



University of
Zurich^{UZH}

Institute of Law

Derivatives and Central Clearing

International Financial Law

Prof. Kern Alexander

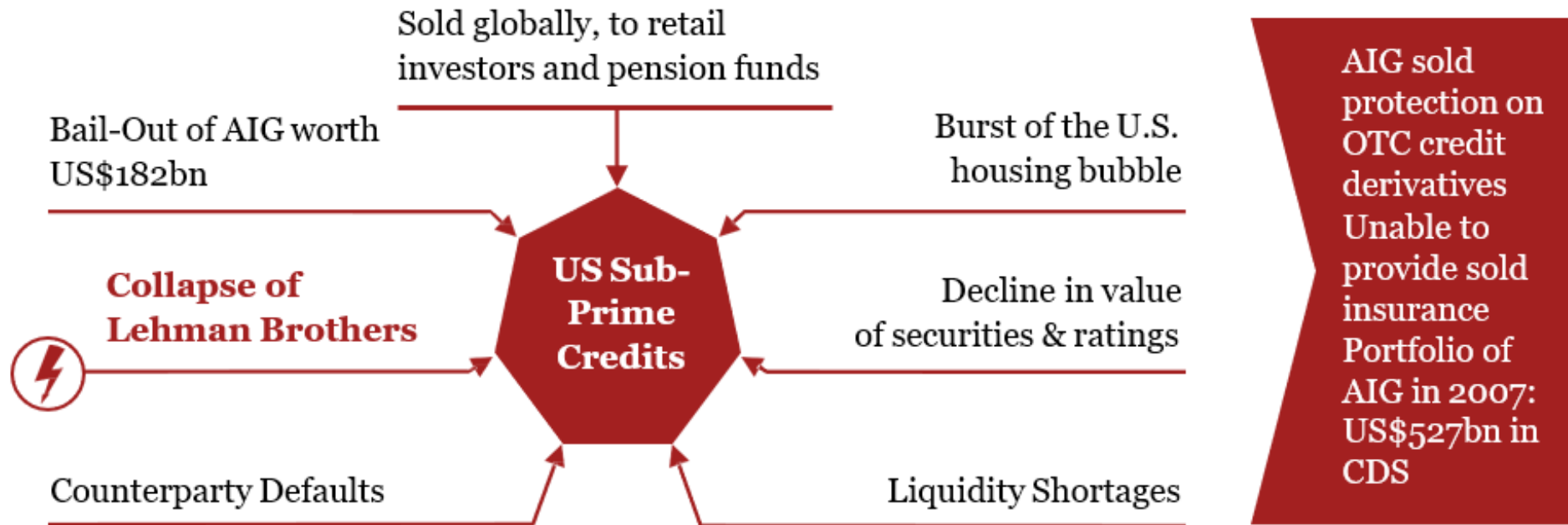
16 April 2026

Lecture Session 7



The Financial Crisis of 2007-2008

- No regulation of OTC Derivatives in US or EU; ETD regulated by exchanges
- International Swaps and Derivatives Association (ISDA) as monopolistic private regulator, providing “ISDA Master Agreements” with boilerplate contractual terms.
- This promotes global enforceability and the cross-border sale of OTC derivatives





Derivatives & the Financial Crisis

- U.S. sub-prime credits
- Selling credit derivatives to unsuspecting individuals and pension funds
- Decline in value of securities and ratings, liquidity shortages
- Lehman Brothers collapse

- AIG bail-out
 - Sold protection on OTC-credit derivative market to key players
 - Unable to provide the insurance when needed
 - Portfolio of \$527 billion in Credit Default Swaps (CDS) when the market collapsed in 2007/2008
 - Troubled Asset Relief Program: US\$ 182 billion bail-out



Derivatives Regulation Reform – G20 2009

G20 Pittsburgh Summit (2009):

“Improving over-the-counter derivatives markets: All **standardized** OTC derivative contracts should be **traded on exchanges** or electronic trading platforms, where appropriate, and **cleared through central counterparties** by end-2012 at the latest. OTC derivative contracts should **be reported to trade repositories**. Non-centrally cleared contracts should be **subject to higher capital** requirements.”

- Increase standardisation and trading on regulated platforms
- Clearing mandate for standardised OTC derivatives
- Reporting obligations for all derivatives
- Higher collateral requirements for non-centrally cleared derivatives



Contagion

- Bilateral markets unable to monitor and assess counterparty credit risk
- Prevent contagion if counterparty defaults



Lead by Example

- CCP (LCH.Clearent) performed well during crisis, while bilateral markets failed to cope
- Clearing to prevent future financial crisis from OTC derivatives



Reasoning for Central Clearing Mandate

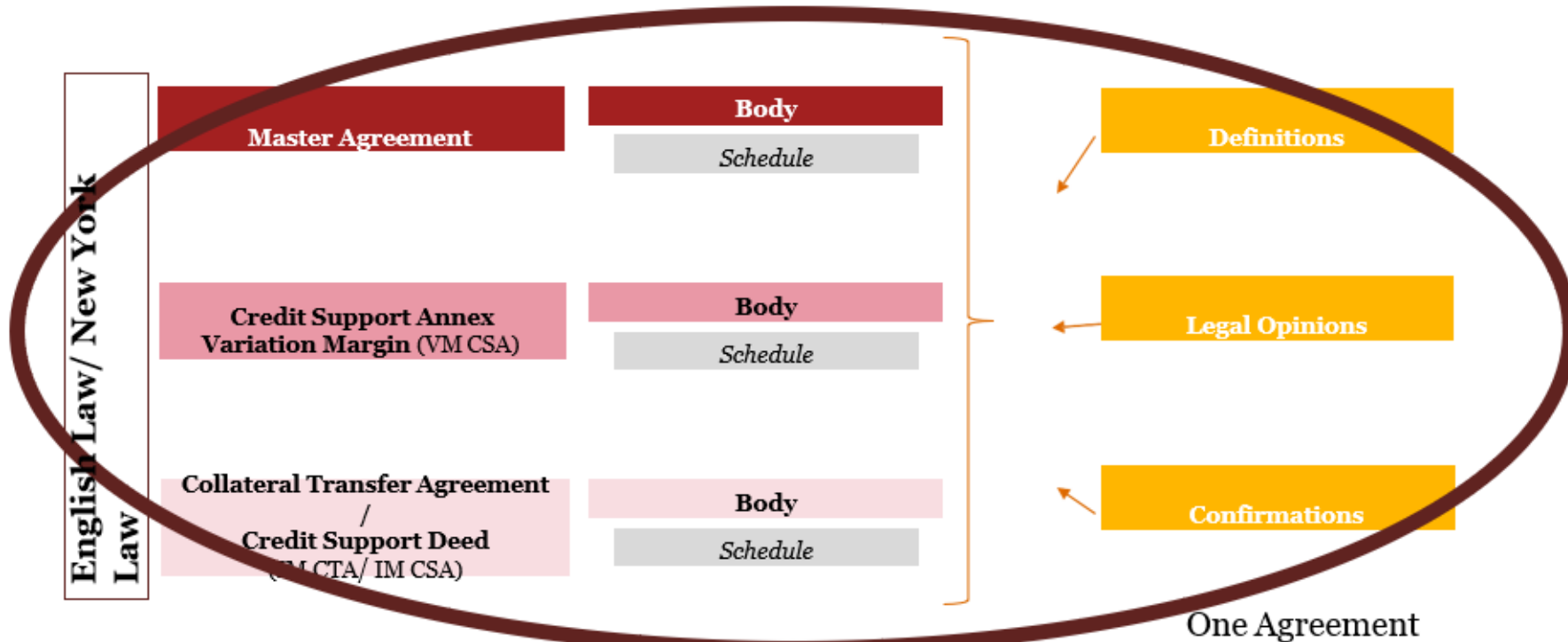
- Bilateral markets cannot be trusted in monitoring counterparty credit worthiness
 - Prevent contagion if counterparties do not fulfil their obligations
- Infrastructures providing CCP clearing performed well during the crisis, while bilateral OTC markets did not
 - As many OTC derivatives as possible should be cleared



Case Study

ISDA Master Agreements: Introduction

- ISDA Master Agreements is the most commonly used master agreement for OTC derivatives.
- Consists of a **boilerplate Body** and an **amendable Schedule**, plus **various Annexes**.
- Counterparties **only negotiate the Schedule** part of any Document.





ISDA®

International Swaps and Derivatives Association, Inc.

2002 MASTER AGREEMENT

dated as of [insert date of execution]

[your legal name] and [name of counterparty]

have entered and/or anticipate entering into one or more transactions (each a "Transaction") that are or will be governed by this 2002 Master Agreement, which includes the schedule (the "Schedule"), and the documents and other confirming evidence (each a "Confirmation") exchanged between the parties or otherwise effective for the purpose of confirming or evidencing those Transactions. This 2002 Master Agreement and the Schedule are together referred to as this "Master Agreement".

Accordingly, the parties agree as follows:—

1. Interpretation

- (a) *Definitions.* The terms defined in Section 14 and elsewhere in this Master Agreement will have the meanings therein specified for the purpose of this Master Agreement.
- (b) *Inconsistency.* In the event of any inconsistency between the provisions of the Schedule and the other provisions of this Master Agreement, the Schedule will prevail. In the event of any inconsistency between the provisions of any Confirmation and this Master Agreement, such Confirmation will prevail for the purpose of the relevant Transaction.
- (c) *Single Agreement.* All Transactions are entered into in reliance on the fact that this Master Agreement and all Confirmations form a single agreement between the parties (collectively referred to as this "Agreement"), and the parties would not otherwise enter into any Transactions.

2. Obligations

- (a) *General Conditions.*
 - (i) Each party will make each payment or delivery specified in each Confirmation to be made by it, subject to the other provisions of this Agreement.
 - (ii) Payments under this Agreement will be made on the due date for value on that date in the place of the account specified in the relevant Confirmation or otherwise pursuant to this Agreement, in freely transferable funds and in the manner customary for payments in the required currency. Where settlement is by delivery (that is, other than by payment), such delivery will be made for receipt on the due date in the manner customary for the relevant obligation unless otherwise specified in the relevant Confirmation or elsewhere in this Agreement.

International Finance Law

Header
Only adjustment to Body

Governing Law selected
in Schedule.
All Annex follow
governing law of MA.

