The Value of Derivatives

Safe, Efficient Markets

International Swaps and Derivatives Association, Inc.

WHO USES DERIVATIVES AND WHY?

MANUFACTURING

FINANCING COSTS

MANUFACTURERS USE DERIVATIVES TO MANAGE THE COST OF CAPITAL THEY BORROW TO INVEST IN THEIR BUSINESSES.

INTERNATIONAL TRADE

EXCHANGE RATES

ALL TYPES OF COMPANIES USE DERIVATIVES TO HEDGE THEIR EXPOSURE IN INTERNATIONAL MARKETS, WHICH HELPS THEM REMAIN COMPETITIVE.

TRANSPORTATION

FUEL COSTS

AIRLINES USE DERIVATIVES TO HEDGE FUEL COSTS, WHICH HELPS THEM KEEP TICKET PRICES STABLE.

THOUSANDS

of companies in all industries and in all regions use OTC derivatives to manage the risks arising from their business and financial activities. Derivatives are essential to global economic activity and growth.

DERIVATIVES USERS

are institutional customers – corporations, investment managers, governments, insurers, energy and commodities firms and international and regional banks and financial institutions.

30+ CURRENCIES

Derivatives are transacted around the world in more than 30 currencies.

500 LARGEST

The world's 500 largest companies based in Canada, France, Great Britain, Japan and the Netherlands use derivatives to manage risk. More than 90% of those in Germany and the U.S. also do so.

FINANCIAL SERVICES

INTEREST RATES

BANKS USE DERIVATIVES TO MANAGE INTEREST RATE RISK SO THEY CAN OFFER MORE LOANS AND BETTER PRICING TO BUSINESSES AND CONSUMERS.

ENERGY

PRODUCTION COSTS

EXPLORERS, PRODUCERS AND DISTRIBUTORS OF ENERGY USE DERIVATIVES TO MANAGE CHANGES IN ENERGY PRICES AND REDUCE VOLATILITY FOR CONSUMERS.

ASSET MANAGEMENT

CREDIT RISK

FUND MANAGERS USE DERIVATIVES TO HEDGE THE CREDIT RISK OF THEIR INVESTMENTS AND HELP CLIENTS MEET THEIR RETIREMENT AND SAVINGS NEEDS.

INTEREST RATE

The derivatives most commonly used by end-users are interest rate and foreign exchange instruments, followed by commodity, credit and equity products.

IN A RECENT SURVEY OF END-USERS:

85% said derivatives were very important or important to their risk management strategy. 79% said they plan to increase or maintain their use of OTC derivatives.

