April 2019

ISDA® Research Note

Asia-Pacific Derivatives Survey

In anticipation of ISDA's 34th Annual General Meeting in Hong Kong, ISDA conducted a survey of derivatives markets in the Asia-Pacific region.

The survey reveals that market participants expect Asia's derivatives markets to continue to expand, but the pace of growth will depend upon multiple factors. These include the liberalization of local financial markets and the support of regulators and policy-makers in addressing key industry issues, such as the enforceability of closeout netting. Resolving legal and regulatory uncertainties related to derivatives usage and trading will also be important.

Highlights of the survey include:

- 74% of respondents expect the percentage of global FX derivatives trading that takes place on trading desks in Asia ex-Japan to continue to grow over the next three to five years, while 63% expect the percentage of interest rate derivatives trading to increase.
- 74% of survey participants expect derivatives trading activity by Asian banks to increase over the next three to five years, while only 35% expect an increase in derivatives trading by US and European banks in Asia.
- Singapore was ranked the highest in terms of importance for derivatives trading in Asia over the next three to five years, followed by Hong Kong and Tokyo.
- Achieving certainty on close-out netting enforceability, legal certainty on the validity and enforceability of local collateral and the ability to use the ISDA Master Agreement in more local jurisdictions will have the greatest impact on firms' derivatives and risk management activities in Asia.
- Just 11% of survey participants believe it is very likely that legal certainty on closeout netting is achievable in China over the next three years, and 12% think it is very likely in India. Expectations for Indonesia and Vietnam remain lower at 3% in both countries.

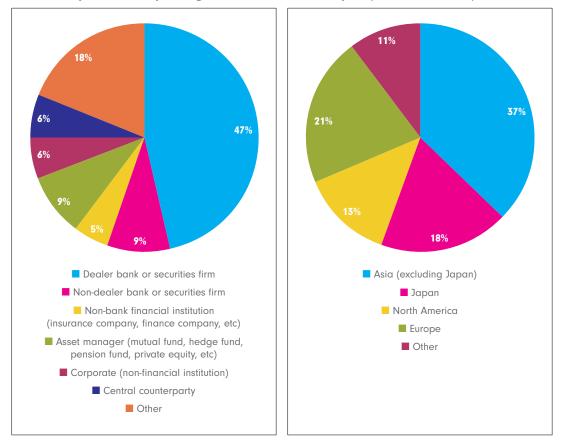
ASIA-PACIFIC DERIVATIVES MARKETS

The ISDA survey of derivatives markets in Asia-Pacific was conducted in early 2019, and attracted 480 responses. Approximately 47% of responses came from dealers and securities firms. The remainder of responses came from non-dealer banks and securities firms, buy-side firms, corporates, central counterparties (CCPs) and other market participants. Thirty seven percent of respondents said their parent company is based in Asia ex-Japan, while 18% have a parent firm in Japan. About 21% of respondents have a parent firm in Europe and 13% are headquartered in North America.

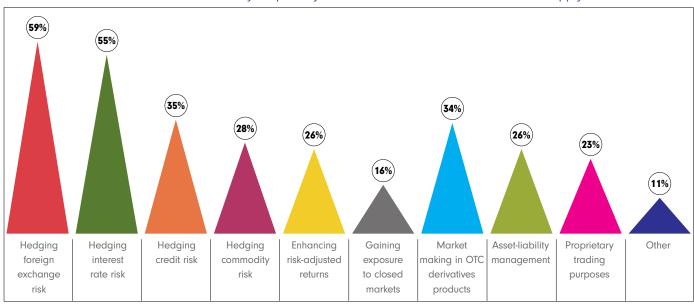
How would you describe your organization?

Where is your parent firm headquartered?