13. Governing Law and Jurisdiction

- (a) *Governing Law.* This Agreement will be governed by and construed in accordance with the law specified in the Schedule.
- (b) *Jurisdiction.* With respect to any suit, action or proceedings relating to any dispute arising out of or in connection with this Agreement ("Proceedings"), each party irrevocably:—
 - (i) submits:—
 - (1) if this Agreement is expressed to be governed by English law, to (A) the non-exclusive jurisdiction of the English courts if the Proceedings do not involve a Convention Court and (B) the exclusive jurisdiction of the English courts if the Proceedings do involve a Convention Court; or
 - (2) if this Agreement is expressed to be governed by the laws of the State of New York, to the non-exclusive jurisdiction of the courts of the State of New York and the United States District Court located in the Borough of Manhattan in New York City;



International Development

- Objectives of the G20:
 - Internationally harmonised development
 - No room for arbitrage
- Reality:
 - U.S. took the lead with Dodd-Frank-Wall Street Reform and Consumer Protection Act (Dodd-Frank) in 2010
 - Strong extra-territorial application
 - Other countries adopted U.S. equivalent norms
 - EU followed with EMIR in 2012, EMIR 2 (2017) and EMIR 3 (2024)
 - Extra-territorial application
- Political stalemate between U.S. and EU on equivalence over derivatives reform (2018)

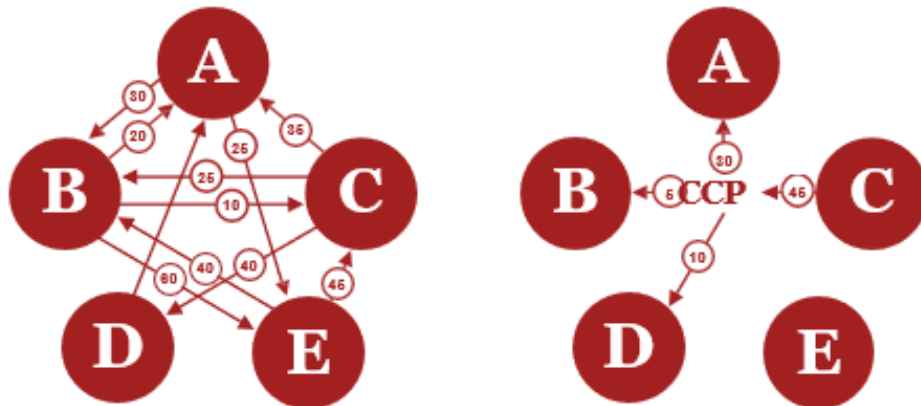


Central Clearing

What is it?

- “Clearing” is a procedure, where a Central Counterparty (CCP) acts as intermediary and assumes the role of buyer and seller for transactions to settle orders between transacting counterparties.
- The CCP becomes buyer to every seller and seller to every buyer through the process of “novation”.

Netting



CCP Function



Confirma-
tion



Counter-
party Risk

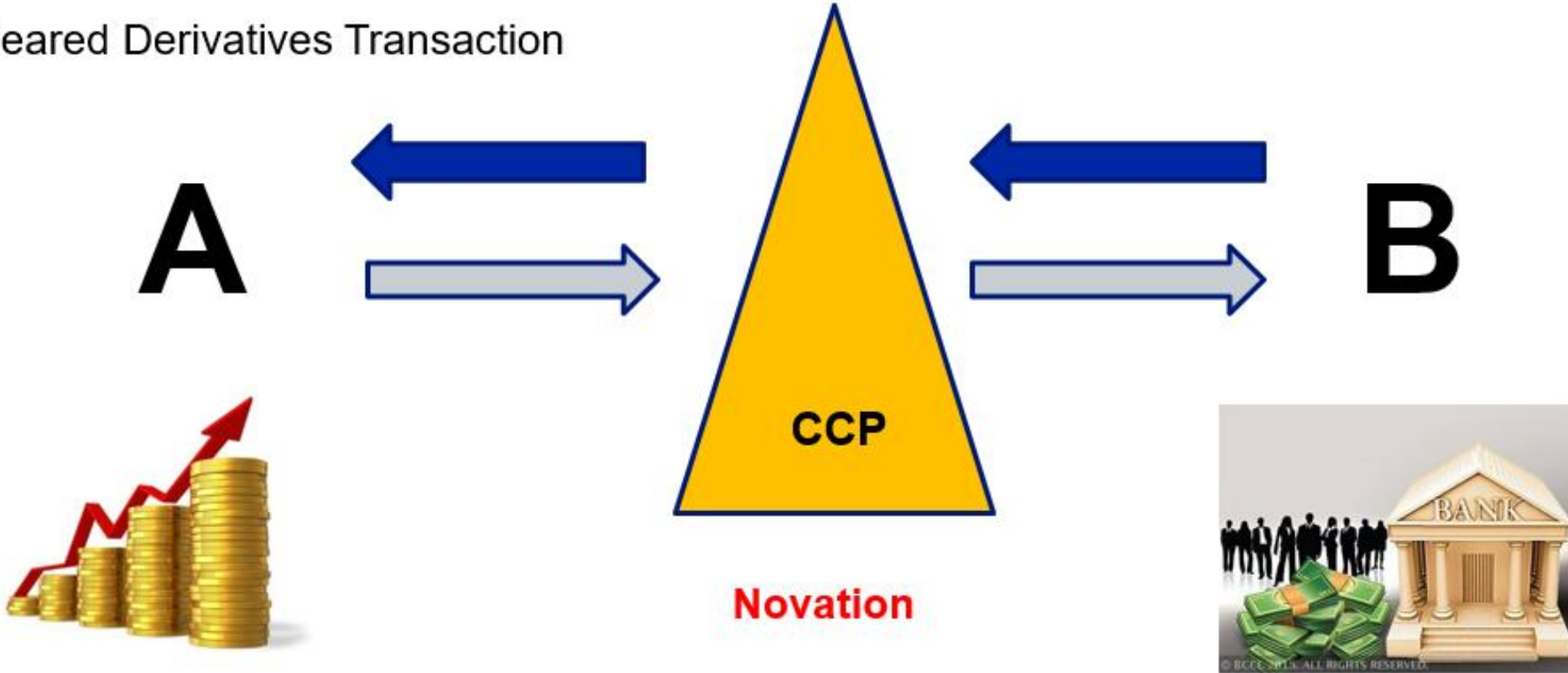


Mutuali-
sation



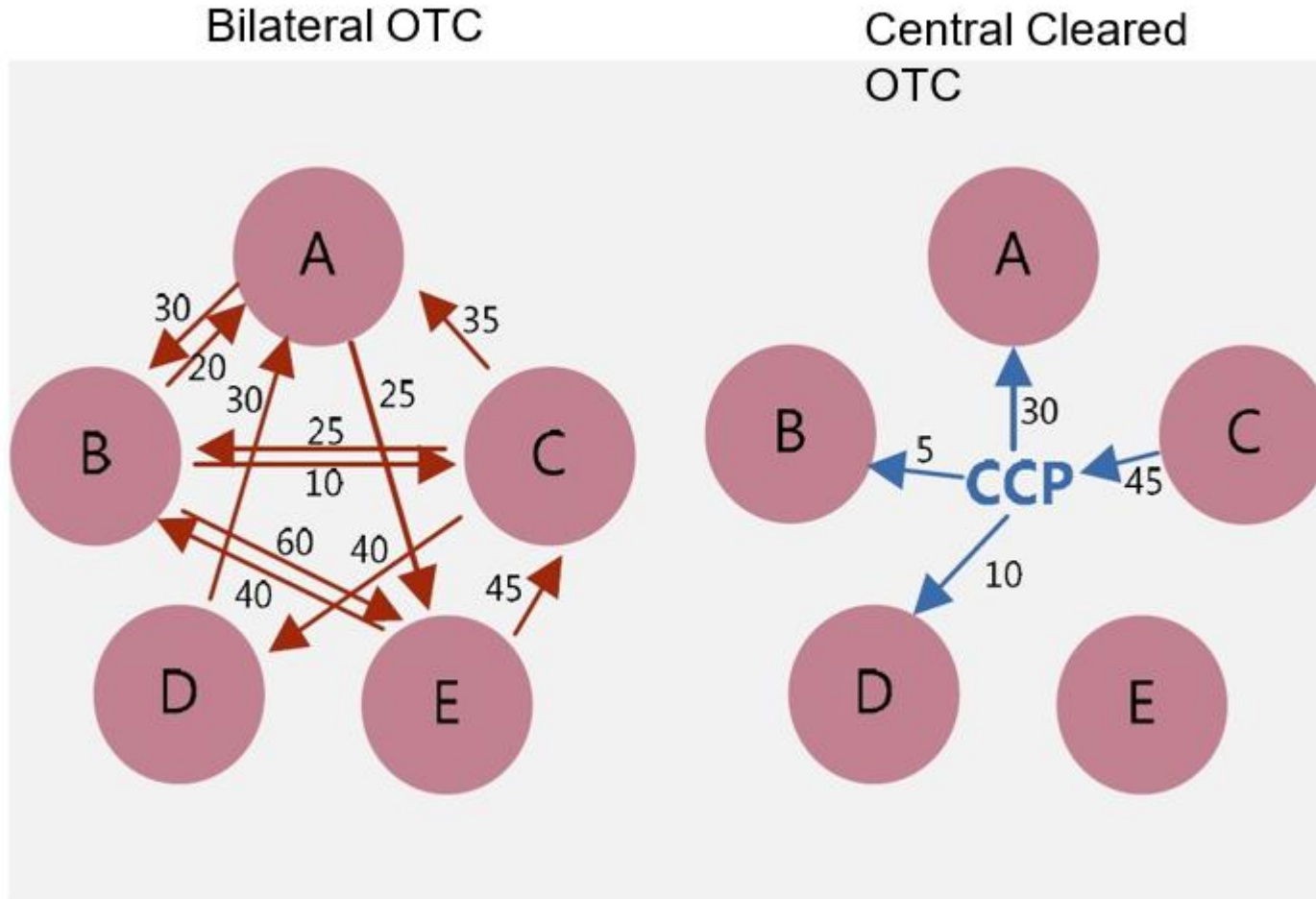
How does central clearing work?

