelihood there were 3 who prioritised livelihood over life, up from 2 in June 2020.

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DBS is a leading financial services group in Asia, with over 280 branches across 18 markets. Headquartered and listed in Singapore, DBS has a growing presence in the three key Asian axes of growth: Greater China, Southeast Asia and South Asia. The bank's "AA-" and "Aa1" credit ratings are among the highest in the world.

Recognised for its global leadership, DBS has been named "<u>Best Bank in the World</u>" by Global Finance. The bank is at the forefront of leveraging digital technology to shape the future of banking, having been named "<u>World's Best Digital Bank</u>" by Euromoney. In addition, DBS has been accorded the "<u>Safest Bank in Asia</u>" award by Global Finance for ten consecutive years from 2009.

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.

With its extensive network of operations in Asia and emphasis on engaging and empowering its staff, DBS presents exciting career opportunities. The bank acknowledges the passion, commitment and can-do spirit in all of our 26,000 staff, representing over 40 nationalities. For more information, please visit <u>www.dbs.com</u>.

About Singapore Management University

A premier university in Asia, the Singapore Management University (SMU) is internationally recognised for its world-class research and distinguished teaching. Established in 2000, SMU's mission is to generate leading-edge research with global impact and to produce broad-based, creative and entrepreneurial leaders for the knowledge-based economy. SMU's education is known for its highly interactive, collaborative and project-based approach to learning.

Home to over 11,000 students across undergraduate, postgraduate professional and postgraduate research programmes, SMU comprises six schools: School of Accountancy, Lee Kong Chian School of Business, School of Economics, School of Computing and Information Systems, School of Law, and School of Social Sciences. SMU offers a wide range of bachelors', masters', and PhD degree programmes in the disciplinary areas associated with the six schools, as well as in multidisciplinary combinations of these areas.

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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About Sim Kee Boon Institute for Financial Economics

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.

Supported by SMU faculty and in collaboration and partnership with industry experts, relevant government bodies, and other world-renowned research agencies, the Institute conducts fundamental and applied research which aims at solving real-world issues. Besides research, SKBI also actively engages in outreach, executive training and research dissemination through organising courses, seminars and conferences. Our purpose-oriented activities are designed to bridge the gap between theory and practice and to act as accelerators with regard to financial policies and regulations. SKBI is led by an Advisory Board that consists of prominent leaders of local and international organisations in the finance industry that have footprints across Asia, and of government agencies.

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