Safe,



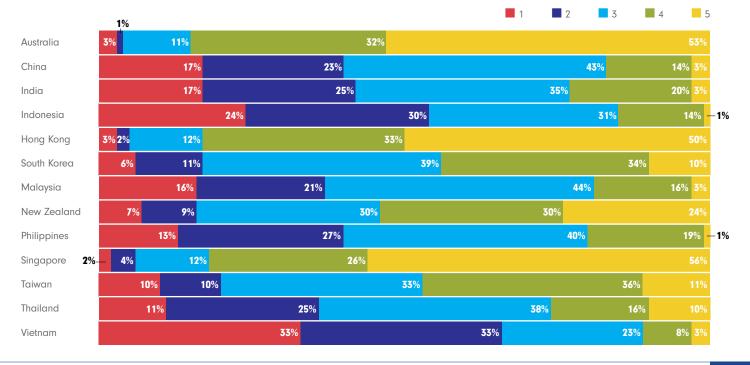
When asked to identify their primary use of over-the-counter (OTC) derivatives, the majority of respondents pointed to hedging FX risk and hedging interest rate risk (59% and 55%, respectively). This was followed by hedging credit risk, market-making in OTC derivatives and hedging commodity risk.



Please describe your primary uses of OTC derivatives. Check all that apply

Respondents were asked how efficiently they are able to use derivatives to execute their risk management strategies and goals in 13 local markets across Asia. The highest scoring markets were Singapore, Australia and Hong Kong, while Philippines, Indonesia and Vietnam were considered less efficient.

On a scale of 1 to 5, with 1 representing not efficiently and 5 representing very efficiently, how efficiently and effectively are you able to use derivatives to achieve your firm's risk management strategies and goals in each of the following local markets?



Safe, Efficient Markets The survey results reveal that changes in close-out netting enforceability, legal certainty on the validity and enforceability of local collateral (including both title transfer and security interest arrangements) and the ability to use the ISDA Master Agreement in more local jurisdictions will have the greatest impact on firms' derivatives and risk management activities in Asia.

On a scale of 1 to 5, with 1 representing little impact and 5 representing the greatest impact, what impact do you think changes in the following legal/regulatory areas will have on your firm's derivatives and risk management activities in Asia?

1

2

		1 2	3 4 5
Ability to use IS	SDA Master Agreement in more local juris	dictions	
4% 3%	18%	37%	38%
Class and a still			
	ng enforceability		
3% 3%	14%	28%	52 %
Legal certainty	regarding validity and enforceability of I	ocal collateral (including both title transfer and security interest	arrangements)
2% 3%	17%	31%	47 %
Possanition of	Asian central counterparties by US and E		
_	· · ·		= 40/
2% 7%	29%	31%	31%
Less restrictive	policies regarding derivatives usage		
2% 5%	23%	39%	31%
Incrogood abil	ity of end users to hedge risk		
		7.0/	770/
1% 4%	26%	36%	33%
Recognition of	Asian benchmarks by the EU		
5%	9%	35% 30%	21%
Graatar canaia	tency of rules across jurisdictions		
		•40/	==0/
1% 2%	23%	41%	33%
Minimizing reg	ulatory costs		
2% 5%	23%	44%	26%
Device d errite	l requiremente (Breel IV)		
· ·	I requirements (Basel IV)		
3% 7%	28%	38%	24%

Safe,

Efficient Markets

5

1

CONTINUED GROWTH

Derivatives markets have grown markedly in Asia-Pacific over the past decade, with Hong Kong and Singapore becoming regional hubs for the trading of FX and interest rate derivatives (IRD). According to data from the Bank for International Settlements (BIS), average daily turnover in IRD in Asia-Pacific markets increased to \$298.3 billion in April 2016 from \$187.4 billion in April 2007, while the equivalent figure in FX increased from \$1 trillion to \$1.7 trillion^{1,2}. Based on BIS data, an estimated 6%-8% of global IRD trading and 18%-22% of global FX activity takes place on trading desks in Asia ex-Japan.

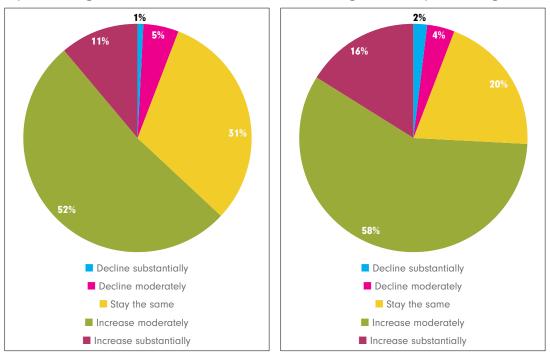
Between 2007 and 2016, the rate of growth in Asia-Pacific markets outstripped growth in global derivatives markets. IRD turnover in Asia-Pacific grew at a 5% compound annual growth rate, while FX turnover grew at 6%. Global IRD and FX turnover grew at a rate of 4% and 5%, respectively, over the same period. The development in derivatives reflects broader economic trends since the financial crisis, as the pace of Asia-Pacific growth has edged ahead of global levels.