Cleared Derivatives Transaction





Netting



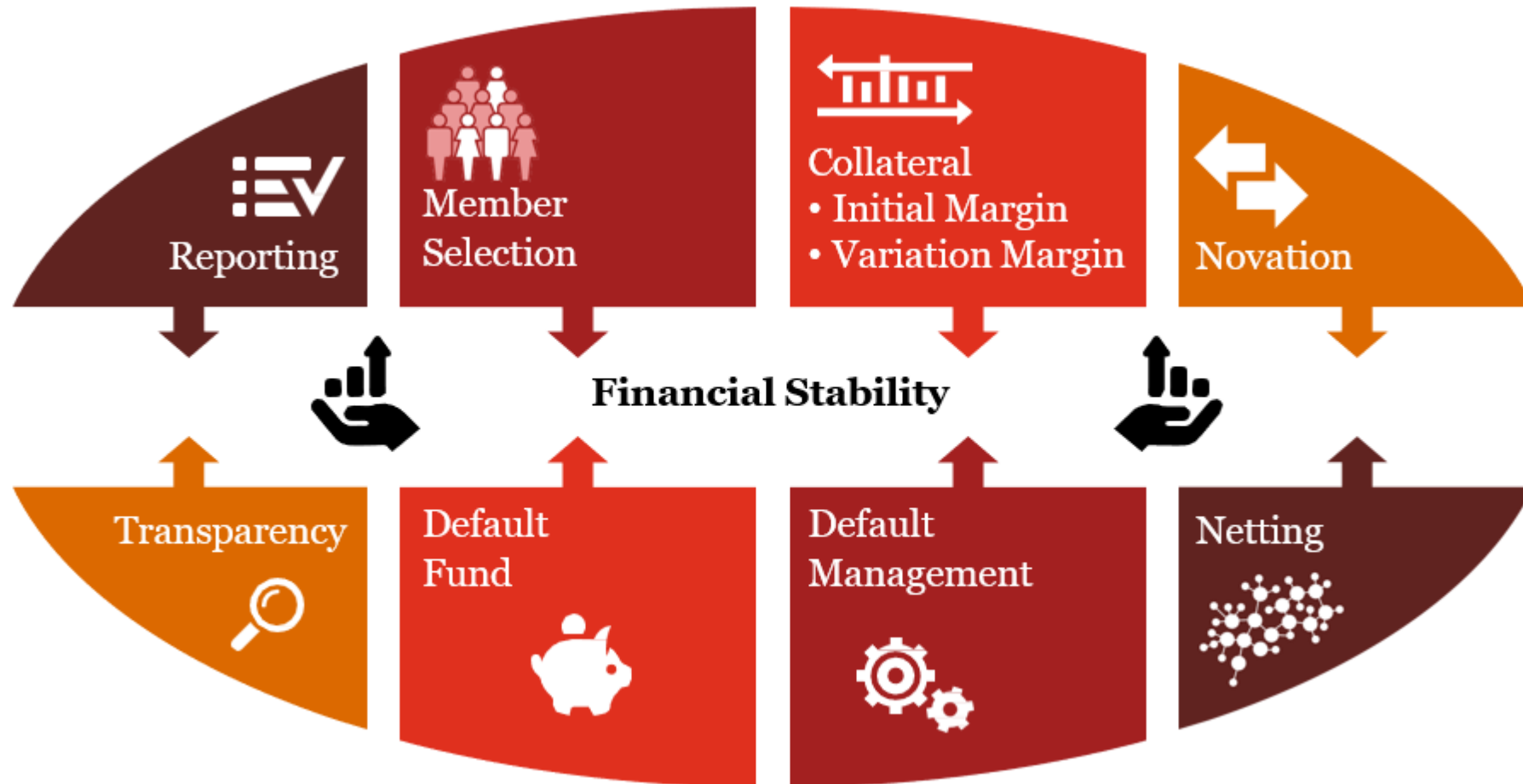


CCP Functions



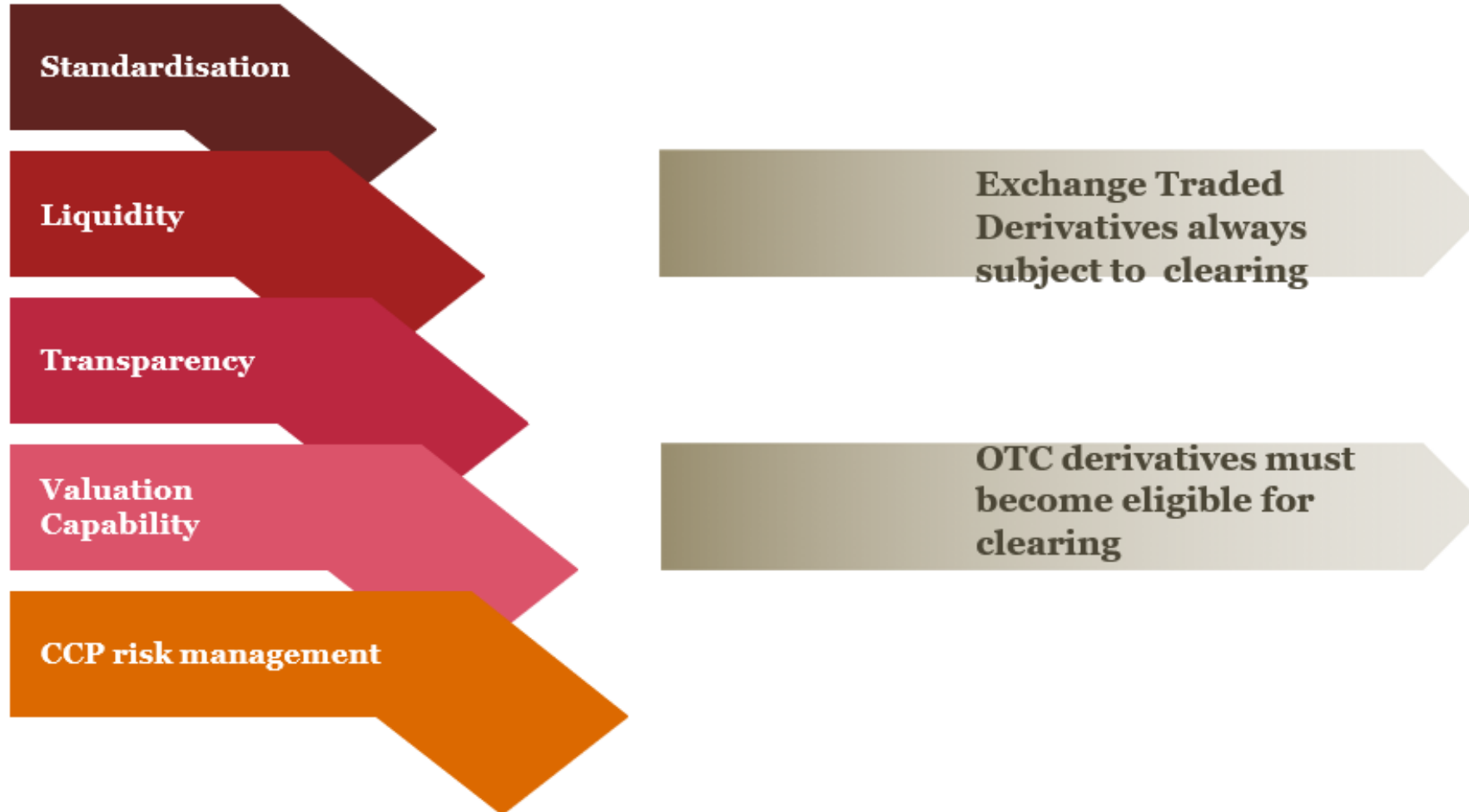


Central Counterparties (CCPs) – functions





Derivatives Eligible for Central Clearing





Benefits of Central Clearing

Increased netting abilities

Reduction of exposure

Internal default management

- Reduction of contagion
- No tax-payer bail-out

Institutionalised collateral management

- Fewer valuation errors
- Central management

Reporting obligation

Transparency increased



European Market Infrastructure Regulation (EMIR)

Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, OJ L 201 (EMIR)

- EU implementation of the G20 Pittsburgh Commitments
 - Platform trading requirement for standardised OTC contracts
 - Mandatory clearing for standardised OTC contracts
 - Voluntary clearing of OTC contracts
 - Reporting obligation to Trade Repositories
- Regularity requirements for CCP
- EMIR came into effect August 2012. Phase-in of requirements is ongoing.
 - 60-70% of all OTC transactions could be CCP cleared in future
 - Gross notional outstanding OTC derivative contracts end-June 2022: \$780 trillion (up from \$595 trillion end-June 2018).



MiFID II / MiFIR

Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (recast) OJ L 173 (MiFID II)

Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012, OJ L 173/84 (MiFIR)

EU reaction to increase investor protection after the financial crisis

- Consumer protection of retail clients (e.g. sales, marketing, inducements)
- Transparency of trades (e.g. intra-day and end-of-day reporting)
- Regulation of trading venues (Exchanges, MTF, OTF, SI)

Took effect 3 January 2018.



Interrelation of EMIR and MiFID II/MiFIR

1. Is the financial instrument in question a derivative?

→ The definition of a derivative is found in in points (4) to (10) of Section C of Annex I MiFID II

2. Is the entity trading the derivative within regulatory scope?

→ EMIR is applicable to financial and non-financial entities domiciled in the EU. EMIR is also applicable to third country entities, if the contract has a direct, substantial, and foreseeable effect in the EU.

3. What are my obligations under EMIR?

→ EMIR has varying obligations for counterparties, depending on their function and impact potential.

Financial Counterparty (FC)

1. MiFID investment firm
2. CRD credit institution
3. EU insurance undertaking
4. EU reinsurance undertaking
5. UCITS and, where relevant, its mgmt company
6. EU institution for occupational retirement
7. Alternative investment fund (EEA and non EEA) managed by AIFM

Small Financial Counterparty (SFC)

Non-financial Counterparty (NFC)

NFC +

Group company's NFC entity
OTC **trading threshold**
(gross notional) **over any of:**

- Credit: € 1bn
- Equities € 1bn
- Rates: € 3bn
- FX: € 3bn
- Commodities: € 3bn

Hedging transactions can be deducted.

NFC –

NFCs below the
clearing
threshold

3rd Country Entities

TCE

Entities established outside the EU (TCEs) are also in scope of the initial and variation margin.

The risk management procedures of the EU domiciled counterparty can however set forth that NFC- are excluded.



EMIR: Rules for Non-Cleared OTC Derivatives

- Risk-mitigation mandates for non-centrally cleared OTC derivatives:
 - Higher collateral requirements
 - Disclosure
 - Timely confirmation of trade
 - Portfolio reconciliation + compression
 - Dispute resolution



EMIR REFIT/ EMIR 2.0

- EMIR has been amended to lessen the burden: EMIR REFIT / EMIR 2.0
- Extensive assessment of EMIR completed between 2015-2017.
- “Regulatory Fitness and Performance Programme” (REFIT) assesses if results for citizens and businesses are effective, efficient, and at minimum cost.
- Make legislation simpler, lighter, more efficient and transparent, eliminate disproportionate costs.
- Various changes proposed to EMIR, while phase-in of EMIR continues.



EMIR REFIT / EMIR 2.0

EMIR REFIT to make legislation simpler, lighter, more efficient and transparent, eliminate disproportionate costs.

Clearing

- Creation of “SFC” entities with exemption from clearing obligation below certain thresholds
- NFC only subject to limited clearing obligation

Reporting

- Single sided reporting obligation, with “largest” counterparty mandated
- Better quality assurance and information access from trade repositories

Suspension of Clearing Mandate

In volatile markets ESMA to suspend clearing obligation for OTC derivatives

EMIR 2.2 to “increase robust supervision of CCPs” and increase financial stability. Mandate for CCPs with significant volume of financial instruments denoted in currencies of the EU to be cleared by CCPs in the EU.

- Currently: 16 CCPs in the EU; 32 CCPs outside the EU (15 countries) servicing EU counterparties.
- CCPs in London clear the most EUR-derivatives; may be forced to relocate to EU.
- Consequences: Fragmentation of derivatives market and potential loss of liquidity and opportunities.



