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Is the International Monetary and Financial System fit for the Financing of the Ecological Transition?

Conference of 28 March 2023 in Louvain-la-Neuve

Summing Up and Conclusions by Bernard Snoy, Chairman of RTI

The originality of to-day's conference was first of all to bring together three partners , namely, the UCLouvain (Vice Rector **Marthe Nyssens** and more specifically the CORE and the Louvain School of Economics, with special thanks to its President Professor **Jean Hindriks**, to Professor **Bertrand Candelon**, who moderated one session, and Professor **Francesca Monti**, who played a key role in the elaboration of the program and the preparation of the conference, also with the support of **Severine De Visscher**, Administrative Assistant), the Gutt Fund of the Free University of Brussels(ULB) (with special thanks to its President, **Michel Vanden Abeele**) and the Robert Triffin International (RTI) Association. The conference combines the intellectual heritage of two Belgian economists : Robert Triffin, graduate from the Catholic University of Louvain (UCL) and from Harvard, Professor at Yale from 1951 to 1977 and at IRES-UCLouvain from 1977 to 1992, and Camille Gutt, Minister of Finance of Belgium from 1934 to 1935 and from 1939 to 1944, Representative of Belgium at the Bretton Woods Conference and first Managing Director of the IMF from 1946 to 1951, who studied at the ULB, where a Fund in his honor was established. The conference was also honored by the presence of **Geraldine Thiry**, forthcoming Member of the Executive Board of the Belgian National Bank, and of **Cédric du Monceau**, First Alderman of Louvain-la-Neuve.

Many conferences discuss the ecological transition, perhaps the most important challenge of our time. Generally the question discussed is whether this transition will be achieved through behavioral changes or through technological advances. This conference addressed the financial dimension : how will the huge investments required be financed. This question again is generally discussed in terms of the optimal balance between public and private, internal and external, at concessional or market terms, through equity investments or through loans. Today, and this is the second originality, we discussed the systemic issues and raised the question: "Is the international monetary and financial system fit for the financing of the ecological transition?".

Our debate can roughly be divided in two parts: first the discussion of the systemic obstacles raising doubt whether the present international monetary and financial system is fit for this task; second a critical assessment of the concrete steps taken by a number of actors. We might distinguish here between: first, central banks, bank and market supervisors and standard setters; and second, in the particular context of financing the ecological transition in emerging and developing economies (EDEs), the role of Multilateral Development Banks (MDBs).

Christian Ghymers, Bernard Snoy and Francesca Monti, organizers of the conference

A. Systemic obstacles to the financing of the ecological transition

When looking at the way the "system" operates today, the answer of a number of speakers about its fitness for the financing of the ecological transition tended to be negative.

According to **Professor Lord Nicholas Stern**, (Grantham Research Institute on Climate Change and the Environment), the system presently is not adequate finance the huge investments required for the ecological transition but it could become adequate relatively quickly if a number of steps are taken:

- First of all, Nicholas Stern stressed how interwoven the challenges of climate change, and biodiversity were and recalled the IPCC message on the huge danger involved in letting temperature rise by more than 2° C, the urgency of a downturn in carbon emissions and the dangers of inaction that could make parts of the world unlivable. Air pollution alone was already killing 5 to 10 million people each year.
- The economic response had to be a combination of rapid structural change, innovation and investment. Economics had to move from its past focus on fixed equilibrium to economics as if time mattered, economics of transformation at high speed not only of the energy system but also of industry and sustainable agriculture. We had to look at the objectives of development in a much broader sense, including sustainability of the

oceans, forests and other natural capital. The growth story of the 21st century would be driven by efficiency and investment.

- Nicholas Stern wondered how we could deliver on the commitments of the Paris Agreement to finance the huge investments required by the ecological transition. He referred to the report of the Independent High-Level Expert Group on Climate Finance, headed by himself, "Finance for climate action, Scaling up investment for climate and development"(November 2022). Spending by Emerging and Developing Economies (EDEs) (not including China) for ecological transition should reach dollar 1 trillion per year (4.1% of their GDP) in 2025 and dollar 2.4 trillion (6.5% of their GDP) by 2030. About half of the financing should come from internal sources through a reinforcement of their public finances and development of their internal capital markets. External financing at the annual level of dollar 1 trillion would be needed by 2030. To reach that level would require a huge scaling up of financial resources, combining enhanced lending from Multilateral Development Banks (MDBs), grants and concessional money (coming not only Official Development Assistance but also from SDR allocations) and private financial flows. This would require innovative forms of risk sharing and a tripling of lending by MDBs