Derivatives market participants expect this growth to continue. Seventy four percent of respondents think the proportion of global FX derivatives trading that takes place on trading desks in Asia ex-Japan will increase over the next three to five years, while 63% expect an increase for IRD trading.

According to the BIS, about 6%-8% of global IRD trading takes place on trading desks in Asia ex-Japan. Looking at the next three to five years, how do you expect the percentage of IRD executed on Asian trading desks ex-Japan to change?

According to the BIS, about 18%-22% of global FX derivatives trading takes place on trading desks in Asia ex-Japan. Looking at the next three to five years, how do you expect the percentage of FX derivatives executed on Asian trading desks ex-Japan to change?

Safe, Efficient Markets

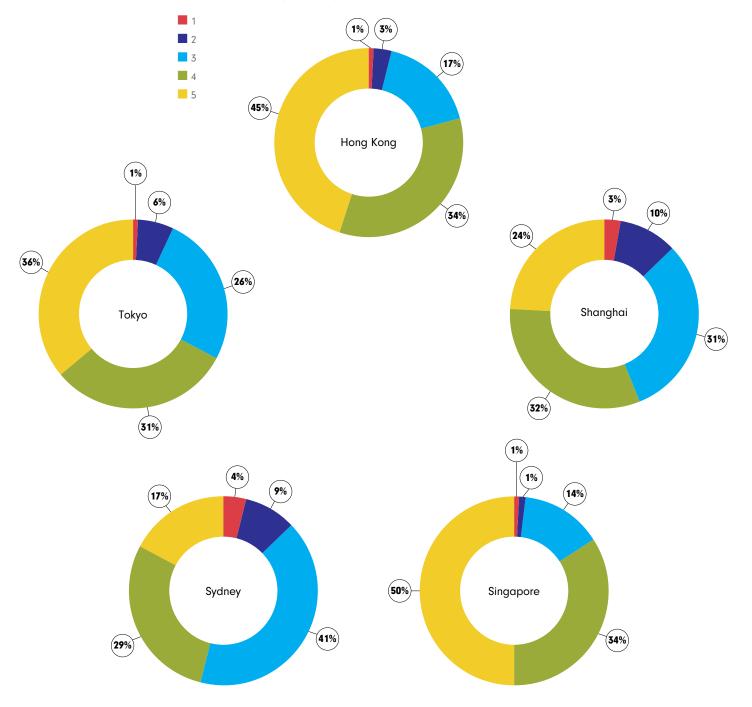


¹ Based on data from the Bank for International Settlements' *Triennial Central Bank Survey of foreign exchange and OTC derivatives markets.* https://www.bis.org/statistics/derstats3y.htm?m=6%7C32%7C617

² The statistics are calculated by ISDA for 13 Asia-Pacific countries – Australia, China, Chinese Taipei, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, Philippines, Singapore, South Korea, and Thailand. https://www.isda.org/a/jRTEE/Asia-Pacific-Derivatives-Study-November-2017.pdf

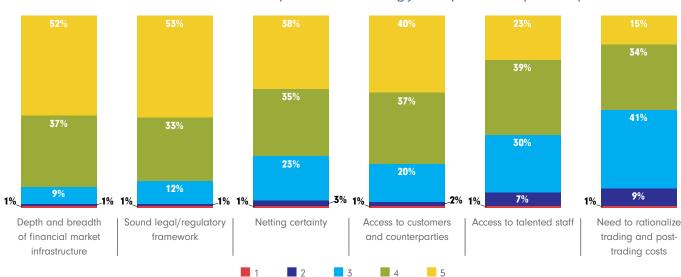
Certain financial centers will inevitably play a bigger role in this growth than others. Asked to rank the importance of five cities in derivatives trading over the next three to five years, respondents rated Singapore the highest, followed by Hong Kong, Tokyo, Shanghai and Sydney.