EMIR REFIT/ EMIR 3.0

EMIR 3.0: to make European banks and brokers more competitive by modifying the EMIR 2.0 requirements

Only the largest EU counterparties are required to clear on average a minimum of five trades per year in each of the most relevant subcategories per class of derivative contracts

- A new exemption from the clearing obligation for post-trade risk reduction exercises
- Making permanent the exemption from bilateral margin requirements for single-stock options and equity index options



EMIR REFIT/ EMIR 3.0

- Clearing at EU CCPs
- Clearing at Non-EU CCPs
- Clearing Obligation: Thresholds, OTC Derivatives, a New Exemption
- Reducing Bureaucracy for EU CCPs
- CCP Governance and Operational Issues
- Reporting Obligation
- Uncleared Trades
- Equivalence



Switzerland – Financial Market Infrastructure Act (FinfraG)

- Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (Financial Market Infrastructure Act, FMIA)
- Swiss (near) equivalent of EMIR.
- Swiss implementation of the G20 Pittsburgh Commitments for OTC derivatives
 - Including: Platform trading; mandatory and voluntary clearing; reporting obligation
 - Regulatory requirements for CCPs

Financial Counterparty (FC) _____	Small Financial Counterparty (FC-) __	Non-financial Counterparty (NFC) _____	
<ol style="list-style-type: none"> 1. Banks (Banking Act) 2. Securities Dealers (Stock Exchange Act) 3. Insurance and Reinsurance Companies 4. Parent Companies of financial or insurance group / conglomerate 5. Fund Management Company and Asset Managers of Collective investment Schemes 6. Collective Investment Schemes 7. Occupational Pension Schemes 	<p>Financial Counterparties that do not reach CHF 8bn.</p>	<p>NFC + (all others) Group company's NFC entity OTC trading threshold (gross notional) over any of:</p> <ul style="list-style-type: none"> • Credit: CHF 1.1bn • Equities CHF 1.1bn • Rates: CHF 3.3bn • FX: CHF 3.3bn • Commodities: CHF 3.3bn <p>Hedging transactions can be deducted.</p>	<p>NFC – NFCs below the clearing threshold</p>

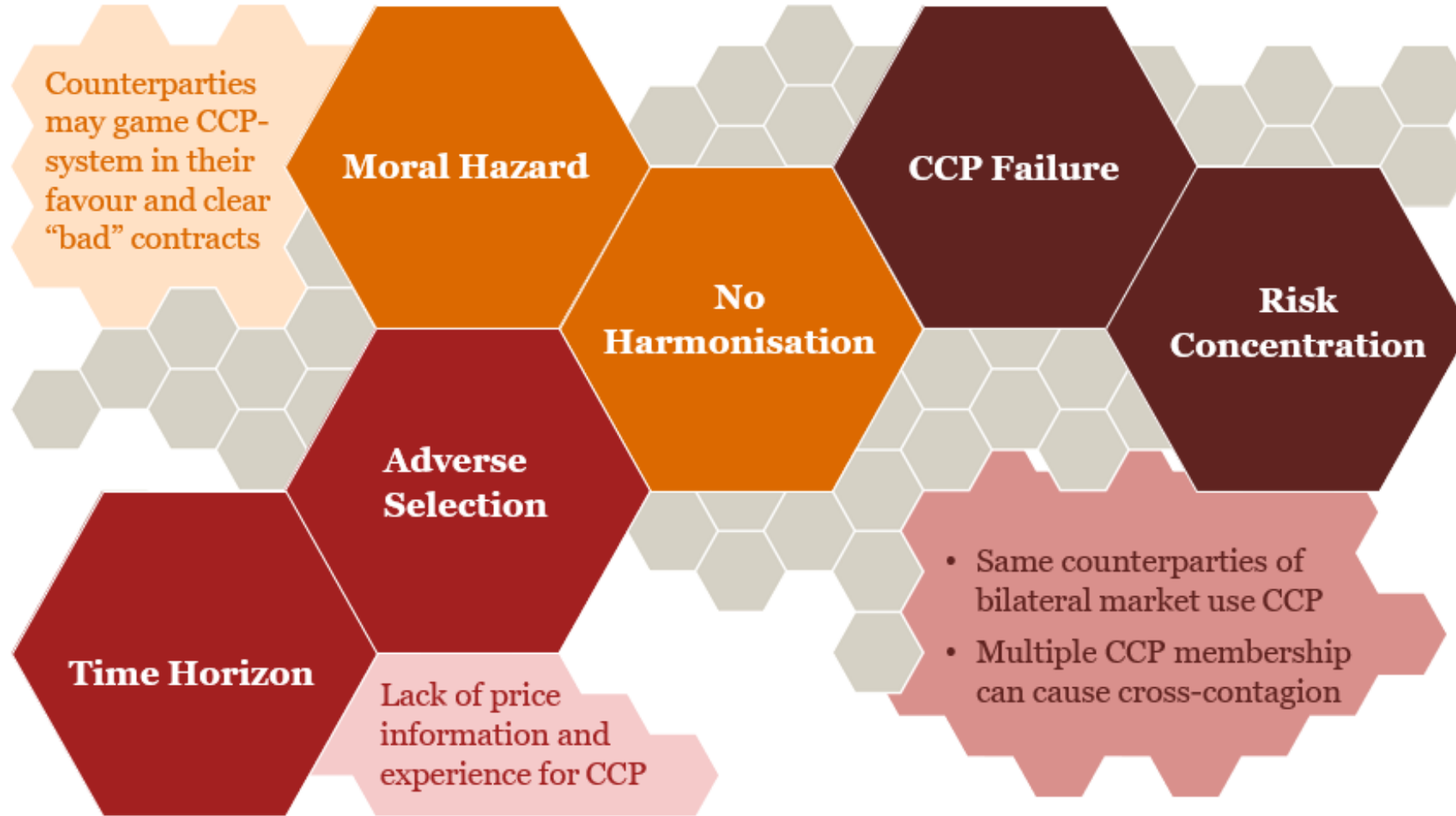


Switzerland

- Bundesgesetz vom 19. Juni 2015 über die Finanzmarktinfrastrukturen und das Marktverhalten im Effekten- und Derivatehandel (FinfraG; SR958.1)
 - Financial Market Infrastructure Act (FMIA)
 - Effective: 1 January 2016
- Verordnung vom 25. November 2015 über die Finanzmarktinfrastrukturen und das Marktverhalten im Effekten- und Derivatehandel (FinfraV; SR 958.11)
 - Financial Market Infrastructure Ordinance (FMIO)
 - Effective: 1 January 2016
- Objective: Implement international and European standards



Risks to the Financial System





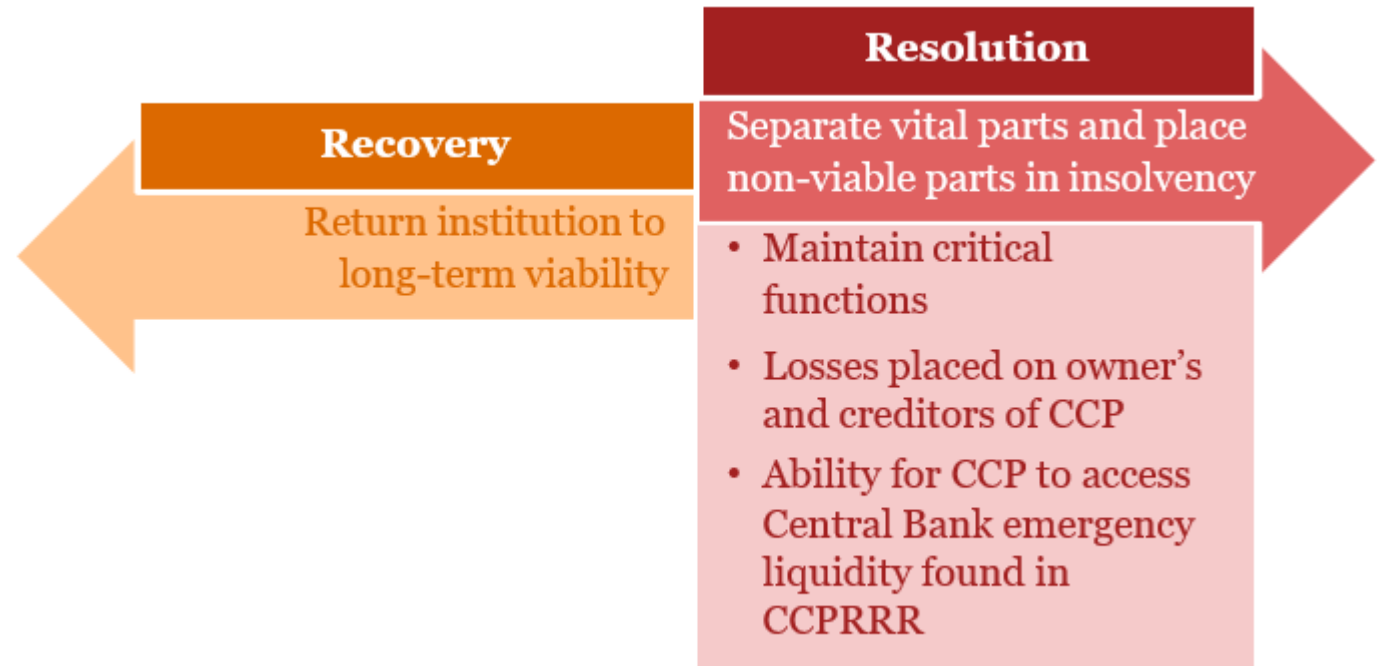
Impact of Regulatory Reform

- EU
 - First authorisation of a CCP under EMIR: 18 March 2014
 - Phase-in clearing obligation: 2014 - 2019
- CH
 - SIX x-clear AG only approved CCP by FINMA
 - Phase-in clearing obligation: 2016 - 2020
- In the future 60-70% of all OTC transactions could be CCP cleared
- Liquidity drain because of collateral requirements (cleared and non- cleared)
- Market fragmentation
- Long horizon until regulation is implemented and phased-in: 2020+



CCP Recovery & Resolution Regulation

- Lack of recovery and resolution regulation for CCPs at this time. Proposal published in 2016, no update to-date
- Objective: safeguard financial stability and ensuring critical functions are continuously performed by the CCP
- CCP to draw up a recovery and resolution plan
- Proposal for CCP Recovery and Resolution Regulation directly undermines key objectives of the G20 commitments





Benefits of Central Clearing

- Increased netting abilities
 - Reduction of exposure
- Internal default management
 - Reduction of contagion
 - No tax-payer bail-out
- Institutionalised collateral management
 - Fewer valuation errors
 - Central management
- Reporting obligation
 - Transparency



Problems with Central Clearing

- Adverse Selection
 - Lack of price information and experience for CCP
- Information Asymmetry
 - Models of experienced end-users are better
- Moral Hazard
 - Counterparty guarantee of CCP may be abused
- Risk Concentration
 - Same counterparties from bilateral market use CCPs
 - Multiple CCP memberships may lead to contagion
- CCP Failure
 - Too-big-to-fail?