Coming from a different angle, the assessment of the "system" by Professor **Michel Aglietta,** Professor Emeritus of University of Paris, was not less worrying. His preoccupation stems from the major contradiction of the 21st century: a fragmented international political and monetary space in the face of a common environmental threat. The IMF does not have the necessary authority, nor the financial means to play a genuine role of Lender of Last Resort (LOLR). This role is de facto played by the US Federal Reserve but not in an universal way. The geopolitical use (or even the weaponization) of the US dollar contradicts its role as universal standard for international payments, explains why the supremacy of the US dollar is disputable and is already disputed. The influence of China is rising and no European country has significant global power. The only way to make a multi-currency reserve system work would be to combine it with a fully international reserve and settlement asset, which could be the Special Drawing Right (SDR), managed by a multilateral institution, the IMF. All member countries could unconditionally use a drawing facility up to a limit based on an objective country assessment, including environmental and social dimensions.

Another source of concern is the important divergence of emissions in production and consumption, which characterize global value chains, allowing Western powers to contain locally produced emissions without jeopardizing their consumption patterns, while China finds itself in the opposite situation, where international trade leads it to produce more emissions than it consumes. Aglietta also proposes the creation of a "carbon asset" making "cash-able" or usable now the social value of avoided carbon. This would help accelerate the replacement of equipment by new low-carbon equipment or activities. Furthermore, he warns that high uncertainties on future technologies and prices need to be compensated by giving immediately some guarantee of lower capital costs and higher yields to investments in such equipment or activities.

As regards the IMS, Aglietta sustains that it is going to be radically transformed by the creation and expansion of central bank digital currencies (CBDCs). Indeed, the digital protocol of this type of central bank money allows the issuing central bank to control the flight of liquidity both ways to and from foreign currencies, thus avoiding the possibility of a systemic liquidity crisis erupting from a specific national currency and propagating through the IMS. It means that the key currency principle, whereby the ultimate reserve currency is the counterpart of the debt of a single country, specifically the dollar, will no longer survive as long as CBDCs are developing in the most powerful economies. However, another systemic problem will emerge. For the IMS not to be chaotic, the digital protocols of national CBDCs must be compatible. For Aglietta, the best way to achieve compatibility might be that national CBDCs refer to an ultimate reserve asset that is the not the counterpart of the debt of any country, so that the IMS would become symmetrical and cooperative. This is a reminder of what Keynes wanted to achieve with the bancor it proposed for the institution of Bretton Woods in 1944. At that time, the US was too dominant worldwide for this proposal having a chance to prevail. Future times will be quite different. Geopolitical fragmentation threatens the world while the IPCC has alarmingly reasserted ecological priorities in April 2023.

Aglietta concluded that the best way to break the conundrum might be to promote the SDR as the ultimate reserve asset and correlatively the IMF as the international lender of last resort. He announced a book on this aspect entitled « the race to the apex of money ».

Commenting his recent book “Putting an end to the reign of the financial illusion”, **Jacques de Larosière**, former Managing Director of the IMF, took also a systemic approach in his search for the reasons of the more general decline in long-term investment, which, in his view, “has distanced us from the possibility of financing the ecological transition that awaits us”. He singled out:

- The problem of indebtedness, with global debt going from 100% of world GDP in 1970 to 250% in 2020, a real increase of 2.5 times over 50 years. The higher the debt and the lower the quality, the greater the risk of default and the more likely the occurrence of financial crises.
- According to a study of the McKinsey Research Institute, the global balance sheet of the world has tripled in 20 years, which is unrelated to the evolution of real income growth; the global balance sheet represents today the staggering amount of 18 times the world GDP. 77% of the growth in net worth recorded on the balance sheet from 2000 to 2020 comes from asset prices and valuations and only 23% from the creation of real resources. On average, it took 4 dollars of increased financial debt to create 1 dollar of net investment over 20 years.
- Despite zero and negative interest rates on bonds, productive investment has been declining for 20 years. This would be largely due to Keynes’ explanation of the “liquidity trap”. When uncertainty about the future, risk aversion and lack of remuneration are combined, the prospect of long term investment fades in favor of risk-free and liquid investments. “Short-termism” and speculation prevail.
- The financialization of the economy has been accompanied by a sharp rise in inequality. While the value of the global balance sheet is growing like never before,

this benefits roughly 10% of the population. The 90% who live from their work have seen their wages stagnate for the most part. As long as inflation was absent (until 2021), the social situation could remain more or less stable. But now that inflation has started to rise again, the reduction in the purchasing power of employees adds a new dimension. “Stagflation” as in the 1970s and 1980s could happen again.