VERY IMPORTANT/IMPORTANT 85%

INCREASE OR MAINTAIN 79%

WITHOUT OTC DERIVATIVES

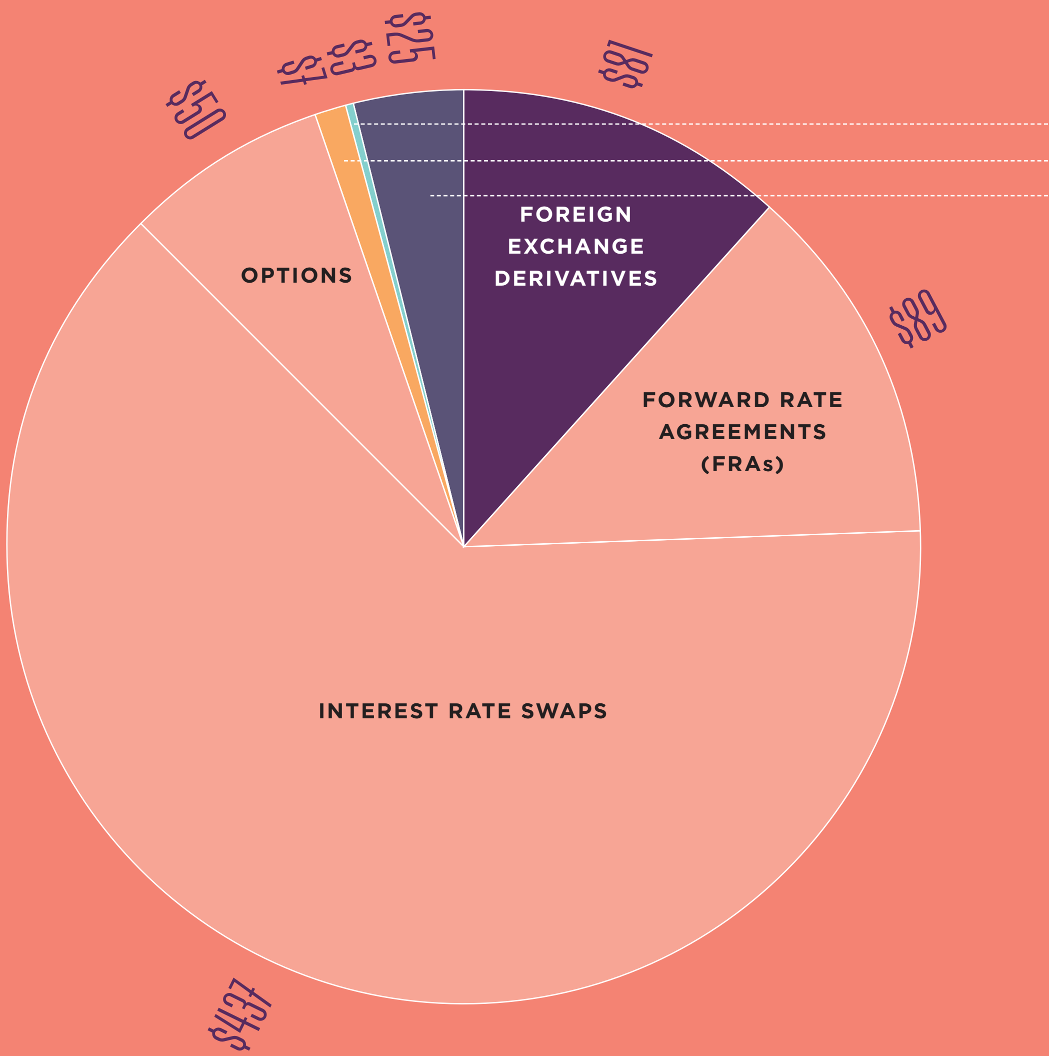
end-users would have to use less effective hedges, which could create income statement volatility, leave the risk unhedged or forego the underlying economy activity.

65%

of daily interest rate derivatives trade volume is between non-dealer and dealer firms.

ANATOMY OF THE OTC MARKET

NOTIONAL OUTSTANDING *($ trillions)*



GROSS MARKET VALUE AFTER NETTING MEASURES THE GROSS CREDIT EXPOSURES BETWEEN OTC DERIVATIVES COUNTER-PARTIES. IT PROVIDES A MORE ACCURATE VIEW OF RISK EXPOSURES THAN NOTIONAL OUTSTANDING. COLLATERAL-IZATION FURTHER REDUCES RISK. AFTER FACTORING IN THE IMPACT OF COLLATERAL, GROSS CREDIT EXPOSURE IS ABOUT 0.2% TO 0.3% OF NOTIONAL.
(Source: BIS)

INTEREST RATE DERIVATIVES: $577 TRILLION   TOTAL NOTIONAL OUTSTANDING: $693 TRILLION (AS OF JUNE 30, 2013)

$2.3 TRILLION

The average daily turnover of OTC derivatives is about $2.3 trillion. The daily turnover of exchange-traded derivatives is more than double that amount.
(Source: BIS Triennial Survey)

CDS ACTIVITY

During 2013, daily credit default swap (CDS) market risk transaction activity was about 7,100 trades. Index activity averaged 2,680 per day and single-name CDS averaged 4,390 per day.
(Source: DTCC)

THE GLOBAL STOCK OF DEBT AND EQUITY OUTSTANDING INCLUDES:

($ trillions)

NON-SECURED LENDING	$62
EQUITY	$50
GOVERNMENT BONDS	$47
FINANCIAL BONDS	$42
OTC DERIVATIVES	$25

The gross market value of OTC derivatives (before netting) is $25 trillion and after netting and collateral it is $1 trillion.
(Source: McKinsey; ISDA)