Over the next three to five years, how would you rate the importance of the following cities in terms of derivatives trading in Asia? (On a scale of 1 to 5, with 1 representing not important and 5 representing very important)



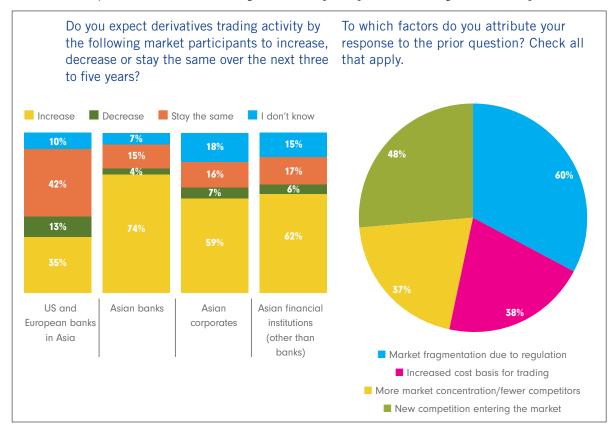
Safe,

Among the most important factors dictating the growth of these financial centers, respondents pointed to the depth and breadth of market infrastructure, a sound legal and regulatory framework, access to customers and counterparties, and netting certainty.



On a scale of 1 to 5, with 1 representing not important and 5 representing very important, what factors are the most important in determining your response to the previous question?

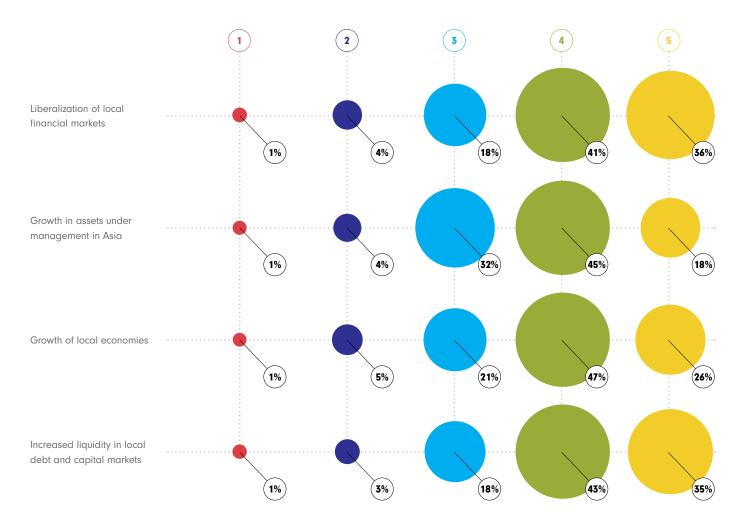
Turning to participation in Asia, 74% of survey respondents expect the derivatives trading activity of Asian banks to increase over the next three to five years, while only 35% expect derivatives trading by US and European banks in Asia to increase. Market fragmentation due to regulation is the key factor that will drive changes in market participation, according to 60% of respondents.



Safe,

Despite predictions of growth, the pace of advancement in Asian markets will likely depend upon multiple macro and regulatory factors. Respondents highlighted the liberalization of local financial markets and increased liquidity in local debt and capital markets as very important to the further development of robust, liquid and efficient derivatives markets in Asia.

On a scale of 1 to 5, with 1 representing not important and 5 representing very important, how important are the following macro factors to the further development of robust, liquid and efficient derivatives markets in Asia?

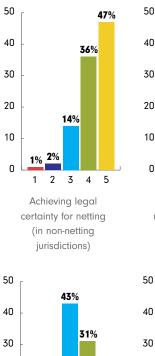


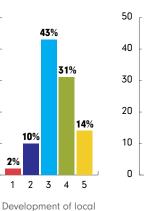
Safe,

NETTING IN FOCUS

Asked to identify derivatives-specific factors most important to the further development of derivatives markets in Asia, respondents highlighted enforceability of close-out netting, resolving legal and regulatory uncertainties related to derivatives usage and trading, and cross-border harmonization of rule sets. Achieving legal certainty for netting in non-netting jurisdictions was considered very important by 47% of respondents, while resolving legal and regulatory uncertainties was ranked very important by 44%.