- The roots of this financialization are to be found in the abandonment of the incentives for macroeconomic discipline and international cooperation that were embodied in the Bretton Woods system, under which countries were responsible for the external stability of their currency. With the adoption of floating exchange rates , an international monetary “non-system” was established. Furthermore, a new doctrine , known as “non-conventional” has led central banks to practice a policy of permanent stimulation, which was pursued not only in a period of recession but maintained to achieve the elusive objective of reaching an arbitrary level of 2% inflation.

According to Jacques de Larosière’s, the first condition to rectify the situation and to create systemic conditions for the financing of the ecological transition is putting the financial system back on its feet by allowing the market to regain its function of determining interest rates and by stopping the policy of permanent stimulus. Logically, if the ultimate source of “financial debauchery” has been the collapse of the Bretton Woods system, steps should be taken to build a reformed international monetary system (IMS).

Christian Ghymers, Clément Fontan and Francesca Monti

Christian Ghymers, Vice-Chairman of RTI, started by pointing out to the continuing and even increasing amounts of annual direct subsidies allocated to the use of fossil energies: at world level, US $1,1 trillion in 2021 (IMF data base), on top of indirect subsidies by under-pricing them for some $7 trillion per year. Such a contradiction between political discourses and facts need to be stopped urgently and the relative prices of fossil energies must sharply go up. He was the most specific in his analysis of the inadequacy of the International monetary system

(IMS) to face the challenge of financing the ecological transition. He referred to several manifestations of the Triffin Dilemma (TD), which, if not addressed, would impede the financing of the ecological transition:

- The original form of the TD relates to the fact that if the dollar is used as a global currency, the US must incur almost permanently current account deficits, increasing its external indebtedness. It may permanently live beyond its means. It is the famous "exorbitant privilege". This means also that it has to permanently attract more capital inflows. As de-carbonization requires an increase of investment, consumption has to decrease. As the share of investment in GDP in Emerging and Developing Economies (EDEs) has to rise more than in Advanced Economies (AEs), there is a need of cross-border flows of capital from the latter to the former ones; but this is not feasible as the US is absorbing global net savings, preventing the financial system from providing enough capital to Emerging and Developing countries. Saving flows are biased towards US over-consumption.
- Of course, gross as opposed to net flows could finance the transition but, under the present IMS, the TD reappears in the form of the "built-in destabilizer" identified also by Robert Triffin. The dominant country induces, through its changes in monetary policy, spillovers and spillbacks, in the form of pro-cyclical inflows and outflows of capital to and from EDEs, reinforcing the intrinsic propensity of financial markets to instability and the obligation of these countries to protect themselves through the accumulation of huge reserves, de facto exporting their savings to the world's richest country.
- A third manifestation of the TD, impeding the financing of transition, is the pro-cyclical instability of global liquidity (GL) itself, GL appearing as a reversed pyramid upon an unstable basis of safe assets denominated in dollars. The perceived higher "moneyness" of US safe assets, given the dollar reserve status, induces price distortions in favor of the dollar and of US Treasuries. A structural shift in funding from banks to wholesale money markets ("repo" market) accentuates the over-demand for safe assets as collaterals. While in the upward cycle, second best safe assets are accepted as collateral, in the downward cycle, a liquidity squeeze may quickly happen, combined with a shortage of dollar safe assets. Financial markets, in which demand and supply do co-variate, are vulnerable to the "Minsky moment", which can degenerate into a "dash-for-dollar cash" and a cumulative destruction of private global liquidity. Unstable and pro-cyclical financial markets induce a bias towards short-termism, speculation and sudden-stop in capital flows towards EDEs. The present financial system is therefore hardly conducive to the financing of the long term investments required for the ecological transition.

For Ghymers, the only solution is the creation a global LOLR, the IMF transformed into a global multilateral central bank, issuing "safe assets" in SDRs, against eligible national assets in the component currencies of the SDR. These created SDRs would constitute the safest asset because it would not be any-more a debt of a single economy (the US) but a purely liquid debt of the global economy compensated by an equivalent average value of national debts. This direct issuance of SDRs would provide simultaneously three tools: an instrument for regulating global liquidity as a public good (adding to or withdrawing from global monetary base), an immediately available safety-net without burden-sharing debates, and an international monetary system more symmetric eradicating most of the Triffin Dilemma.