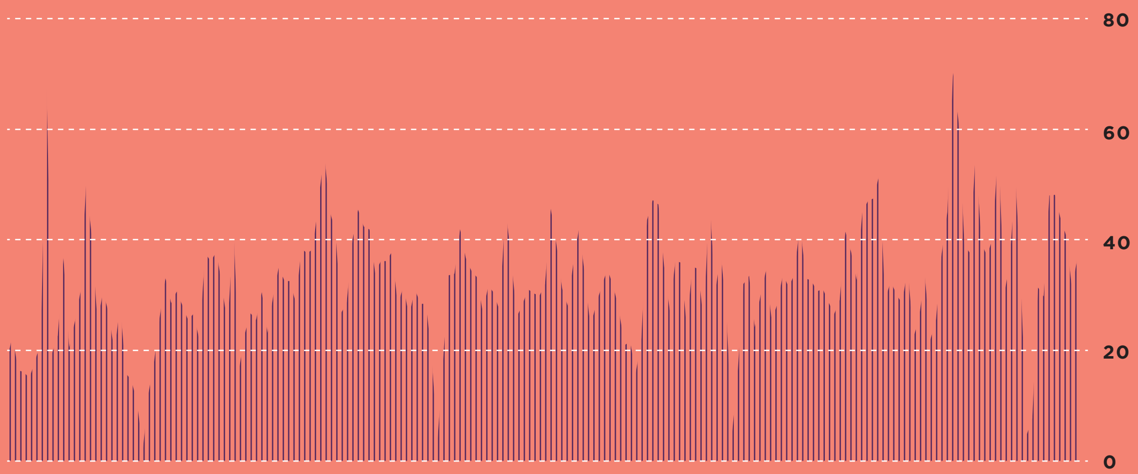
INTEREST RATE SWAPS

Single currency interest rate swaps comprised about 75% of daily interest rate derivatives transactions and 34% of daily notional traded, according to a Federal Reserve Bank of New York study.

NOTIONAL OUTSTANDING AND GROSS MARKET VALUE (AFTER NETTING)

	YE 2011	YE 2012	1H 2013
NOTIONAL OUTSTANDING	647.8	632.6	692.9
GROSS MARKET VALUE AFTER NETTING	3.9	3.6	3.9
	0.6%	0.6%	0.6%

CDS MARKET TRADING ACTIVITY *(In thousands)*



CDS MARKET RISK ACTIVITY REFLECTS TRADING VOLUME THAT RESULTS IN A CHANGE IN MARKET RISK POSITIONS. ISDA SWAPSINFO (SWAPSINFO.ORG) CHARTS SUCH ACTIVITY — BY NOTIONAL AND TRADE COUNT — ON A WEEKLY BASIS SINCE 2010.

WHAT DOES TRADING CONSIST OF?

Nearly 2/3 of daily interest rate derivatives trade volume is between end-user and dealer firms. These end-users include non-financial corporates, government entities, smaller commercial banks, mutual funds, pension funds, insurance companies and other financial institutions.

(Source: BIS Triennial Survey)

Trades between dealers are about 35% of average daily volume. Inter-dealer trading is an important part of the derivatives market-making function.

SWAPS TRADING

Average daily trading in interest rate swaps is $1.4 trillion or 60% of the total volume. Turnover of FRAs is about one-third of the total.