On a scale of 1 to 5, with 1 representing not important and 5 representing very important, how important are the following derivatives-specific factors to the further development of robust, liquid and efficient derivatives markets in Asia?



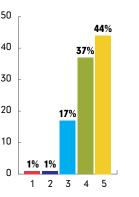


market overnight risk-free rates

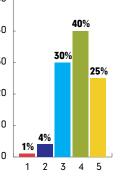
20

10

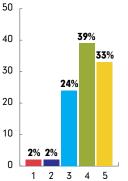
0



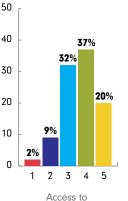
Resolving legal/ regulatory uncertainties related to derivatives usage and trading



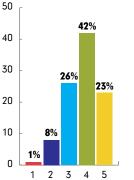
Resolving securities collateral issues in local markets



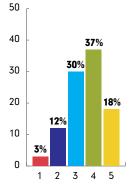




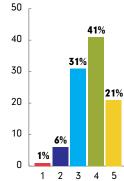
global central counterparties



Increasing end-user knowledge of and demand for derivatives and risk management

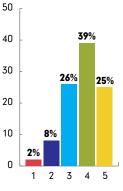


Ability to trade electronically



Safe,

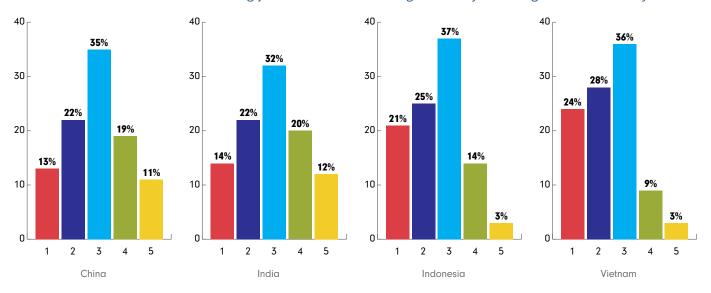
Enabling onshore derivatives trading



Minimizing overall cost of trading and post-trade processes

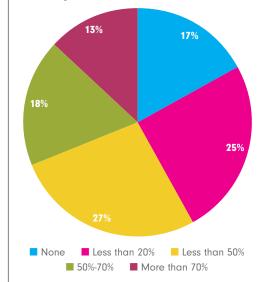
While some countries such as Malaysia and Australia have made progress in recent years, enforceability of close-out netting is uncertain in several Asian jurisdictions, including China, India and Indonesia. There are reasons to be optimistic about the future, however, with recent developments in China, India and elsewhere suggesting positive momentum. Nonetheless, survey participants remain cautious. Just 11% consider it very likely that legal certainty on close-out netting is achievable in China over the next three years, and 12% think it is very likely in India. Expectations for Indonesia and Vietnam remain lower, with only 3% thinking it very likely in both cases.

On a scale of 1 to 5, with 1 representing not likely and 5 representing very likely, how likely are the following jurisdictions to achieve legal certainty of netting in the next three years?



Safe,

Approximately what percentage of your new OTC derivatives transactions that are executed/booked in Asia are being centrally cleared?



CLEARING EVOLUTION

Key jurisdictions in Asia-Pacific have made good progress in implementing Group-of-20 commitments on trade reporting and central clearing of derivatives since the financial crisis. Given the large volume of FX trading in Asia and the low level of clearing in FX relative to interest rate and credit derivatives, a sizeable chunk of Asia's derivatives market remains non-cleared.