Fabio Masini, Professor at the University of Roma Tre and Secretary General of RTI, who moderated the session, observed that in the end the US "exorbitant privileged" was being paid by the whole world, to some extent at the expense of the financing of ecological transition and investment in the Sustainable Development Goals (SDGs). The IMS, he said, needs profound reforms to face the current and forthcoming global challenges, that require a much more efficient structure than only relying on loose international cooperation. Enforcement and democratic legitimacy are urgent. As is nowadays manifest, once conflicts prevail over diplomacy, global public goods cannot be provided, and the world cannot afford delays in areas such as the struggle against climate change. Pending a more radical reform of the IMS, an increased role of the SDRs as international money could help rescue multilateralism. Further channeling SDRs from industrialized countries, which do not need them, to MDBs might help strengthening regional integration and supporting investments in the real economy. This could also provide guidance for the sustainability of the increased Central Banks balance sheets, underlined by Jacques de Larosière, monetary stimulus being restricted to assist the green transition.

Fabio Masini drew attention to the fact that most MDBs are *prescribed holders* of SDRs and could therefore become the most powerful agents in a transition towards greater use of the SDR in development projects. Projects financed by MDBs, such as infrastructure, involve generally a sound economic return and can catalyze private financing, due among others to their preferred creditor status. MDBs can provide also a potentially efficient mediation between State intervention and markets. Furthermore, regional MDBs, being characterized by geographical proximity, allow for a better and more effective control, without the need to resort to strict and explicit conditionality rules, thus being more acceptable as a source of financing and more efficient in tackling regional spillover effects that usually characterize development projects.

An important contribution towards addressing the systemic obstacles to the financing of the ecological transition comes from the Reinventing Bretton Woods Committee (RBWC), a non for profit organization, founded in 1994 by **Marc Uzan** , that focuses on issues related to the international financial architecture, through a regular dialogue between all nations and stakeholders of the international monetary and financial system, in particular market based institutions, governments and academics. RBWC has organized more than 100 conferences, conducted on every continent. It gives special importance to the evolving role of EMEs and to elucidating how the international financial architecture is being redefined by China's growing presence in the global financial system. Given the increasing importance of the G20 in global economic governance, the RBWC has been working very closely with the G20 Presidencies, e.g. last year Indonesia, this year India, in 2024 Brazil. The financing of the ecological transition has been coming up regularly as an important topic in events organized by the RBWC. Unfortunately, Marc Uzan could not be present personally at the conference as he was on the same day preparing a side event for preparatory meetings of the Indian G20 Presidency held in Paris.

Bernard Snoy, Chairman of RTI, outlined also briefly the proposals for reform of the international monetary system that were made in 2010 in the context of the «Palais Royal Initiative», headed by Michel Camdessus, former Managing Director of the IMF, Alexandre Lamfalussy, former Managing Director of the Bank for International Settlements (BIS) and Tommaso Padoa-Schioppa, former Member of the Executive Board of the European Central Bank. This report was endorsed by a number of eminent personalities, including Paul Volcker, former Chairman of the Federal Reserve Bank. It was subsequently complemented by a "Sequenced Agenda" (2014) written by Michel Camdessus and Anoop Singh, and the reports of two RTI Working Parties, one on "*Using the SDRs as a lever to reform the international monetary system*"(2014) and the other on "*Managing Global Liquidity as a Global Public Good*" (2019) (see www.triffininternational.eu). The reforms proposed included reinforcing the authority and governance of the IMF, setting up a mechanism to regulate global liquidity and ultimately transforming the IMF into a multilateral central bank, with the capacity to play the role of global LOLR. Unfortunately, essentially political obstacles impeded the implementation of these proposals.

B. Central banks, bank and market supervisors and standard setters in the ecological transition.

Tina Emambakhsh, Financial Stability Analyst, General Directorate of Macro-prudential Policy and Financial Stability in the European Central Bank (ECB), described the different perspectives of the two recent ECB top-down economy-wide climate stress test exercises.

Tina Emambakhsh, Christian Ghymers, Gyorgy Szapary and Fabio Masini

Climate stress test 1.0 looked at what economic and financial risks are posed by different types of climate risks. Climate scenarios were built to account for the interplay between transition (orderly or disorderly) and physical risk over the next 30 years. Granular climate and financial information was collected for millions of corporates to which Euro area banks are exposed via loans and security holdings. New models are built to capture climate risk transmission channels on firms' financials and on credit and market risk for banks. This stress test brought interesting results:

- Short-term costs of green transition are always more than compensated by long-term benefits.
- Results confirm the benefits of acting early to address risks from climate change. Absence or delay of action imply significant risks for financial stability, due among others to the irreversible nature of climate change.
- The exercise was a step forward for a better understanding of the impact of climate change for corporates and banks most at risk but there are still important gaps.