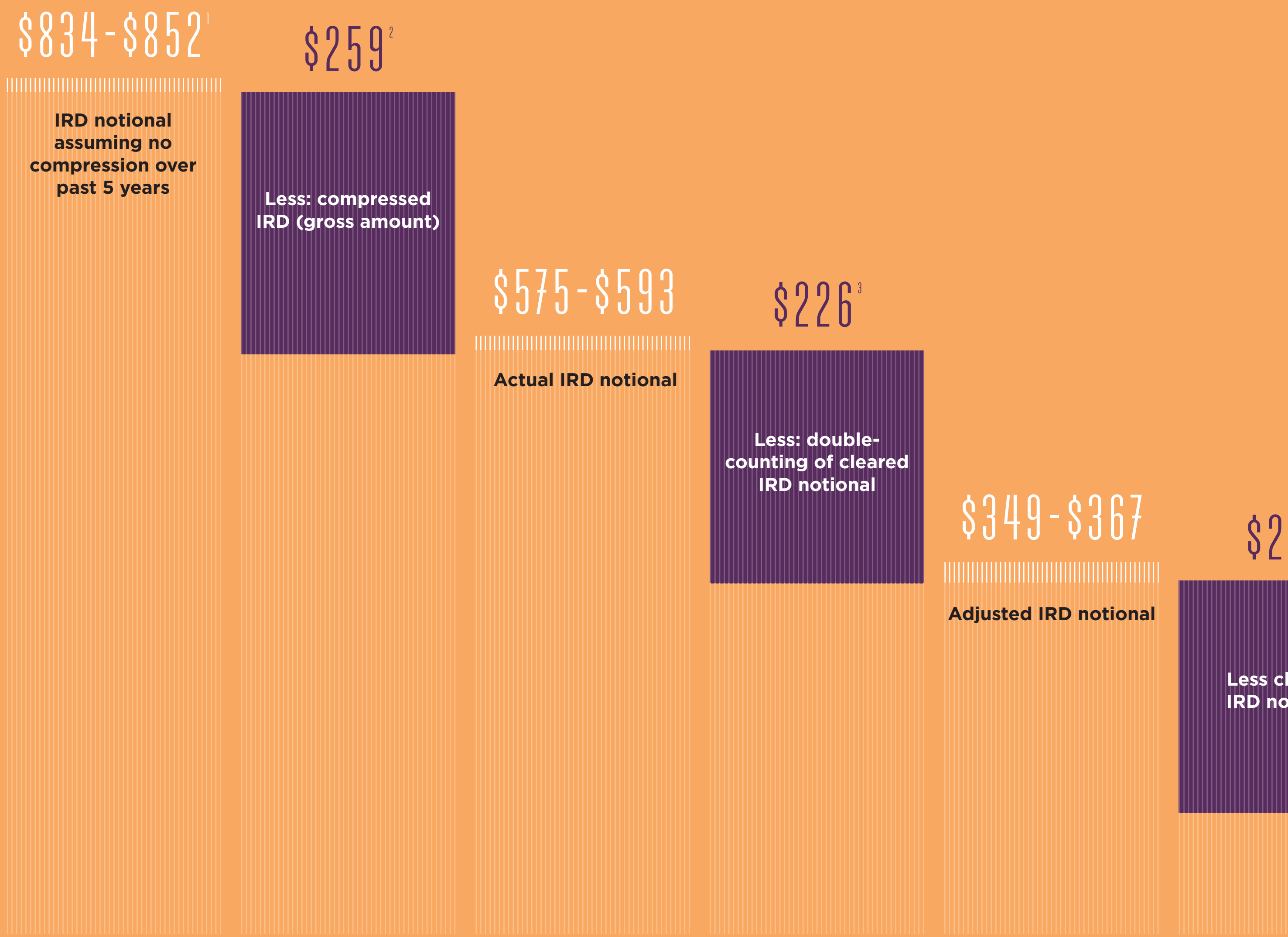
(Source: BIS Triennial Survey)

TURNOVER BY GEO

The UK accounts for just under 50% of daily global OTC derivatives turnover. North America is 24%, continental Europe is 18% and Asia-Pacific is 8%.

THE OTC MARKET AND HOW IT'S CHANGING

($ trillions)



90%+

More than 90% of the global interest rate derivatives market that can be mandated for clearing has been cleared.

THE CLEARABLE IRD MARKET

segment consists primarily of interest rate swaps ($337 trillion, of which 80%+ are cleared), forward rate agreements ($77 trillion, 95% cleared), overnight indexed swaps ($55 trillion, 90%+ cleared) and basis swaps ($30 trillion, 40%+ cleared).