Unresolved Central Clearing Issues

- «Hindsight» regulation
- Lack of global harmonisation
- Unrealistic time frame
- CCPs never intended for derivatives
- CCPs are not fail-safe
- Risk is shifted around, not removed





Key Points

- Derivatives shift risks and are crucial to our financial markets. Hedging fulfils a key necessity, while speculation can be an accelerator for systemic risk.
- Speculative usage of OTC derivatives was a key contributor to the financial crisis.
- Clearing through a CCP to reduce counterparty credit risk and limit negative externalities by mutualising and internalising clearing member defaults.
- Regulation of derivatives not globally harmonised and still not fully implemented.
- CCP recovery and resolution framework in the EU 2021.
- CCPs are not fail-safe. Risk has been shifted – not removed – and CCPs have become “too-interconnected” and “too-big-to-fail”.



Optional further readings

Recommended

- https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-markets/post-trade-services/recovery-and-resolution-central-counterparties-ccps_en
- Merton H. Miller, 'Do we really need more regulation of financial derivatives?', University of Chicago Graduate School of Business Selected Paper No 75
- <https://www.chicagobooth.edu/~media/254758677A0740A58EC34D1532EC5E0E.pdf>
- Karrell Lannoo, 'Derivatives Clearing and Brexit', ECMI Policy Brief 25, November 2017
- https://www.ceps.eu/system/files/ECMI_PB25_KL_BrexitClearing.pdf
- Jeremy C. Kress, 'Credit Default Swap Clearinghouses and Systemic Risk: Why Centralized Counterparties Must Have Access to Central Bank Liquidity', Harvard Journal on Legislation, Vol. 48, No. 1, 2011
- https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1583912
- Steven L. Schwarcz, 'Central Clearing of Financial Contracts: Theory and Regulatory Implications', May 2018 Draft, 167 University of Pennsylvania Law Review, Vol 167, 2018-19
- https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3104079
- Shearman & Sterling, 'COVID-19: Derivatives Implications', 11 March 2020, Perspectives
- <https://www.shearman.com/perspectives/2020/03/covid-19---derivatives-implications>

For a deeper understanding

- Alexandra G. Balmer, *Regulating Financial Derivatives*, Edward Elgar (2018).
- Richard S. Carnell, Jonathan R. Macey, Geoffrey P. Miller, *The Law of Financial Institutions*, 'Structured Finance, Securitisation, and Swaps and Derivatives', Aspen Casebook Series, 6th ed (2017), 855-892.
- Michael Durbin, *All About Derivatives*, McGraw-Hill Education, 2nd ed (2010).

Sustainable Finance and International Regulation

Professor Kern Alexander
University of Zurich

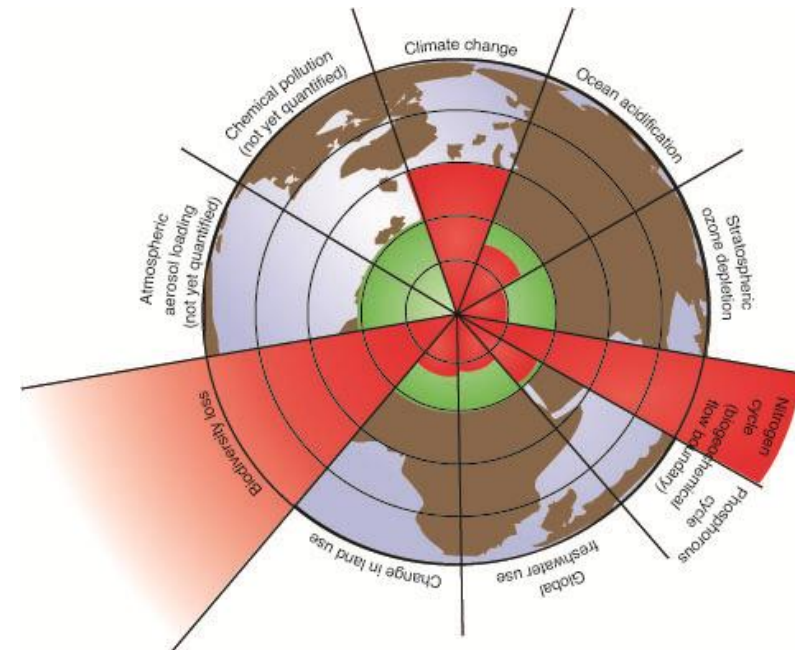
International Financial Law
16 April 2026

Why look at this?

- ❑ Since 2008, some financial regulators have begun looking at – and acting on – the links between *systemic* environmental risks and financial stability
- ❑ However the fragmentation of international economic governance poses obstacles to international coordination/cooperation in banking and environmental regulation
- ❑ The redesign of international financial regulation – macro-prudential focus – offers opportunity to link-up the different areas of financial and environmental regulation/governance.
- ❑ G20 (2009) international regulatory reform core aim to “**generate strong, sustainable and balanced global growth**”
- ❑ Also – UN/G20-backed enquiry in 2016 into the role of regulation in the design of a sustainable financial system.

More systemic environmental risks lie ahead of us..

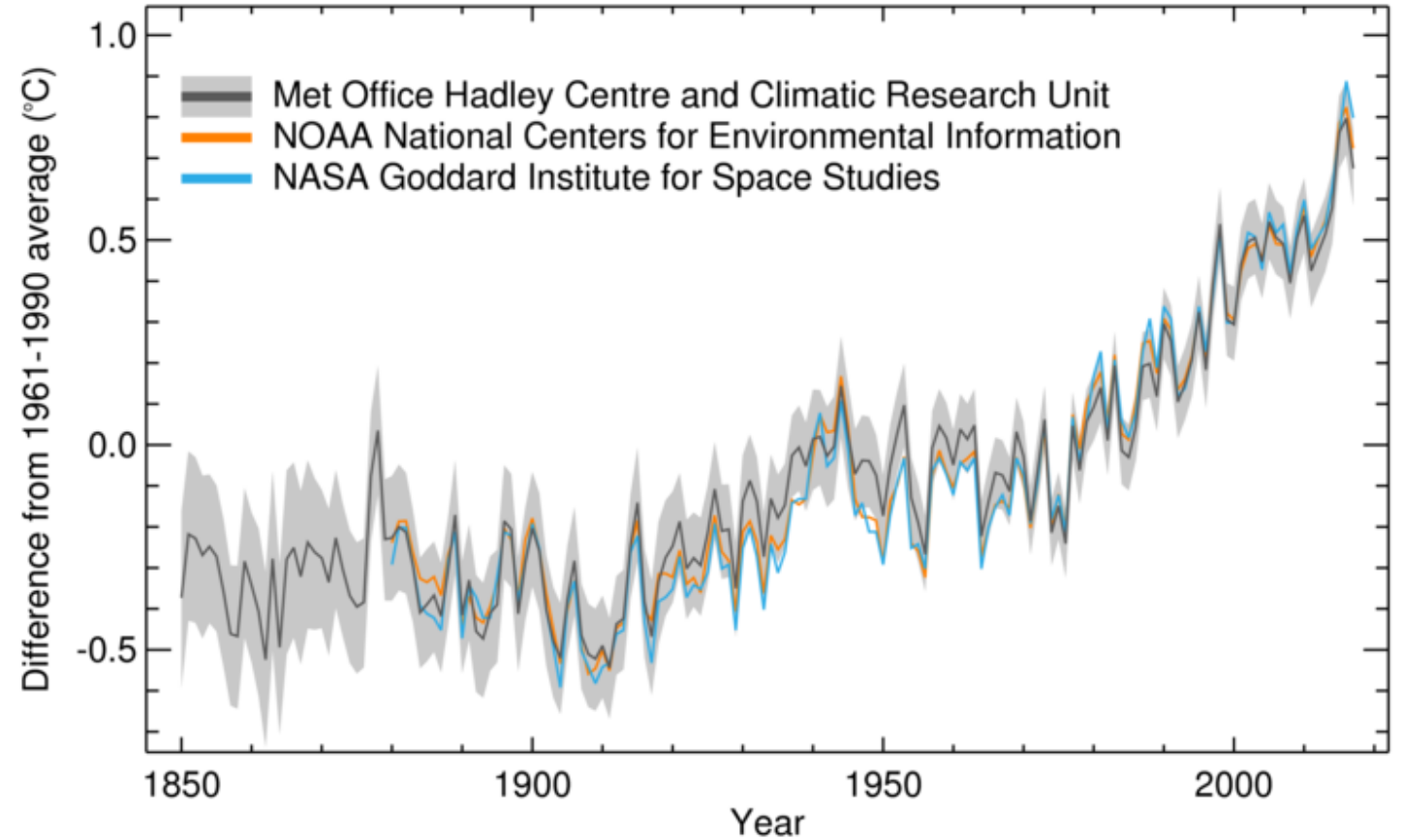
- ‘Planetary boundaries’ – thresholds marking the “safe space for human development”
- Crossing them would trigger non-linear, abrupt environmental change within continental- to planetary-scale systems
- Of the nine, three have already been crossed (climate change, biodiversity loss, nitrogen input into the atmosphere)
- Cannot exclude links to financial stability...