Climate stress test 2.0 looked at what is the optimal way (e.g. accelerated transmission, late-push transition or delayed transition) to transition to a net-zero emissions economy. The exercise showed that it was essential to capture energy-related developments, e.g. GHG emissions and energy prices, and sector-level dynamics.

Jens van ‘t Klooster, Sjoerd van der Zwaag and Guszstav Bager

Jens van ‘t Klooster, Assistant Professor in Political Economy at the University of Amsterdam, addressed the question: given strong evidence of large exposures of financial institutions to climate risk and pervasive mismanagement of this risk, can we follow bank-led net zero transition plans or should policy-makers provide more guidance in the form either of mandatory corporate disclosure of their transition plans or of mandatory prudential transition plans focused on risk misalignment with transition. He was in favor of prudential transition plans with three functions: preventing misalignment with net zero transition in the conventional supervisory horizon, acting as a proxy for assessing bank's long-term risk (overcoming the tragedy of the horizon) and aggregate alignment of the banking system as a whole (macro-prudential dimension). As key challenges for moving forward, he saw: ensuring consistency of financial policy at the level of individual jurisdiction and globally (Financial Stability Board (FSB), Network for the Greening of the Financial System (NGFS)); ensuring adequate capacities of supervisors to meet this challenge; cooperation among sectors and domains of policy making; and ensuring legitimacy and accountability of the process, anchoring transition planning in broader socio-economic transformations.

Sjoerd van der Zwaag, Senior Sustainable Finance Officer at De Nederlansche Bank (Central Bank of the Netherlands), broadened the subject of the central banks' and bank supervisors role in ecological transition in presenting the objective and the work of the Task Force "Biodiversity Loss and Nature-related Risks". The key message was that we depended on nature, but that the eco-systems we rely on were at risk. We had to revise completely the way we think about the value of natural resources like water and their relevance to the financial system. Action could not be delayed given the complexity and urgency of this task.

The objective of the Task-force was to help mainstream the consideration of nature-related risks across the NGFS, which includes as its members central banks and financial supervisors. One of its tasks is to create a conceptual framework that provides NGFS members a common understanding of nature-related risks, including physical and transition risks related to biodiversity loss and ecosystem degradation. Building on this, the Task-force will issue recommendations on how to operationalize the integration of nature-related financial risks into the work program of the NGFS.

Clément Fontan, Christian Ghymers and Francesca Monti

Clement Fontan, Professor of European Political Economy at UCLouvain, raised the issue of the possible trade-off between the ecological catastrophe and the inflation monster in the ECB policy, comparing three periods :

- The Central Bank Independence (CBI) era from 1999 to 2011: paramount objective of price stability to be achieved with one tool, namely interest rates through open market operations; success through building anti-inflationary credibility; non-existing environmental dimension; strict division of labor, other players being in charge of growth potential and other EU objectives (limiting inequalities, climate change, etc.) ; insistence on fiscal consolidation, wages' flexibilization and structural reforms (similarity between the ECB and the CBI templates?) ;
- The Secular Stagnation Era from 2011 to 2021: challenges to the CBI template with new tools (quantitative easing), new objectives (protecting the economy from a perilous spiral of falling prices and wages) and the missing inflation puzzle; new causal linkages with the macro-prudential debates and questions about «greenflation» and the impact of monetary policies on inequality; and new strategies culminating in the 2021 monetary policy review and the 2022 Climate Action Plan.
- The poly-crisis era from 2021: new drivers of inflation (confinement and bottlenecks in supply chains, Russian war strategies inflating energy prices, etc.) ,new ECB dilemmas (no direct tool against the new drivers of inflation but rise in interest rates, call for wage moderation, aim of "anchoring" inflation expectations through the FX channel, risk of economic recession and slowing down energy transition); new ECB play-book acknowledging dilemmas between inflation, transition and social justice, but underlining that "whatever the burden-sharing" between capital and labor, it will raise interest rates if there are second round effects; anchoring expectations as main source of responsibility; danger that ECB could fight a wage-price spiral while real wages fall. He quoted Isabelle Schnabel, Member of the ECB Executive Board, saying : "*Expectations towards central banks have changed. Many call for central banks to have a more active role in tackling wider societal challenges, climate change in particular. Such shifts in preferences coincide with broad distrust of far-reaching and complex monetary policy measures taken by central banks in recent years to protect the economy from a perilous spiral of falling prices and wages*" (May 2021)

Tina Emambakhsh

György Szapary

More specifically, Fortan highlighted the new tools used for the ECB greening monetary policy, namely prudential measures from climate stress tests to disclosure requirements and the tweaks to collateral framework and asset purchases, privileging green assets. This raised new challenges in terms of policy coordination with other players and trade-off with inflation. In this connection, Fortan asked: why not dual interest rates ? Against the risk of inflated responsibilities for the ECB, he suggested that the European Parliament offer guidance on the ECB's secondary objectives.