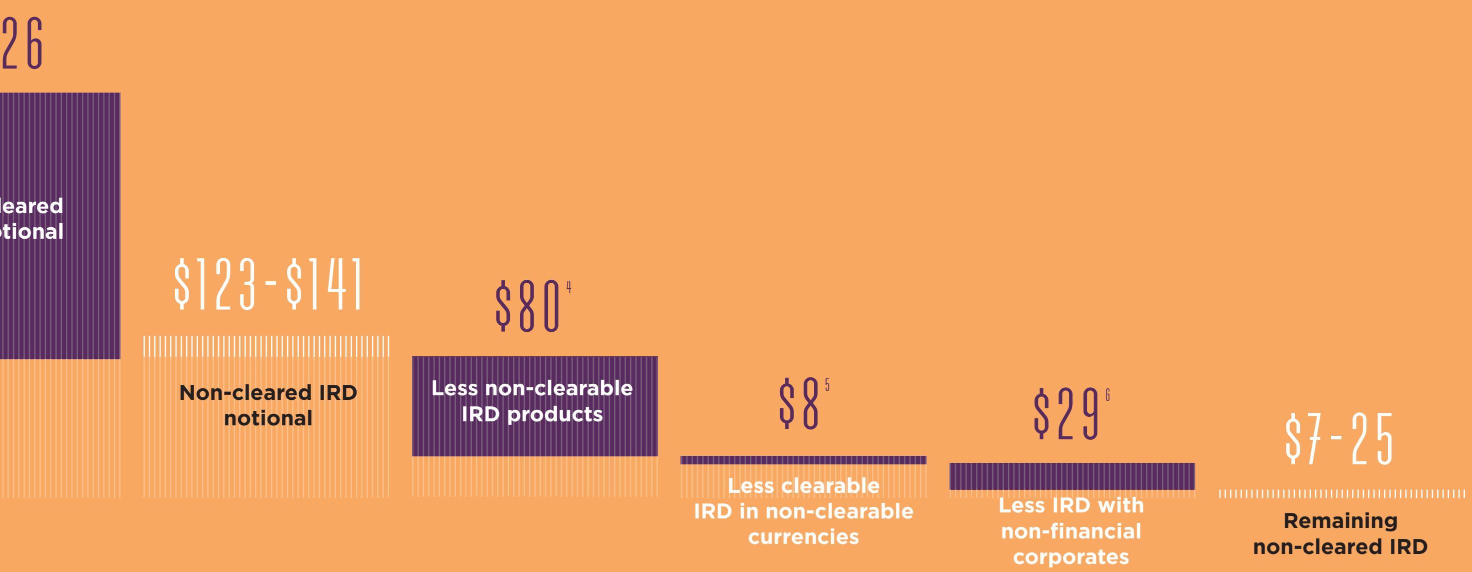
CLEARING

doubles the notional outstanding of a trade, as one bilateral trade between two counterparties becomes two cleared trades between the counterparties and the clearing house. That's why it's important to adjust market size to reflect the impact of clearing.

COMPRESSION

Since portfolio compression first started, about $295 trillion of OTC interest rate derivatives has been eliminated. Also, $90 trillion of CDS contracts has been terminated via compression over the years.

Compression has reduced the size of the OTC interest rate derivatives market by 30% in recent years. Progress in central clearing continues; more than 90% of IRD outstanding that can and will be cleared has been cleared.



TRANSPARENCY

OTC derivatives trade reporting is now mandatory in major jurisdictions, ensuring regulators have transparency into activity and exposures.

[1] *At year-end 2013, the notional outstanding of interest rate derivatives at DTCC's Global Trade Repository was $575 trillion. The year-end BIS semiannual survey, which also reports notional outstanding, was not available at the time of this document's publication. The BIS survey has reported amounts outstanding that range from 1% to 3% higher than the DTCC GTR. For purposes of this analysis, we use a range to describe IRD notional outstanding (the DTCC GTR figure of $575 trillion and an estimated notional amount that is 3% higher). Compressed IRD is then added to this figure.*

[2] *TriOptima data*

[3] *Includes $212 trillion, $9 trillion and $6 trillion notional cleared (after double-counting) at SwapClear, CME and JSCC, respectively, as of December 31, 2013.*

[4] *According to DTCC data, the notional value of non-clearable products at December 31, 2013 was: $30 trillion of swaptions, $30 trillion of cross-currency swaps, $12 trillion of options, $3.0 trillion of inflation swaps, and $4 trillion of other.*

[5] *Based on analysis of DTCC and SwapClear data, approx. $9 trillion of IRD is denominated in currencies that can't be cleared. Of this, $8 trillion is in products that could otherwise be cleared.*

[6] *According to BIS mid-year 2013 data, the notional value of swaps with non-financial corporates (NFC) was $35.8 trillion. Assuming this figure breaks down in the same percentage between clearable (77-78%) and non-clearable (22-23%), about $29 trillion of it would consist of clearable products that are exempt from clearing mandates and $8 trillion of it would consist of non-clearable products.*