The planet is warming, over +1° already

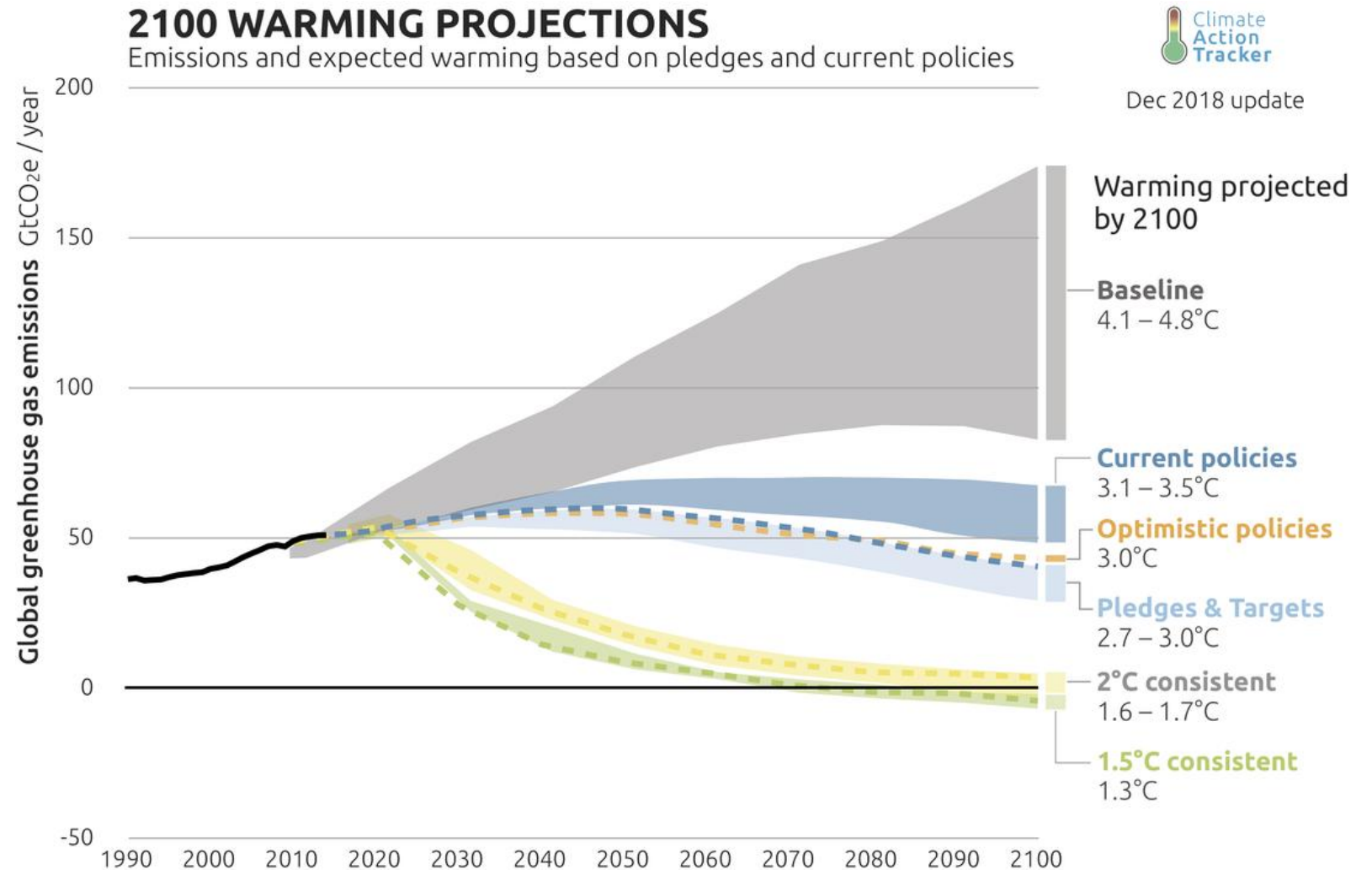


Global average temperature anomaly (1850-2017)



The Physical Risks

Scenarios for global temperatures



‘Stability and Sustainability in Banking Reform: Are environmental risks missing in Basel III?’

Alexander (Oct 2014)

- History demonstrates links between systemic environmental risks and banking instability
- The Basel Capital Accord does not adequately address systemic environmental risks
- Existing regulatory practices outside Basel that do address systemic environmental risks
- Changing the focus of the Basel Accord through Pillar 2 to address systemic environmental risks

Existing practices outside the Basel Accord relevant to this study?

China – Green Credit Guidelines

- Promoting bank lending to environmentally sustainable economic activities
- Requiring banks to include in their loan documentation covenants to comply with environmental standards
- Collect data to inform of progress and breach of environmental regulation violations

Brazil

- Using Pillar 2 to require banks to assess exposure to carbon risk
- Guidelines relating to Supervisory Review for how to consider banks' exposure to environmental and social risks
- Using Pillar 3 to require public disclosure of exposure for market discipline

Peru

- Environmental and social due diligence approach for projects
- Bank requires project manager to produce due diligence report before investment

Basel III

Pillar 1	Pillar 2	Pillar 3
Minimum Capital Requirements Additional / Refined Capital Basis - Liquidity Coverage Ratio (LCR) - Net Stable Funding Ratio (NSFR) - OTC Derivatives Charge - Quality and Level of Capital - Leverage Ratio - Capital Conservation Buffers - Countercyclical Buffers - Enhanced Loss Absorption Clause (Write-Off or Debt Conversion)	Supervisory Review Process Supervision (Dialogue) - Firm-wide Corporate Governance - Managing Risk Concentrations - Alignment of LT Incentives - Sound Compensation Practices - Supervisory Colleges - Capital (ICAAP) - Firm-wide Risk Management - Valuation Practice, Stress Tests - Supervisory Review Evaluation Process (SREP) - Capital - Governance	Market Discipline - Additional / Enhanced Disclosure - Risk Management <ul style="list-style-type: none"> • Market • Credit • Operational - Regulatory Capital Components - Detailed Reconciliation of Capital - Regulatory Capital Ratios - Securitisation Exposures

The management of certain transaction-specific environmental risks on credit and operational risks is already required by paragraph 510

ICAAP and SREP can be used to assess portfolio risk exposures to systemic environmental risks

Standardised or harmonised disclosure of information about exposure to, and management of, systemic environmental risks could form part of additional or enhanced disclosure requirements

4/16/2026

What are the Financial Risks?

- Bank of England:
 - “The impact of climate change on the insurance sector” (PRA 2015)
 - “The Bank of England’s response to climate change” (QB2017)
 - “Transition in Thinking: The impact of climate change on the UK banking sector” (PRA 2018)
 - “The 2021 biennial exploratory scenario on the financial risks from climate change (PRA 2019)
 - “Enhancing banks’ and insurers’ approaches to managing the financial risks from climate change” (PRA 2019)
 - “A framework for assessing financial impacts of physical climate change: A practitioner's aide for the general insurance sector” (PRA 2019)
 - “Insurance Stress test” (PRA 2019)

Physical
Transition
Legal (Liability)

<http://www.bankofengland.co.uk/prudential-regulation/publication/2018/transition-in-thinking-the-impact-of-climate-change-on-the-uk-banking-sector>

<https://www.bankofengland.co.uk/Pages/reader/index.aspx?pub=qb17q2article2&page=1>

<https://www.bankofengland.co.uk/paper/2019/biennial-exploratory-scenario-climate-change-discussion-paper>

<https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/supervisory-statement/2019/ss319.pdf?la=en&hash=7BA9824BAC5FB313F42C00889D4E3A6104881C44>

<https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/publication/2019/a-framework-for-assessing-financial-impacts-of-physical-climate-change.pdf?la=en&hash=7DE2A5E0442752ED910CF01F36BC15AA661AD1D9>

<https://www.bankofengland.co.uk/prudential-regulation/letter/2019/insurance-stress-test-2019>

Macroprudential policy issues (financial stability)

- Asymmetric information means that sudden crystallization of risks - physical, structural change & policy transition, legal – could cause:
 - Widespread, large changes in asset values – could impact banks and insurers systemically eg RWE, EON, Peabody energy.
 - Assets becoming uninsurable eg houses built on flood plains
 - Unexpected increase in insurers' liabilities eg super-storm Sandy in NY;
 - Wrong-way collateral risks for banks
eg property destruction affecting credit of borrower and value of collateral.
 - Sovereign risks for countries that have concentrated climate-related assets
eg agricultural producers, fossil fuel producers, tourist centres (water).
 - Need to ensure appropriate risk management by financial firms (Basel Pillar II)

How might the Basel Committee take forward the lessons of this study?

“The Basel Committee should **acknowledge certain environmental risks** as material risks for banks in their pillar 2 assessments with a view to understanding the impact of systemic environmental risks on banking stability. ***A capital assessment***

On this basis it should encourage and support bank regulators to work with banks to adopt current best practice in the management of environmental issues, and to collect the necessary data and conduct analysis to refine the banking sectors' understanding of, and ability to address, systemic environmental risk in the future. ***A governance assessment***

Bank supervisors should then explore the feasibility of incorporating forward-looking scenarios that estimate the potential financial stability impact of supplying credit to environmentally unsustainable or sustainable activities over time into their **Pillar 2 – Supervisory Review** stress tests.

Bank supervisors should also examine **Pillar 3 – Market Discipline** to assess the feasibility of banks disclosing information about their exposure to, and management of, systemic environmental risks in a standardised manner across countries.”

What other financial policy options are available?

1. **Monetary policy** could play a role in supporting liquidity provision for finance to support environmentally sustainable economic activities?
 - Using cost of central bank funding to promote 'green' lending
 - Eg Lebanon, Decree no. 7835
 - Green asset-backed securities, eg bonds, as collateral for liquidity support?
2. **Innovation to facilitate long-term investors**
 - Regulators are looking at 'simple and transparent' financial instruments to facilitate long-term investment...
 - Encourage more investment in 'green' assets at the same time?
3. Ensure that **financial and environmental policies and regulations are coordinated** across government agencies and departments in their promulgation, implementation and enforcement.

CRD V - Incorporating sustainability in EU prudential regulation (1)

- 7 June 2019 CRR II and CRD V were published in the Official Journal of the EU.
- CRR II will apply from 28 June 2021 (Art. 3 CRR II).
 - Exceptions listed in Art. 3(3) to Art. 3(8) CRR II.
- Member States must adopt the necessary measures to comply with CRD V by 28 December 2020 (Art. 2 CRD V).
- No provisions regarding the incorporation of sustainability but mandate to European Banking Authority (EBA) to prepare reports on the subject.

CRD V - Incorporating sustainability in EU prudential regulation (2)

- Uncertainty regarding risks of green assets compared to non-green assets.
- Supervisory Authorities and legislative bodies hesitant to include sustainability in prudential regulation amidst uncertain risk assessment.
 - ECB: “For the integrity of financial institutions and financial stability, it is important that prudential frameworks remain risk-based.” (ECB, Financial Stability Report, May 2019, available at <https://www.ecb.europa.eu/pub/financial-stability/fsr/special/html/ecb.fsrart201905_1~47cf778cc1.en.html#toc2>).
- Further legislative proposals are only expected after the European Banking Authority’s reports.
 - Report regarding prudential treatment of exposure to environmental and/or social objectives expected by 28 June 2025.
 - Report regarding inclusion of ESG risks expected by 28 June 2021.

Regulation (EU) 2019/876 (CRR II)

- Art. 449a CRR II
 - Obligation for large banks to disclose information regarding ESG risks and related physical transitional risks from late June 2022 onwards.
- Art. 501a (1)(o) CRR II
 - Banks can reduce their own fund requirements when financing infrastructure for essential public services, amongst others, if an assessment has been completed on whether the borrower has contributed to environmentally sustainable economic objectives.
- Art. 501c CRR II
 - EBA must assess whether a dedicated prudential treatment of exposures related to assets or activities associated substantially with environmental and/or social objectives would be justified.
 - The EBA shall submit a report on its findings by 28 June 2025.

Directive (EU) 2019/878 (CRD V)

- Art. 98(8) CRD V
 - EBA must assess the potential inclusion in the review and evaluation performed by competent authorities of environmental, social and governance risks (ESG risks).
 - The EBA shall submit a report on its findings by 28 June 2021.
 - On the basis of the assessment, the EBA may issue guidelines regarding the uniform inclusion of ESG risks in the supervisory review and evaluation process performed by competent authorities.