According to Dr. **György Szapary**, former Vice-Governor and now Chief Adviser to the Governor, the Hungarian Central Bank (MNB) is the first EU central bank whose mandate was extended by law to support environmental sustainability, using instruments at its disposal. For instance, the MNB holds an international green bond portfolio and relies mainly on WACI (weighted average carbon intensity) metrics and TCFD (Task Force on Climate-related Financial Disclosures set up by the G20 Financial Stability Board) standards, as well as on the Bank of England green report. MNB purchases only best "A" category green international government bonds. The share of such bonds in the MNB's international reserve holdings approximates the share of green bonds in the global bond market. The share of Hungarian green bonds in the MNB's total portfolio is about 17% . MNB offers incentives for green lending by financial institutions. Its policy for collateral involves a preferential haircut of 20% up to a maximum of 5 percentage points. There is also a lower capital requirement, by 0.2 percentage point, for bank holding of green assets. MNB issues recommendations to banks about greening. It relies on The International Capital Markets Association (ICMA) and the

Climate Bond Initiative (CBI) recommendations. There are reporting requirements for financial institutions regarding the share of green credit. The share of green loans to households rose from 0.5% at the end of 2021 to 4.2% at the end of 2022.

György Szapary felt that moving to a global multilateral currency was an illusion in the near future but expressed concern at the emergence of international trade and payments blocks. A number of countries could not accept any more the US dollar's exorbitant privilege. It was too early to bury the dollar but countries such as India and China could one day agree to another common currency that would be used by a common LOLR. One could not solve global problems, like climate change, with de-globalized trade and financial system. The observed de-globalization of the international financial system was harmful to secure the funds for the large investments needed to proceed with de-carbonization.

Introducing the panel on the greening of the financial system, **Gusztav Bager**, also Chief Advisor to the Governor of the National Bank of Hungary, recalled that sustainable development encompassed three basic dimensions – economic, environmental and social – involving complex synergies and tradeoffs. There were, however, other important dimensions, in particular those of finance, culture and territory. He elaborated on the impacts of climate change on MNB's primary and secondary objectives. Concerning the economy, he distinguished between the physical risks (extreme weather conditions, excessive temperature swings) and transition risks (tighter policies and regulations, changing consumers preferences, evolving technologies, etc.). These risks translated in the financial system into business disruptions, capital losses, changes in the business environment, depreciation of brown assets, increasing food and energy prices, even migration, leading to market risks, credit defaults, underwriting risk and operational risks. In this context, achieving and maintaining price stability, maintaining financial system stability and supporting government's economic policy as well as policies linked to environmental sustainability were all three prerequisites for efficient policy implementation.

Gusztav Bager stressed two points, reiterated by other speakers in the conference:

- The Climate Action Tracker, an independent scientific analysis of governments climate actions, has found that not a single G20 country has adopted a sufficient mix of policies and actions compatible with achieving the objectives of the Paris Climate Agreement. Many countries continue to provide significant subsidies for fossil fuels, undercutting efforts to decarbonize the energy system.
- One of the biggest difficulties of greening in the financial system is the lack of data and the inadequate methodologies. A green turnaround is inconceivable without measurement. In that connection, the TCFD standards provide an appropriate framework.

Not all speakers agreed with the expansion of the central banks mandate to include environmental objectives. This was the case of **David Aikman**, Professor at King's Business School, London, who found dangerous to expect central banks to take a lead in the climate issue as it involved distributional consequences, better left to governments. In a highly uncertain world, central banks should stick to their price stability mandate and leave to political authorities the role of defining climate objectives and developing the policy instruments, e.g. subsidies, to achieve them. He was also sceptic about the views expressed concerning systemic obstacles towards financing the ecological transition in the context of the current international monetary and financial system. In his view, the money was there to be invested for the ecological transition and it was up to governments to provide incentives or for the IMF to provide a chart on subsidies. Then the money would flow in the right direction.