THE VALUE OF NON-CLEARED DERIVATIVES

NON-CLEARABLE INTEREST RATE DERIVATIVES *($ trillions)*

SWAPTIONS

$30

NOTIONAL OUTSTANDING

CROSS-CURRENCY SWAPS

$30

NOTIONAL OUTSTANDING

OPTIONS

$12

NOTIONAL OUTSTANDING

INFLATION SWAPS

$3

NOTIONAL OUTSTANDING

OTHER

$4

NOTIONAL OUTSTANDING

(Source: DTCC)

SWAPTIONS

are essentially an option to enter into an interest rate swap in the future. Borrowers often use them in anticipation of future funding requirements. They provide users – such as insurers, pension funds and other investors managing large pools of liabilities – with flexibility to protect themselves against an adverse move in rates while still being able to benefit from any upside.

CROSS-CURRENCY SWAPS

are widely used by financial and non-financial institutions as a means of converting debt issued overseas to home currency. The product allows firms to diversify their investor base and benefit from potentially favorable funding costs elsewhere – but without exposing them to mismatches in interest rates and currency.

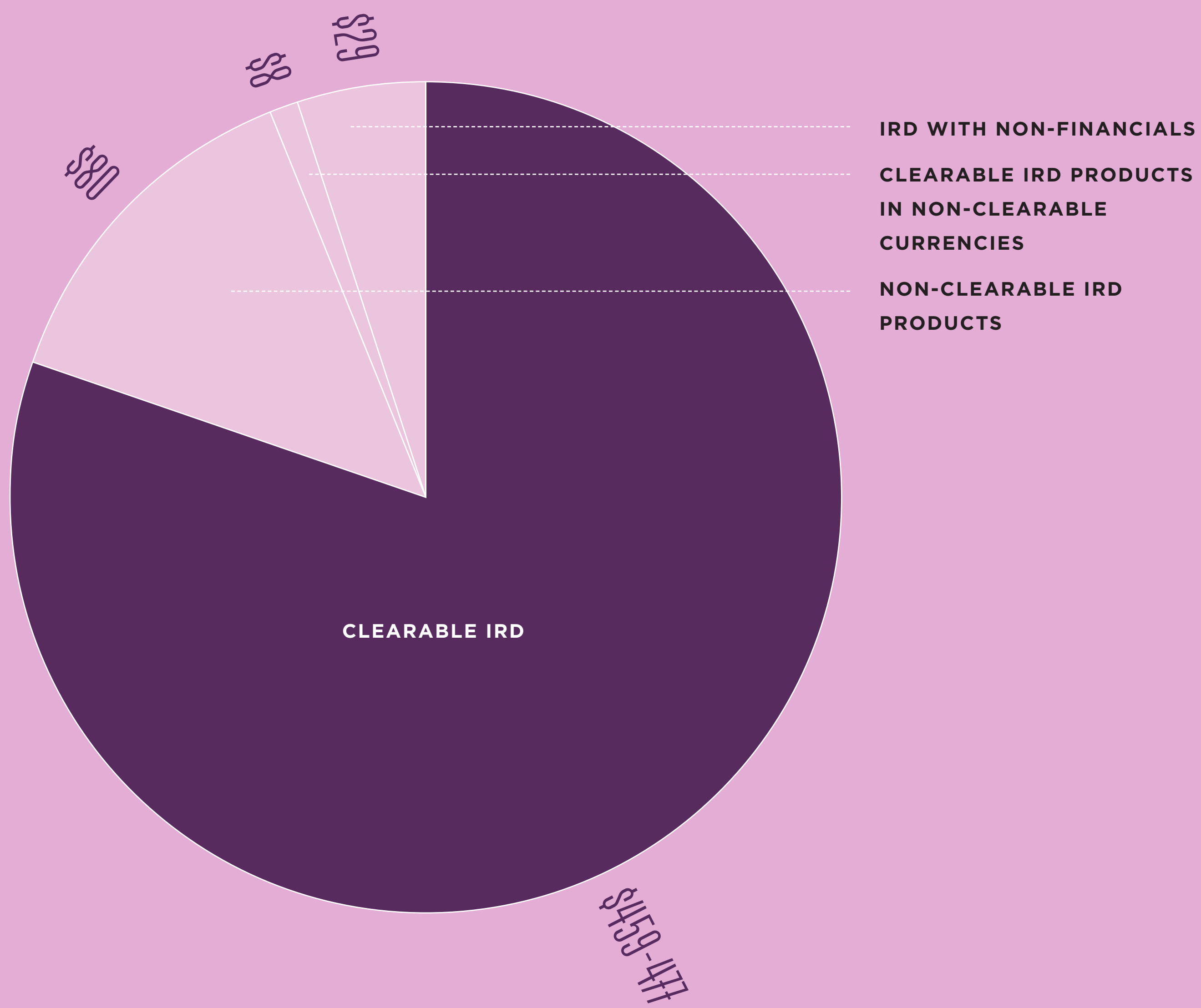
INTEREST RATE OPTIONS

have a huge variety of uses and are adopted by multiple types of end-users – from corporate issuers wanting to cap floating-rate borrowing costs, to life insurance companies managing the lapse risk on their policies, to mortgage lenders hedging changes in interest rates.

INFLATION SWAPS

are used by utilities, infrastructure companies and others that need to hedge inflation-linked revenues. In many cases, these firms are bound by statute to raise their prices by an amount linked to inflation. As such, they are keen to match the structure of their liabilities with that of their revenues.

CLEARABLE AND NON-CLEARABLE INTEREST RATE DERIVATIVES NOTIONAL *($ trillions)*



$9 TRILLION

Approximately $8 trillion of the interest rate market comprises products that are available for clearing, but in currencies that can't be cleared. Another $1 trillion is in products that can't be cleared. The Brazilian real, Korean won and Mexican peso together account for roughly $4.6 trillion in notional outstanding of transactions that are not currently cleared.

