## <u>Chain volume measures of Gross</u> <u>Domestic Product by economic activity</u> <u>for third quarter of 2018</u>

The Census and Statistics Department (C&SD) released today (December 20) the preliminary figures of chain volume measures of Gross Domestic Product (GDP) by economic activity for the third quarter of 2018.

GDP figures by economic activity show the value of production in respect of individual economic activities. The value of production is measured by net output or value added, which is calculated by deducting intermediate input consumed in the process of production from the gross value of output. Volume measures of GDP by economic activity, expressed in terms of chain volume measures net of the effect of price changes, enable analysis of the output growth profiles of individual economic sectors in real terms.

According to the preliminary figures, overall GDP increased by 2.9% in real terms in the third quarter of 2018 over a year earlier, compared with the 3.5% increase in the second guarter of 2018.

Analysed by constituent services sector and on a year-on-year comparison, net output in respect of all the services activities taken together increased by 3.3% in real terms in the third quarter of 2018 over a year earlier, compared with the 3.8% increase in the second quarter.

Net output in the import and export, wholesale and retail trades sector increased by 5.2% in real terms in the third quarter of 2018 over a year earlier, after the growth of 5.8% in the second quarter. The further notable growth of merchandise trade during the quarter rendered support to the continued growth of this sector.

Net output in the financing and insurance sector increased by 3.7% in real terms in the third quarter of 2018 over a year earlier, compared with the growth of 5.1% in the second quarter. Stock trading activities cooled off further during the quarter, leading to a narrower growth of this sector.

Net output in the accommodation services (covering hotels, guesthouses, boarding houses and other establishments providing short term accommodation) and food services sector grew by 3.3% in real terms in the third quarter of 2018 over a year earlier, compared with the growth of 3.8% in the second quarter.

Net output in the transportation, storage, postal and courier services sector registered an increase of 1.7% in real terms in the third quarter of 2018 over a year earlier, following the growth of 4.3% in the second quarter.

Net output in the information and communications sector increased by 3.1% in real terms in the third quarter of 2018 over a year earlier, compared

with the growth of 3.3% in the second quarter.

Net output in the real estate, professional and business services sector rose by 1.7% in real terms in the third quarter of 2018 over a year earlier, after the growth of 2.0% in the second quarter.

Net output in the public administration, social and personal services sector increased by 3.3% in real terms in the third quarter of 2018 over a year earlier, compared with the growth of 2.9% in the second quarter.

As for sectors other than the services sectors, net output in the local manufacturing sector rose by 1.2% in real terms in the third quarter of 2018 over a year earlier, compared with the 1.6% growth in the second quarter.

Net output in the electricity, gas and water supply, and waste management sector dropped by 4.0% in real terms in the third quarter of 2018 from a year earlier, as against the increase of 4.4% in the second quarter.

Net output in the construction sector recorded a marginal decrease of 0.2% in real terms in the third quarter of 2018 from a year earlier, following the decrease of 1.8% in the second quarter.

#### Further information

The year-on-year percentage changes of GDP by economic activity in real terms from the third quarter of 2017 to the third quarter of 2018 are shown in Table 1. For enquiries about statistics on GDP by economic activity, please call the National Income Branch (2) of the C&SD at telephone number 3903 7005.

Figures of chain volume measures of GDP by economic activity for the third quarter of 2018 are only preliminary at this stage. When more data become available, the preliminary figures will be revised accordingly. More detailed figures can also be found at the Hong Kong Statistics section of the C&SD website (www.censtatd.gov.hk).

# Speech by CE at 2018 Hang Lung Mathematics Awards Announcement and Awards Presentation (English only)(with photos)

Following is the speech by the Chief Executive, Mrs Carrie Lam, at the 2018 Hang Lung Mathematics Awards Announcement and Awards Presentation today (December 20):

Weber (Chief Executive Officer of Hang Lung Properties, Mr Weber Lo), Professor Cheng (Chairman of the Steering Committee of the 2018 Hang Lung Mathematics Awards, Professor Cheng Shiu-yuen), Professor Xin (Chairman of the Scientific Committee of the 2018 Hang Lung Mathematics Awards, Professor Xin Zhouping), Professor Tuan (Vice-Chancellor and President of the Chinese University of Hong Kong, Professor Rocky Tuan), principals, teachers, students, ladies and gentlemen,

Good afternoon. It gives me great pleasure to join you today for the 2018 Hang Lung Mathematics Awards Presentation Ceremony.