David Aikman, Sjoerd van der Zwaag, Jens van 't Klooster and Gusztav Bager

Lucrezia Reichlin, Professor of Economics at the London Business School and Trustee of the International Financial Reporting Standards (IFRS) Foundation, spoke about global climate disclosure standards, an essential tool for the credibility and the efficiency of all efforts towards sustainability. The current sustainability reporting landscape involved a mix of voluntary initiatives (with multiple standards for multiple audiences and incomplete application) and jurisdictional initiatives (with mandatory disclosure with different requirements imposed by different jurisdictions as well as differences in scope, ambition and pace). The IFRS Foundation, a Not-for-Profit, public interest organization, had the mission to develop IFRS Standards that bring transparency, accountability and efficiency to financial markets around the world. IFRS Accounting Standards were required for use by more than 140 jurisdictions around the world. Professor Reichlin explained the links and differences between, on one side, International Accounting Standard Board (IASB), IFRS Accounting Standards and Financial statements, and, on the other side, International Sustainability Standard Board (ISSB), IFRS Sustainability Disclosure Standards and Sustainability disclosures, both processes being aimed at investors and other capital markets participants. Embedding standards in law was essential. Significant progress had been achieved since the COP 26 in 2021. The EU reporting directive of 2022 had set European Sustainability Reporting Standards for stakeholders, introducing disclosure rules, with the concept of double materiality, i.e. financial materiality and environmental materiality, “information being material if omitting, misstating or obscuring it could reasonably be expected to influence investor decisions”. There were still in the EU differences in scope, ambition and pace of introduction of the disclosure standards. Materiality was a dynamic concept, justifying a building block approach.

Jean-Paul Servais

Jean-Paul Servais, President of the Belgian Financial Services and Markets Authority (FSMA) and Chairman of the International Organization of Securities Commissions (IOSCO), reiterated the importance of standards at national, European and international levels. He outlined the IOSCO’s Strategy for Sustainable Finance, aimed at increasing transparency and mitigating green-washing on financial markets and ensuring consistency. IOSCO is the global organization whose membership regulates more than 95% of the world’s financial markets in some 130 jurisdiction. It is recognized as the global standard-setter for the securities sector. In November 2022 , at the COP27 meeting in Sharm el-Sheikh, IOSCO had announced that it expected both the sustainability related disclosure and the audit standards to be ready for use by corporates for their end of 2024 accounts. Effective sustainability disclosure for capital markets would empower market participants with the right information to support better economic and investment decision making. There was however still a lot of work to be done, among others for capacity building. IOSCO is working closely with the ISSB, laying the foundations of a global baseline of sustainability related financial disclosures. As was the case 20 years ago with the IFRS standards, endorsement by IOSCO of the ISSB standards should be a game changer for the voluntary or mandatory use around the world of the ISSB framework. Jean- Paul Servais was optimistic in his conviction that the standards would unlock capital and ensure that it would flow where it was most needed, among others, to finance the ecological transition.

C. Ecological Transition in Emerging and Developing Economies (EDEs) and the special role of Multilateral Development Banks

Moritz de Chaisemartin, Sustainable Finance Officer, Systemiq Earth, concentrated on the specific difficulties of financing the ecological transition in emerging and developing countries. These countries are suffering from a combination of disadvantages: they are more vulnerable to the effects of climate change and loss of biodiversity than industrialized countries while they had contributed much less to the emission of GHGs and other forms of pollution; it would be difficult for them to continue their economic development without accelerating their transition toward sustainability; they do not have financial means comparable to those of advanced economies to finance the CAPEX and OPEX incurred by the transitions. For instance, the phasing out of coal is more problematic for them.

Moritz de Chaisemartin, Bertrand Candelon et Bernard Snoy

Moritz de Chaisemartin explained how Systemiq Earth was involved in the South African “Just Energy Transition Program”, including a swap of debts against commitments to reduce GHGs. He felt that an increase in concessional finance was justified to support such a program and that MDBs had to do everything possible to maximize their lending capacity. Climate related financing could rely more on guarantee and insurance mechanism which are already key today in all blended finance schemes. He mentioned also the work of the Stern Songwe Bhattacharya (SSB) report suggesting leveraging the financing of ecological transition on the basis of the unused SDRs detained by industrialized countries further to the recent dollar 650 billion allocation. Other encouraging experiences in which Systemiq Earth had been involved included:

1/ the successful mobilization of concessional capital (from the Green Climate Fund) for the largest blue economy and climate adaptation private equity fund to date: the Global Fund for Coral Reefs,

2/ the promotion of the seaweed industry in Europe through the Seaweed for Europe coalition,

3/ the partnership developed to build a high quality Voluntary Carbon Market (VCM) with Vertree, a leading voluntary carbon trading platform,

4/ the support to Indonesia waste management utilities' construction and management, focused on high ocean waste leakages areas, etc.