NON-CLEARABLE CURRENCIES

($ trillions)

BRAZILIAN REAL	0.87
KOREAN WON	1.98
MEXICAN PESO	1.74
OTHER	4.58
TOTAL	9.12

CLEARABLE
NON-CLEARABLE

NON-FINANCIAL CORPORATES

Non-financial corporates and governments, most of which would qualify for clearing exemptions, account for $36 trillion of outstanding interest rate derivatives. Some of this amount would encompass trades in non-clearable products.

NON-CLEARED DERIVATIVES

do not inherently pose more risk than clearable transactions. Many factors determine whether a product can be cleared, including its liquidity, standardization, risk characteristics and complexity.

ISDA: SAFE, EFFICIENT MARKETS

THE SOURCE FOR ROBUST AND TRUSTED DOCUMENTATION

PROVIDING STANDARDIZED DOCUMENTATION GLOBALLY TO ENSURE LEGAL CERTAINTY AND MAXIMUM RISK REDUCTION THROUGH NETTING AND COLLATERALIZATION

THE ARCHITECT OF A SECURE AND EFFICIENT INFRASTRUCTURE

PROMOTING INFRASTRUCTURE THAT SUPPORTS AN ORDERLY AND RELIABLE MARKETPLACE AS WELL AS TRANSPARENCY TO REGULATORS

AN ADVOCATE FOR EFFECTIVE RISK MANAGEMENT AND CLEARING

ENHANCING COUNTERPARTY AND MARKET RISK PRACTICES AND ADVANCING THE EFFECTIVE USE OF CENTRAL CLEARING FACILITIES AND TRADE REPOSITORIES

THE VOICE FOR THE GLOBAL DERIVATIVES MARKET

REPRESENTING THE DERIVATIVES INDUSTRY THROUGH PUBLIC POLICY, ISDA GOVERNANCE, ISDA SERVICES, EDUCATION AND COMMUNICATION

800+

Members headquartered in

62 COUNTRIES

and active in many more.

MEMBERSHIP BREAKDOWN

END-USERS	42%
DEALERS	24%
SERVICE PROVIDERS	34%

GEOGRAPHIC BREAKDOWN

EUROPE	43%
NORTH AMERICA	35%
ASIA-PACIFIC	13%
AFRICA/MIDDLE EAST	4%
JAPAN	4%
LATIN AMERICA	1%

TYPES OF MEMBERS

BANKS	30%
LAW FIRMS	24%
ASSET MANAGERS	10%
GOVERNMENT ENTITIES	10%
ENERGY/COMMODITY FIRMS	8%
DIVERSIFIED FINANCIALS	6%
OTHER	13%

ISDA® Safe, Efficient Markets

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