Someone once said that the difference between a politician and a mathematician is that a mathematician tries to say the most in the least number of words, while the politician concentrates on the opposite. So you may wonder what will the chemistry be like when a politician is married to a mathematician. With my husband Dr Lam, a mathematician, in the audience today, let me tell you that I have every respect for mathematicians and I dare not say too much in front of him. On this biennial occasion, I intend also to say no more than is necessary, so that we can move on to the highlight of this welcome day — the presentation of the 2018 Hang Lung Mathematics Awards.

But I have to impress upon you that this is the third time I have attended as guest of honour at this prestigious awards ceremony, held once every two years. I think in the past it was attended by the Secretary for Education, quite rightly so. I "took over" and attended the event in 2014 and 2016 as the Chief Secretary for Administration upon the invitation of my good friend Ronnie Chan (Chairman of Hang Lung Properties). This reflects not only my personal support for young mathematicians — we have many in the audience today — which should not be a surprise to you given the well-known fact that my two sons both followed their father's footsteps and studied mathematics at Cambridge University, but also my Government's support for mathematics education and the nurturing of maths talents.

Today, technology and innovation are driving changes in ways that we have never imagined, and changes appear at every level of our economy and our society. If Hong Kong is to continue to flourish, we must ensure that our young people be given every opportunity to succeed, every opportunity to tackle real-life challenges with innovative ideas and an analytical grounding.

That, ladies and gentlemen, adds up to education inspired by a formidable foundation in science, technology, engineering and mathematics, or STEM in short. While a mathematical solution is seldom as eye-catching as a physical invention, the elements of creativity and innovation in STEM are very much mathematics-based. Mathematics provides a reliable system and logical language for verifying hypotheses and proving new theories for the development of sciences, technologies and engineering.

Consider your smartphone. It is the infusion of pioneer technology like

AI (artificial intelligence) and big data sciences in our daily lives. But let us not forget, it is the use of mathematics and computational thinking which provide the solid theoretical foundation and efficient algorithms for the technological advancement that we are witnessing.

It is the reason why my Government mandates that all students study mathematics and coding in their primary and secondary years. It's also the reason why the Education Bureau advocates mathematical modelling as an integral part of STEM education. That allows students to experience mathematics at work in real-life situations, from the control of traffic lights to weather forecasts.

Of course, I'm not suggesting that every student become a mathematician. What I do hope for, or what my Government is working towards, is encouraging a community-wide, economy-fuelled awareness and appreciation of mathematics. It is, after all, a universal language, and our future demands that we be fluent in it.

At the same time, we are also encouraging excellence in mathematical research, for which I've committed additional resources since taking office in July last year. The highlight of that commitment is an undertaking in my Policy Address delivered in October this year to inject HK\$20 billion into the Research Endowment Fund of the UGC (University Grants Committee).

I am naturally delighted to be here today to congratulate the winning team and the finalists of this year's competition, and applaud the 260 students in more than 90 teams who participated. I understand that they come from over 60 Hong Kong schools, and among them 19 are participating for the first time. This is testimony to the excellent work of Hang Lung Properties, the Chinese University of Hong Kong's Institute of Mathematical Sciences and Department of Mathematics, and all Awards committee members, which make the Hang Lung Mathematics Awards such a great success. My thanks as well to the mathematics teachers and professors involved, whose dedication helps nurture so many brilliant students for Hong Kong.

Finally, I wish the students every success in their future endeavours. May I take this opportunity to wish every one of you Merry Christmas and a prosperous new year ahead. Thank you very much.







## Temporary closure of Students' Study Room at Tuen Mun Public Library

The Students' Study Room at Tuen Mun Public Library will be closed from December 27 to January 10, 2019 for replacement of floor tiles, while other library services will remain normal, a Leisure and Cultural Services Department spokesman announced today (December 20).

For enquiries, please call 2450 0671.

### CE to proceed on leave

The Chief Executive, Mrs Carrie Lam, will be away from Hong Kong on vacation from December 22 to 28.

During Mrs Lam's absence, the Chief Secretary for Administration, Mr Matthew Cheung Kin-chung, will be the Acting Chief Executive.

## **Effective Exchange Rate Index**

The effective exchange rate index for the Hong Kong dollar on Thursday, December 20, 2018 is 105.3 (same as yesterday's index).