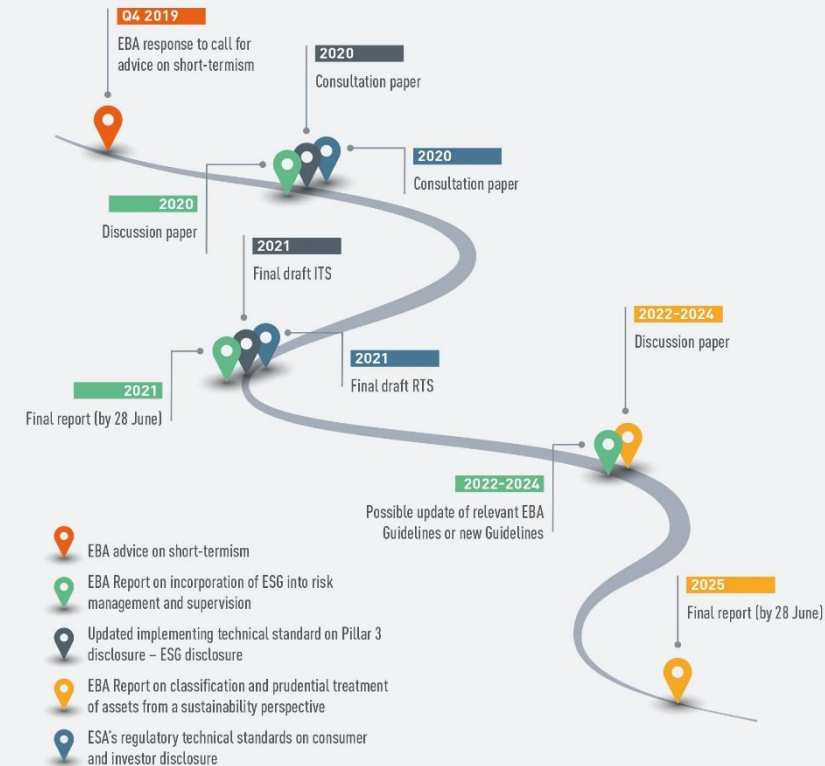
Regulation (EU) 2019/2033 (IFR)

- Art. 34 IFR
 - prudential treatment of assets exposed to activities associated with environmental or social objectives.
 - Mandate to EBA to assess whether dedicated prudential treatment of assets exposed to activities associated with environmental or social objectives would be justified.
- Assessment of:
 - Methodological options for assessing exposure.
 - Specific risk profiles of assets exposed.
 - Risk related to depreciation of assets due to regulatory changes.
 - Potential effects of dedicated prudential treatment of assets exposed.

EBA Working Plan 2020

- phase of its preparatory work on disclosure and risk assessment in the area of sustainable finance.
- Discussion Paper on the incorporation of ESG into risk management and supervision (CRD and IFD mandates).
- Undertake preparatory work on the classification and prudential treatment of assets from a sustainability perspective (CRR and IFR mandates).
- Deliver TS of the Joint Committee of the ESAs on disclosures (investment and advice activities).

Milestones for EBA regulatory mandates on sustainable finance

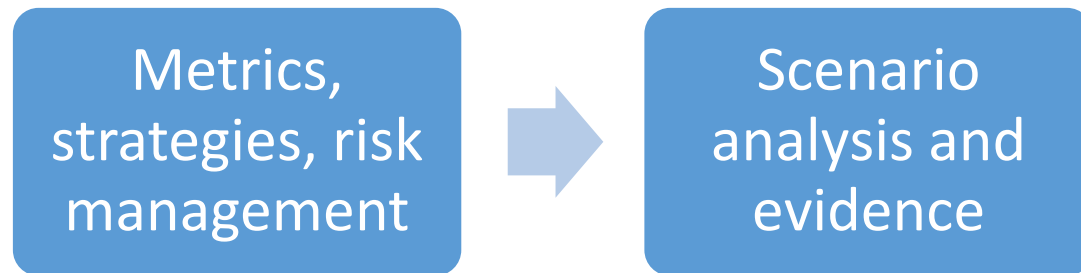


EBA Action Plan on Sustainable Finance, 6.12.2019, p. 14

eba.europa.eu/sites/default/documents/files/document_library//EBA%20Action%20plan%20on%20sustainable%20finance.pdf

EBA action Plan on sustainable finance

Outlining approach and timeline for delivering mandates related to ESG risks:



- Assess whether dedicated prudential treatment of exposures related to assets or activities associated substantially with environmental and/or social objectives would be justified.

EBA report on Pillar 3 disclosures (02 March 2020)

Findings regarding ESG disclosure

- Disclosure is scarce and not uniform.
- Institutions recognise ESG risk are increasingly important.
- Institutions recognise sustainability is taking on a leading role on the regulatory agenda.

Findings regarding inclusion of ESG risk

- credit risk policies
- reputational risk management
- IRB approaches
- operational risk management

EBA expectation

- Provide comprehensive and meaningful picture of risk profile that includes ESG and climate-related risks.
- Elaborate on potential impacts of these risks in Pillar 3 reports.
- Demonstrate how they are integrating these risks in their risk management framework.

EU Commission's Consultation regarding final Implementation of Basel III

- 11 October 2019: EU Commission launched public consultation
 - “In your view, which further measures, if any, could be taken to incorporate ESG risks into prudential regulation without pre-empting ongoing work as set out above?” *(EC, public consultation on implementing Basel III, p. 49, available at https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/2019-basel-3-consultation-document_en.pdf)*
- EU Commission launched a study on the development of tools and mechanisms for the integration of ESG risks into institutions' risk management, business strategies and investment policies as well as into prudential supervision.
 - Results expected in early 2021

Basel Committee on Banking Supervision - Task Force on Climate-related Financial Risks (TCFR)

- Stocktake members' existing regulatory and supervisory initiatives.
- Produce a set of analytical reports on climate-related risks and the transmission channels of such risks to the banking system as well as on measurement methodologies.
- Develop effective supervisory practices in order to mitigate climate-related financial risks

EU Technical Expert Group on sustainable finance (TEG)

- 18 June 2019, TEG published its reports on taxonomy, green bonds and benchmarks.
- 9 March 2020, final reports on EU taxonomy, Green Bond Standards and Benchmarks.
- Regulation on EU Taxonomy completed stage of first reading.

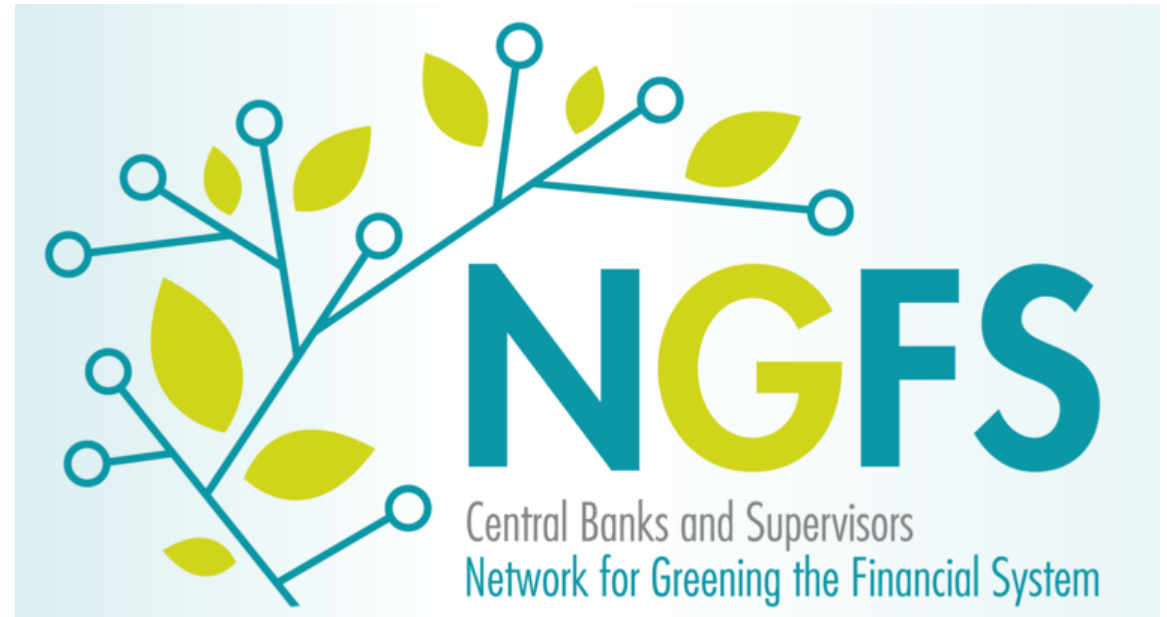


European Circular Economy Stakeholder Platform,
<https://circulareconomy.europa.eu/platform/en/news-and-events/all-news/technical-expert-group-sustainable-finance-call-applications>

Network for Greening the Financial System (NGFS)

A call for action (April 2019)

- Impossible to draw general conclusion on potential risk differentials regarding green and non-green assets.
- Exploratory data collection from selected banks to be able to assess whether there is a risk differential.
- Adopting Pillar 2 framework is an additional possibility to integrate sustainability to prudential regulation framework



Network for Greening the Financial System, Logo, <https://www.ngfs.net/en>

NGFS - Guide for supervisors: integrating climate-related and environmental risks into prudential supervision (27 May 2020)

Key Recommendations:

Determine how climate-related financial risks transmits to economies and financial sector and identify how these risks will be material.

Develop a clear strategy, establish an internal organisation and allocate adequate resources to address climate-related risks.

Identify exposures of supervised institutions.

Set supervisory expectation to create transparency.

Ensure adequate management of climate-related risks by supervised institutions and take mitigating actions where appropriate.