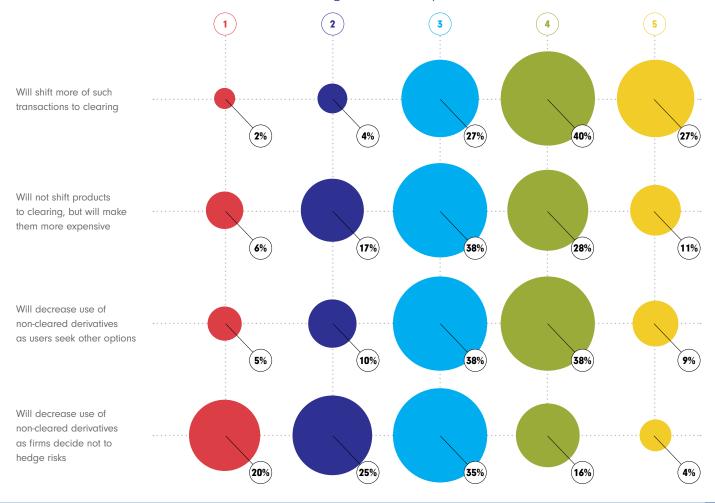
Safe,

Efficient Markets

As it stands, 31% of respondents are clearing 50% or more of their new derivatives transactions executed in Asia. Roughly 25% indicated they clear more than none but less than 20% of their new derivatives transactions executed in Asia.

The rollout of new margin requirements for non-cleared derivatives could push that total up, however. Around two thirds of respondents think it likely that the implementation of margin requirements will shift more trades to clearing.

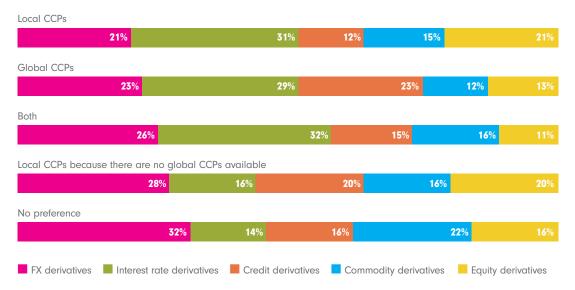
On a scale of 1 to 5, with 1 representing not likely and 5 representing very likely, what impact, if any, do you think the margin rules for non-cleared derivatives will have on the demand for and trading of non-cleared products?



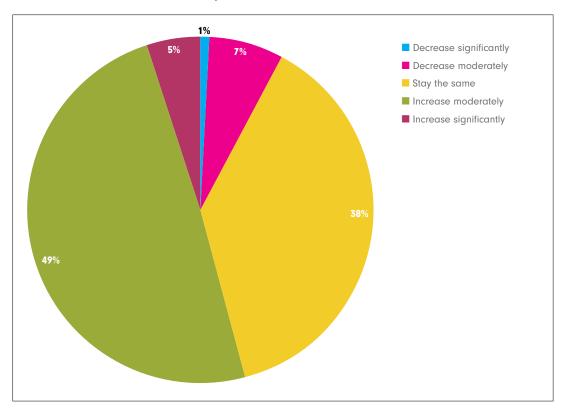
Safe, Efficient Markets

Market participants have different preferences when it comes to using local or global CCPs to clear different asset classes.

Which CCPs does your firm prefer to use to clear transactions?



As more Asian jurisdictions introduce clearing mandates in the coming years, 54% of respondents expect the number of local CCPs to increase.



As more Asian jurisdictions establish clearing mandates, do you think the number of local CCPs will increase, decrease or stay the same?

ISDA.

ISDA has published other recent research papers:

• Interest Rate Benchmarks Review: Full Year 2018 and the Fourth Quarter of 2018, January 2019

https://www.isda.org/2019/01/29/interest-rate-benchmarks-review-full-year-2018-and-the-fourth-quarter-of-2018/

• SwapsInfo Full Year 2018 and Fourth Quarter of 2018 Review: Summary, January 2019

https://www.isda.org/a/93TME/SwapsInfo-Full-Year-2018-and-Q4-2018-Review-Summary.pdf

• *Key Trends in the Size and Composition of OTC Derivatives Markets,* December 2018

https://www.isda.org/a/gmGEE/Key-Trends-in-the-Size-and-Composition-of-OTC-Derivatives-Markets.pdf

For questions on ISDA Research, please contact:

Olga Roman Director of Research International Swaps and Derivatives Association, Inc. (ISDA) Office: 212-901-6017 oroman@isda.org

ABOUT ISDA

Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has more than 900 member institutions from 70 countries. These members comprise a broad range of derivatives market participants, including corporations, investment

managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's web site: www.isda.org. Follow us on Twitter @ISDA.

www.isda.org

©2019 International Swaps and Derivatives Association, Inc

NEW YORK | LONDON | HONG KONG | TOKYO | WASHINGTON | BRUSSELS | SINGAPORE