Bertrand Badré, former Chief Financial Officer of the World Bank, spoke also of the need to adapt accounting standards and business operating principles to face the challenge of ecological transition. Badré is the Founder and CEO of BlueOrange Capital, an investment fund that aimed to finance the Sustainable Development Goals with market level financial returns. The way we ascribed value on goods, services and assets had to change. Market value was not the only measurement. We had to work on the "marked to market" principle . We should put a value on impact to reduce carbon emissions or achieving other social gains. There would always be persons thinking that we were doing too little for the ecological transitions and others thinking we were doing too much.

Global Governance was a fundamental issue. The US was no more the master of the world. The post World War II order was challenged. The US, EU, China and others EMEs were moving but they were not promoting the same standards. Global Governance would be the subject of the meeting organized by President Macron on 26 June. Bertrand Badré was advising President in shaping the agenda. The ecological transition would be a key topic. The battle on climate change would be won in emerging countries.

René Karsenti, former Treasurer of IFC, EBRD and EIB and former President of the International Capital Markets Association (ICMA)**,** addressed a key issue for the financing of ecological transition in EDEs, namely how to enhance the role of the MDBs by optimizing their the use of their capital basis. René Karsenti was a Panel Review Member of the recent G20 Independent Review of MDBs' Capital Adequacy Frameworks (CAF).He explained the objectives of this review launched by the G20 Finance Ministers and Central Bank Governors in July 2021 under the Italian G20 Presidency, namely: (i) provide credible and transparent benchmarks on how to evaluate MDB CAFs; (ii) enable shareholders, MDBs and Credit Rating Agencies (CRAs) to develop a consistent understanding of MDBs CAFs; and (iii) enable shareholders to consider potential adaptations to the current frameworks in order to maximize the MDBs financing capacity. The report was approved in July 2022. The Panel recommended strategic shifts in five areas:

- Adopt a more efficient management of MDB capital and risk, including by further reflecting on the approach to defining risk tolerance.
- Give appropriate recognition to callable capital: callable capital is a powerful instrument of shareholders to stand behind MDBs
- Expand the use of financial innovations by adopting a more strategic, cooperative, and proactive approach to innovations that can improve the use of existing capital and free additional financing, e.g. freeing up space on the balance sheet by risk transfer to the private sector, donor guarantees, MIGA-MDB partnerships.
- Enhance dialogue with CRAs to improve mutual understanding; and
- Create an enabling environment for reform through greater transparency and information: more accessible and comparable data and analysis, as well as regular capital reviews, would support all the stakeholders in their assessment of MDB strength and demystify their financial model.

The panel made also a number of observations: capital adequacy reforms and innovations would be most effective as part of a structured and coherent program of MDB reforms and actions; also shareholders have a critical role in MDB capital adequacy; coordinated communication by a substantial number of MDBs would be beneficial to market perceptions; last but not least, if reforms increase lending capacity, G20 shareholders need to ensure adequate budgets and resources to support and sustain high quality operations. In other terms, as also recommended in the Stern Report on Climate Finance, capital increases of the MDBs will be necessary to achieve the dollar 1 trillion of external financing needed for the transition investments in EDEs.

René Karsenti

Overall Conclusion

In its overall conclusion, Bernard Snoy said that, while there were indeed fundamental systemic obstacles preventing the international monetary and financial system from financing, at the necessary level, the ecological transition, there was also a significant number of bottom up initiatives emanating from central banks, regulators , MDBs and a large number of financial institutions, enterprises and investors, not forgetting the stimulating role of governments, NGOs and the academic community, aiming at better orienting the system to finance the ecological transition.

Nevertheless the challenge for the international financial community is huge . Mark Carney, former governor of the Bank of Canada and of the Bank of England, now Special UN Special Envoy for Climate Action and Finance, tweeted at the Glasgow COP in 2021 that "the world of finance will be judged on the dollar 100 trillion* climate challenge. Look at what your bank, insurance and fund manager do – not what they say".

Numbers might indeed be less relevant than actual behaviour. But systemic reforms, in particular reform of the international monetary and financial system, might matter even more. In this respect, it is appropriate to listen, with humility, to the following quotation from Tommaso Padoa-Schioppa: "*Paths to reform for the future are difficult to identify and even more difficult to pursue. This is precisely why it is urgent for the academic and scientific communities, and indeed for all those who harbor concern for the future of the global economy, to explore them*" (The Ghost of Bancor: the Economic Crisis and the Global Monetary Disorder, first Triffin Lecture in Louvain-la-Neuve on 25th February 2010, launching the Triffin 21 Initiative)

* This is an estimate related to the financing requirement at the global level for the ecological transition over a 15 year period.