ESMA reports report on inclusion of sustainability factors in MiFID II, UCITS and AIFMD

- On 30 April 2019 ESMA published its propositions to amend and add provisions in relevant legislation with the aim that ESG considerations and sustainable risks are taken into account.
- ESMA will work with European Commission to transform advice into delegated acts.
- 06 February 2020 ESMA published its Strategy on sustainable finance focusing on:
 - A single rule book
 - Supervisory Convergence
 - Direct Supervision
 - Risk assessment

EIOPA reports on the inclusion of sustainability in Solvency II

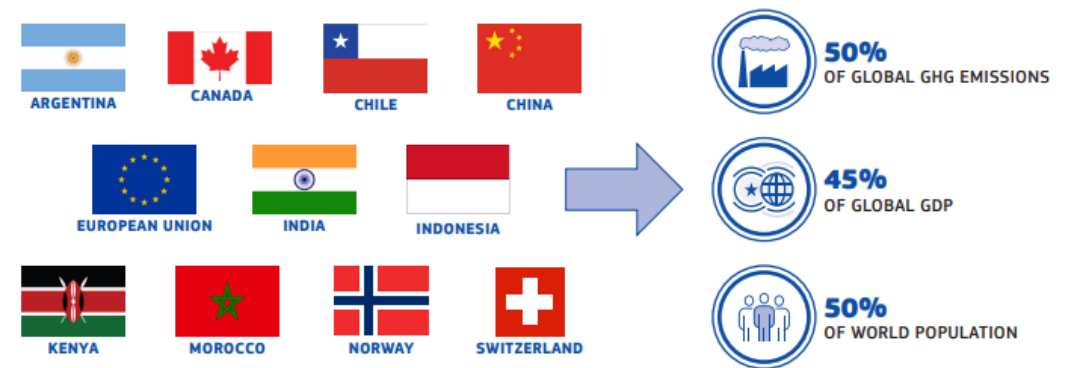
- EIOPA published a consultation paper on 3 June 2019 and an opinion on 30 September 2019, recommending:
 - Undertakings should assess exposure to sustainability risk
 - Complementary tools (scenario analysis and stress testing) appear appropriate to capture impacts of climate change.
 - Assessment of the impact of climate change will depend both on the materiality of climate change-related risks and be subject to Solvency II's proportionality principle.
 - Scenarios can be used as a first step to explore the potential range of climate change related risks.
 - Further work is needed to define a consistent set of quantitative parameters that could be used in climate change-related scenarios that undertakings can then adopt
 - Regarding Pillar III in the near future further consideration should be given to mandatory requirements for public disclosure on sustainability risks.

Regulation regarding disclosure of information

- On 18 April 2019 the EU Parliament agreed on the text for a regulation on disclosures relating to sustainable investments and sustainability risks and amending Directive (EU) 2016/2341 (IORP II).
- Entered into force in Dec 2019, but implementation required by 2022.
- On 18 June 2019 the Commission published a supplement to its Guidelines on the Non-financial reporting directive (2014/95/EU) related to reporting climate-related information.

International Platform for Sustainable Finance

- IPSF launched on 18 October 2019 by EU and Argentina, Canada, Chile, China, India, Kenya and Morocco.
- Aim is to scale up the mobilization of private capital towards environmentally sustainable investments.
- IPSF should strengthen international cooperation and, where appropriate, coordination on approaches and initiatives for the capital markets.



International Platform on Sustainable Finance,
https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/200325-international-platform-sustainable-finance-factsheet_en.pdf

European Central Bank

- “Consequently, there are ideas to give banks an incentive to allocate more capital to green projects and assets. Some argue that regulation should feature a green supporting factor. In other words, capital requirements for exposures to green assets should be lower. From my point of view as a supervisor, it is not as easy as that. Our mandate is to make banks safer and sounder. Thus, the treatment of exposures to certain assets should be based on their risks” (Andrea Enria, Speech on Regulation, proportionality and the sustainability of banking, 21 November 2019).
- ECB started a Consultation on how Banking Supervision expects banks to consider climate-related and environmental risks in their governance and risk management frameworks.
- Consultation ends 25 September 2020.

European System Risk Board

- June 2020, Positively Green: Measuring climate change risks to financial stability.
- Report asks:
 - What magnitude of climate related shocks can be expected?
 - Are financial markets pricing the prospect of such shocks?
 - What are the exposures of banks and insurers to potential repricing of climate-related risks?
 - What can we learn from forward-looking scenario analysis to determine where further investment is needed.

Covid-19 and Dividends

- Covid-19 can be qualified as sustainability risk *(see <https://www.who.int/globalchange/summary/en/index5.html>)*.
- Covid-19 Impact on capital requirements *(see Jean-Philippe Svoronos/Rastko Vrbaski, Banks' dividends in Covid-19 times, FSI Brief No 6, May 2020, p, 4 et seq.)*.
 - Covid-19 crisis requires banks to have sufficient resources to support real economy.
 - To ensure sufficient resources capital requirements have been relaxed.
 - However, relief does not ensure that resources are directed to support real economy.
 - Some supervisors have imposed restrictions on capital distributions.
 - Need for a coordinated effort?

Jurisdiction	Guidance on capital distributions (dividends and share buybacks)*	Guidance on bonuses*	Source
Australia	All distributions to be suspended until June 2020 or, subject to stress tests, materially reduced	Executive bonuses to be appropriately limited	APRA capital management letter, 7 April 2020
Brazil**	All distributions to be suspended until 30 September 2020 Buybacks to be limited to 5% of stock	Executive bonuses not to be increased	BCB Resolution no 4797, 6 April 2020
Canada	Dividends not to be increased Buybacks to be suspended	Executive and staff bonuses not to be increased	OSFI Press Release, 13 March 2020
China	No additional restrictions	No additional restrictions	n/a
India	Dividends to be suspended until 30 September 2020 No additional restrictions on buybacks	No additional restrictions	RBI Notification, 17 April 2020
Japan	No additional restrictions	No additional restrictions	n/a
Russia***	Dividends to be suspended until 30 September 2020 No additional restrictions on buybacks	Executive bonuses to be partly deferred	CBR Press Release, 9 April 2020
Singapore	No additional restrictions on dividends Buybacks not to be funded by released buffers	No additional restrictions	MAS Media Release, 7 April 2020
South Africa	No dividends to be paid in 2020 No additional restrictions on buybacks	Executive and staff bonuses not to be paid in 2020	SARB Guidance Note 4/2020, 6 April 2020
SSM	Dividends to be suspended until 1 October 2020 Buybacks aimed at remunerating shareholders to be refrained from	No additional restrictions	ECB Recommendation, 27 March 2020
Sweden	No dividends to be paid in 2020 No additional restrictions on buybacks	No additional restrictions	FI Press Release, 26 March 2020
Switzerland	Dividends paid after 25 March 2020 to be deducted from capital relief No additional restrictions on buybacks	No additional restrictions	FINMA Guidance 2/2020, 31 March 2020
United Kingdom	Outstanding 2019 dividends cancelled No distributions to be made in 2020	Executive and staff bonuses not to be paid in 2020	PRA Letter to major UK banks, 31 March 2020
United States****	No additional restrictions	No additional restrictions	Fed Press Release, 1 April 2020

* Beyond restrictions already imposed by supervision and regulation.

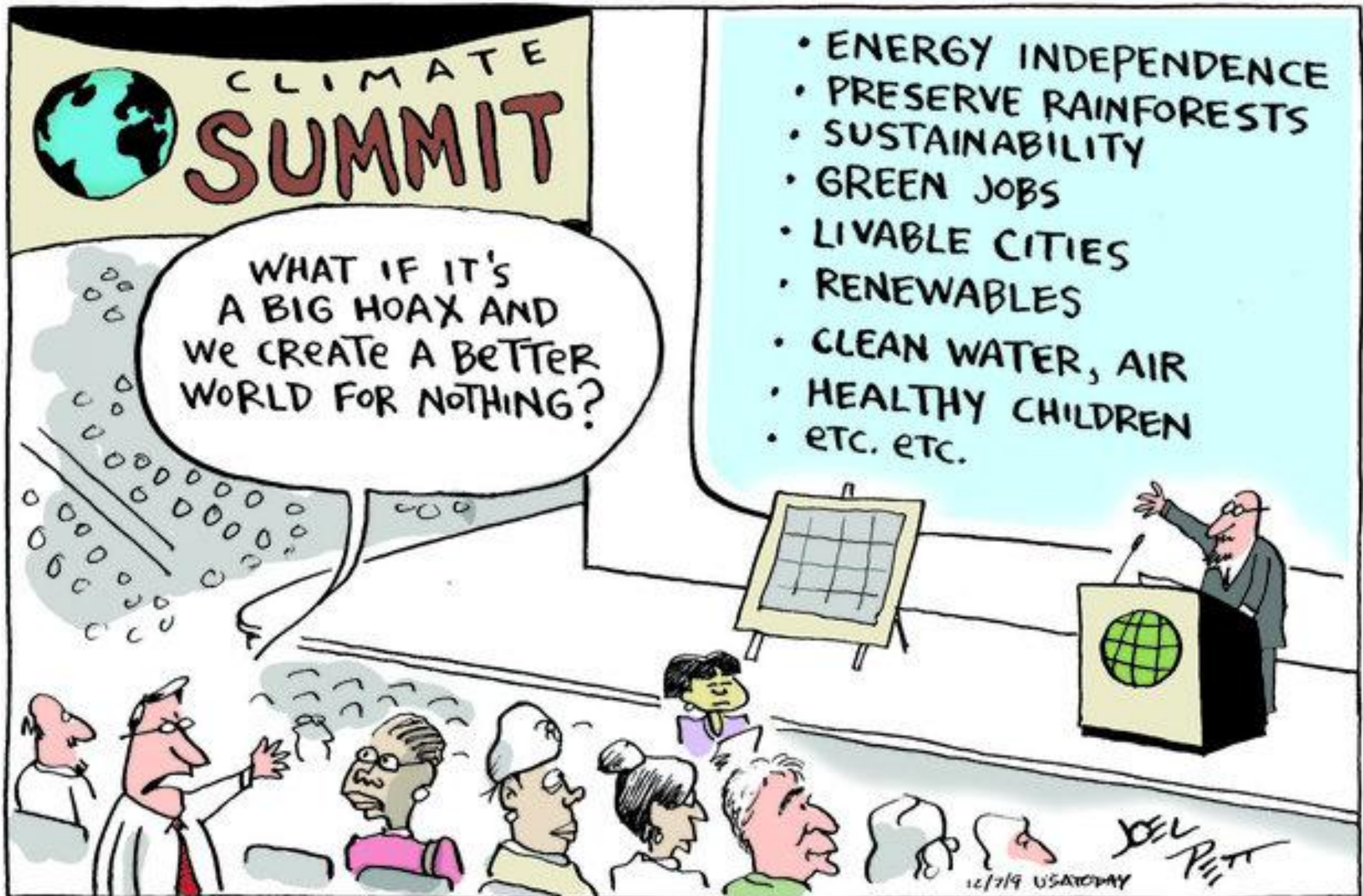
** Mandatory minimum dividend applies; distributions include dividends, buybacks and interest on equity ("juros sobre capital proprio").

*** Statutory provisions restricting buybacks have been eased to allow banks to address Covid-19-related corrections in share prices.

**** In the United States, the eight largest banks have voluntarily agreed to postpone all share buybacks until the end of June 2020.

Next steps

- Profound implications; further research necessary to assess the feasibility of their implementation
 - This should happen on a multi-disciplinary and international basis
 - It should include continuing to learn lessons from those national authorities that have already taken leadership steps and working with market actors to establish the most appropriate roles for them to play
-
- ❑ EU/Basel Committee should recognise systemic environmental risks as ‘material risks’ and encourage an international approach



Is it a social, ethical, moral, political issue?

Yes, of course it is.

But I am going to assume it isn't for this talk!

An aerial photograph of a dense, lush green forest. The trees are packed closely together, creating a vibrant, textured canopy of various shades of green. In the center of the image, the words "THANK YOU" are written in a large, white, serif font, standing out prominently against the green background.

THANK YOU